

winbond

2025
WINBOND

TASK FORCE ON
NATURE-RELATED FINANCIAL
DISCLOSURES REPORT



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About This Report

Foreword

In recent years, the nature crisis has evolved from a purely environmental issue into an economic imperative that industries must confront. The United Nations Environment Programme (UNEP) State of Finance for Nature 2026 report indicates that global annual capital flows directly damaging nature reach as high as USD 7.3 trillion, compared to only approximately USD 220 billion invested in Nature-based Solutions—a disparity of more than 30 times. The global economy is fundamentally reliant on nature and ecosystem services; continued depletion of natural capital will introduce greater uncertainties into business production, supply chains, energy, water resources, and societal resilience. This trend underscores that natural capital serves as the vital foundation underpinning manufacturing stability, supply chain resilience, and long-term value creation.

Concurrently, international regulatory frameworks and disclosure standards are accelerating. From the Global Biodiversity Framework and the objectives of the Rio Conventions to global initiatives such as the Taskforce on Nature-related Financial Disclosures (TNFD), businesses are driven to implement more systematic information transparency. Enterprises can no longer rely solely on traditional environmental management or compliance-driven thinking; they must reassess the relationship between nature and business operations from the perspectives of governance, strategy, risk management, and metrics and targets. As a member in the global semiconductor supply chain, Winbond's operations are inextricably linked to water resources, energy utilization, pollution prevention, and raw material sourcing. Shifts in natural conditions and stricter regulatory policies directly influence corporate operational resilience, cost structures, and long-term competitiveness. The international research and datasets cited in this report reflect publicly available information accessible as of the preparation of this report, serving as contextual background for trends in nature-related developments.

Winbond Group remains committed to environmental and nature conservation. The Chairman personally signed the "Biodiversity Commitment," establishing vision targets toward Net Positive Impact (NPI) and No Net Deforestation (NND), dedicated to minimizing operational environmental footprints while enhancing positive contributions to natural ecosystems.

To address nature-related issues, Winbond continuously deepens its sustainability strategy, adopting the TNFD framework to embed nature considerations into corporate decision-making and day-to-day governance. Centered on the AR3T Action Framework (Avoid, Reduce, Restore & Regenerate, Transform), we implement green manufacturing, intelligent water monitoring, and energy efficiency enhancements across direct operations, while introducing Nature-based Solutions (NbS)—including ex-situ conservation, native species protection, and forest restoration—to systematically mitigate environmental impacts and dependency on natural resources.

Furthermore, Winbond Group extends biodiversity management across the value chain, fosters a corporate culture of sustainability contribution within our campuses, utilizes the LEAP methodology to advance resource conservation, and builds ecological protection mechanisms.

Following the TNFD framework, Winbond Group comprehensively assesses the dependencies, potential impacts, and resulting risks and opportunities associated with nature across our direct operations and value chain. Winbond will continue to advance transparent disclosures, systematic management, and supply chain collaboration to cultivate a development model that coexists with nature and aligns with industry trends. This TNFD report represents a starting point for Winbond to respond to international sustainability trends, deepen nature governance, and strengthen corporate resilience. For more information regarding Winbond Group's sustainability strategies and environmental initiatives, please visit the Winbond Sustainability Website and refer to the [Winbond 2025 Sustainability Report](#).

Report Scope and Boundaries

Reporting Period: The reporting period for this report covers the period from January 1, 2025, to December 31, 2025.

To provide a comprehensive context for nature-related issues, certain projects incorporate historical backgrounds and long-term planning as supplementary information.

Organizational Boundary: The disclosure scope of this report is consistent with the boundary of the consolidated financial statements, encompassing the manufacturing facilities and offices of Winbond (Taiwan) (Central Taiwan Science Park [CTSP] Fab, Kaohsiung Fab, Zhubei Office, Taipei Office, and Tainan Office), Winbond (Overseas Subsidiaries), Nuvoton (Taiwan), Nuvoton (Japan), and Nuvoton (Subsidiaries), collectively referred to hereinafter as the "Winbond Group." If the assessment scope of any specific section differs from the aforementioned boundary, it will be noted individually in that section.

Value Chain and Operational Scope (LEAP Assessment Framework)

- **Direct Operations:** Focuses on direct operational activities, including wafer manufacturing, water resource usage, energy consumption, pollutant emissions, and site environmental management.
- **Upstream Value Chain:** Encompasses suppliers with active business transactions over the past three years, categorized and assessed in accordance with the Directorate-General of Budget, Accounting and Statistics (DGBAS) standard industrial classifications.

This scope is designed to identify nature-related dependencies, impacts, risks, and opportunities, while progressively expanding the depth of disclosure and analytical boundaries.

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Nature Strategy and Governance

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For Winbond, nature is not only the external environment in which the company operates, but also a critical foundation supporting manufacturing activities, supply chain operations, and long-term development. As the semiconductor industry is highly connected to nature-related issues—such as water resources, energy consumption, pollution prevention, and raw material sourcing—changes in the natural environment directly and indirectly impact our operational resilience and value creation. Building upon our existing sustainability governance, environmental management, and risk management frameworks, Winbond is progressively integrating nature considerations into our corporate governance framework.

1.1 Sustainability Strategy and Nature-Positive Vision • • •

Winbond continues to deepen its sustainability foundation, regarding biodiversity as a key strategic pillar. Our commitment to a nature-positive vision is outlined below:

Heading Toward Net Positive Impact (NPI)

Winbond Group regards biodiversity as a critical strategic dimension of sustainable development, setting "Nature-Positive" as our long-term vision. In 2025, the Chairman of Winbond Electronics signed the "Biodiversity Commitment," establishing our goal toward achieving a Net Positive Impact (NPI) on the environment and No Net Deforestation (NND).

Core Pillars:



Implement Green Manufacturing to Mitigate Biodiversity Loss

Reduce the impacts of climate change and pollution on ecosystems through net-zero emissions, reclaimed water utilization, resource circularity, and waste and pollution reduction.



Promote Tree Planting & Afforestation to Enhance Biodiversity Conservation

Partner with academic and research institutions to conduct biodiversity risk assessments, identify key impacts, and execute tree planting to restore habitats and expand protected areas.



Drive Sustainable Supply Chains to Lower Environmental Footprint

Collaborate with supply chain partners to comply with biodiversity regulations and avoid operational impacts on critical habitats and areas of ecological concern.



Support Nature-Based Carbon Sink Research & Advance Sustainable Nature-Based Carbon-Negative Technologies

Adopt Nature-based Solutions (NbS) to reduce and remove greenhouse gas emissions, enhance nature's carbon sequestration capacity or generate other ecological benefits, and mitigate biodiversity loss.



Promote Nature & Environmental Education

Raise awareness of eco-friendly practices and ecological conservation, fostering a culture where humanity lives in harmony with nature.

Ex-situ & In-situ Restoration Practices

Guided by a "Nature-Inspired" strategy, we transform campus green spaces and office buildings into ecological refuges and stepping stones, turning nature-positive practices into reality.

- 1. Ex-situ Conservation and Germplasm Preservation
- 2. In-situ Conservation and Species Monitoring

Nature-Based Carbon Sinks & Sustainable Forest Management

To achieve our net-zero vision, Winbond focuses on Nature-based Solutions (NbS), leveraging "green carbon" as a key pathway to remove atmospheric carbon dioxide and deliver the dual benefits of mitigating climate change and promoting nature sustainability.

- 1. Science-Based Operational Processes
- 2. Afforestation Performance and Ecological Value

Sustainable Impact: Environmental Education & Employee Empowerment

Winbond firmly believes that safeguarding biodiversity relies on collective consensus and local engagement. Through diversified environmental training and community outreach, we translate conservation concepts into concrete actions.

- 1. Collective Protection: Building Corporate Value Alignment
- 2. Local Heritage: Deepening Community and Cultural Connections
- 3. Social Communication: Professional Education and Open Engagement

Our commitment extends beyond our direct operations to include our supply chains and value chains. Through management strategies, we actively practice green manufacturing, advance nature-based carbon sink research, and foster sustainable supply chain collaboration. Combined with environmental education, we aim to mitigate biodiversity loss and safeguard ecosystem integrity.

1.2 Board Oversight Mechanism • • •

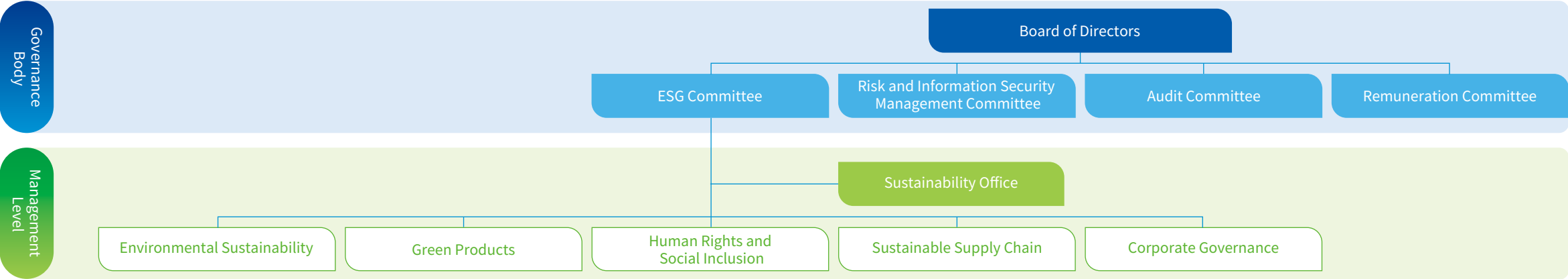
The Board of Directors serves as the highest oversight body for nature-related issues within the Company. Through a division of responsibilities among the Board and various functional committees, alongside regular reporting mechanisms, the Board oversees material matters related to nature-related dependencies, impacts, risks, and opportunities. In 2025, the Board held 8 meetings with an overall attendance rate of 99% (actual attendance rate of 93% and proxy attendance rate of 6%), demonstrating the Board's high degree of engagement and oversight regarding the Company's material issues. All critical and material events are reported directly to the Board of Directors by the Committee Chairs and executive management. This ensures that the highest governance body stays promptly informed on the development of key topics, potential impacts, and management progress.

In 2025, a total of 34 key topics were reported to and discussed with the Board of Directors. These topics covered corporate governance, operational performance, business integrity, intellectual property management, GHG inventory execution, stakeholder communication matters, renewable energy investment and procurement, IFRS S1/S2 implementation progress and execution status, risk management, information security, supply chain management, diversity, equity, and inclusion (DEI), talent attraction and retention, social engagement, and climate change. Among these, the primary focus of nature-related oversight included GHG inventories, renewable energy investment and procurement, supply chain management, stakeholder communication, and climate change issues. Through regular progress reports, the Board gains a comprehensive understanding of the Company's potential impacts on the natural environment, as well as the potential effects of nature-related risks on business operations, serving as a critical foundation for subsequent strategic planning and risk management.

1.3 Roles of Management • • •

To strengthen the Board's oversight function and enhance management capabilities, the Board of Directors has established functional committees, including the Audit Committee, Remuneration Committee, ESG Committee, and Risk and Information Security Management Committee. Each functional committee is accountable to the Board of Directors, and submits its proposals to the Board for resolution. Under the ESG Committee, a dedicated Sustainability Office and five functional task forces—Environmental Sustainability, Green Products, Human Rights and Social Inclusion, Sustainable Supply Chain, and Corporate Governance—have been established. Additionally, designated personnel from these five task forces form the TNFD Task Force. The role and responsibilities of the management level within this task force are illustrated in the organizational chart below:

In 2025, the ESG Committee convened 4 times with a 100% attendance rate (actual attendance rate of 95% and proxy attendance rate of 5%). The ESG Committee oversees the Sustainability Office and the five functional task forces, which report annually to the Board of Directors on the performance and outcomes of sustainability initiatives to ensure the effective promotion and implementation of corporate sustainability work. The Committee is chaired by the Chairman, with independent directors serving as members. The ESG Committee meets four times a year to receive execution progress (outcomes) from each functional task force for the current year and to review proposed action plans for the following year.



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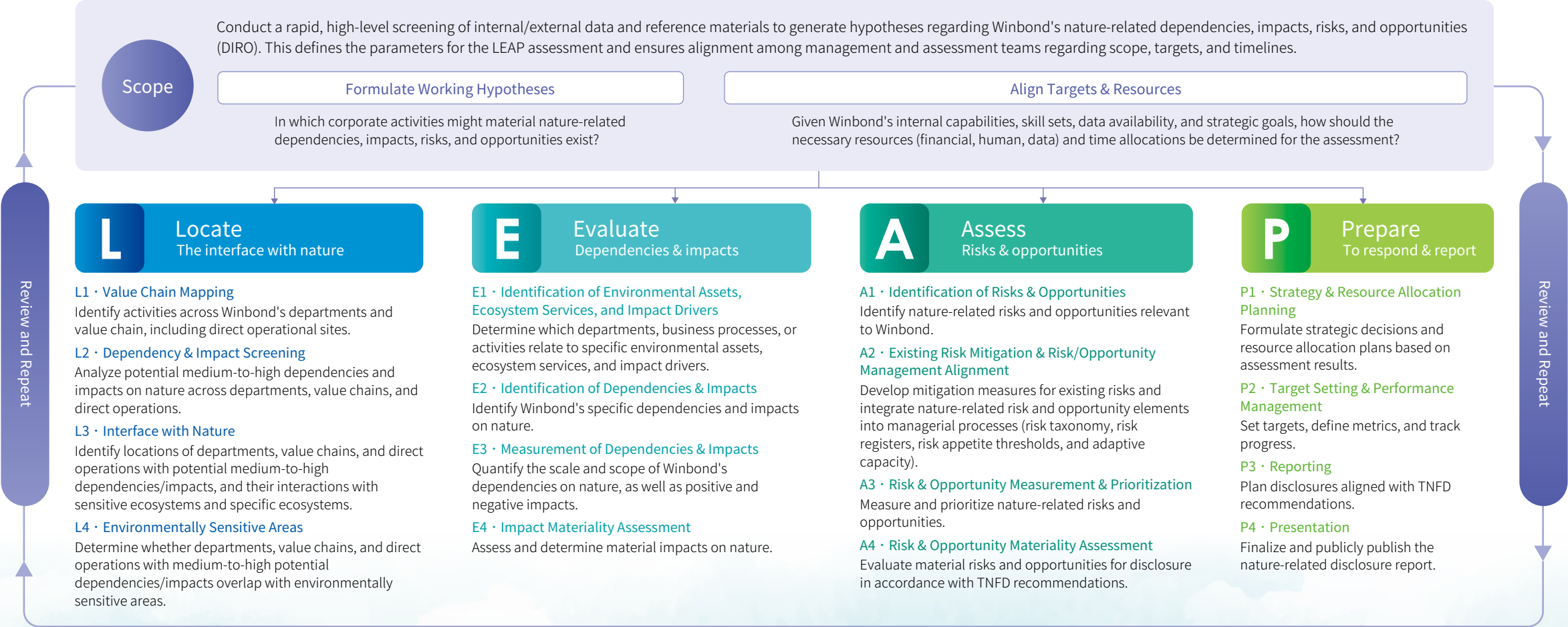
Assessment of Nature-related Dependencies, Impacts, Risks and Opportunities

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To systematically identify Winbond's dependencies, impacts, risks, and opportunities (DIRO) related to nature, this report adopts the LEAP approach proposed by the TNFD as the core foundation for nature-related analysis and disclosure. For Winbond, nature-related issues encompass not only direct site operations—such as resource use, pollution discharges, and environmental management—but also extend across value chain segments, including raw material sourcing, manufacturing processing, logistics and transportation, and other supply chain activities. Through the LEAP approach, starting from our operational sites and supply chain structure, we progressively establish a comprehensive understanding of our exposure to nature-related issues. This serves as the basis for prioritizing management actions, developing strategic responses, and defining disclosure content. First, through Locate, we identify geographical locations and environmentally sensitive features associated with our direct operations and supply chain. Second, through Evaluate, we analyze the primary types of dependencies and impacts on nature across internal operations and the supply chain. Next, in the Assess phase, we consolidate these insights into meaningful nature-related risks and opportunities, forming the basis for subsequent management actions, metrics establishment, and disclosure planning in the Prepare phase. Through this process, Winbond seamlessly connects nature-related issue identification with risk management and strategic decision-making, thereby enhancing the systematic logic and decision-useful value of our nature-related information.

Analytical Process Framework



Steps	L Locate The interface with nature	E Evaluate Dependencies & impacts	A Assess Risks & opportunities	P Prepare To respond & report
Description	Identify scope of business activities	Assess activity dependencies & impacts	Analyze nature-related risks & opportunities	Nature-related disclosures
Scope	Supply chain & owned operational sites	Supply chain & owned operational sites	Supply chain & owned operational sites	Supply chain & owned operational sites
Purpose / Objectives	Identify key impact areas of corporate activities on nature; biodiversity spatial data sourced from IUCN Protected Area Categories & Taiwan regulatory protected areas.	Analyze the degree of dependency of operational activities on biodiversity and ecosystem services.	Quantify these risks and opportunities, and integrate them into the Enterprise Risk Management (ERM) framework.	Ensure sustainable operations while aligning with TNFD disclosure recommendations, boosting corporate transparency and investor confidence.
Output	Assess site impacts (pollution, noise, etc.) using fixed-radius spatial analysis overlaid with biodiversity data to identify high-risk ecosystems.	Identify potential impacts.	Ensure decision-making processes fully incorporate the business impacts of natural capital changes.	Formulate adaptation and mitigation strategies.

2.1 Locate . . .

2.1.1 Biodiversity Analysis of Direct Operations and Supply Chain (Protected Area Overlap)

To understand the potential impacts of operational activities and the value chain on the natural environment, Winbond Group follows the methodology of the TNFD Locate phase. Considering Taiwan’s location as a subtropical island with rich and highly diverse ecosystems, the Group conducts a natural capital inventory by integrating historical ecological survey and monitoring results with various protected-area spatial datasets. Winbond’s Taiwan sites therefore conduct buffer analyses covering statutory and non-statutory protected areas to understand the locations of operational sites and further assess potentially applicable regulations.

Winbond conducted a spatial overlay analysis covering its 30 global owned operational sites and key supply chains. Considering the extended impact of corporate operations on overall ecological watersheds and ecological corridors, this analysis expanded to include suppliers with transactional relationships over the past three years, totaling 2,978 suppliers, to serve as a baseline for subsequent natural dependency and impact assessments.

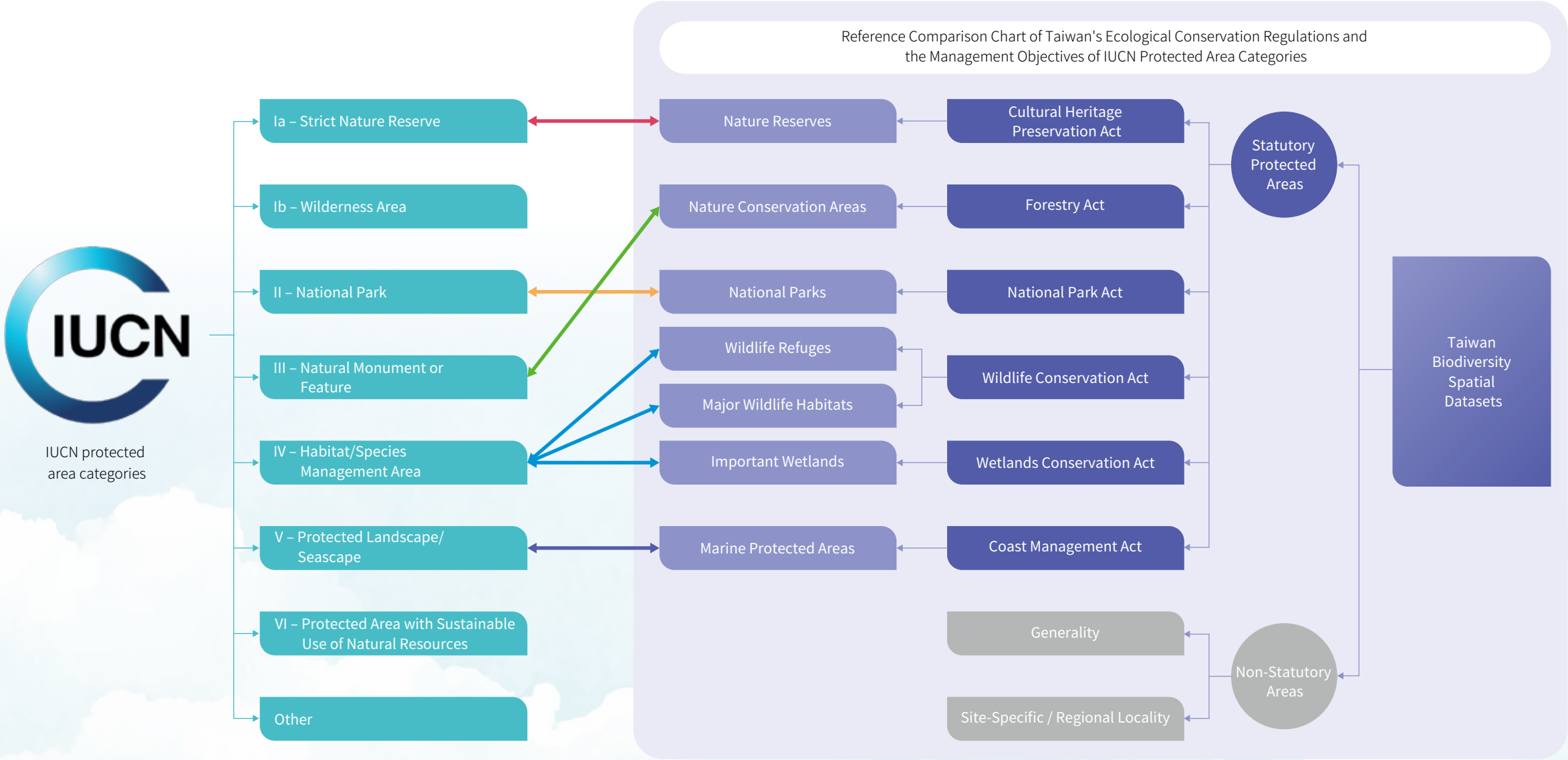
Dual-Track Mechanism Box

Winbond adopts a dual-track cross-verification mechanism—combining International Benchmarks with Local Spatial Datasets—to deepen spatial sensitivity assessments and improve precision:

Taiwan Regional Protected Area Datasets Integrating the scope of protected areas designated by Taiwan's ecological conservation-related regulations and voluntary guidelines, comprehensive geographic information system (GIS) data for Taiwan's core protected areas is systematically compiled.	IUCN Protected Area Categories System Aligning with international standards and utilizing the World Database on Protected Areas (WDPA), sites are screened to determine their proximity to globally important ecological conservation areas based on the six protected area management categories (comprising seven management codes: Ia, Ib, II, III, IV, V, and VI) defined by the International Union for Conservation of Nature (IUCN).
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Through this biodiversity spatial sensitivity assessment mechanism, Winbond precisely identifies dependencies and potential impacts between operational sites and natural capital. These assessment results serve as a foundational pillar for risk identification and strategic responses under the TNFD framework, while continuously driving forward-looking corporate actions to reinforce nature-related risk management and demonstrate sustainability resilience.

IUCN Protected Area Management Categories and Taiwan Statutory Protected Areas



Note: The arrows in this chart indicate only the theoretical correspondence between the management objectives of Taiwan’s current protected area regulations and the IUCN categories; they do not represent legal equivalence or direct category conversion.

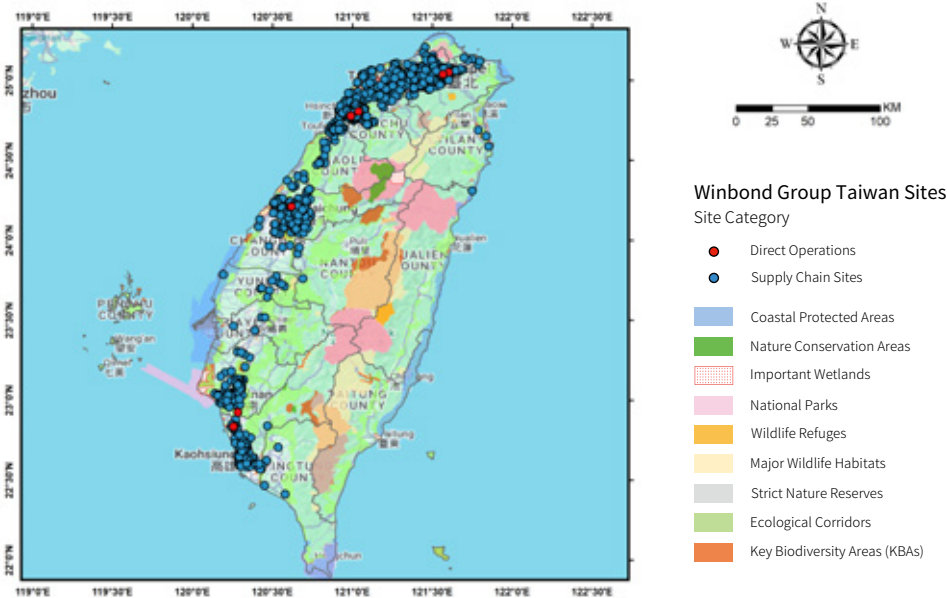
Results of Biodiversity Impact Analysis (Scope of Protected Areas) for Taiwan Operations and Supply Chain

Based on inventory assessment, the operational sites of Winbond Group are mostly located far from Key Biodiversity Areas (KBAs), presenting an overall lower ecological sensitivity. However, spatial overlay analysis for Taiwan operations reveals that although certain sites reside within legally established industrial parks or science parks, they still exhibit higher potential ecological sensitivity due to their location characteristics and surrounding natural environmental conditions.

Further impact analysis on our operations and value chain sites in Taiwan indicates that, regarding our own sites, the 2-kilometer buffer zone (ring analysis area) around our Nangang office in Taipei City intersects with the "Nangang 202 Arsenal and Periphery Important Wetland (Local Level)"; however, the office building itself is not directly located within any legally protected area. On the value chain supplier side, 522 sites have surrounding buffer zones that intersect with legally protected areas. The affected suppliers are primarily distributed along Taiwan's western corridor, exhibiting prominent clustering in northern, central, and southern Taiwan.

Although all overlapping sites strictly comply with local land-use regulations and park management guidelines, Winbond Group upholds the precautionary principle. We will continue to deepen risk identification mechanisms for these ecologically sensitive locations, increasing management and audit frequencies based on actual operational needs. Furthermore, we actively evaluate and plan Nature-based Solutions (NbS), striving to enhance biodiversity conservation performance across the entire value chain and achieve a dynamic equilibrium between technological development and ecological preservation.

| Spatial Distribution of Winbond Group Operational Sites and Protected Areas in Taiwan |



Results of Biodiversity Impact Analysis (Scope of Protected Areas) for Global Sites and Value Chain Sites

In addition to Taiwan locations, the Group expanded its natural risk assessment scope to global operational footprints, comprehensively examining global sites and their spatial connectivity to surrounding natural habitats. Through spatial overlay analysis, we precisely identify whether the Group's global operational footprint touches or lies proximate to ecologically sensitive hotspots. Through this assessment, we aim to objectively measure potential impacts of business activities on the natural environment, establishing a strategic foundation for subsequent mitigation measures and conservation resource allocation.

Analysis Results of Organizational Operational Biodiversity Impact (Scope of Protected Areas)

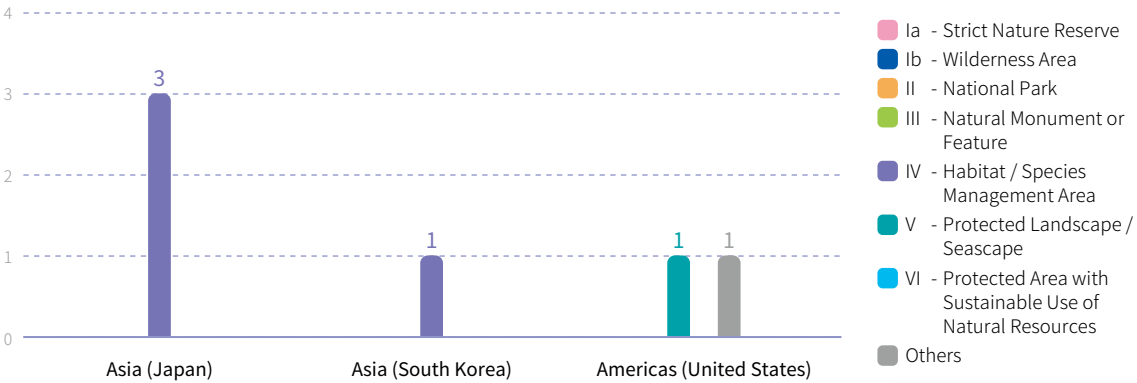
Winbond Group conducted spatial overlay analysis to assess the connectivity between global operational sites and International Union for Conservation of Nature (IUCN) protected areas. The results indicate that six owned operational sites overlap with protected area boundaries, including three sites in Japan, one site in South Korea, and two sites in the United States.

Regarding the characteristics and management directions for these overlapping protected areas, the Nuvoton sites in Japan and South Korea fall within IUCN Category IV (Habitat/Species Management Areas), and future management efforts will focus on the conservation and monitoring of specific species. The Winbond office in Pleasanton, California, USA falls within IUCN Category V (Protected Landscape/Seascape). As these protected areas reflect landscapes shaped by long-term interactions between people and nature, management efforts will focus on maintaining overall ecological landscape balance.

To effectively manage ecological impacts, Winbond Group will integrate monitoring standards across subsidiaries in the future, establish systematic evaluation mechanisms, and continuously track and manage the biodiversity status of these sites, taking concrete actions to achieve nature-positive sustainability goals.

Overseas Subsidiary Sites: 6 Sites with Potential Biodiversity Impacts

Based on the analysis of protected area categories, operational sites with potential impacts primarily fall under IUCN Category IV (Habitat/Species Management Area), totaling four sites (three in Japan and one in South Korea). The remaining two sites are located in the United States, consisting of one site in Category V (Protected Landscape/Seascape) and one site under another category.



Analysis Results of Value Chain Biodiversity
Impact (Protected Area Scope)

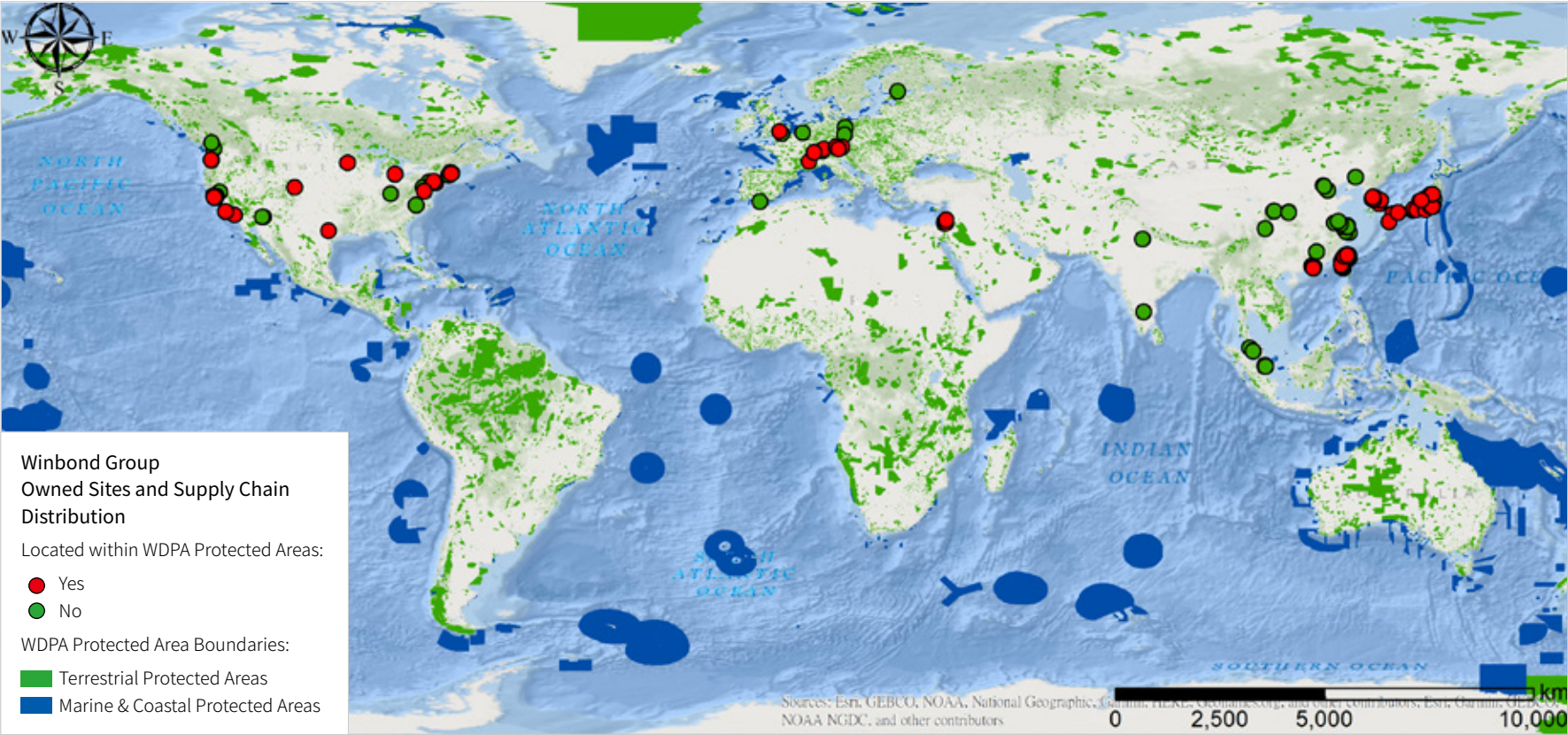
The results of the global site biodiversity impact analysis show that a total of 254 supplier sites overlap with or touch IUCN Protected Area Categories I through VI. The regional distribution is shown in the table below. Moving forward, Winbond Group will formulate relevant management policies and procedures to effectively mitigate the operational impacts of suppliers on ecosystems and biodiversity.

Number of Supplier Sites
Impacting IUCN Protected Area Scope

Region	Number of Sites
Asia	225
Europe	10
Americas, Australia, and Oceania	19

Note: This report adopts a dual-track spatial analysis approach. Analysis based on Taiwan's local protected-area datasets identified 522 supplier sites overlapping with statutory protected areas, while analysis based on the WDPA identified 254 supplier sites overlapping with protected areas. The difference is attributable to variations in database coverage, spatial resolution, and protected-area classification criteria.

Distribution of Winbond Group Sites and Supply Chain Sites and WDPA Protected Area Scope



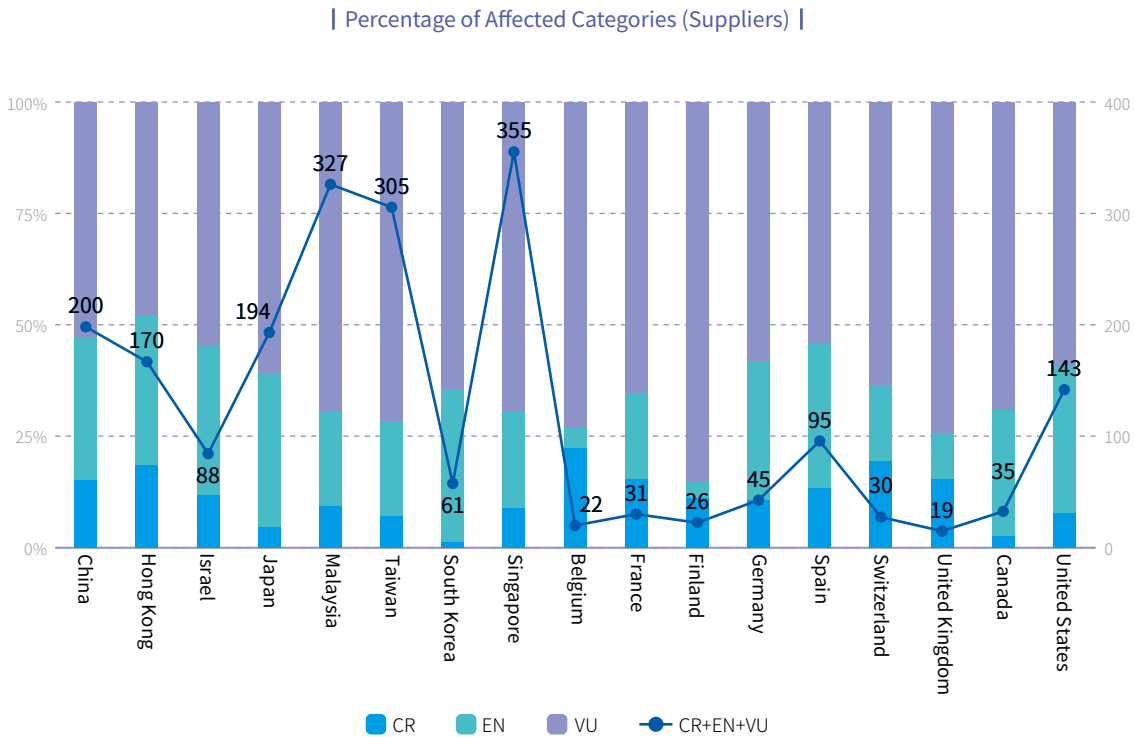
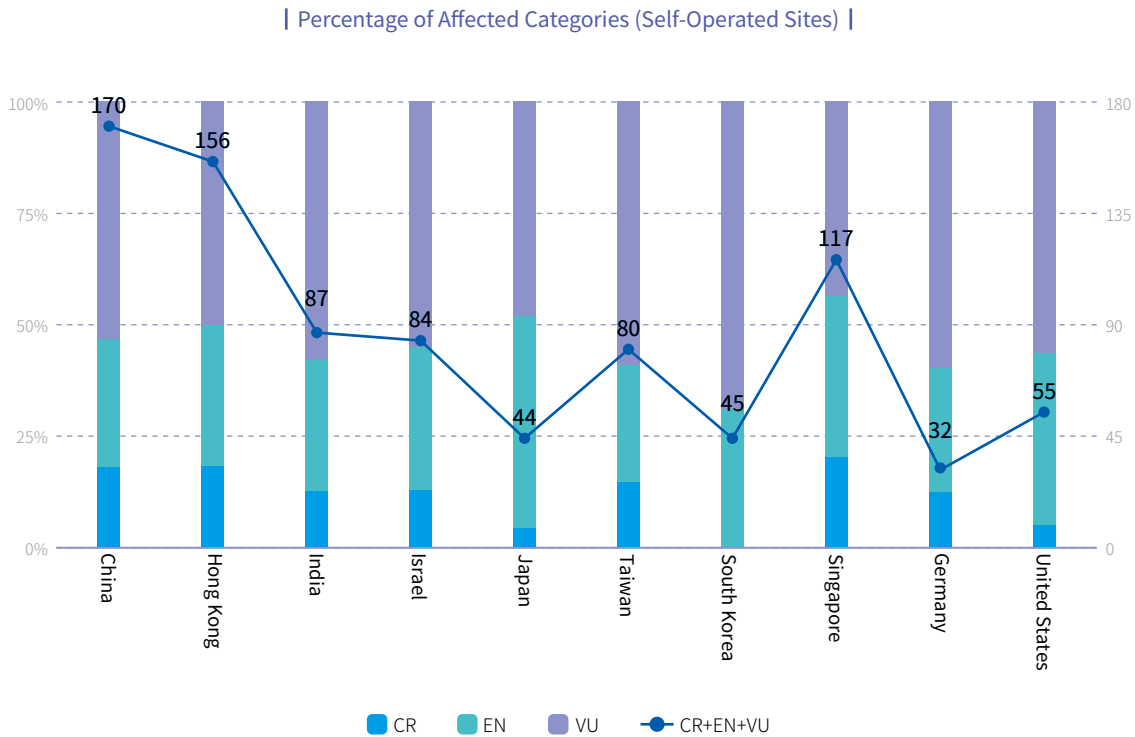
Note: Winbond utilizes the World Database on Protected Areas (WDPA) as the core dataset for spatial overlay analysis. Jointly managed by the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and the International Union for Conservation of Nature (IUCN), the WDPA extensively aggregates official spatial data on protected areas declared by governments worldwide, serving as the most comprehensive and widely applied global spatial database on protected areas. To establish a consistent and scientifically sound assessment baseline, the WDPA adopts the IUCN Protected Area Management Categories framework. Based on differences in conservation objectives and management intensity, protected areas are categorized into Ia, Ib, II, III, IV, V, VI, alongside Not Reported/Not Assigned types. This framework forms the basis for assessing spatial connectivity between operational sites and nature-sensitive areas throughout this report.

2.1.2 Biodiversity (Threatened Species) Analysis of Operations and Supply Chain

To strengthen the identification and management of nature-related risks, Winbond Electronics has further deepened its quantitative analysis of biodiversity risks, serving as a basis for risk prioritization and resource allocation.

Referencing the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, this analysis evaluates conservation categories—including Critically Endangered (CR), Endangered (EN), and Vulnerable (VU)—to quantify the number of threatened species potentially impacted at each operational site, serving as a biodiversity risk indicator.

- Ecological Risk Distribution of Organizational Sites: Stocktaking across Winbond and its subsidiaries' self-operated sites reveals that the top three regions with the highest total number of threatened species are China (170 species), Hong Kong (156 species), and Singapore (117 species). If focusing on the "Critically Endangered (CR)" category, which faces the highest risk of extinction, the Singapore site accounts for the highest proportion of CR species, followed by Hong Kong.
- Ecological Risk Distribution of Supply Chain: Among supplier sites, the regions with the highest total number of threatened species are Singapore (355 species) and Malaysia (327 species). Meanwhile, supplier sites with the highest proportion of Critically Endangered (CR) species are located in Europe, specifically Belgium (23%) and Switzerland (20%).



The results of the above analysis have established a solid quantitative foundation for the Company's adoption of the TNFD disclosure framework, enabling us to fully grasp the nature sensitivity across our operational and supply chain locations. Moving forward, we will leverage these insights to drive tiered management and risk mitigation strategies, while deepening supplier engagement to enhance ecological conservation outcomes and substantially reduce operational impacts on nature.

| Red List Conservation Status Categories |

Conservation Status	Description
Extinct (EX)	The species no longer exists in nature. No individual can be found even in the wild or in artificial breeding facilities, representing the total disappearance of the species.
Extinct in the Wild (EW)	The species is extinct in the wild but survives in artificial breeding facilities or other managed environments, indicating that natural populations can no longer be sustained and conservation relies solely on artificial means.
Critically Endangered (CR)	The species faces an extremely high risk of extinction. Population numbers have declined sharply, and it may face immediate extinction due to habitat loss, disease, climate change, or other threats.
Endangered (EN)	The species faces a high risk of extinction. Population numbers have decreased significantly and it may face extinction in the near future due to various factors.
Vulnerable (VU)	The species faces a risk of extinction. Although population numbers are relatively higher, it remains threatened. Without effective conservation measures, it may become endangered.
Near Threatened (NT)	The species does not qualify for the above three categories but faces certain threats. Without attention, it may enter the Vulnerable or Endangered categories in the near future.
Least Concern (LC)	The species is currently evaluated as not facing severe threats, with relatively stable population numbers.
Data Deficient (DD)	Inadequate data is available to make an assessment of its conservation status, typically due to insufficient research or incomplete data.
Not Evaluated (NE)	The species or subspecies has not yet been studied or evaluated by the IUCN, or is temporarily not prioritized for resource allocation compared to other species requiring urgent attention.

Note: The data source is the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, which assesses species' conservation status based on population size, geographic distribution, and degree of threat (detailed in the table above). In line with international practice, this assessment focuses on statistical analysis of the number of threatened species across three main categories: Critically Endangered (CR), Endangered (EN), and Vulnerable (VU).

Results of Organizational Operational Biodiversity Impact Analysis (Threatened Species)
Leopard Cat and Grass Owl Impact Analysis for Taiwan Sites

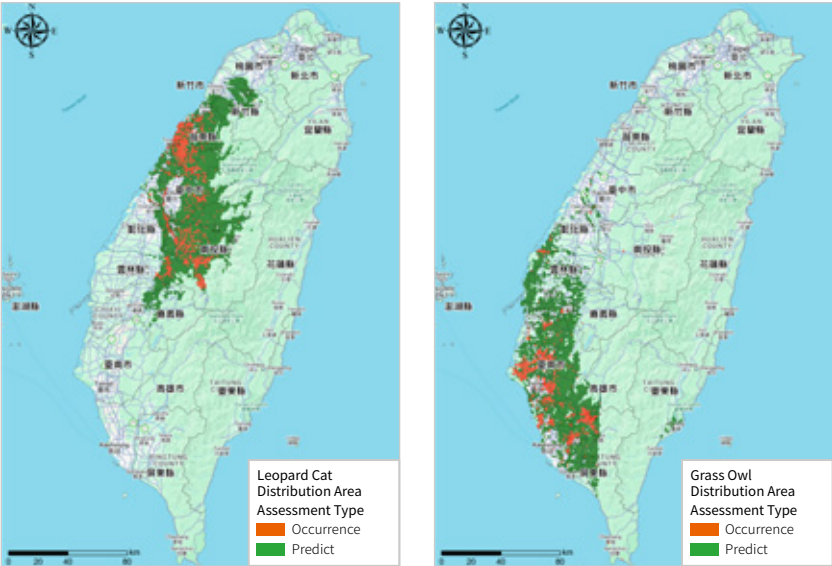
To deepen location sensitivity analysis during the Locate phase, Winbond Group not only aligns with IUCN Red List indicators, but also incorporates key conservation species that are representative of Taiwan’s ecological landscape. Considering that many semiconductor manufacturing clusters are located in low-elevation foothills, plains, and areas near major water systems, this assessment selected the Leopard Cat (an apex predator of low-elevation foothill ecosystems that reflects habitat integrity) and the Grass Owl (a rare and threatened species that nests in grassland habitats and represents the integrity of Taiwan’s lowland ecological network) as key indicator species for biodiversity impact analysis. These species provide a meaningful basis for assessing the potential impacts of science park development and operational activities on representative and vulnerable wildlife habitats in Taiwan, as well as the Group’s dependencies and interactions with natural ecosystems.

The integrity of the habitats supporting these species directly reflects the health of Taiwan’s ecological network. Incorporating them into the assessment serves as an important basis for evaluating the Group’s nature-related dependencies and impacts across its operations and value chain.

Spatial Analysis and Impact Assessment

To ensure scientific rigor in the assessment of nature-related impacts, Winbond Group followed the TNFD framework and utilized the 2023 Leopard Cat Distribution Model and the 2024 Grass Owl Distribution and Prediction Dataset published by the Forestry and Nature Conservation Agency, Ministry of Agriculture. Using high-resolution spatial grids (1 km²), the coordinates of the Group’s operational sites and supplier locations were overlaid with both occurrence grids and predicted distribution grids for spatial comparison and analysis. The results indicate that a total of 152 sites within the Group’s value chain overlap with leopard cat distribution areas, while 81 sites overlap with grass owl distribution areas.

Note: The results represent an assessment of the indirect ecological risks associated with operational activities on broader ecological corridors and landscape connectivity. They do not indicate the confirmed presence of leopard cats or grass owls within specific operational sites.



▲ Leopard Cat Distribution Model (Left) and Grass Owl Distribution and Prediction Map (Right)

2.1.3 Biodiversity Impact Assessment Matrix for Operations and Supply Chain

To identify the relative biodiversity sensitivity of operational and supply chain sites, Winbond Group referenced the analytical logic of the Locate and Evaluate phases under the TNFD framework to establish a Biodiversity Impact Matrix. This matrix integrates species exposure levels and spatial overlay with protected areas as assessment dimensions to assist in prioritizing management actions.

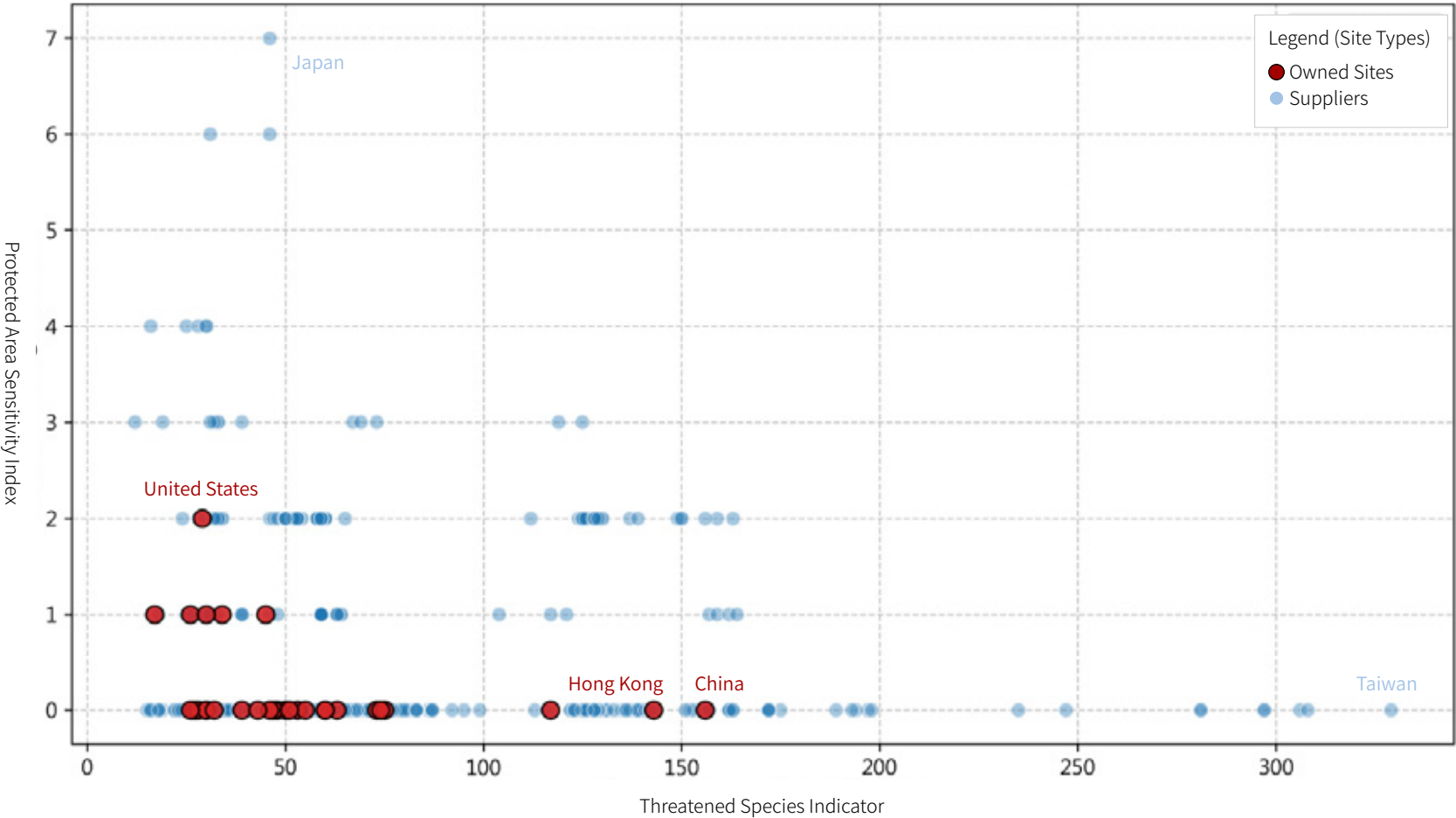
Overall, the matrix assessment indicates that Winbond Group’s owned operational sites are concentrated in the lower-left quadrant of the matrix, demonstrating a relatively lower overall environmental impact from operations. However, 3 sites exhibit a higher potential impact (located in China, Hong Kong, and the United States, respectively), requiring continued monitoring and attention.

On the supply chain side, environmental impact distribution for supplier sites is significantly broader than that of owned sites. Analysis shows that a subset of suppliers falls into the high potential impact quadrant, primarily concentrated geographically in Taiwan and Japan. This underscores a key focus area for the Group’s future localized supply chain management.

Note: The core evaluation methodology of this matrix conducts dual-axis analysis on "Species Exposure Level" and "Protected Area Impact Count" for each operational site:

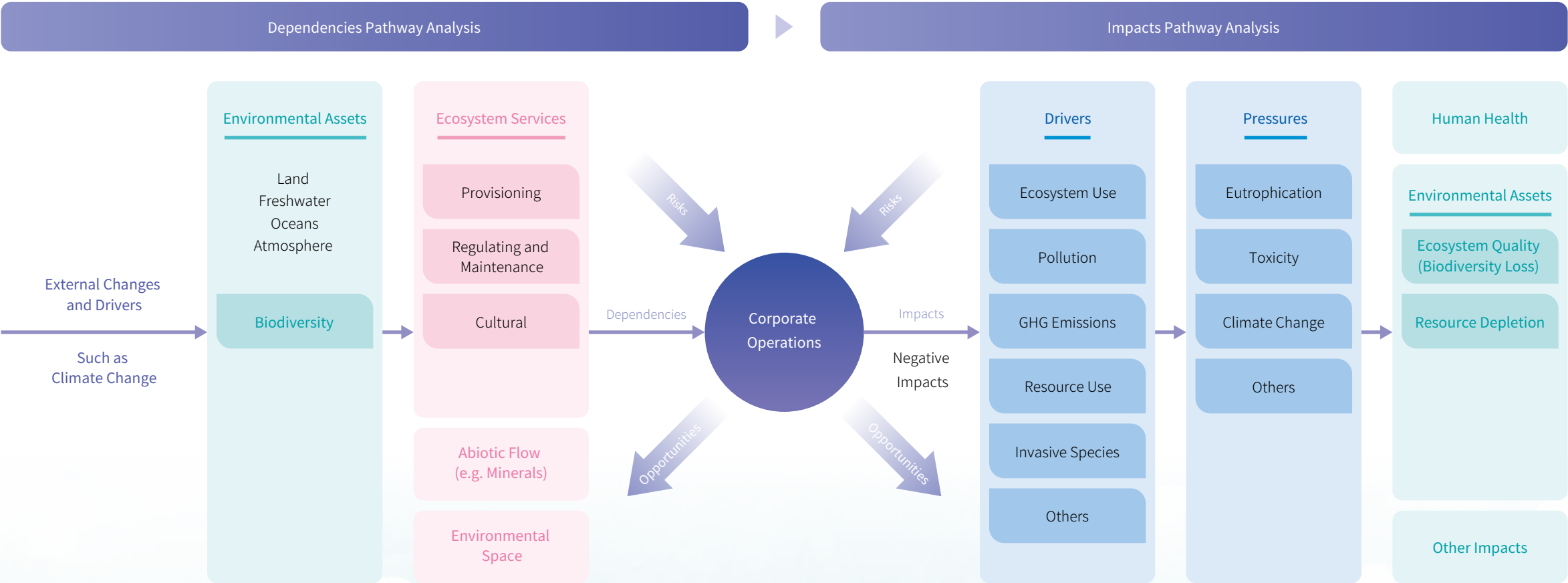
- Threatened Species Indicator: Quantifies the number of threatened species—specifically Critically Endangered (CR), Endangered (EN), and Vulnerable (VU) listed on the IUCN Red List—touching each site. A higher count indicates greater local ecological sensitivity and elevated risks of local population declines driven by business activities or indirect impacts.
- Protected Area Sensitivity Index: References the IUCN Protected Area Categories System to calculate the spatial overlay count between each site and protected areas classified under Categories Ia through VI. A higher count indicates a broader geographic scope of protected areas affected by operational footprints.

| Biodiversity Impact Matrix |



2.2 Evaluate . . .

2.2.1 Organizational Operational Dependencies and Impacts



In 2025, Winbond Group conducted a Nature-related Dependency and Impact Self-Assessment Survey across major direct operational sites in Taiwan and Japan, retrieving 27 valid questionnaires. Results show that over 60% (17 sites/units) have fully grasped nature-related risks linked to local environmental changes, while the remaining 10 sites/units maintain baseline awareness and management capacity.

Assessment Methodology and Framework

This assessment follows the methodology of the Evaluate phase within the Taskforce on Nature-related Financial Disclosures (TNFD) framework:

- Dependencies: Evaluated by comprehensively assessing exposure and risk levels, comparing the risk profile before and after the implementation of adaptation measures.
- Impacts: Analyzed by integrating exposure, management measures, and mitigation targets. Key topics were prioritized through standardization and a materiality matrix, establishing the foundation for subsequent risk and opportunity analysis, metric setting, and disclosures.

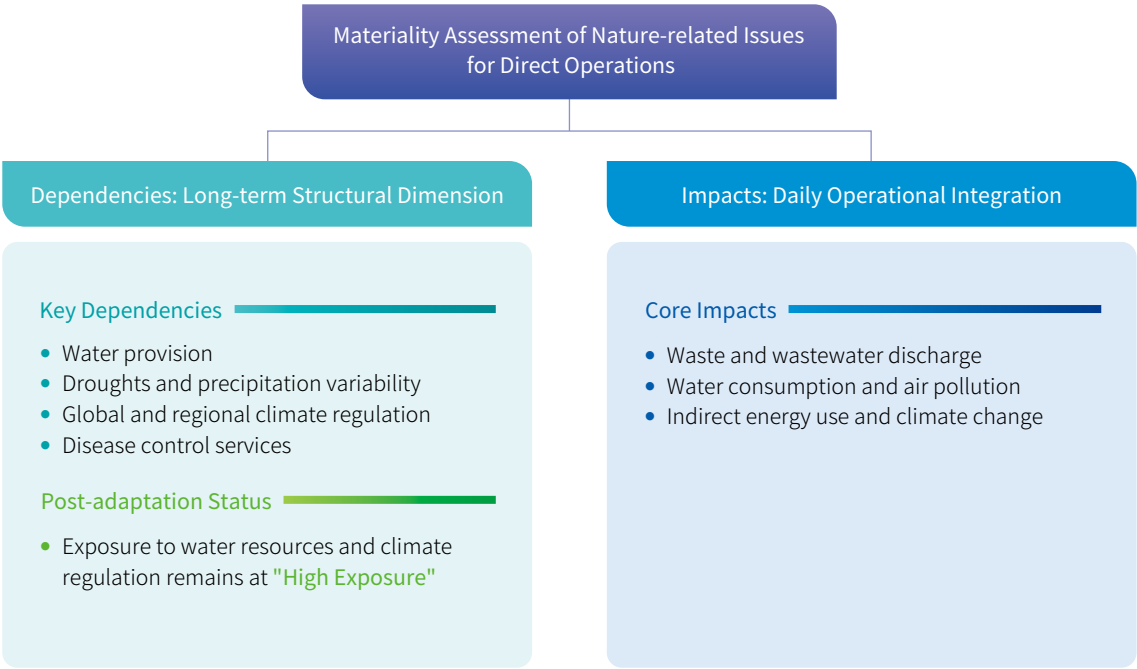
Materiality Assessment Results

Nature-related Dependencies

High dependency on water resources and climate regulation. The assessment shows that key operational dependencies for direct operations are highly concentrated in ecosystem services, including "water provision," "precipitation variability regulation (e.g., droughts and uneven rainfall distribution)," "global and regional climate regulation," and "disease control." This reflects the high sensitivity of semiconductor manufacturing to stable water supplies, favorable climatic conditions, and operational environmental safety. Although existing adaptation measures have significantly reduced risk levels for certain topics, exposure to "water resources" and "climate regulation" remains high, highlighting long-term structural dependency characteristics that require sustained resource allocation for resilience management.

Nature-related Impacts

Focus on Resource Consumption and Pollution Control. Regarding nature-related impacts, assessments show that major impact sources encompass climate change, indirect energy use, water resource consumption, waste generation, air pollution, and wastewater discharge. This distribution aligns closely with the characteristics of semiconductor manufacturing, demonstrating that operational activities exert multi-faceted influences on resource inputs and environmental emissions. Continuous focus will be placed on five key management priorities: water conservation and recycling, energy efficiency improvement and renewable energy adoption, greenhouse gas reduction, air pollution and wastewater management, and waste circularity.

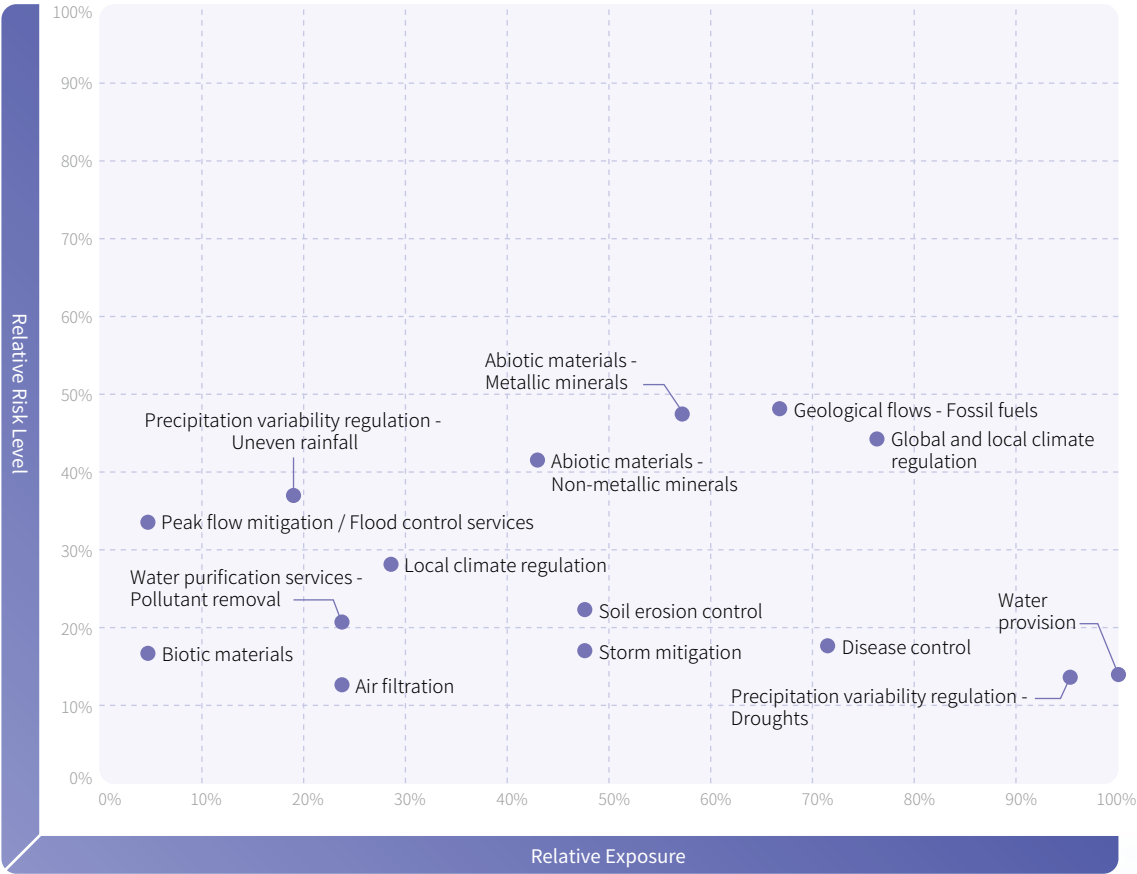


Conclusion

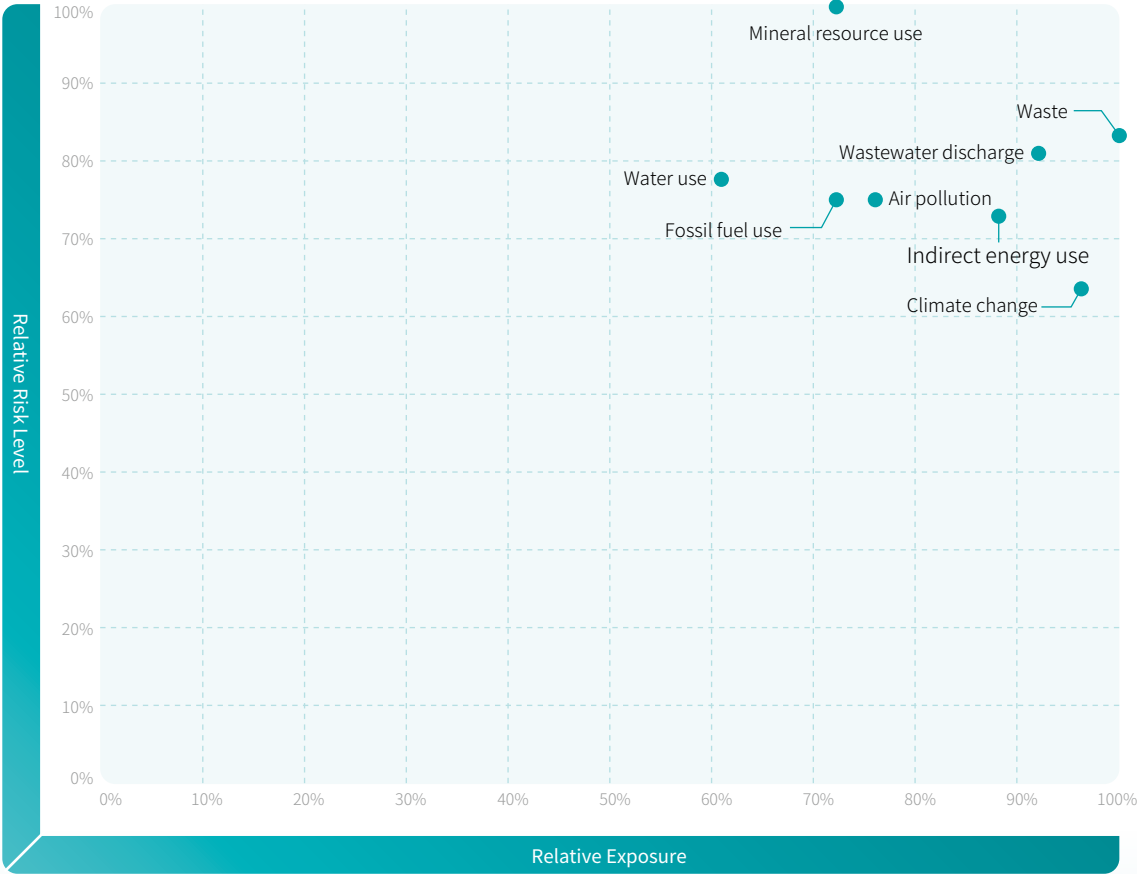
The results of the 2025 nature-related dependency and impact assessment closely align with current environmental sustainability roadmaps, demonstrating that natural capital management is being progressively integrated into foundational daily operations. Going forward, these assessment outcomes will be further translated into actionable management metrics, early warning mechanisms, and medium-to-long-term targets—deepening the integration of nature-related issues across governance levels and strategic decision-making processes to build enterprise operational resilience. For further details on management actions, please refer to the [Winbond 2025 Sustainability Report](#).



| Materiality Matrix of Nature-related Dependencies (Post-adaptation) |



| Materiality Matrix Analysis of Nature-related Impacts |



2.2.2 Value Chain Dependencies and Impacts

This analysis utilizes the international ENCORE database to identify correlations between the supply chain and natural capital, ecosystem services, and environmental impacts. A total of 2,978 suppliers were included, covering diverse sectors such as wholesale and retail, construction engineering, electronic components manufacturing, and information services. The analysis indicates that the supply chain exhibits multi-sectoral characteristics; nature-related issues exist not only in direct manufacturing processes but are also widely distributed across indirect support and procurement activities.

Risk Measurement Mechanism

To accurately reflect nature-related risk exposure across the supply chain, this assessment adopts a dual-track analysis of "Raw Risk" and "Weighted Risk." In addition to calculating the unweighted raw risk score for each sector, weightings are applied based on each sector's proportion within the total supply chain. This mechanism effectively focuses management on truly material areas, avoiding distortions caused by sectors with low spending proportions but high risk profiles.

Materiality Analysis Results

After weighted calculations, nature-related risks in the supply chain demonstrate significant "Water–Pollution–Extreme Weather" tri-fold characteristics:

Natural Dependencies (Focus on Climate Regulation and Hydrological Stability):

Highly dependent items, in descending order, are: extreme rainfall regulation, flood control services, storm mitigation, landslide mitigation, and water provision. This indicates that extreme weather triggered by climate change (e.g., droughts, typhoons) will exert direct cascading impacts on material supply stability, facility support, and logistics transportation.

Natural Impacts (Focus on Resource Use and Pollution Discharges):

Major impact items include water use, climate change, soil pollution, invasive species, disturbance, air pollution, and terrestrial ecosystem use.

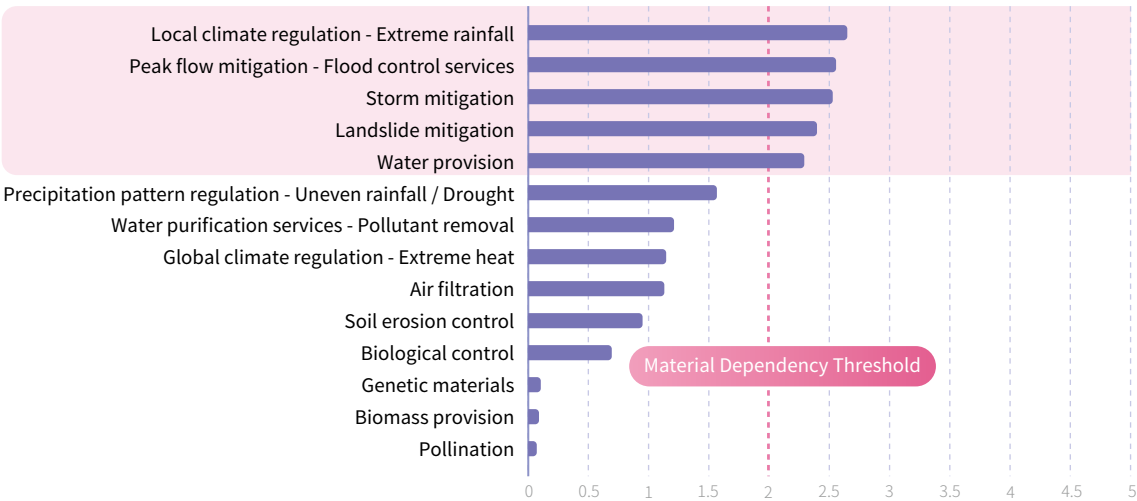
Conclusions & Summary

Synthesizing raw and weighted analysis results, two conclusions emerge from this dependency and impact assessment stage:

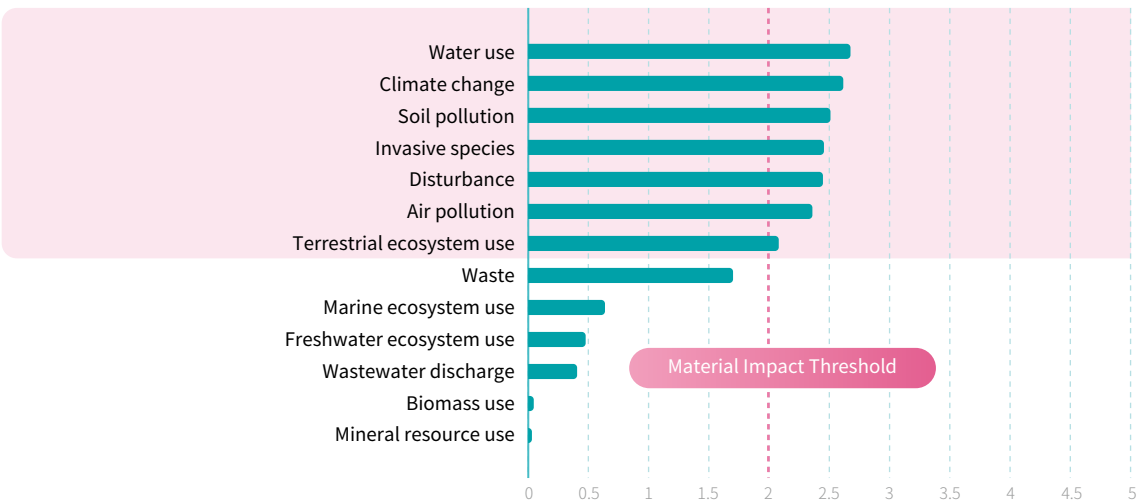
- First, material natural dependencies of the supply chain are distinctly concentrated in climate regulation and water services, particularly extreme rainfall regulation, flood control, storm mitigation, and water supply stability.
- Second, material natural impacts of the supply chain are focused on wastewater, resource use, waste, and pollution-related issues, with freshwater systems, GHG emissions, and land/soil/air pollution management requiring the highest disclosure priority.

These findings closely align with the company's current sustainability reporting priorities—including supply chain risk management, water resource management, pollution prevention, and supplier environmental assessments. For further details on supply chain risk management, please refer to the Winbond 2025 Sustainability Report.

Nature-related Dependency Risk Assessment Results at Supplier Level – Post-Weighting |



Nature-related Impact Risk Assessment Results at Supplier Level – Post-Weighting |



Note: The red dashed line indicates the materiality threshold.

2.3 Assess . . .

2.3.1 Nature-related Risks and Opportunities in Direct Operations

Based on the internal assessment of nature-related dependencies and impacts, the primary ranking criteria for material dependency and impact topics are identified as "Exposure" and "Risk Level." Exposure refers to the number of internal respondents who checked a given nature-related dependency or impact topic for their organization; a higher percentage of checked responses indicates a higher degree of organizational exposure to that topic.

Ultimately, Winbond identified its nature-related operational risks and opportunities, which concentrate primarily on water provision, precipitation pattern changes, climate regulation, disease control, as well as water, energy, pollution, and waste management topics.

- On the dependency side, strong connections exist with water provision, precipitation pattern changes, climate regulation, and disease control services. Even after accounting for existing adaptation measures, topics related to water resources and climate regulation remain at high exposure levels, reflecting their long-term, structural operational importance.
- On the impact side, operational impacts on nature are mainly concentrated in waste generation, water consumption, indirect energy use, climate change, air pollution, and wastewater discharge categories, indicating that the interactions between manufacturing activities and nature-related topics are deeply embedded in daily operations.

In risk identification, internal nature-related risks are categorized into three main types:

1. Operational Physical Risks: Extreme events caused by high temperatures, droughts, precipitation anomalies, extreme weather, and large-scale pandemic diseases may affect plant water supply stability, facility operations, employee health and safety, and production continuity.
2. Environmental Management Risks: Inadequate management of impact topics such as daily water, energy, wastewater, air pollution, and waste could lead to regulatory compliance pressure, environmental incident risks, increased operational costs, and heightened stakeholder scrutiny.
3. Transition Risks: As demands for renewable energy, water efficiency, pollution control, and carbon reduction management continue to escalate, insufficient management capabilities or investment layouts could affect competitiveness, capital expenditure planning, and disclosure maturity.

The Assess phase demonstrates that these risks do not exist in isolation; together, they constitute operational resilience challenges when responding to changing natural conditions.

Conversely, assess outcomes also help pinpoint concrete, actionable opportunities also help pinpoint concrete, actionable opportunities:

- First, because natural dependencies are highly concentrated in water resources and climate conditions, priority investment areas can be defined more clearly, including energy conservation, efficiency improvement, water condition monitoring, risk control, environmental monitoring, and operational resilience enhancement.
- Second, the concentration of impacts in water, energy, pollution, and waste indicates that existing environmental management systems, energy-saving and carbon-reduction projects, pollution control mechanisms, and resource circulation measures provide a solid foundation for upgrading nature-related management outcomes.
- Furthermore, by continuously integrating nature-related risk management with green manufacturing, renewable energy, green power products, carbon accounting, and environmental performance, nature-related topics transition from being purely risk sources into crucial pillars supporting operational optimization, manufacturing upgrades, and nature-positive development. For more risk and opportunity management details, please refer to the [Winbond 2025 Sustainability Report](#).

Risks and Opportunities from Organizational Operational Dependencies on Natural Capital

Water Resources Potential Change: Water Provision	
Physical Risks & Financial Impacts	Risk Description: Water resources are paramount to manufacturing needs and serve as a core element in ensuring wafer manufacturing. During early-stage water shortages, higher-cost alternative water sources must be sought or production reduced, leading to increased operating costs or reduced revenues, constituting physical risks with negative financial impacts. Regarding environmental safety, large volumes are only used during emergency incident responses for cooling, fire suppression, or pollutant dilution; however, these sources originate from independent firefighting water regulated by fire safety laws, rather than routine operational water. Financial Impact: Increased operating costs (e.g., emergency water hauling by tankers) and reduced revenue (e.g., capacity curtailment or work stoppage due to water shortages).
Mitigation & Response Measures	Scenario: Facing severe droughts caused by extreme weather, operational plant areas encounter government-mandated staged water restrictions or shutdowns, resulting in insufficient cooling system or process water, forcing capacity curtailment or work stoppage. Mitigation Measures: Sign emergency water supply agreements with external water hauling contractors as a contingency plan, and continuously audit and expand water storage capacity within plant areas to ensure sufficient backup water supply days.
Potential Opportunities	Opportunity Description: Improve overall water use efficiency, develop a circular water economy, and increase process wastewater recycling rates, thereby reducing reliance on conventional tap water supplies.
Action Strategies	• Strategy 1: Increase water recycling efficiency and reduce freshwater withdrawal demand. • Strategy 2: Conduct in-house R&D or industry-academia collaboration to develop low-water-consumption production processes.

Precipitation Variability Regulation | Potential Changes:
Occurrence of drought / Changes in rainy season / Uneven rainfall distribution

Physical Risks & Financial Impacts	Risk Description: Extreme climate conditions leads to uneven precipitation distribution (intensifying droughts and waterlogging). Severe droughts will lead to water restrictions, impacting manufacturing processes. Conversely, sudden short-duration heavy rainfall or typhoons may cause factory flooding, equipment damage, or supply chain logistics disruptions, thereby impairing normal operations and delivery schedules. Financial Impact: - Increased Operating Costs: (e.g., emergency water truck procurement during droughts; plant repair, pumping equipment, and cleanup costs during floods). - Decreased Revenue: (e.g., capacity restrictions due to water shortages or production shutdowns caused by flooding, resulting in penalties for delayed order deliveries and revenue losses).
Mitigation & Response Measures	Drought Adaptation Measures: Increase plant-level process water and wastewater recycling rates, build rainwater harvesting systems as alternative water sources, and pre-sign emergency water truck supply contracts with external vendors for contingencies. Flood Prevention Measures: Conduct regular inspections of plant drainage systems and implement disaster prevention contingency plans and drills.
Potential Opportunities	Opportunity Description: Proactively strengthening water circularity management and flood resilience significantly mitigates operational disruption threats from extreme and uneven precipitation and ensures production continuity. It also demonstrates superior climate risk management capabilities to clients, enhancing customer trust in stable supply.
Action Strategies	Allocate capital expenditures to continuously invest in water conservation, wastewater reclamation hardware, and flood defense infrastructure upgrades. Concurrently implement climate forecasting and intelligent water monitoring early-warning mechanisms, establish observation indicators to provide early warning for water use during the dry season, monitor onsite water storage levels, and secure emergency water hauling agreements to enhance drought resilience.

Environmental Asset & Natural Change: Global/Local Climate Regulation Services |
Potential Changes: Extreme High Temperatures

Physical Risks & Financial Impacts	Risk Description: Global warming causes an increase in extreme heat days and rising average temperatures. To maintain constant temperature requirements for plants and production equipment, operating loads on HVAC and cooling tower systems will spike. Extreme heatwaves may impair machine heat dissipation efficiency or cause abnormal downtime, affecting production yield. Furthermore, sustained high temperatures increase heat stress risks for outdoor workers. Financial Impact: - Increased Operating Costs: (e.g., sharp increase in electricity consumption for HVAC and chillers during extreme heat). - Decreased Revenue: (e.g., grid instability/blackouts caused by frequent extreme heat, or working hour losses from heat stress injuries, or supply chain logistics disruptions, leading to reduced capacity and delayed delivery losses).
Mitigation & Response Measures	Hardware & Equipment: Optimize plant ventilation and HVAC systems, install roof insulation, sun-shading facilities, or factory greening. For critical equipment susceptible to high-temperature overheating, reinforce independent heat dissipation mechanisms and preventive maintenance to ensure backup dispatch capacity. Personnel & Management: Implement high-temperature work and heat-injury prevention plans. Adjust outdoor or high-heat area working hours flexibly, set up cooling break areas, and provide sufficient drinking water and electrolytes to safeguard workplace health and safety.
Potential Opportunities	By addressing high-temperature risks, conduct a comprehensive inventory and replacement of aging, high-energy-consuming HVAC equipment in plants, introducing high-efficiency, smart energy-saving climate control systems.
Action Strategies	Enhance energy efficiency and conserve electricity while integrating climate resilience metrics into routine daily equipment operations monitoring.

	Ecosystem Service: Disease Control Services Potential Change: Outbreak of Large-scale Epidemics/Pandemics	Abiotic Materials: Metallic Minerals Potential Change: Supply Shortage of Abiotic Materials (Metals)	Geological Flows: Fossil Fuels Potential Change: Supply Shortage of Fossil Fuels
Physical Risks & Financial Impacts	Risk Description: Employees may be absent due to illness or epidemic transmission, leading to labor shortages and operational management difficulties. Financial Impact: - Increased Operating Costs: (e.g., emergency procurement of epidemic prevention supplies, site-wide disinfection operations, and deployment of remote work hardware/software infrastructure). - Decreased Revenue: (e.g., production capacity reductions or supply chain logistics bottlenecks caused by large-scale employee quarantines, leading to revenue losses and contractual penalties due to delayed deliveries).	Risk Description: Extreme climate events, natural resource depletion, or geopolitical factors may hinder key metal mining operations or disrupt trans-national supply chains, triggering raw material shortages that directly impact production line continuity and product delivery schedules. Financial Impact: - Increased Operating Costs (e.g., significant spikes in raw metal prices due to market shortages, leading to higher procurement costs). - Decreased Revenue (e.g., production downtime, reduced capacity utilization, or contractual penalties and revenue losses from delayed deliveries caused by raw material shortages).	Risk Description: Fossil fuel shortages or geopolitical crises may trigger energy crises, leading to soaring electricity prices or national grid instability (power rationing). Electronics manufacturing facilities requiring continuous 24-hour operation may face unannounced power outages or forced load shedding, resulting in production line shutdowns and the scrapping of work-in-progress (WIP) inventory, while also directly impacting the logistics and transportation capacity of upstream and downstream supply chains. Financial Impact: - Increased Operating Costs: (e.g., sharp increases in electricity and fuel procurement costs, fuel costs for operating backup onsite generators, and emergency logistics dispatch fees caused by supply chain disruptions). - Impact on Revenue / Capital Expenditure: (e.g., direct financial losses and delivery delay penalties resulting from production line interruptions and scrap product losses caused by power rationing or outages).
Mitigation & Response Measures	Activate Business Continuity Plans (BCP), and promptly implement staggered work arrangements, A/B team rotations, and work-from-home mechanisms. Implement strict access control and health monitoring at plant sites, conduct regular environmental cleaning and disinfection, and maintain safety stocks of epidemic prevention supplies, such as masks and hand sanitizers.	Establish diversified supplier sources and strategic safety stock mechanisms for raw materials to mitigate single-origin supply chain risks; actively implement circular economy models and optimize manufacturing processes to reduce metal loss; research or collaborate on waste recycling and metal extraction technologies (e.g., recovering metals from process fluids or scrap materials), while evaluating the feasibility of low-dependency alternative materials.	Comprehensively enhance plant energy efficiency (e.g., optimizing chillers, HVAC, and air compressor systems); accelerate the installation of onsite solar PV systems and actively sign long-term Corporate Power Purchase Agreements (CPPAs) to increase the proportion of renewable energy use, reducing single dependency on grid electricity and fossil fuels.
Potential Opportunities	Opportunity Description: Establishing comprehensive employee health management, infectious disease prevention, and health monitoring mechanisms enhances worker safety and well-being, mitigates the operational impacts of large-scale epidemics, and strengthens organizational resilience and response capabilities regarding public health crisis events.	Opportunity Description: Promoting metal raw material recycling, reuse, and green product design significantly reduces reliance on virgin minerals, buffers against global raw material price volatility, and meets international clients' stringent demands for sustainable supply chains and net-zero carbon, thereby strengthening corporate competitiveness in green markets.	Opportunity Description: Leveraging the sense of urgency from fossil fuel shortages accelerates energy transition and decarbonization across plant operations. This not only significantly strengthens operational energy resilience and hedges against future fossil fuel price volatility, but also directly aligns with global brand clients' stringent requirements for net-zero emissions and green supply chains, consolidating market leadership.
Action Strategies	Establish disease reporting, health monitoring, and emergency response mechanisms while continuously promoting health promotion and infection control programs. Regularly review implementation measures and maintain essential protective resource readiness to reinforce health risk management and organizational response capabilities.	Invest in internal and external circular economy systems, collaborating with upstream/downstream suppliers and waste management vendors to advance "metal scrap recovery and circular recycling projects"; incorporate "sustainable raw material usage and recycling ratios" into corporate sustainable procurement targets.	Formulate a clear corporate net-zero emissions pathway and decarbonization targets (e.g., aligning with SBTi or RE100 commitments); continuously allocate sustainable capital expenditures to invest in high-efficiency, energy-saving hardware; systematically introduce ISO 50001 energy management systems and track GHG emissions reductions alongside green power procurement ratios as core operational KPIs.

Nature-related Risks and Opportunities from Direct Operations

Nature-related Issue (Impact Area)	Transition Risk Analysis (Policy & Legal, Market, Operations)	Potential Risk Response Measures (Mitigation Strategies)	Capturing Opportunities and Value Creation (Financial and Reputational Impacts)
 Water Resource Use	In response to increasingly stringent regulations concerning water consumption fees, effluent standards, and total discharge controls, as well as requirements from customers and investors regarding water resource management, the Group continues to improve water use efficiency and water resource management capabilities and invests capital in upgrading water recycling and treatment facilities to strengthen water resilience and sustainable competitiveness.	Improve water use efficiency through source reduction, water-saving design, and process optimization; establish wastewater segregation and recycling systems based on wastewater characteristics to increase water circularity and resource recovery benefits; and develop alternative water sources, such as rainwater and condensate, to reduce reliance on external water resources and strengthen water resilience and sustainable management performance.	Apply advanced water recycling and treatment technologies to reduce reliance on freshwater resources and operating costs, improve water-shortage response capabilities and water supply resilience, ensure stable production, and strengthen sustainable water resource management performance.
 Mineral Resource Use	Certain carbon-intensive raw materials may experience price impacts due to carbon border adjustment mechanisms, carbon pricing, or suppliers passing on decarbonization costs. Brand clients demand higher proportions of sustainable raw material usage and recycling, alongside complete supply chain due diligence (e.g., requiring certification that products manufactured by the company do not contain conflict minerals as labeled on product packaging).	Promote eco-design to reduce metal usage. Actively source circular metal raw materials and continuously trace recycled secondary metal sources. Enforce requirements for raw material suppliers, OSAT (Outsourced Semiconductor Assembly and Test) vendors, and subcontracting partners to execute R&D on circular recycling and related product innovations.	By adopting circular economy models, increase waste recycling rates and sustainable raw material usage proportions. This not only reduces dependency on highly volatile international virgin raw material markets, but also fulfills stringent green supply chain requirements from major international clients, enhancing the market competitiveness of green products.
 Indirect Energy Use	Rising operational costs from domestic carbon fees and electricity tariff hikes, coupled with international customer requirements for RE100 and SBTi compliance, make green power procurement and energy efficiency critical drivers of market competitiveness.	Implement ISO 50001 energy management and optimize facility and process energy efficiency. Sign Corporate Power Purchase Agreements (CPPAs) to increase renewable energy ratios.	Hedge against rising electricity tariffs and carbon price shocks. Fulfill SBTi emission reduction commitments, strengthening leading position and corporate reputation within global green supply chains.
 Climate Change	Domestic and international carbon fees/taxes and GHG cap-and-trade regulations. Clients require SBTi, RE100, or product carbon footprints; failure to comply may result in lost orders..	Execute ISO 14064-1 GHG inventories and set SBTi targets. Replace energy-inefficient equipment (to reduce Scope 2 emissions). Research and develop low-GWP gas alternatives and add abatement equipment (to reduce Scope 1 emissions).	Mitigate cost risks associated with high energy consumption and carbon pricing. Precisely align with client net-zero requirements, boosting market competitiveness in a low-carbon economy.
 Air Pollution	Stricter air pollution regulations (tightened standards, higher fee rates). Clients incorporating air quality metrics into supply chain audits. Intense concern from neighboring communities, where abnormal emissions could damage reputation.	Prioritize low-VOC eco-friendly materials (source reduction). Upgrade air pollution control equipment. Implement Continuous Emission Monitoring Systems (CEMS) integrated with early-warning capabilities.	Avoid penalties and work-stoppage risks while reducing air pollution fee expenses. Demonstrate environmental management resilience to stakeholders, enhancing green reputation.
 Wastewater Discharge	In response to increasingly stringent regulations, heightened customer requirements for controlling hazardous substance discharges, and strong stakeholder concern regarding environmental impacts, the Group must continuously improve wastewater management effectiveness, ensure regulatory compliance, and maintain community trust and its corporate image.	Improve water use efficiency and recycling opportunities and reduce environmental burdens through water-saving design, process optimization, and wastewater segregation management. Integrate diversified wastewater treatment systems with 24-hour continuous monitoring mechanisms to ensure that effluent quality complies with regulatory requirements and to implement water resource management and pollution prevention.	Promote wastewater reclamation, reuse, and high-efficiency treatment technologies to reduce water demand and water shortage risks and improve water resource use efficiency. At the same time, strengthen the green factory image and respond to international customers' expectations for low-carbon and water-sustainable supply chains.
 Waste	As waste regulations become more stringent and treatment fees increase, corporate waste management costs continue to rise. Customers require the achievement of zero-waste-to-landfill or high conversion-rate targets. In addition, limited domestic legal treatment capacity may affect waste disposal efficiency and operational continuity.	Reduce waste generation through source reduction, green design, and process optimization, and promote resource circularity and reuse. Implement waste classification and traceability and outsourced vendor management, together with waste-flow tracking and periodic auditing mechanisms, to ensure legal and proper treatment and reduce environmental impacts and operational risks.	Promote source reduction and resource circularity to enhance waste resource recovery benefits and reduce operating costs. Through zero-waste-to-landfill target management and cross-value-chain collaboration in developing circular technologies, pursue UL 2799 certification and strengthen sustainability performance and market competitiveness.

2.3.2 Nature-related Risks and Opportunities in the Supply Chain

The preceding analysis of dependencies and impacts shows that nature-related topics across Winbond's supply chain are not dispersed at random, but clearly concentrated in core dimensions such as water resources, extreme weather regulation, pollution discharge, and resource use. This implies that Winbond's management of nature-related issues will not stop at identifying high or low risk levels. More importantly, it involves translating these analytical findings into an actionable and traceable indicator framework for daily operations. To ensure that material dependencies and impacts are incorporated into subsequent management and monitoring, this report presents corresponding management metrics, units of measurement, early warning mechanisms, and target directions based on their nature, serving as an important foundation for Winbond to continuously deepen supply chain nature management.

The Company utilizes weighted risk levels as the basis for determining material nature-related dependencies and impact topics across the supply chain. When a specific nature-related dependency or impact category receives a weighted risk score greater than 2, it is identified as a material nature-related topic within the supply chain requiring prioritized attention and management. This serves as the basis for subsequent management metrics, risk communications, and disclosures. This methodology enables the Company, when identifying supply chain nature-related topics, to balance risk intensity with actual supply chain distribution, thereby enhancing the managerial significance and decision-making value of the analytical results.

Synthesizing the evaluation results of supply chain nature-related dependencies and impacts, Winbond has determined that supply chain nature-related risks are primarily concentrated in topics such as climate regulation, hydrological stability, disaster mitigation, resource use, and pollution discharge. Specifically, on the dependency side, items with higher management priority include local climate regulation — extreme precipitation, peak flow mitigation / flood control services, storm mitigation, landslide mitigation, and water provision. On the impact side, topics such as water resource use, climate change, invasive species, soil pollution, air pollution, disturbance, and terrestrial ecosystem use are particularly prominent. This demonstrates that the nature-related risks faced by Winbond's supply chain are not localized issues isolated to a single supplier or manufacturing step; rather, they represent systemic issues highly correlated with raw material supply stability, logistics resilience, environmental compliance, cost volatility, and customer trust.

In terms of risk characteristics, Winbond categorizes supply chain nature-related risks into three main types:

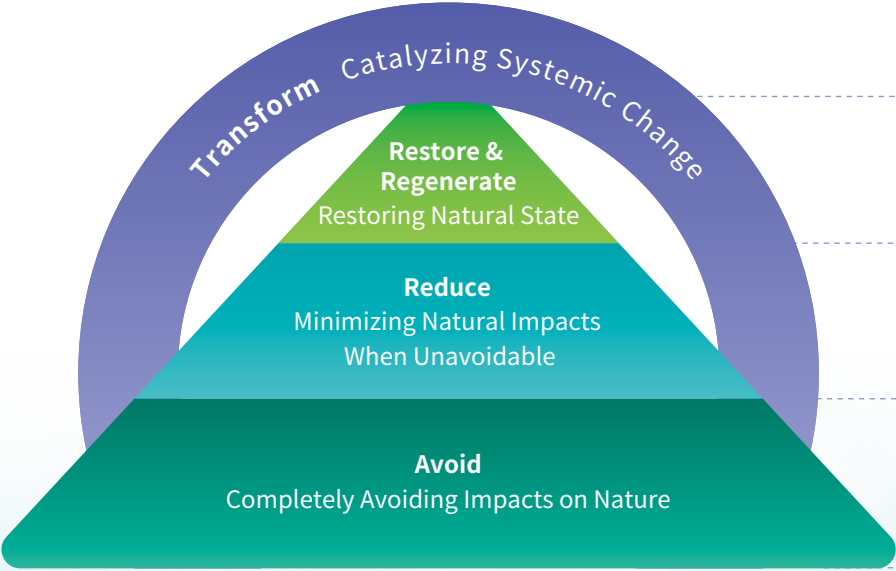
- 1. Physical Risks:** Changes in natural conditions such as extreme precipitation, typhoons, flooding, droughts, and geological hazards can impact supplier operations, transportation logistics, engineering schedules, and logistics dispatching, thereby threatening the supply stability of critical materials.
- 2. Transition Risks:** As the supply chain faces continuously tightening regulatory requirements regarding water management, pollution control, carbon emissions management, and environmental laws, this may lead to increased operating costs, higher investments in equipment upgrades, as well as an elevated need to replace or assist suppliers.
- 3. Reputational and Market Risks:** If supply chain activities involve high water consumption, high pollution, or adverse impacts on ecosystems, Winbond may face pressure during client audits, investor inquiries, and sustainable supply chain evaluations, further affecting brand trust and commercial partnership terms.

Conversely, the above results also indicate clear management opportunities within the supply chain. Since material dependencies are highly concentrated in aspects such as extreme precipitation, flood protection, storm mitigation, and water supply stability, Winbond can prioritize strengthening high-risk suppliers' disaster prevention, backup, Business Continuity Planning (BCP), and water risk management capabilities, thereby enhancing supply chain resilience to natural disturbances. On the other hand, because impact topics are concentrated in water, carbon, pollution, and ecosystem use, Winbond has a clear direction to transform nature-related topics from traditional compliance requirements into part of supply chain upgrades and customer value propositions through supplier sustainability tiered management, coaching suppliers in water and carbon reduction, pollution abatement, sustainable raw material sourcing, and environmental performance optimization.

2.4 Prepare • • •

After completing the Locate, Evaluate, and Assess stages, Winbond Group advanced to the Prepare stage, translating previous identification results into actionable and traceable management foundations for subsequent implementation. Grounded in the AR3T Action Framework, Winbond is committed to mitigating corporate impacts on biodiversity while embedding the Taskforce on Nature-related Financial Disclosures (TNFD) framework into its overarching sustainability strategy. Through five core action dimensions—Avoid, Reduce, Restore, Regenerate, and Transform (systemic transformation)—the company systematically manages the interactions between corporate operations and the natural environment, aiming to comprehensively assess nature-related financial impacts and advance sustainable operations.

For Winbond, "Prepare" goes beyond aggregating metrics; it serves as a critical bridge connecting nature-related dependencies, impacts, risks, and opportunities to daily management, early warning monitoring, performance tracking, and target setting. By establishing corresponding management metrics, units of measurement, early warning mechanisms, and management targets, the Company transitions nature-related issues from analytical findings into practical management actions, laying the foundation for future disclosures, internal communication, and continuous improvement.



T

- Integrate environmental education philosophy into every employee's daily work.

R&R

- Nature-based Solutions (NbS)
- Afforestation and reforestation with site-appropriate native species
- Biodiversity conservation and species propagation

R

- Energy and carbon emissions management
- Water resource management
- Waste management
- Product and process optimization
- Practicing circular economy

A

- Prioritize ecological symbiosis with surrounding environments during new site construction.
- Strengthen plant resilience and preventive measures.
- Comply with relevant environmental laws and standards.
- Supply chain management.

2.4.1 Management Metrics and Targets for Nature-related Dependency Risks in Direct Operations

Operational dependency on nature primarily reflects Winbond's reliance on water resources, climate regulation, flood mitigation services, and other ecosystem services across its own operations. As these topics are closely linked to site operational stability, facility safety, and production continuity, management requires not only identifying dependency types, but also establishing trackable early-warning and emergency response mechanisms.

The management metrics, units of measurement, early warning mechanisms, and targets summarized below are based on the results identified during the "Evaluate" stage, serving as a reference baseline for Winbond's subsequent operational monitoring, resilience enhancement, and target management.

Corresponding Ecosystem Service	Filtered Priority Issue	Metric	Unit	Early Warning Mechanism	Scenario Analysis & Financial Impacts	Targets
Global / Local Climate Regulation	Extreme High Temperatures	Weather Forecast	Temperature (° C)	1. High-Temperature Work Protection Information Platform 2. Meteorological Agency Temperature and Humidity Data	- Revenue loss from operational disruptions caused by high temperatures - Compensation for employee injuries/ illnesses caused by high temperatures - Increased electricity costs resulting from high temperatures	- Continuously monitor high temperature, humidity, and heatstroke warning information issued by the Central Weather Administration or the Japan Meteorological Agency. - Monitor ambient temperature, equipment operating status, and HVAC loads across plant locations to ensure the normal operation of cooling and ventilation systems. - Periodically inspect HVAC and cooling equipment and confirm backup capacity to fulfill operational demands under high-temperature or extreme conditions. - Implement heatstroke prevention measures for outdoor operations and construction in accordance with high-temperature work and heat hazard prevention guidelines. - Continuously maintain and review high-temperature contingency response measures—including activating emergency rescue protocols, water cooling systems, humidifying or dehumidifying equipment—to ensure core business continuity. - Activate tiered emergency response protocols under internal BCPs and official extreme heat warnings to maintain the stable operation of critical equipment and cooling systems, effectively mitigating and minimizing potential operational disruptions. - Monitor the impact of climate factors on equipment operation and implement corrective actions as needed to mitigate heat-induced operational impacts.
Water Provision	Water Supply	- Meteorological Data — Rainfall Forecasts - Water Resources Agency (WRA) Water Situation Reports	Consecutive Drought Days	Water Condition Alert Lights (Water Alert Levels)	Revenue loss from operational disruptions caused by droughts	- Monitor water supply risks continuously based on water alert lights, reservoir hydrology, groundwater levels, and withdrawal volumes. - Activate phased water conservation, recycling, backup water sources, and dispatch measures according to different water alert levels. - Regularly review performance in water consumption, conservation, recycling, and reuse, adjusting water conservation measures based on actual conditions. - Convene cross-departmental meetings during severe water shortages to activate stricter water management protocols and backup support mechanisms. - Evaluate non-production water reduction, suspend non-essential water usage, and execute emergency water supply plans when necessary.

Corresponding Ecosystem Service	Filtered Priority Issue	Metric	Unit	Early Warning Mechanism	Scenario Analysis & Financial Impacts	Targets
Precipitation Variability Regulation Services	Occurrence of Droughts / Changes in Rainy Season	- Rainfall Forecasts - Water Situation Reports	- Reservoir Storage Percentage (%) 24-Hour Accumulated Rainfall (mm/day)	Typhoon Warnings	Average annual revenue loss from operational disruptions caused by typhoons	- Continuously monitor precipitation, weather forecasts, and heavy rain/floods/debris flow warnings. - Incorporate drainage, hydrological analysis, and flood risk assessments into site selection and engineering design phases to mitigate inundation risks. - Regularly inspect plant drainage, rainwater piping, wastewater treatment, and pumping facilities to ensure normal system operations. - Activate cross-departmental response teams, water situation meetings, and water conservation/disaster prevention measures based on risk levels to enhance plant flood resilience and operational strength. - Continuously execute maintenance of civil structures and drainage infrastructure, planning improvement projects when necessary to ensure unobstructed drainage.
Disease Control Services	Outbreak of Large-Scale Epidemics / Pandemics	Information Released by the Central Epidemic Command Center (CECC)	Number of Infected Persons	Participate in information updates based on notifications from local plant management or headquarters following announcements by the Central Epidemic Command Center, executing tiered management upon executive approval: - Epidemic information monitoring - Tiered epidemic response measures - Activation of questionnaire surveys - Prevention/control management and tracking	Revenue loss from operational disruptions caused by epidemics/pandemics	- Continuously monitor infectious disease and epidemic information from central and local authorities, as well as internal reports from plant sites and offices. - Activate epidemic prevention contingency teams and tiered management measures based on the epidemic situation, including employee health monitoring, business travel controls, and split-shift work arrangements. - Execute inventories of epidemic prevention supplies, site disinfection, source infection control, and plant access management to reduce cluster infection risks. - Establish and execute business continuity measures based on BCM/BCP mechanisms to ensure key operations remain uninterrupted.
Geological Flows: Fossil Fuels	Supply Shortage of Fossil Fuels	Total Fossil Fuel Consumption	Gigajoules (GJ)	Fossil Fuel Consumption Volume	Cost Increase: Average Price Increase of Fossil Fuels × Expected Usage Volume	- Continuously monitor fossil fuel usage, energy consumption, fuel prices, and supply conditions. - Manage Scope 1 combustion-related carbon emissions and greenhouse gas emissions, regularly reviewing and enhancing related performance improvements. - Promote energy-saving measures and fuel usage management to continuously decrease reliance on fossil fuels.
Abiotic Materials: Metallic Minerals	Supply Shortage of Abiotic Materials (Metals)	Metal Raw Material Consumption	Metric Tons (MT)	Metal Raw Material Consumption Volume and Supply Sources	Cost Increase: Average Price Increase of Individual Metal Raw Materials × Expected Usage Volume	- Strengthen supply chain resilience to ensure production lines remain uninterrupted. - Continuously update supplier profiles to maintain visibility into internal supply conditions across the supply chain. - Promote recycling, reuse, and alternative material R&D to reduce dependency on single metal mineral sources. - Maintain appropriate safety stocks for critical materials and manage them in coordination with supplier Business Continuity Plans (BCP).

2.4.2 Management Metrics and Targets for Nature-related Impact Risks in Direct Operations

The natural impacts of organizational operations are mainly reflected in the actual environmental effects of resource use, energy consumption, pollution emissions, and waste activities. For Winbond, these issues are largely interconnected with existing environmental management systems. Therefore, the focus of the Prepare stage is to further consolidate the nature-related impact issues identified under the TNFD framework into concrete, measurable management metrics and response actions. This enhances the integrity of tracking, disclosure, and management integration, serving as an important basis for evaluating subsequent impact management and performance.

Impact Name	Metrics	Unit	Scenario Analysis & Financial Impact	2025 Response Actions	2030 Response Actions
Water Resource Use	Water Consumption	Cubic meters (m³)	Cost Increase: Water Rate Change × Expected Water Consumption	Focusing on enhancing total water efficiency and implementing daily water management across the Group, Winbond continues to promote water monitoring, conservation measures, and recycling practices at all production sites. All operational sites under Winbond have achieved ISO 46001 Water Efficiency Management System certification and systematically manage water performance targets, baselines, action plans, monitoring, and audit mechanisms under the Water Efficiency Management Policy. Focus is placed on daily water conservation at Taiwan sites with annual conservation targets set; Nuvoton Japan continuously monitors water use at each site and implements conservation activities to reduce water use intensity.	Maintain and deepen Group-wide water efficiency management results, continuously improve recycling and reuse efficiency, implement water conservation measures, and drive mid- to long-term improvements based on site-specific characteristics. Winbond aims for a site-wide water recycling rate of over 80%; Nuvoton continues to drive water conservation and sets a target to progressively reduce water usage relative to the baseline year; Nuvoton Japan continues monitoring site water usage and deepens conservation actions. Overall, the Group will focus on improving water efficiency, maintaining recycling rates, and normalizing water-saving measures as the core direction for water resource management in 2030.
Mineral Resource Use	Mineral Consumption	Metric tons (t)	Cost Increase: Mineral Price Change × Expected Usage Volume	Cooperate with upstream/downstream suppliers and waste recyclers to promote the "Metal Scrap Recycling and Circular Regeneration Plan"; integrate the "Proportion of Recycled Metal Raw Materials Used and Recycled" into the company's sustainable raw material target driving metrics.	Continue cooperating with upstream/downstream suppliers and waste recyclers to drive the "Metal Scrap Recycling and Circular Regeneration Plan"; evaluate principles such as quality, technology, commercial viability, eco-friendliness, and humaneness to disclose the "Proportion of Recycled Metal Raw Materials Used and Recycled" targets annually.
Indirect Energy Use	Electricity Consumption	Megajoules (MJ) / Thousand kWh (MWh)	Electricity Rate Change × Expected Electricity Consumption	Winbond (Taiwan) used 63,143 MWh of renewable energy, up 43% year-on-year, and obtained 63,143 T-RECs, bringing its renewable energy proportion to 8.7%.	Planned from January 1, 2026: Pre-transfer of 24 MW of solar power capacity with an estimated total electricity supply of approximately 900 million kWh over 30 years under a cooperative project to Winbond. This allows the company to secure a stable supply of renewable energy prior to the official grid connection of offshore wind, reinforcing the overall low-carbon transition of its power structure.
Climate Change	1. GHG Emissions 2. Specific GHG Emissions	Metric tons CO ₂ e	Carbon Unit Price × Expected Emissions	Lower operational impacts on climate change through process improvements, energy efficiency enhancements, renewable energy adoption, and emission monitoring mechanisms. Winbond's 2026 targets include: reducing Scope 1 and Scope 2 emissions by 7.5%, reducing fluorinated greenhouse gas (FCs) emissions, upgrading equipment efficiency, refining the carbon footprint information platform, and using green product design and low-carbon manufacturing processes; PFCs emission intensity of 0.462 kg CO ₂ e/layer will be used as the management metric for specific greenhouse gases. Nuvoton continues to drive absolute emission reductions across Taiwan sites toward a reduction of at least 48.8% (Scope 1 & 2) and 25% (Scope 3) relative to the baseline year; Nuvoton Japan maintains emission monitoring and reduction measures, aiming for a 34% reduction compared to 2022.	Winbond Group targets a 42% reduction in Scope 1 and Scope 2 emissions and a 25% reduction in Scope 3 emissions relative to the 2023 baseline year. Key measures include: extending process improvements, renewable energy usage, energy-saving measures, carbon footprint information management, and low-carbon product design. Nuvoton will continue absolute emission reduction management; Nuvoton Japan increases its target based on existing monitoring and reduction baselines to a 35% reduction compared to 2022. Overall, the Group will continuously reduce operational climate impacts through energy transition, process optimization, and institutionalized emissions management.

Impact Name	Metrics	Unit	Scenario Analysis & Financial Impact	2025 Response Actions	2030 Response Actions
Air Pollution	Statutory Air Pollutant Discharges	Metric tons per year	Air Pollution Fee	100% compliance with regulatory requirements	100% compliance with regulatory requirements
Wastewater Discharge	Statutory Water Pollutant Discharges	Metric tons per year	Water Pollution Fee	100% compliance with regulatory requirements	100% compliance with regulatory requirements
Waste	1. Industrial Waste Generation 2. Waste Recycling Rate	Metric tons of waste / Waste recycling rate %	Cost Increase: Unit Waste Removal & Disposal Fee × Expected Waste Volume	Winbond will continue to strengthen waste reduction and recycling management. For 2026, the company sets targets of achieving a site-wide waste recycling rate of over 90% and a waste intensity of 0.599 kg/layer, aiming to reduce operational environmental load through source reduction, enhanced recycling/reuse, and resource circulation management. Nuvoton focuses on a 78% waste recycling rate for its Taiwan sites; Nuvoton Japan maintains a recycling rate above 99.5%.	The Group will continue its direction of resource circulation and waste reduction management, continuously improving recycling efficiency and disposal performance. Winbond maintains a site-wide waste recycling rate target of over 90%; Nuvoton plans to increase the waste recycling rate of its Taiwan sites to 85%; Nuvoton Japan maintains a recycling rate above 99.5%.

2.4.3 Management Metrics and Targets for Nature-related Dependency Risks in the Supply Chain

Nature-related dependency issues in the supply chain mainly reflect the extent of demand for specific ecosystem services during raw material acquisition, manufacturing/processing, transport logistics, and related supply activities across Winbond's value chain. Considering that supply chain nature dependencies are highly correlated with changing external environmental conditions, the company emphasizes early warning information and supply chain resilience management actions in its management design—such as weather information, hydrological changes, and key suppliers' adaptive capacity. The management metrics and units listed below aim to assist Winbond in identifying issues with high nature dependencies in the supply chain, serving as a basis for subsequent risk monitoring and management target setting.

Corresponding Ecosystem Services	Metrics	Unit	Early Warning Mechanism	Management Targets
Local Climate Regulation – Extreme Rainfall	Rainfall Forecast	24-hour Accumulated Rainfall (mm/day)	Heavy Rain Warnings / Special Advisories	100% Supplier awareness communication 1. Establish a systematic natural risk assessment mechanism to identify sudden disasters such as earthquakes, heavy rain, typhoons, and droughts. 2. Conduct environmental sensitivity analysis for supplier operational sites, rigorously evaluating protective services including extreme rainfall and protective services (e.g., flood prevention capacity), storm mitigation, landslide mitigation, and water supply stability. 3. Build specific risk defense and adaptation measures for high-risk items identified, including comprehensive inspection of flood prevention and drainage facility integrity, as well as water storage and dispatch plans, to mitigate operational impacts from extreme weather events. 4. Formulate Business Continuity Plan (BCP) to ensure no disruption to key operations.
Peak Flow Mitigation – Flood Control Services	Rainfall Forecast	24-hour Accumulated Rainfall (mm/day)	Heavy Rain Warnings / Special Advisories	
Storm Mitigation	• Typhoon Warnings & Wind Speed Forecasts	Tropical Cyclone Intensity	Central Weather Administration (CWA) Typhoon Warnings	
Landslide Mitigation	• Rainfall Forecast • Landslide Trends	24-hour Accumulated Rainfall (mm/day)	Heavy Rain Warnings / Special Advisories	
Water Provision	• Meteorological Data – Rainfall Forecast • Water Resources Agency (WRA) Hydrological Conditions	Consecutive Drought Days	1. Water Condition Alert Lights (Water Alert Levels) 2. Reservoir Water Level Changes	

2.4.4 Management Metrics and Targets for Nature-related Impact Risks in the Supply Chain

Compared to nature dependencies, nature impacts in the supply chain place greater emphasis on the potential environmental effects of supply chain activities themselves, including resource use, pollution discharges, and disturbances to ecosystems. By establishing management metrics for nature impacts in the supply chain, Winbond gradually incorporates suppliers' nature-related issues into the scope of sustainable supply chain management. This serves as an important basis for subsequent supplier communication, risk classification, and management requirements. The metrics and units below help the company establish a more aligned direction for monitoring and managing high-correlation supply chain impact issues.

Impact Name	Metrics	Metric Unit	Management Targets
Water Resource Use	- Water Consumption - Water Withdrawal - Water Recycling Volume	Cubic meters (m ³) / Million liters (ML)	100% Supplier awareness communication - Implement water management plans to record, categorize, and monitor water resources, consumption, and discharges; seek opportunities to save water; and control pollution channels. - Provide annual water usage and water conservation performance data.
Climate Change	- GHG Emissions - Specific GHG Emissions	Metric tons CO ₂ e	100% Supplier awareness communication - Encourage setting Science-Based Targets (SBTs) and regularly review emission trajectories to align with temperature control requirements, publicly report target progress, and continuously increase renewable energy adoption and energy efficiency, leveraging Best Available Techniques (BAT) to reduce fossil fuel use and GHG emissions. - Provide annual carbon data and reduction performance data.
Invasive Species	Number of Invasive Species	Species / Population count	100% Supplier awareness communication and comply with regulatory requirements
Soil Pollution	Soil Pollutant Discharges	Metric tons of pollutants	100% Supplier awareness communication and comply with regulatory requirements
Air Pollution	Air Pollutant Discharges	Metric tons of pollutants	100% Supplier awareness communication and comply with regulatory requirements
Disturbances	Proximity to Biodiversity-Sensitive Areas	Distance	100% Supplier awareness communication and comply with regulatory requirements
Terrestrial Ecosystem Use	Land Footprint / Occupation Area	Area	100% Supplier awareness communication for new plant sites to avoid developing and destroying natural primary habitats (high biodiversity value areas). During production and manufacturing processes, attention must also be paid to impacts on surrounding ecological conditions, with necessary remediation and maintenance measures taken as needed.



03

Ecological Practices

Biodiversity and Natural Carbon Sink Strategies

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Environmental Education

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Biodiversity and Natural Carbon Sink Strategies

I. Vision and Governance Commitment: Advancing Net Positive Impact (NPI)

Winbond embedded sustainability as a core foundation and positioned biodiversity as a strategic priority. The Chairman signed the "Winbond Electronics Biodiversity Commitment," formally announcing the ambitious targets of achieving Net Positive Impact (NPI) and No Net Deforestation. This commitment extended beyond Winbond's own operations to the supply chain and the broader value chain. Guided by the Mitigation Hierarchy, Winbond advanced green manufacturing, natural carbon sink research, and sustainable supply chain collaboration, while strengthening environmental education and outreach to mitigate biodiversity loss and safeguard ecosystem integrity.

II. Terrestrial Ecosystem Conservation: Ex Situ and In Situ Restoration Practices

A "learning from nature" approach transformed fab sites and office buildings into biodiversity refuges and ecological stepping stones, advancing nature-positive practices.

1. Ex Situ Conservation and Germplasm Preservation

Theaceae conservation and breeding program

Baoshan Township, Hsinchu County, has long sustained a small-scale, diversified agricultural landscape that coexisted with surrounding forests. In collaboration with WinMosa (a Winbond-affiliated entity; hereinafter "WinMosa") and National Chung Hsing University, Winbond established a native Taiwanese Theaceae germplasm repository in the Baoshan Park area.

Theaceae plants are foundational species in broad-leaved forests. In addition to habitat loss caused by development, some Theaceae species face pressures driven by their economic value. Winbond's conservation work in Baoshan did not impose new agriculture on local communities; instead, it continued the Hakka hillside tradition of "right land, right crops," repurposing farmland gradually exiting production into a site that integrates conservation, research, and education to support long-term germplasm preservation and subsequent breeding efforts.

- Results:
Of the 42 Theaceae plant species in Taiwan, 38 species were successfully collected and cultivated in 2025 (including 1 critically endangered, 1 endangered, 7 vulnerable, and 5 near threatened). A reinforced steel-frame greenhouse, supported by a remotely controlled environmental management system, was established to enable practical management and research for conservation and breeding, ensuring sustained progress.

Winbond native wildflower garden (Zhubei / CTSP):

- Zhubei Building: A "Native Wildflower Garden" was created using 20 native plant species, including 7 threatened species listed in the Red Book.
- CTSP Fab: In 2024, 25 native species and 149 plants suitable for the central Taiwan low-mountain forest zone were planted (including 3 critically endangered plants and 27 vulnerable plants). In 2025, an additional 17 native species and 484 native seedlings were planted (including 22 critically endangered, 55 endangered, and 16 vulnerable plants).

2. In Situ Conservation and Species Monitoring

- Protecting endangered *Spiranthes* populations:
At the CTSP Fab and the Tainan Building, "environmentally friendly maintenance management" was adopted by postponing mowing during the flowering and fruiting period (around Tomb Sweeping Day) and strictly prohibiting chemicals, ensuring seed reproduction and successfully preserving natural populations.
- Protecting endangered plants:
At the Zhubei Building, "ecology-friendly" management was implemented by suspending mowing during the growth period and fully prohibiting herbicides and chemical agents to protect habitats and native populations.
- Restoration of the Great Purple Emperor Butterfly (*Sasakia charonda formosana*):
For this vulnerable species listed in the Red Book, Nuvoton (Taiwan) collaborated with the Forestry and Nature Conservation Agency and the Bailan Tribe in Wufeng Township, applying aerial remote sensing to monitor the distribution of its host plant, the hackberry tree. Maintenance patrols and long-term monitoring established a sustainable urban-rural blueprint.

- Grass Owl habitat protection:
Winbond actively followed habitat-related issues and partnered with the Kaohsiung Wild Bird Society to host the seminar "Understanding Endangered Species: Grass Owl Restoration and Habitat Creation," with 976 participants, promoting nature conservation concepts and supporting wildlife-friendly habitats.



Biodiversity and Natural Carbon Sink Strategies

III. Natural Carbon Sinks and Sustainable Forest Management

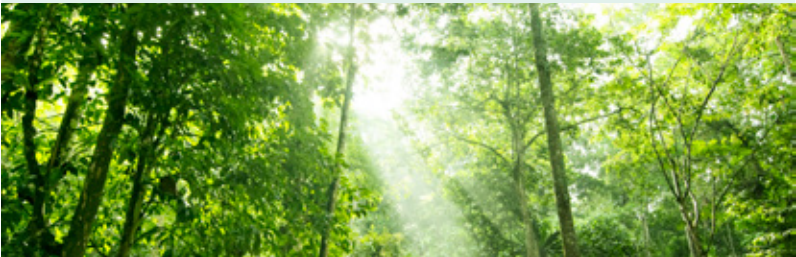
To advance its net zero vision, Winbond focused on Nature-based Solutions (NBS) and positioned “green carbon” as a key pathway for removing atmospheric carbon dioxide.

1. Science-based management framework

Following recommendations from academia and experts, Winbond established a sustainable forest management system to ensure afforestation aligns with six standards: right land, right species, right seedlings, right timing, right methods, and right maintenance. Significant resources were invested across the full process—from seedling cultivation and selection, to land preparation, new planting, and nurturing management—to secure long-term stability of forest carbon sinks and ecosystem resilience.

2. Afforestation performance and ecological value

Based on expert recommendations, Winbond systematically planned new afforestation operations following the six-step approach—right land, right species, right seedlings, right timing, right methods, and right maintenance. Extensive time and effort were invested across afforestation design, seedling cultivation and selection, land preparation, new planting, nurturing, and sustainable harvesting to deliver a comprehensive sustainable forest management plan. Through tripartite collaboration among industry, government, and academia, afforestation projects were advanced at Winbond’s Kaohsiung Fab, on state-owned forest land in Tainan City and Chiayi County, and in Sanxing, Yilan—removing carbon while maximizing biodiversity benefits.



IV. Sustainable impact: environmental education and employee empowerment

Winbond believed that biodiversity protection required shared understanding and strong local connections. Through diverse capacity-building programs and social participation, conservation concepts were translated into tangible actions.

1. Company-wide stewardship: strengthening shared values

High-participation training programs embedded biodiversity into corporate culture and expanded the scope of influence.

- Group ecological seminars:
Biodiversity seminars were held in 2025, with 1,026 participants.
- In-depth capacity-building workshops:
Two workshops were held at the end of 2025, developing 26 core seed members.

2. Rooted in place: community and cultural heritage

Winbond strengthened connections with local Hsinchu culture through hands-on participation, advancing sustainable urban–rural development concepts.

- Donghai Village food-and-farming experience:
Approximately 70 employees and family members participated in manual rice planting, reinforcing community ties through traditional farming practices.
- Citizen science:
In partnership with the Bailan Tribe in Wufeng, community participation was promoted in hackberry patrols and phenological surveys, integrating traditional territorial knowledge with modern scientific investigation to build a shared learning and co-prosperity conservation model.

3. Social communication: Professional education and open participation

- Ecological interpretation system:
Interpretive signage was installed at key conservation sites (Zhubei Wildflower Garden and Nuvoton restoration areas).
- Vision amplification:
Local cultural inheritance remained a focus to ensure biodiversity initiatives co-developed with communities and delivered long-term ecosystem service value.

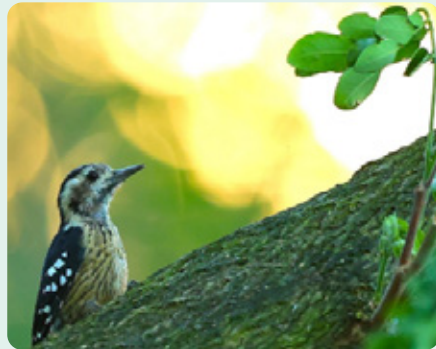


Biodiversity Project

Afforestation program

- Forest drumming: woodpeckers responded to winbond's green commitment Kaohsiung Fab

In the lush greenery of Kaohsiung Fab, woodpeckers quietly appeared. They moved among branches, nested, and roosted—seemingly signaling that this had become a recognized home. This response from nature reflected Winbond's long-term investment in the Afforestation Plan. Winbond partnered with National Chung Hsing University to implement a 30-year afforestation program at Kaohsiung Fab, planting five native tree species—



Bischofia javanica, Palaquium formosanum, Acacia confusa, Melia azedarach, and Fraxinus griffithii—to deliver carbon sequestration, landscape greening, and air purification functions, supporting ecological stability.

- Public-private partnership for afforestation

Winbond collaborated with the Chiayi Branch of FANCA to plant four native tree species—Zelkova serrata, Liquidambar formosana, Acacia confusa, and Melia azedarach—on 29,400 square meters of state-owned forest land in Tainan City and Chiayi County. The program aimed to restore hillside vegetation cover and, through ongoing tending operations, maintain local vegetation patterns, enhance local biodiversity and habitats, sustain ecological stability, and deliver ecosystem service functions including soil and water conservation, disaster risk reduction, soil fertility maintenance, and flow regulation (EcosystemServices).

- Smart forestry integrated with carbon sink management

In 2024, WinMosa partnered with National Ilan University to improve forest land that had been abandoned as a gravel site and overgrown with weeds and leucaena, restoring the original floodplain ecology of the Lanyang River. The program planned to integrate drone technologies to operate sustainable smart forestry and develop green technologies, with the goal of enhancing land use and carbon sink capacity while aligning ecological benefits and added value, and ensuring healthy forest ecosystems under land development activities.

Industry-academia collaboration in Baoshan township

Theaceae Conservation Corporation Site Industry-Academia Collaboration Located in the forests of Baoshan Township, Hsinchu, the Theaceae Conservation Corporation forest park was preserved by the Company over the long term, forming a continuously functioning natural system. Through low-intervention management, Winbond safeguarded native broadleaf forests and bamboo groves, maintaining intact forest structure and diversified habitat functions, and consistently supporting biodiversity, soil and water conservation, and microclimate regulation. In collaboration with academic institutions, the Company applied scientific methods to quantify the forest's ecological value and natural carbon sink benefits, translating intangible ecosystem services into a governable natural capital baseline. The Theaceae Conservation Corporation site not only served as a critical Nature-based Solutions (NbS) response to climate risk, but also as a foundational platform for biodiversity management, natural carbon sink strategy, and sustainability disclosures, demonstrating a long-term commitment to nature-positive coexistence built on time and patience.

Creating ecological landscapes with native plants

Winbond selected 20 native Taiwanese plant species to create a native wildflower garden in Zhubei Building, including 1 species assessed as critically endangered in the Red Book, 3 species as endangered, and 3 species as vulnerable. Based on the concept of Wild Gardening, the garden used 20 native Taiwanese species to create an ecological landscape within approximately 1.6 ping of green space, forming a small patch of native plant ecology in an urban setting.

At the CTSP Fab, greening was planned with species suitable for the central Taiwan low-mountain forest zone, with 149 plants already planted. This included 3 critically endangered species (3 plants), 3 vulnerable species (27 plants), 5 near-threatened species (53 plants), and 14 other endemic species (66 plants). Through biodiversity restoration, ex situ conservation of disappearing rare plants was integrated into the fab's green landscape, preserving native Taiwanese plant germplasm on site and creating ecological stepping stones within the Central Taiwan Science Park through small green patches. In 2025, an additional 17 native species and 484 native seedlings were planted (including 22 critically endangered, 55 endangered, and 16 vulnerable plants).

Spiranthes sinensis



Spiranthes sinensis, a low-elevation native orchid listed under CITES Appendix II, faces declining wild populations in Taiwan. Thriving naturally in the herbicide-free green belts of Winbond's CTSP Fab and Tainan Office, these orchids are actively protected by adjusting mowing schedules to accommodate their flowering and seed reproduction cycles. Through the in-situ conservation of native wild flora, Winbond reinforces local biodiversity and environmental health.

Sasakia charonda formosana

The Great Purple Emperor (*Sasakia charonda formosana*), a Taiwan-endemic subspecies, is a Category I Endangered Species under the Wildlife Conservation Act and listed as Nationally Endangered (NEN). Its restricted wild populations are sparsely distributed in the mountains of Jianshi Township (Hsinchu) and Fuxing District (Taoyuan). During its life cycle, eggs are laid on hackberry branches or leaves, and larvae overwinter in leaf litter beneath the trees. Habitat shrinkage and the decline in mature hackberry trees directly reduced butterfly populations. Nuvoton (Taiwan), in collaboration with the Forestry and Nature Conservation Agency and the Bailan Tribe in Wufeng Township, used aerial remote sensing to record hackberry distribution and phenology. A community patrol team maintained the trees and built a long-term monitoring database for ecological interpretation, supporting appropriate development of eco-tourism routes. By integrating technology with conservation, Nuvoton (Taiwan) partnered with local communities to protect their homeland and promoted environmental education to advance a sustainable urban–rural blueprint.



Taiwan native plant conservation and breeding program

In 2021, Winbond integrated group resources to launch a conservation and breeding program in the Baoshan Park area, selecting Theaceae plants for native Taiwanese plant germplasm collection and cultivation. Theaceae species form a major component of evergreen broad-leaved forests. Beyond habitat destruction caused by development, some Theaceae plants faced risks driven by their economic value—for example, *Camellia japonica* was often stolen in earlier years for grafting rootstock or ornamental use; *Camellia formosensis* was frequently stolen and dwarfed due to the high value of its tea leaves; and high economic value of tea leaves and tea oil led farmers to introduce foreign tea species for hybridization, creating confusion in the wild gene pool of native *Camellia* species. These pressures harmed native Theaceae populations. Theaceae plants also grow slowly, making recovery difficult after damage. In response, Winbond upheld the principle of “protecting native Taiwanese plants and preserving Theaceae genetic resources.” Through collaboration with WinMosa and National Chung Hsing University, the program advanced three goals: conservation and breeding, ecological education, and sustainable forestry—preserving a forest park with conservation, educational, and cultural value amid rapid societal development and expansion.



An Endemic Fern Species

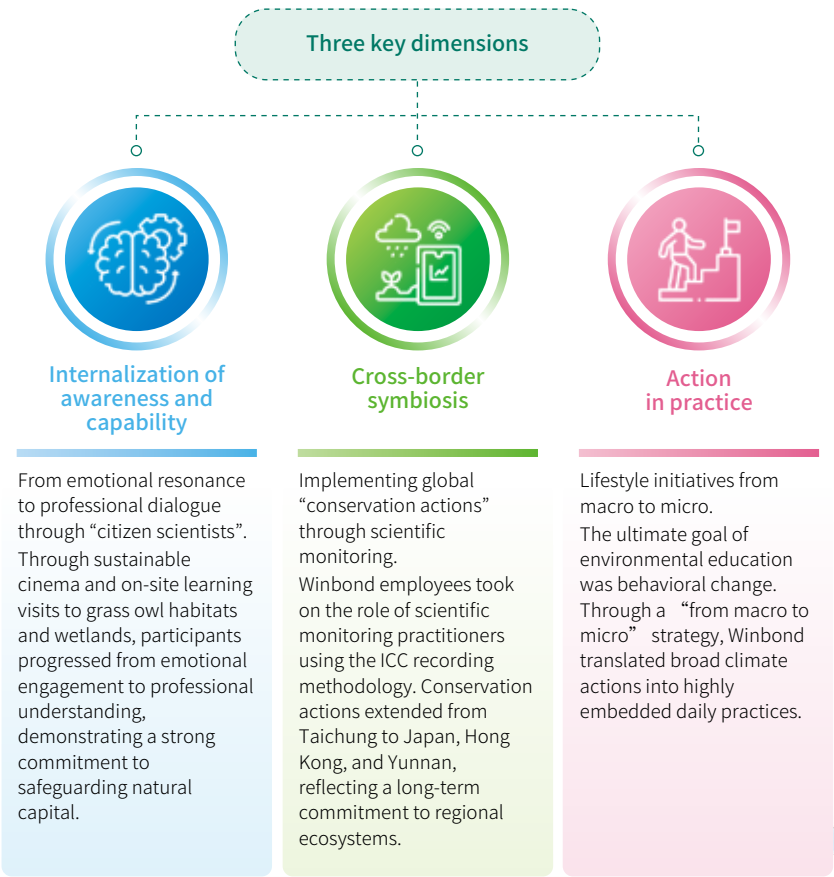
This endemic fern species is a rare native plant in Taiwan’s lowland areas. In recent years, urban development, frequent lawn maintenance, and herbicide use reduced suitable habitats. A naturally established population was identified in the Zhubei Building’s green space, supported by stable microhabitat conditions and the absence of herbicide application. During its growth period, green space maintenance was adjusted by postponing mowing and fully prohibiting chemical agents to reduce disturbance and provide the necessary conditions for completing its life cycle and natural reproduction. Wild plants are a foundational element of biodiversity and an important medium for environmental education. Through native plant conservation and ecology-friendly maintenance practices, Winbond strengthened employees’ and visitors’ understanding and respect for nature, positioning green spaces as learning-oriented environments that also support biodiversity conservation and urban ecological sustainability.



Environmental Education

Winbond moved beyond the traditional one-way model of “indoor lectures” and transformed “environmental responsibility” into a core part of employees’ “life DNA.” By referencing the framework advocated by the United Nations Educational, Scientific and Cultural Organization (UNESCO), environmental education was structured into three key dimensions: awareness, capability, and action.

This represented a shift in the education model “from individuals to the collective.” Winbond demonstrated through action that when enterprises inspire emotional engagement and equip participants with professional skills, every participant could become a key driver of change for the ecological future.



Internalization of awareness and capability: from emotional resonance to professional dialogue through “citizen scientists”

- Emotional initiation: when sustainability entered the big screen
The Group positioned “Sustainable Cinema” as a soft bridge to break echo chambers and initiate cross-departmental dialogue. Unlike traditional one-way communication, immersive experiences such as The Sleeping Underwater Giant used visual impact to trigger ecological awareness, transforming employees from “passive recipients” into “active empathizers” and strengthening collective consciousness toward protecting natural capital.
- Professional awareness: entering natural capital restoration sites
Winbond (Taiwan), together with professional organizations, led employees on visits to the “Green 21” grass owl habitat and Yong’ an Wetland to deepen professional understanding of natural capital conservation. Through on-site learning, participants gained in-depth insights into grass owl habitat creation, artificial habitat design, and how scientific water-level management created a “waterbird grand hotel.” Employees personally observed endangered species such as the black-faced spoonbill and recognized the critical role of wetlands in biodiversity conservation and climate adaptation, underscoring the Company’s commitment to partnering with professional organizations to protect biodiversity.



Environmental Education

Cross-border symbiosis: implementing global “conservation actions” through scientific monitoring

Winbond transformed environmental awareness into systematic ecological restoration practices, allocating resources precisely according to activity characteristics to safeguard natural capital across global operating sites:

- Scientific monitoring and marine conservation

Winbond (Taiwan) introduced the ICC International Coastal Cleanup recording methodology in the Fazi River cleanup, where 85 employees tracked waste sources through data collection and removed 158 kg of waste. In parallel, Winbond (Taiwan) collaborated with the Society of Wilderness, with 105 volunteers removing 487 kg of beach waste at Nanliao Fishing Harbor, demonstrating a gentle yet firm commitment to ocean protection. Winbond (Hong Kong) also mobilized participation in the Sai Kung Sha Ha beach cleanup, successfully removing approximately 20 kg of waste and deepening professional understanding of marine pollution issues.

- Habitat restoration and species conservation

Winbond (Taiwan) engaged 65 employees at the Yuanzhonggang Wetland to remove invasive species and 147 kg of waste, restoring water purification functions and protecting biodiversity. Winbond (China) mobilized 34 partners at Yulong Snow Mountain in Yunnan, achieving a 70% waste recycling and reuse rate and conveying the beauty of sustainability through the distribution of “plannable seed medals.”

- Routine maintenance and community symbiosis

Since 2024, Winbond and Nuvoton (Japan) have regularly engaged in volunteer cleanups in Nagaokakyo City communities and along the Obata River, improving public hygiene through routine environmental maintenance. In 2025, Winbond (Taiwan) invested NT\$ 562,000 to adopt the Taichung Houfeng Bikeway, assuming responsibility for regular cleaning and tree pruning to enhance public recreational quality.

- Policy alignment and sustainability practices

Nuvoton (Taiwan) actively responded to the Ministry of Environment’s “Salute to the Ocean” initiative, translating marine protection into concrete action. In September 2025, 50 participants took part in a cleanup initiative at Nanliao Fishing Harbor, guided by five key pillars including cleanup, reduction, treatment, transparency, and education. The initiative successfully removed approximately 190 kg of waste, supporting marine conservation and environmental sustainability through concrete action.



Environmental Education

Action in practice: lifestyle initiatives from macro to micro



- Co-creating a low-carbon dietary culture – World Food Day – Clean plate ambassadors

Winbond promoted sustainable food systems. Nuvoton (Taiwan) collaborated with the Fenghezi Association to protect local farmland, adopting eco-friendly rice and organic vegetables in group catering while offering employee purchase programs. Procurement supported small farmers and enabled employees to practice low-carbon concepts through daily diets. In response to World Food Day, the “Clean Plate Ambassadors” campaign successfully reduced food waste by 158.85 kg and promoted plastic reduction and the ban on disposable tableware. From eco-friendly farming to clean plate actions, the Company established a model for promoting low-carbon diets and ecological balance.

- Low-carbon daily life: building green commuting and sustainable office culture

Through “World Car-Free Day and Green Transportation Month,” Winbond encouraged employees to use public transportation and reduce commuting and travel-related carbon emissions. The Group also continuously promoted a “New Green Office Lifestyle” by reusing stationery, introducing environmentally friendly materials, and fully deploying umbrella quick-dry machines (discontinuing single-use plastic umbrella covers), embedding carbon reduction and the circular economy into daily work. From green mobility to zero-waste offices, sustainability was integrated into employees’ daily habits through concrete actions.

Ecosystem Management and Practices in the Supply Chain

In response to the supply chain nature dependency and impact assessment results, Winbond has incorporated nature-related issues into its existing supplier sustainability management framework and established a integrated management mechanism that integrates risk assessment, tiered management, and performance tracking.

From the nature dependency perspective, for material nature-related dependency issues such as extreme rainfall, flood protection capacity, storm mitigation, and water supply reliability, Winbond prioritizes risk assessments for suppliers with high procurement spending, significant Scope 3 emissions, or operations located in areas exposed to high nature-related risks, and establishes a tiered management mechanism based on the level of risk exposure.

For high-risk suppliers, Winbond strengthens their disaster prevention capabilities and business continuity management mechanisms through ongoing engagement, the provision of sustainability-related training and guidance resources, and, where warranted by materiality and risk level, the implementation of on-site sustainability audits and follow-up corrective action tracking. These efforts enhance the supply chain's resilience to nature-related risks and help ensure stable supply continuity.

From the nature-related impacts perspective, Winbond Group will continue to promote supplier surveys and data collection on energy and resource consumption. Through its ESG digital management mechanism, Winbond will establish a database and encourage suppliers to disclose their annual energy and resource usage. Suppliers will also be encouraged to progressively set targets for water conservation, carbon reduction, and waste reduction, thereby helping to reduce the supply chain's negative impacts on the natural environment.

In addition, Winbond continues to promote sustainable raw material management by establishing short-, medium-, and long-term targets for the use of sustainable raw materials and recycled materials, as well as targets for the proportion of recycled content used in metallic raw materials. We also collaborate with suppliers to implement circular reuse and alternative material adoption mechanisms, thereby reducing dependence on natural resources and minimizing impacts on the ecosystem, while enhancing resource circularity and utilization efficiency across the supply chain.

Through the above ongoing supply chain management strategies, Winbond mitigates the operational impacts arising from nature-related risks, while strengthening the long-term resilience and sustainable competitiveness of its supply chain.

For more information on our supplier sustainability management measures and initiatives, please refer to the

[Winbond 2025 Sustainability Report.](#)

04

Core Management Metrics and Disclosures

Core Management Metrics

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Core Management Metrics

The TNFD Core Global Disclosure Metrics are categorically structured into two primary divisions: "Dependency and Impact Metrics" and "Risk and Opportunity Metrics." The former is deployed to reflect the enterprise’s reliance on natural resources and ecosystem services, alongside the footprints exerted by operational activities on the natural environment. The latter is utilized to disclose the actual or potential financial implications and effects of nature-related issues on the enterprise’s operations, strategy, and financial planning.

In strict alignment with the TNFD Core Global Disclosure Metrics framework, the Winbond Group has comprehensively synthesized the dependency and impact metrics, as well as the nature-related risk and opportunity metrics, that exhibit high correlation with Winbond’s direct operations and value chain. This compilation establishes a rigorous foundation for our current phase of disclosures and subsequent framework institutionalization.

Metric Category	TNFD Metric Direction	Metric Description	Winbond's Corresponding Disclosure Item	Notes / Future Planning
Dependencies & Impacts	• Greenhouse gas (GHG) emissions	• Reflects the impact of operational activities on climate change; a key indicator for nature-related impacts.	• Scope 1, 2, and 3 GHG emissions and emission intensity.	Continuously strengthen the inventory and disclosure quality of GHG emission data, gradually improve the coverage and accuracy of Scope 3 emission data, and enhance data management and verification mechanisms to support climate-related risk assessments and mitigation strategy execution.
	• Water resource withdrawal and consumption	• Reflects operational dependence on water resources and footprints exerted on freshwater systems.	• Water withdrawal, water consumption, recycled water volume, and recycling rate.	Continuously reinforce water-related data collection and management mechanisms, progressively integrate location-specific insights from water-stressed areas, and improve data completeness and depth of analysis to support water risk assessments and operational resilience management.
	• Land / freshwater / ocean use change	• Reflects the impact of operational or value chain activities on natural habitats and land/ water body utilization.	• Plant site land use, surrounding sensitive locations, and supply chain raw material source risks.	Spatial analysis and sensitive location disclosures can be further enhanced in the subsequent phases.
	• Pollutant emissions	• Reflects the pollution pressure of operational activities on environmental media such as air, water bodies, and soil.	• Air pollutant emissions, wastewater discharge, and soil pollution prevention.	Continuously drive the reduction of pollutant emissions.
	• Solid waste	• Reflects the solid waste pressure generated by operations on nature and circular resource performance.	• General/hazardous waste generation, recycling rate, and resource circularity rate.	Linkages can be established with circular economy management and pollution minimization initiatives.
	• Resource use	• Reflects the reliance on and consumption of minerals, biomass, and other raw materials.	• Raw material usage, sustainable raw material management, and supply chain material usage.	Progressively strengthen data disclosure regarding raw material procurement and sustainable material management, and expand this framework to the supply chain tier to elevate the accuracy of resource dependency risk assessments.

Metric Category	TNFD Metric Direction	Metric Description	Winbond's Corresponding Disclosure Item	Notes / Future Planning
Dependencies & Impacts	Ecosystem services dependencies	Reflects the enterprise's reliance on services such as water provision, climate regulation, flood control, and storm mitigation.	Assessment results of nature dependencies within direct operations and the supply chain.	Linkages can be established with the Evaluate chapter and the methodology outlined in the appendix.
	Ecosystem status / sensitive locations	Reflects the degree of connection between operations and ecologically sensitive areas.	Distance or correlation between plant sites and highly sensitive ecological zones, conservation areas, and Indigenous/local community areas of concern.	Location analysis can be expanded to the value chain tier.
	Species / habitat-related impacts	Reflects potential impacts on biodiversity, habitat integrity, and species.	Biodiversity commitments, conservation actions, and species conservation programs.	Continuously strengthen quantitative metrics.
Risks & Opportunities	Assets / activities exposed in ecologically sensitive areas	Reflects the proportion of assets or operations located within ecologically sensitive areas or high nature-risk zones.	Plant site location sensitivity analysis and high-risk locations across the supply chain.	It is recommended to progressively establish quantitative ratios for areas, assets, or operations.
	Financial exposure to nature-related transition risks	Reflects potential financial implications driven by regulatory, policy, market, or technological transitions.	Renewable energy investments, carbon costs, and low-carbon transition expenditures.	Financial quantification linkages can be established progressively.
	Financial exposure to nature-related physical risks	Reflects potential financial losses driven by water scarcity, flooding, extreme weather, or supply chain disruptions.	Risk assessments for water scarcity, droughts/floods, and supply chain disruptions.	It is recommended to incorporate financial scenario analyses in subsequent phases.
	Value of nature-related opportunities	Reflects revenue or value opportunities driven by green products, green financing, and nature-positive initiatives.	Green power manufactured products, low-power-consumption products, and sustainability-linked loans.	Revenue and cost-benefit profiles can be further synthesized.
	Overall exposure to nature-related risk and opportunity management	Reflects the overall scale and management maturity of nature-related risks and opportunities at the organizational level.	Nature risk matrix, impact matrix, management metrics, and targets.	Continuously optimize the nature-related risk and opportunity management framework, and establish cross-year data comparison and tracking mechanisms to enhance disclosure consistency and management maturity.



Appendix

TNFD Content Index

Pillar	TNFD Recommended Disclosures	Corresponding Section
 Governance	(A) Describe the board’s oversight of nature-related dependencies, impacts, risks and opportunities.	1.2 Board Oversight Mechanism 1.3 Roles of Management
	(B) Describe management’s role in assessing and managing nature-related dependencies, impacts, risks and opportunities.	1.2 Board Oversight Mechanism 1.3 Roles of Management
	(C) Describe the organization’s human rights policies and engagement activities, and oversight by the board and management with respect to Indigenous Peoples, Local Communities and affected stakeholders, in response to nature-related dependencies, impacts, risks and opportunities.	Please refer to the Winbond 2025 Sustainability Report: Material Topics and Stakeholder Engagement
 Strategy	(A) Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified in the short, medium and long term.	2.2 Evaluate 2.3.1 Nature-related Risks and Opportunities in Direct Operations 2.3.2 Nature-related Risks and Opportunities in the Supply Chain
	(B) Describe the effect of nature-related risks and opportunities on the organization’s business model, strategy and financial planning, as well as any transition plans of the organization.	2.3.1 Nature-related Risks and Opportunities in Direct Operations 2.3.2 Nature-related Risks and Opportunities in the Supply Chain
	(C) Describe the resilience of the organization’s strategy to nature-related risks and opportunities, taking into consideration different scenarios.	2.3.1 Nature-related Risks and Opportunities in Direct Operations 2.3.2 Nature-related Risks and Opportunities in the Supply Chain 2.4 Prepare
	(D) Disclose the locations of assets and/or activities in the organization’s direct operations and, where appropriate, in its upstream and/or downstream value chain(s) that are in priority locations.	2.1 Locate 2.1.1 Biodiversity Analysis of Direct Operations and Supply Chain (Protected Area Overlap) 2.1.2 Biodiversity (Threatened Species) Analysis of Operations and Supply Chain

Pillar	TNFD Recommended Disclosures	Corresponding Section
 Risk & Impact Management	(A)(1) Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its direct operations.	2.1 Locate 2.2 Evaluate 2.3 Assess
	(A)(2) Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s).	2.1.2 Biodiversity (Threatened Species) Analysis of Operations and Supply Chain 2.2.2 Value Chain Dependencies and Impacts 2.3.2 Supply Chain Risks and Opportunities
	(B) Describe the organization's processes for managing nature-related dependencies, impacts, risks and opportunities, including mitigation actions.	2.3.1 Nature-related Risks and Opportunities in Direct Operations 2.3.2 Nature-related Risks and Opportunities in the Supply Chain (including mitigation measures, response actions, and opportunity management)
 Metrics & Targets	(C) Describe how processes for identifying, assessing, prioritizing and managing nature-related risks are integrated into and inform the organization's overall risk management process.	2.3 Assess 2.4 Prepare LEAP Process Overview
	(A) Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.	2.4 Prepare
	(B) Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature.	2.4.1 Management Metrics and Targets for Nature-related Dependency Risks in Direct Operations 2.4.2 Management Metrics and Targets for Nature-related Impact Risks in Direct Operations Chapter 4 Core Management Metrics & Disclosures
	(C) Describe the targets used by the organization to manage nature-related dependencies, impacts, risks and opportunities and performance against targets.	2.4 Prepare Chapter 4 Core Management Metrics & Disclosures