



TTL

臺灣菸酒股份有限公司
Taiwan Tobacco & Liquor Corporation

2024 ESG REPORT



Environmental, Social,
& Corporate Governance
Report

2024 ESG REPORT

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About This Report

Taiwan Tobacco & Liquor Corporation (hereinafter referred to as "TTL" or "the Company"), guided by principles of transparency, accountability, and integrity, has published its 2024 Sustainability Report (hereinafter referred to as "the Report"). This Report discloses the Company's goals, strategies, implementation status, and future plans regarding issues of concern to stakeholders. Relevant information is also made available on the ESG Sustainable Development section of its official website, demonstrating the achievements in sustainable initiatives and its ongoing commitment to advancing towards a sustainable future vision.

Principles of Compilation

The content and structure of this report adhere to the Global Reporting Initiative (GRI) Sustainability Reporting Standards, 2021 edition, as published by the Global Sustainability Standards Board (GSSB). It also integrates principles from the United Nations Sustainable Development Goals (SDGs), the Task Force on Climate-related Financial Disclosures (TCFD), and the Sustainability Accounting Standards Board (SASB). For detailed information, please refer to Taiwan Tobacco & Liquor Corporation's alignment with SDGs, as well as the GRI Standards Index, SASB Indicator Comparison Table, and TCFD Standards Index included in the appendices of this report.

Writing Principles

- ✓ Global Sustainability Standards Board (GSSB) GRI Standards 2021 Edition
- ✓ United Nations' Sustainable Development Goals (SDGs)
- ✓ Task Force on Climate-related Financial Disclosures (TCFD)
- ✓ Sustainability Accounting Standards Board (SASB) Alcoholic Beverages and Tobacco Sustainability Metrics
- ✓ Procedures for Preparation and Submission of Sustainability Reports by Listed Companies
- ✓ Corporate Social Responsibility Best Practice Principles for TWSE/TPEX Listed Companies
- ✓ Corporate Governance 3.0
- ✓ Sustainability Roadmap for TWSE/TPEX Listed Companies
- ✓ AA1000 AccountAbility Principles
- ✓ TWSAE 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information"

External Advocacy

In terms of international initiatives, TTL actively and voluntarily adheres to the regulations of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) in the production and sale of tobacco products.

Scope of the Report

The Report's information and data cover TTL's headquarters and its subordinate operating units, including the Marketing & Sales Division's seven regional sales offices (Northern, Taoyuan, Taichung, Chiayi, Tainan, Kaohsiung, and Hualien), one Key Account Office, the International Business Division's Taoyuan International Airport Duty-Free Shop, as well as the economic, environmental, and social performance across all 17 factory locations of the Tobacco, Liquor, and Beer Divisions throughout Taiwan.

Quality Management Process in the Report



To ensure the completeness and accuracy of the data, including relevant business objectives, performance measurement indicators, outcomes, and future efforts, the information is reviewed by department heads. The Sustainability Report Compilation Team then compiles the data, with the Department of Planning taking the lead in overall summary and drafting.

Internal Review

Data and information are approved by the primary supervisors of internal departments. The Executive Secretary of the Sustainable Development Committee (Department of Planning) consolidates and verifies the information before submitting it to the Chairperson for review.

External Review

Limited assurance was conducted by Ernst & Young (EY) in accordance with the GRI Standards and ISAE 3000 Limited Assurance Standards to ensure the reliability of the disclosed information. The third-party assurance statement can be found in the appendix of this report.

The final report is submitted to the Chairperson for approval and disclosure.

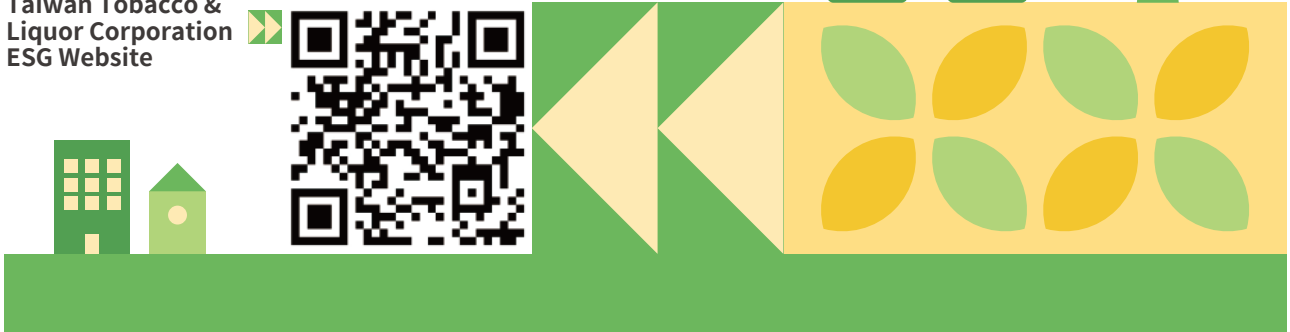
Contact Information

Should any stakeholders or members of the public have inquiries or suggestions regarding this report, please feel free to contact us through the following channels.

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Taiwan Tobacco & Liquor Corporation
ESG Website



Letter from the Management



Chairperson | Chi-An Tang



President | Huan-Chung Lai



In 2024, the Executive Yuan established the "Chief Sustainability Officer Alliance for Government Agencies" system. The carbon fee mechanism and the domestic carbon credit trading platform have also been officially launched. As a century-old state-owned enterprise that has grown alongside Taiwan, TTL upholds the vision of "Pursuing Sustainable Innovation and Advancing as a Global Enterprise." We progressively adjusting business strategies and leveraging our core competencies to create profound and lasting sustainability value for society, the environment, and all stakeholders.

TTL has consistently advanced its sustainability agenda. In 2024, The Company received the Platinum Award for Sustainability Reporting at the Taiwan Corporate Sustainability Awards (TCSA) in recognition of its efforts. To systematically implement sustainable governance, TTL established a Sustainable Development Committee to coordinate key areas, including corporate governance, environmental sustainability, and social engagement, while formulating mid- and long-term development objectives. In addition, TTL collaborates with the Risk Management Committee to establish an integrated mechanism, holding regular meetings to review performance, apply rolling adjustments, and enhance the alignment of sustainability and risk governance. TTL embeds sustainability principles into daily business decision-making and management processes, positioning sustainability as the driving force for continuous corporate growth and the creation of social value.

Strengthening Corporate Governance and Upholding Ethical Business Practices

In the face of industrial transformation and increasingly stringent regulatory requirements, the Company continues to reinforce its governance structure and enhance decision-making transparency, ensuring the effective implementation of risk management and internal control systems. In 2024, the Company once again achieved outstanding results in the Corporate Governance Evaluation, earning a perfect score of 100 points, demonstrating a robust management framework and forward-looking governance capabilities. In supply chain management, we continue to distribute the Supplier Code of Conduct and the ESG Sustainability Self-Assessment Questionnaire, working collaboratively with suppliers to realize a sustainable value chain. In alignment with the government's National Integrity and Anti-Corruption Action Plan, the Company established an Integrity and Legal Compliance Advocacy Task Force and published the "Athlete's Guide to Ethical Conduct" to raise awareness of integrity and regulatory compliance through practical case studies and legal education. These initiatives strengthen integrity and self-discipline among publicly owned athletes and promote an ethical sports environment, underscoring the Company's commitment to sustainable operations and clean governance.

Promoting Green Production and Building a Renewable Energy Ecosystem

The Company continues to enhance energy-efficient infrastructure and expand renewable energy deployment, while promoting the institutionalization and systematization of environmental management. In 2024, the Company implemented 57 energy-saving projects with a total investment of NT\$197.65 million, achieving an overall 5.82% reduction in energy consumption compared to the previous year. We introduced Energy Performance Indicators and advanced the implementation of the ISO 50001 Energy Management System, ensuring optimized electricity utilization and improved transparency in energy management. Scope 1 and Scope 2 greenhouse gas emissions have been reduced by 43.79% compared to the base year (2005), consistently outperforming our self-imposed carbon reduction targets. A total of 34 solar photovoltaic (PV) installations have been completed, generating a cumulative 83.59 million kWh of power generation. Plans are in place to add 7 more PV facilities by 2025, further increasing the proportion of green energy consumption.

Our Chiayi Distillery obtained both the Green Building Label and Green Factory Certification in 2024. Additionally, product carbon footprint verification has been completed for Yushan Daqu Kaoliang Liquor, OMAR Single Malt Whisky, and Taiwan Beer Gold Medal ONE, demonstrating tangible results in green production and low-carbon operations. The Company will continue to implement various green transformation initiatives to advance sustainable corporate development.

Enhancing Product Safety and Quality to Safeguard Consumer Rights

In response to the stringent requirements for quality and safety in the food and beverage industry, the Company adheres to international standards such as ISO 9001, ISO 22000, and HACCP. Through the oversight of the Quality Assurance Committee, we ensure rigorous implementation of product hygiene management, traceability systems, and consumer protection measures, guaranteeing that every stage—from raw material sourcing to product delivery—meets the highest standards of quality and reliability. We continue to promote the reuse of brewing ingredients and by-products to develop health foods, health drinks, skin care products, and cleaning products, thereby creating value within the circular economy. In 2024, six biotechnology products derived from sake lees were launched, among which our cleansing and personal care products earned the Green Product Label and Hypoallergenic Certification, demonstrating our capability in resource transformation and product innovation.

We advanced the initiative "Stylish Plastic Reduction, Sustainable Packaging" by introducing the "Taiwan Beer Song Beer ECO-PACK" in 2024. This six-pack design reduces paper usage by nearly 70% while maintaining aesthetics. Additionally, we deepened the integration of local ingredients and cultural creativity, launching six innovative alcoholic beverages in 2024 featuring Taiwanese agricultural products and regional characteristics. Our commitment to quality was further recognized through active participation in international competitions, achieving 143 awards in 2024, thereby elevating the Taiwan Tobacco and Liquor Corporation onto the global stage.

Valuing Talent and Caring for Society to Realize People-Centered Values

The Company regards its employees as the cornerstone of sustainable operations and continues to develop learning and development programs. In 2024, the Company established its Human Rights Policy, implemented diverse feedback channels, and ensured the protection of human rights. We have long supported the development of national sports by consistently sponsoring the Taiwan Beer basketball and baseball teams, actively sponsoring domestic sporting events, and organizing sports marketing activities.

The Company continues to promote the "Plan to Revitalize and Restore the Glory of the Tourist Distillery and Brewery", integrating local culture to renovate distilleries and breweries across different regions. The renovation projects for Chiayi Distillery and Wuri Brewery have been completed and certified by the Environmental Protection Administration's National Environmental Research Academy as environmental education venues. These sites incorporate the history and culture of alcoholic beverages into environmental education programs, offering the public diverse learning environments. Additionally, Nantou Distillery is being developed into a castle-style whiskey tourist distillery, scheduled to commence operations in 2027, which will invigorate the local economy and tourism, fostering social prosperity.

Looking ahead, TTL will uphold its core belief in sustainable management by strengthening corporate governance, accelerating green transformation, enhancing product quality, and actively promoting talent development and social well-being. As a role model of responsibility among state-owned enterprises, the Company is committed not only to crafting premium beverages but also to brewing a sustainable, harmonious, and trustworthy future for this land.

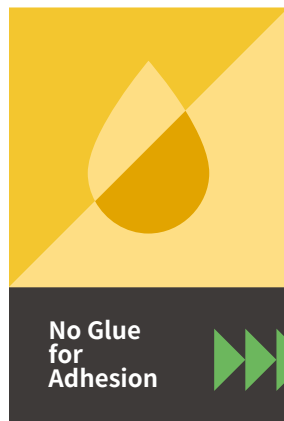
Plastic Reducing, Sustainable Packaging

Current consumer trends not only prioritize product quality and user experience but also expect brands to demonstrate their commitment to sustainability through packaging. To address the decarbonization trend, TTL is promoting the "Plastic Reducing, Sustainable Packaging" initiative. This involves rethinking the necessity and design methods of packaging. By reducing unnecessary external packaging and using renewable and easily recyclable materials, TTL not only lowers resource consumption and its carbon footprint but also actively demonstrates its commitment to the circular economy and environmental friendliness. Through packaging innovation, TTL implements its green design philosophy with concrete actions, ensuring environmental protection begins with the product's first impression and becomes an integral part of daily consumption.



Introduced the new "Taiwan Beer Song Beer ECO-PACK" (six-pack) in 2024. This packaging utilizes a glue-free adhesive technology instead of traditional methods and is made from recyclable and renewable paper pulp, **reducing paper material usage by 67%.**

This design not only makes it easy for consumers to carry and recycle, but also balances visual appeal with environmental considerations, showcasing TTL's innovative thinking in product packaging.



To be safe,  don't drink and drive.

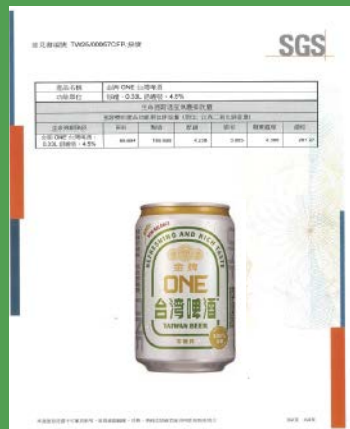
From Factory to Product – Implementing Green Carbon Management

From applying for Green Factory Label to obtaining carbon footprint verification for its major products, TTL has progressively implemented green carbon management. TTL has currently obtained the Green Factory Label for its Chiayi Distillery, along with carbon footprint verification statements for iconic products such as "Yushan Daqu Kaoliang Liquor," "OMAR Single Malt Whisky," and "Taiwan Beer Gold Medal ONE." Looking to the future, TTL will continue to replicate green operating models, expand the promotion of carbon footprint inventories for various products, and assist each factory in obtaining Green Factory Label, advancing towards a green transition.

Continue to Promote Product Carbon Footprint Inventories

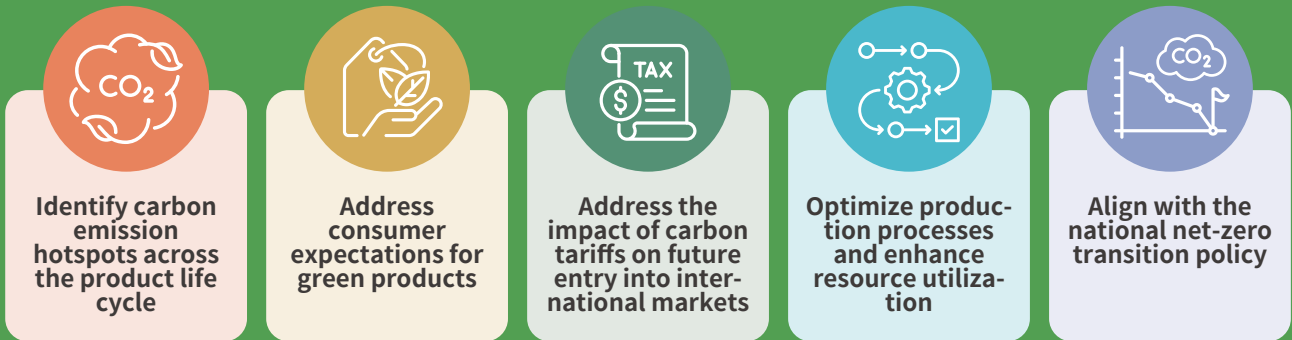
TTL has recently promoted low-carbon operations, continuously invested in greenhouse gas inventories, and also plans to conduct annual carbon footprint inventories for its major products. In accordance with ISO 14067, greenhouse gases emitted at each life cycle stage of products are quantitatively calculated, including the five stages of raw material acquisition, manufacturing, distribution and sales, use, and waste disposal. By obtaining product carbon footprint verification, TTL can grasp the carbon emissions of various products, seek opportunities for carbon reduction, and assist its internal business units in promoting sustainable development to cope with future risks such as carbon tariffs.

Product Carbon Footprint Certificate



To be safe, don't drink and drive.

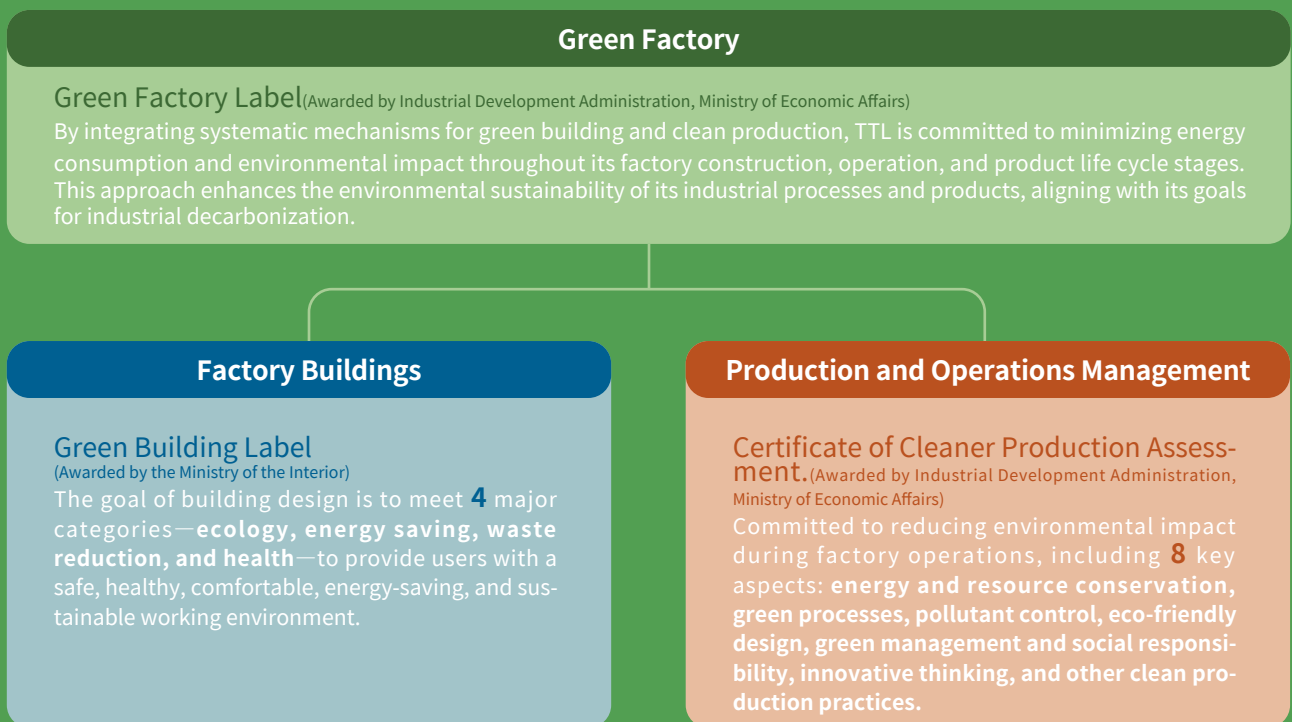
Benefits of TTL's Product Carbon Footprint Inventories



Following the completion of the carbon footprint for "Yushan Daqu Kaoliang Liquor" from Chiayi Distillery, TTL conducted carbon footprint inventories for "OMAR Single Malt Whisky" and "Taiwan Beer Gold Medal ONE" in 2024. Plans are underway to reduce carbon footprints through methods such as improving the energy efficiency of production equipment, introducing renewable energy generation, substituting low-carbon raw materials, and implementing eco-design for products. In the future, the Company will continue to conduct product carbon footprint inventories and verification to proactively address potential carbon tariff issues.

Continue to Obtain Green Factory Label

In recent years, in response to the national Green Economy policy, Chiayi Distillery participated in a program of Industrial Development Administration, Ministry of Economic Affairs in 2023. After obtaining the Ministry of the Interior's "Green Building Label" and the "Clean Production Assessment System Certificate," it was awarded the Green Factory Label by the Industrial Development Administration, Ministry of Economic Affairs in 2024, becoming a benchmark in the food and beverage industry. In the future, TTL will promote the acquisition of Green Factory Labels by Wuri Brewery and Neipu Cigarette Plant, moving towards green production.



Green Factory Label integrates systematic mechanisms of green building and clean production. To qualify, a facility must simultaneously meet green specifications in both hardware and software aspects. In terms of hardware, factory buildings must obtain the Ministry of the Interior's Green Building Label. In terms of software, production and operation management must pass the Cleaner Production Assessment by the Industrial Development Administration. This comprehensive approach aims to reduce energy and resource consumption and environmental impact at all stages of factory construction, operation, and product manufacturing life cycle. After assessment, the Company selected Chiayi Distillery as the first facility to obtain the Green Factory Label.

About Chiayi Distillery

Chiayi Distillery, founded in 1917, primarily produces the Company's representative Kaoliang Liquor. It has currently completed multiple management system certifications, including: ISO 9001 Quality Management System, ISO 22000 / HACCP Food Safety Management System, Alcohol Quality Certification System, ISO 45001 / CNS 45001 Occupational Health and Safety Management System, ISO 14001 Environmental Management System, CNS 14064-1 Organizational Greenhouse Gas Inventory Verification, and ISO 14067 Product Carbon Footprint Verification, indicating sound factory operations.



Certificate of Green Factory Label



Certificate of Green Building Label

Future Plans

Short-Term Goals

Obtain Green Factory Label for Wurih Brewery in 2025

Mid-Term Goals

Obtain Green Factory Label for Neipu Cigarette Plant in 2026

Long-Term Goals

Assess and plan the acquisition of Green Factory Label for each factory

To be safe,  don't drink and drive.

Sustainability Highlights **Special Feature III**

Circular Innovation, Creating New Environmental Value

For years, TTL has been dedicated to the reutilization of by-products from alcohol production. By applying core technologies such as microbial cultivation, fermentation, extraction, concentration, and purification to these by-products, TTL develops unique, safe products that meet consumer demands. This has led to the creation of four major product categories related to red yeast rice and sake lees: health foods, health drinks, skin care products, and cleaning products, which effectively reduces resource waste and expands the potential applications of these valuable by-products. In 2024, we continued to use sake lees as a core raw material, developing six key products that showcase our ability in resource transformation and product innovation. For more details, please refer to Section 2.1.2 Product Compliance and R&D Innovation.

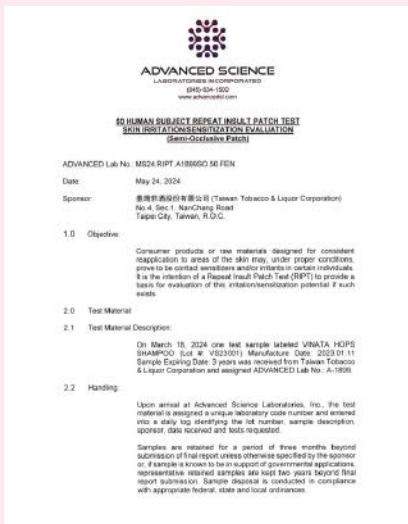
Besides enhancing the reutilization value of production by-products, TTL also pursues product innovation while ensuring quality, providing safe and reliable products. In 2024, several skin care, personal care, and laundry detergent products successively received professional accolades, including anti-allergy certifications, efficacy validations, and innovation awards. These recognitions were earned due to their safe ingredients and exceptional efficacy, embodying the high quality and trustworthiness of these products from research and development to market.

Biotechnology Innovation Achievements

Yeast Revitalizing Essence Sapitide:
Approved by COSMOS as a natural cosmetic ingredient.



Easy Clean Dish Soap:
Certified with the EU Anti Additive 1-Star Certification, USDA Green Products Verification, and Low-Allergen Verification by an FDA-Certified Laboratory in the United States.



Hop Body Wash/Shampoo:
Awarded the U.S. USDA Green Products Label and hypoallergenic verified by a U.S. FDA-certified lab.



Cheers Mate:
Awarded for innovative product.



Taiwan Sakura Wild Yeast Sake:
Awarded Grade A in a Ministry of Finance Research Project.



Application of Taiwan Sakura Wild Yeast Fermented Hydrolyzed Essence in Cosmetics Development

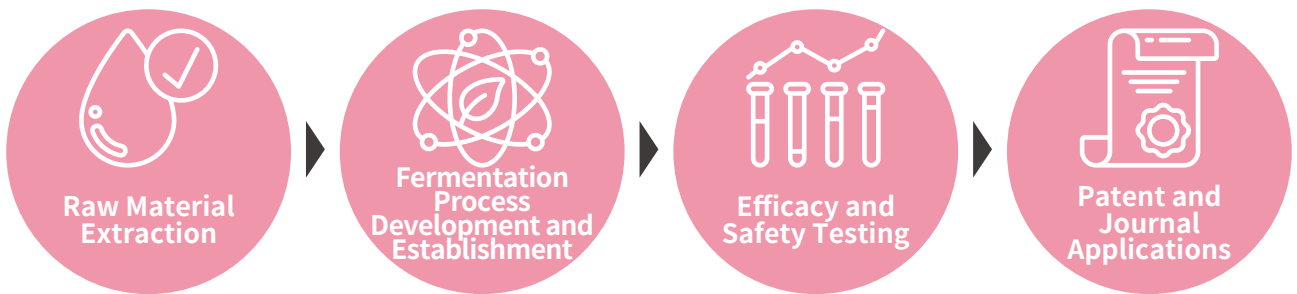
TTL utilizes sake lees from "Taiwan Sakura Wild Yeast Sake", a locally brewed product at its Taoyuan Brewery. This product is derived from a brewing yeast, screened from fresh wild sakura, and combined with low-temperature fermentation products of grain rice, koji mold, and flower yeast. Through a patented hydrolysis process, large-molecule proteins are broken down into small-molecule peptides and amino acids. This resulting "Taiwan Sakura Wild Yeast Fermented Hydrolyzed Essence" ingredient effectively boosts overall skincare efficacy and absorption. Trials have confirmed its potential for whitening, anti-aging, and anti-allergic properties.

TTL has initially utilized this ingredient to develop a series of basic skin care products with a sakura theme. These include the Revitalizing Sakura Pre-Essence (toner), Revitalizing Sakura Polishing Essence (serum), Revitalizing Sakura Soothing Emulsion (lotion), and Revitalizing Sakura Ultra-Rich Cream (cream).



Scented Beauty Industry Advancement Program

TTL has collaborated with the Industrial Technology Research Institute (ITRI) for many years, conducting research on brewing raw materials and by-products. By integrating biotechnology, TTL has developed a series of biotech products, including health foods and drinks, skin care products, and cleaning products. In 2024, TTL launched the "Development of Innovative Raw Materials from TTL's Brewing By-products via Fermentation and Biotransformation Technology" project. This initiative involves extracting brewing by-products, followed by biotransformation through fermentation with suitable and safe microbial strains. The fermented products, having passed multiple tests, are then utilized for cosmetic raw material development.



Establish preliminary extraction techniques for brewing by-products, utilizing methods such as water extraction and ultrasonic extraction.

Select suitable microbial strains and environments, establish a complete fermentation process, and perform product purification and analysis.

Sequentially conduct skin soothing safety assessments, anti-aging activity analysis, and skin irritation tests.

Apply for relevant patents, document research findings, and submit them to domestic and international professional journals to enhance our technological visibility and R&D value.

Sustainability Highlights **Special Feature IV**

Telling Stories Through Music – Taiwan Beer Supports Local, Sings for Sustainability

Promote Taiwanese music creation

TTL is committed to providing a platform for music creators to showcase their talent. In 2024, TTL hosted the "Taiwan Beer Music Festival" Original Music competition. This initiative not only offered an endorsement deal worth NT\$1 million but also actively supported the local music industry with concrete actions. It encouraged the younger generation to bravely pursue their dreams, conveying the spirit of **"believe in yourself, go all out"** through their songs, and ultimately fostering the development of the music industry.

Plastic Reduction Consumption Initiative

"Taiwan Beer Music Festival" Original Music competition integrated environmental sustainability by promoting an offer online and on-site: "Bring your own eco-cup and get Taiwan Draft Beer for half price." At the finals, a special Taiwan Beer ESG interactive game promotion zone was set up to implement sustainability practices through large-scale events. Approximately 800 people participated in the interactive games.

CHEER FOR MUSIC!

Beyond embedding ESG principles and emphasizing sustainable development in our product manufacturing, TTL also actively supports original music through tangible actions. The 2024 "Taiwan Beer Music Festival" Grand Finals concluded successfully amidst enthusiastic cheers from the audience. The Company believes that every dream deserves support. We look forward to future collaborations with local music creators, raising a glass to dreams, to music, and to our homegrown talent!



To be safe,  don't drink and drive.

Fueling Dreams with Sweat

Starting with Tee-ball for Kids, Building a Foundation for Dreams

Taiwan Beer Baseball Camp was launched in 2007. This initiative helps elementary school children get an early introduction to baseball culture, fostering a love for the sport among young participants and laying the foundation for Taiwan's baseball training programs. For over a decade since its launch, the camp has ignited a passion for baseball in many children, with some participants even successfully joining the National Taiwan Sport University baseball team. Additionally, to promote the participation rate of girls in baseball, a program waiving registration fees for girls was implemented, successfully increasing their participation rate. Adhering to our educational mission, TTL also offers a three-day tour of our distillery, during which a total of 423 individuals have gained an understanding of the distillery's culture.



Sustaining Dreams, Supporting Collegiate Baseball Elites

Taiwan's top-tier teams are currently facing a shortage of elite players, resulting in university teams lacking competitiveness in top-tier competitions and insufficient opportunities for skill development. The Company, in support of the heritage and popularization of baseball, has long sponsored the National Taiwan Sport University baseball team under the name "Taiwan Beer." In 2024, it will hold the 2nd Taiwan Beer Cup University Top-Tier Baseball Championship, providing university teams with opportunities to train through competition. According to the survey, more than 50% of the top-tier college baseball players intend to continue developing their careers in the field of baseball. The Company hopes to support university baseball players in pursuing their dreams through long-term commitment to the sport of baseball. Additionally, to promote sustainable development and encourage the public to bring their own water bottles and use public transportation to attend the games, all event information will be fully digitized, allowing everyone to "Play Ball, Save Our Planet for All."



ball players intend to continue developing their careers in the field of baseball. The Company hopes to support university baseball players in pursuing their dreams through long-term commitment to the sport of baseball. Additionally, to promote sustainable development and encourage the public to bring their own water bottles and use public transportation to attend the games, all event information will be fully digitized, allowing everyone to "Play Ball, Save Our Planet for All."

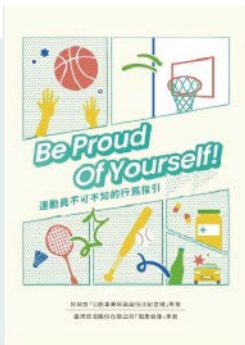
Breaking Boundaries with the Bat, Letting Women's Baseball Shine

To address the lack of women's baseball competitions in Taiwan, Taiwan Tobacco and Liquor Corporation served as the title sponsor for the 2024 Taiwan Beer Cup Women's Baseball Championship. Through competitive events, enhance the game experience and competitiveness of Taiwanese women's baseball, and encourage more women to participate in the sport of baseball. We firmly believe that the development of sports must advance equally for both men and women, and we hope to support gender equality in the field of sports through our actions.



Beyond Winning or Losing, Upholding the Spirit of Sportsmanship

TTL has introduced a Code of Conduct for Athletes in response to the Ministry of Finance's Publicly-Owned Enterprises Athletes Integrity and Legal Compliance Promotion project. This guide uses case studies to illustrate important considerations athletes must observe throughout their professional careers. It visually presents the dangers and potential legal issues related to match-fixing, betting, and the use of performance-enhancing drugs, aiming to alert athletes to value and protect their professional careers more conscientiously. In addition, cases of sexual offenses, drunk driving, and drug use that may occur in daily life are also included. These are complemented by experience sharing from retired baseball player Chou Szu-Chi, emphasizing the importance of athletes adhering to professional ethics.



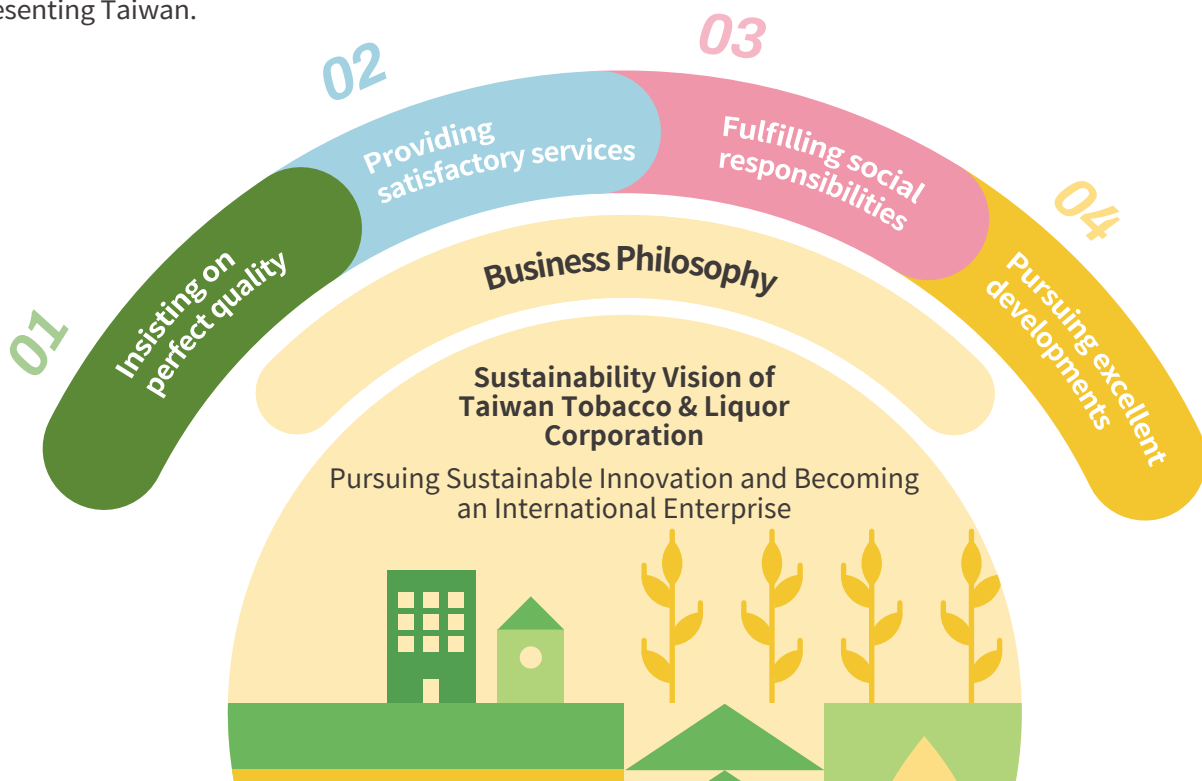
About Taiwan Tobacco & Liquor Corporation

Taiwan Tobacco & Liquor Corporation (TTL) is headquartered in Taipei City. It is a state-owned enterprise engaged in the production and sales of tobacco, alcohol, beer, biotechnology, and food products. The Company was restructured from the Taiwan Tobacco and Wine Monopoly Bureau in 2002 and went public in 2005. Bearing the responsibility of national policies and development missions, it continuously provides consumers with trusted, safe, and high-quality products and services. At the same time, it emphasizes environmental protection and social responsibility, dedicating efforts to deeply cultivate Taiwan and actively expand overseas markets.

Introduction to Taiwan Tobacco & Liquor Corporation	
Headquarters Location	No. 4, Sec. 1, Nanchang Rd., Zhongzheng Dist., Taipei City
Date of Establishment	July 1, 2002
Country of Headquarters	Taiwan
Shareholder	The Ministry of Finance holds 100% equity.
Main Products	Production and sales of tobacco, liquor, beer, biotechnology, and food products.
Total Number of Employees	4,501 people
Operating Revenue	NT\$43.079 billion
Total Assets	NT\$117.719 billion

Vision and Philosophy

TTL, established over 120 years ago, upholds the vision of "Pursuing Sustainable Innovation and Becoming an International Enterprise" to drive corporate sustainable development. The Company adheres to the business philosophy of "Insisting on perfect quality, Providing satisfactory services, Fulfilling social responsibilities, and Pursuing excellent developments." This mission is executed through "Creating a Friendly Work Environment for Employees, Ensuring Healthy Tobacco and Alcohol Consumption for Customers, and Upholding Innovation, Proactivity, Responsibility, Honesty, and Credibility." The Company is proactively advancing business transformation and green production to design a sustainable value chain, solidifying its presence in Taiwan while expanding globally, aiming to become an international brand representing Taiwan.

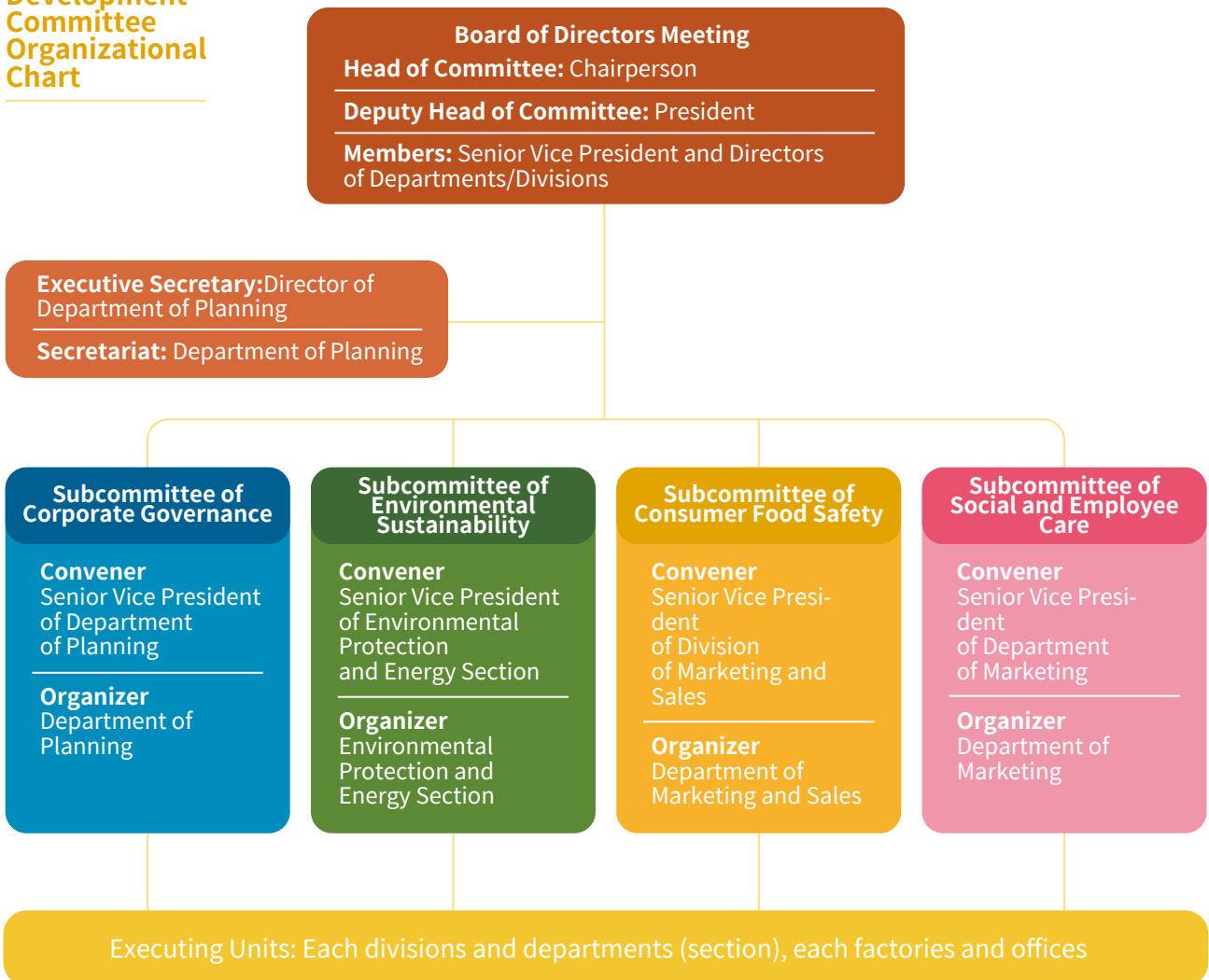


Sustainable Development Committee

TTL established the "Sustainable Development Committee" in 2022, responsible for overseeing the Company's sustainable development policy direction and implementation plans. Through meetings of the Sustainable Development Committee, the execution of sustainable development policies is reviewed, and the reasonableness and effectiveness of the Company's sustainable development issues and performance indicators are deliberated. The Sustainable Development Committee has established four Subcommittees: "Corporate Governance," "Environmental Sustainability," "Consumer Food Safety," and "Social and Employee Care." These groups are responsible for formulating and implementing the Company's key sustainable development issues and performance indicators. They hold regular meetings to track and review the progress of initiatives and submit the execution results to the Sustainable Development Committee for review.

To strengthen the Board of Directors' supervision of the Sustainable Development Committee, at the end of each fiscal year, the subcommittees submit their annual execution results and the following year's execution plans to the Sustainable Development Committee for review before reporting to the Board of Directors. The Board supervises the execution of the Company's sustainability policies and the achievement of targets based on these plans, embodying the principles of sustainable operations.

Sustainable Development Committee Organizational Chart



Identifying Material Topics and Communication with Stakeholders

TTL engages in stakeholder identification and stakeholder engagement according to the AA1000 Stakeholder Engagement Standard and GRI Standards for Sustainability Reporting. Following the identification of relevant stakeholders and 30 sustainability issues, the Company conducts stakeholder surveys using a significant issues identification questionnaire to assess stakeholder concerns regarding sustainability topics. This serves as the basis for disclosing information in this report, ensuring alignment with stakeholder expectations and fostering effective communication outcomes.



Sustainability Highlights 2024

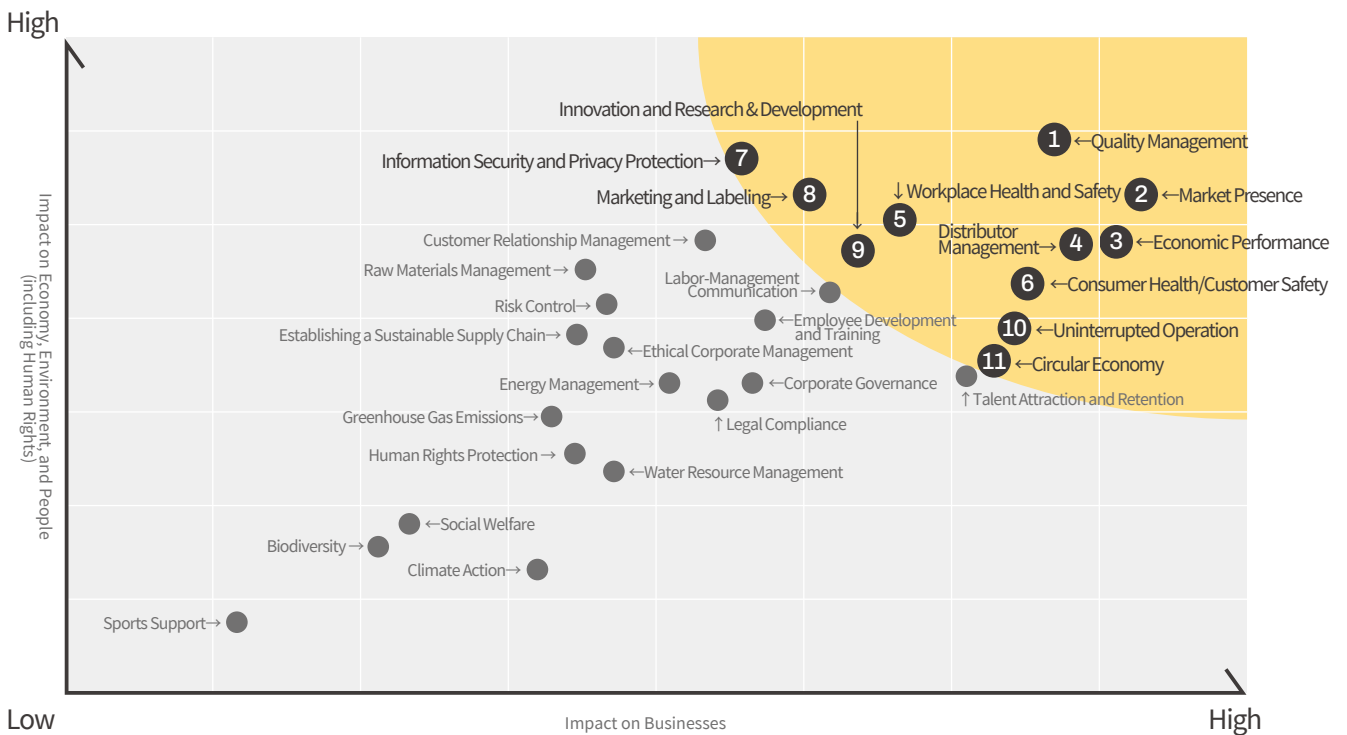


Corporate Governance Evaluation Full Marks

Chiayi Distillery Awarded the Bronze Medal in the 6th National Enterprise Environmental Protection Award

Taiwan Tobacco & Liquor Corporation's Material Topics Matrix

There are 11 material topics identified with significant impacts on economic, environmental, human rights, and corporate aspects. They are listed as follows: 1. Quality Management, 2. Market Presence, 3. Economic Performance, 4. Distributor Management, 5. Workplace Health and Safety, 6. Consumer Health/Customer Safety, 7. Information Security and Privacy Protection, 8. Marketing and Labeling, 9. Innovation and Research & Development, 10. Uninterrupted Operation, and 11. Circular Economy.



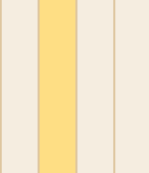
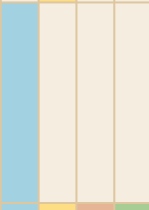





2024 Taiwan Corporate Sustainability Award
Platinum Award for Sustainability Report

Major Operational Themes and Sustainable Value Chain

Topics	Chapters Response	Promotion Achievements 2024	Significant Impact
Quality Management	2.1 Product Quality and Safety Management	<ol style="list-style-type: none"> 1.The Quality Assurance Committee holds quarterly meetings. 2.Operating factories maintain certifications such as ISO 9001, ISO 22000, HACCP, and GMP. 3.Relevant food production and shipment data shall be submitted to the Ministry of Health and Welfare's traceability system. 	+ Technology and Product Innovation
Market Presence	2.1 Product Quality and Safety Management 2.3 Product Innovation Marketing	<ol style="list-style-type: none"> 1.Deepen the application of secondary raw materials, strengthen quality control, develop locally distinctive products, and pursue diversified operations. 2.Promote "Taiwanese specialty" products and participate in international competitions, where we've collectively won 143 medals, significantly boosting our brand's international visibility. 	+ International Competitiveness
Economic Performance	1.1 Corporate Governance	Monthly board meetings and management briefings are convened, quarterly operational performance review meetings are held, and bi-annual special topic review meetings are conducted, alongside ad-hoc meetings for new product launches.	+ Market Reputation
Distributor Management	2.3 Product Innovation Marketing	<ol style="list-style-type: none"> 1.TTL's domestic partnerships include 280 major contract clients, 16,100 chain stores, and 13,000 non-chain retail outlets. 2.The domestic direct customer satisfaction rate is 98.8%, while the indirect customer satisfaction rate is 99.4%. 3.Export customer satisfaction rate is 96%. 	+ Market Competitiveness
Workplace Health and Safety	4.3 Occupational Safety	<ol style="list-style-type: none"> 1.General health examinations were conducted for 4,566 individuals, with an investment of NT\$7.17 million. 2.An investment of NT\$5.9 million was made in environmental safety and health training, with a total of 8,030 participants attending the training sessions. 3.The Shan-Hua Brewery and the Taoyuan Printing Factory were selected by the Occupational Safety and Health Administration as outstanding units nationwide for the implementation of occupational safety and health operations. 4.Chiayi and Longtian Distilleries were selected as national units awarded the Five-Star Occupational Safety and Health Award. 5.The headquarters and all affiliated factories have passed the Occupational Safety and Health Management System (CNS45001) certification. 	+ Healthy and Safe Workplace - Occupational Hazards
Consumer Health/Customer Safety	2.1 Product Quality and Safety Management	In response to regulatory changes, all product labeling checklists will be comprehensively updated in 2024 to strengthen labeling management and protect consumer rights.	- Operational Risks Including Losses from Illegal Penalties
Information Security and Privacy Protection	1.5 Information Security	<ol style="list-style-type: none"> 1.Conducted two social engineering drills. 2.Each designated information security personnel undergoes professional training courses or competency training in cybersecurity. 3.Passed the transition verification for the ISO 27001 Information Security Management System 2022 edition. 	- Operational Risks Including Losses from Illegal Penalties





+ Positive Impact - Negative Impact ■ Supplier ■ Self-Operation ■ Product/Service ■ Local Community

Value Chain Impact	Management Actions	Future Planning
	<p>Establishment of a Total Quality Management (TQM) Committee and formulation of the "TQM Implementation Guidelines," conducting quarterly evaluations across seven major dimensions and proposing corrective measures as needed.</p>	<ol style="list-style-type: none"> 1.Continued maintenance of certifications. 2.Increase the disclosure rate of outsourced manufactured food products (including beverages). 3.Increase the audit ratio of food suppliers.
	<ol style="list-style-type: none"> 1.Regularly convene feasibility assessment meetings for new products and new product launch review meetings to promptly grasp business opportunities. 2.Strengthen the allocation of marketing resources in key global cities to expand the overseas market footprint. 	<ol style="list-style-type: none"> 1.Strengthen domestic market presence, increase domestic market share, and enhance brand awareness. 2.Through a differentiation strategy, actively expand into overseas markets such as ASEAN and emerging countries to enhance international market competitiveness
	<p>The Company establishes operating performance criteria for operating income and operating profit to ensure that each business unit strives to achieve targets, closely monitors external regulations and market trends to avoid missing business opportunities.</p>	<p>Through enhanced corporate governance and financial management, diversification of business operations is pursued to ensure the long-term stable development of TTL, achieve surplus contributions to the government.</p>
	<p>TTL consolidates its leading domestic market share for core products through regional specialty offerings and innovative digital marketing. It enhances quality and logistics management to boost brand identity and customer satisfaction, while expanding into overseas markets.</p>	<ol style="list-style-type: none"> 1.Strengthen channel layout and retail management, and actively expand diversified channels to drive product sales growth. 2.Continue to provide marketing resources to overseas distributors, deeply cultivate potential overseas markets, and sign trial sales agreements with potential customers.
	<ol style="list-style-type: none"> 1.Implement ISO 45001 and CNS 45001 Occupational Safety and Health Management Systems, integrating mechanisms such as audits, guidance, training, and inspections to strengthen the management of high-risk operations and the execution of on-site SOPs. 2.Establish emergency response procedures and contractor control measures, and promote occupational safety performance evaluations and reward systems to enhance overall safety management effectiveness. 	<ol style="list-style-type: none"> 1.Strengthen workplace hygiene and safety management, enhance employees' awareness of safety and health, and ensure timely identification and improvement of operational risks. 2.Continuously focus on the physical and mental health of employees, improve the institutionalized occupational safety management and labor rights protection mechanisms, and create a safe and healthy working environment.
	<p>TTL continuously monitors and complies with regulatory changes, timely adjusting internal operational policies to ensure the quality of products and services, thereby safeguarding consumer health and safety.</p>	<p>The Company not only regularly reviews the legality of product labeling but also continuously monitors the trends in relevant regulatory amendments, proactively responding to reduce compliance risks.</p>
	<ol style="list-style-type: none"> 1.In accordance with the Information and Communication Security Management Act and related regulations, TTL is enhancing the cybersecurity measures for its online shopping platform and data center networks. 2.Continuously maintain the Information Security Management System, conduct education and training sessions, establish an inventory of information assets, perform risk assessments of information and communication systems, and conduct internal audits and management review meetings. These processes integrate awareness and experiences of information security management into our daily operations. 	<ol style="list-style-type: none"> 1.Consistently strengthen our network security systems to enhance cybersecurity protection and response capabilities, thereby reducing cybersecurity risks and losses. 2.Ongoing information security education and training are conducted to enhance staff awareness and protection. 3.Implement information security compliance measures to strengthen the completeness and effectiveness of our information security defenses.

Topics	Chapters Response	Promotion Achievements 2024	Significant Impact
Marketing and Labeling	2.1 Product Quality and Safety Management	<ol style="list-style-type: none"> 1.No products have been penalized for labeling inaccuracies in 2024. 2.Conduct legal compliance reviews of our product labeling and marketing methods. 	<ul style="list-style-type: none"> - Operational Risks Including Losses from Illegal Penalties
Innovation and Research & Development	2.1 Product Quality and Safety Management	<ol style="list-style-type: none"> 1.Develop six items of alcoholic beverages using local raw materials. 2.Establish a GMP-certified cosmetics factory, producing seven product lines. 3.Four biotechnology products have collectively obtained six types of patents, certifications, and awards. 	<ul style="list-style-type: none"> + Technology and Product Innovation
Uninterrupted Operation	1.3 Risk Management	The Risk Management Committee has reviewed a total of 32 risk events, developing responsive measures for each to enhance the company's crisis response capabilities.	<ul style="list-style-type: none"> - Operational Risk
Circular Economy	3.2 Implementing Green Operations	<ol style="list-style-type: none"> 1.The glass bottle recycling rate reaches 101.23%. 2.The utilization rate of by-products generated during the brewing process is 100%. 3.Cumulative electricity generation from solar photovoltaic systems reaches 83.59 million kilowatt-hours. 4.The three major breweries purify and reuse the carbon dioxide generated during the fermentation process, without purchasing additional carbon dioxide for beer product carbonation, resulting in a total reduction of 4,011 metric tons of carbon emissions. 	<ul style="list-style-type: none"> + Resource Circular Economy + Positive Social Interaction



+ Positive Impact - Negative Impact ■ Supplier ■ Self-Operation ■ Product/Service ■ Local Community

Value Chain Impact	Management Actions	Future Planning
	<p>Place high importance on product labeling responsibility, strictly adhering to regulatory standards. Through clear labeling and warnings in physical retail channels, we aim to convey accurate information to consumers.</p>	<p>Continue to conduct legal compliance reviews of our product labeling and marketing methods.</p>
	<p>The Research and Development Committee meetings, held semiannually, review research project proposals and continuously invest in new product development, quality enhancement, and process optimization, thereby creating sustained growth momentum for the Company.</p>	<p>Continuously strengthen research and development capabilities, create value in the circular economy, and establish innovative strategies that are forward-looking and diverse.</p>
	<ol style="list-style-type: none"> To stay abreast of environmental trends and key operational issues, TTL continuously monitors the effectiveness of its control mechanisms and assesses the presence of new risk events. Regular meetings of the Risk Management Committee are held to track the implementation of risk control measures and decisions made during meetings. 	<ol style="list-style-type: none"> Strengthen inter-departmental collaboration to ensure swift transmission of risk information and coordinated responses. Detailed analysis of potential risks faced by each department allows us to devise proactive measures. Enhance risk response strategies by integrating risk management into corporate culture and daily operations. Utilizing robust risk management and monitoring mechanisms ensures rapid response and effective control during risk events.
	<ol style="list-style-type: none"> The glass bottle deposit refund system encourages consumer and retailer participation in bottle recycling. Implement the circular economy 3R principles of "Reuse, Recycle, and Recovery" by promoting the utilization of by-products from liquor production, the recycling of glass bottles, and the application of solar photovoltaic energy. 	<ol style="list-style-type: none"> Continued development of products utilizing brewery by-products, promoting the upgrading and remanufacturing of by-products. Solar PV Installation Plan IV aims to achieve a 20% share of renewable energy by 2040.



Stakeholder Communication Status

Stakeholder Competent Authorities /Shareholders

Importance

TTL, as a state-owned enterprise, operates under the oversight of the Ministry of Finance. The Company adheres strictly to the relevant guidance, policies, and legal compliance requirements set forth by the Ministry of Finance.

Corresponding Material Topics

- Market Presence
- Economic Performance
- Marketing and Labeling
- Circular Economy

2024 Communication Outcome

1. Corporate Governance Evaluation: Full Marks
2. Operational policies impacting annual earnings are identified in accordance with the "Annual Policy Factors Reporting and Recognition Procedures for Ministry of Finance Affiliated Enterprises."
3. The supervisory authority provides recommendations for operational improvements through on-site or written assessments.
4. Annual Report 2024.

Communication Channels	Frequency of Communication	Communication Channels	Frequency of Communication
Ministry of Finance-affiliated Corporate Governance Assessment	Once a year	Document reviews, meetings	From time to time
Ministry of Finance-affiliated Enterprise Policy Impact Assessment Meeting	Once a year	Shareholder Meeting	Once a year
Mid-term On-site Verification Meeting for State-owned Enterprise Work Performance Evaluation	Once a year	Board of Directors Meeting	Once a month
Review and Discussion Meeting on the Performance Evaluation System and Aspects of State-owned Enterprises	From time to time	Announcement from the Market Observation Post System (MOPS)	From time to time
Business Seminar for Enterprises Affiliated with the Ministry of Finance	Quarterly		

Stakeholder Employee

Importance

TTL views employees as important assets. The Company provides fair remuneration and benefits, as well as a healthy and safe working environment, to promote talent retention.

Corresponding Material Topics

- Market Presence
- Economic Performance
- Workplace Health and Safety
- Innovation and Research & Development
- Uninterrupted Operation

2024 Communication Outcome

1. In 2024, our employee training program centered on "Sustainable Development and Innovation," offering both in-person and digital courses related to sustainability.
2. Establish a human rights policy to ensure that employees enjoy equal opportunities in their career development.

Communication Channels	Frequency of Communication	Communication Channels	Frequency of Communication
Company-wide Labor-Management Meetings	Every two months	Annual Labor Education	Once a year
Labor-Management Meetings for the Headquarters and All Affiliated Institutions	Quarterly	Chairperson of the Taiwan Federation of Labor's Email	Instantly
Taiwan Federation of Labor Member Representatives Meeting	Once a year	Education and Training	From time to time
Taiwan Federation of Labor Directors and Supervisors Meeting	Every two months	Face-to-face Communication, Written Materials, Telephone	Instantly
Supervisors' Mailbox	Instantly	Seminars and Awareness Campaigns	From time to time

Stakeholder Consumers

Corresponding Material Topics

- Quality Management
- Consumer Health/Customer Safety
- Distributor Management
- Information Security and Privacy Protection
- Marketing and Labeling

Importance

Consumers are the primary source of revenue for Taiwan TTL. The Company has strengthened its food management system and continuously invested in innovative research and development to launch products that combine local characteristics with quality assurance.

2024 Communication Outcome

1. In 2024, all of our production facilities regularly uploaded relevant food production and shipment data to the Ministry of Health and Welfare's traceability system, in accordance with current system regulations.
2. Consumer satisfaction rate of 95.7%.

Communication Channels	Frequency of Communication	Communication Channels	Frequency of Communication
Newspaper, Magazine, and Media Advertising	From time to time	Seminars	From time to time
Product Review Promotion Campaign	From time to time	0800 Hotline/0800 Service Email	Instantly
Large-scale Sponsorship Event	From time to time	Media	Once a month
Large-Scale Exhibition Events	Approximately quarterly	Website, Facebook Fan Page	Instantly

Stakeholder Distributor

Corresponding Material Topics

- Distributor Management
- Consumer Health/Customer Safety
- Uninterrupted Operation

Importance

Distributors are important partners who can help the Company promote its products to the market, thereby facilitating product sales and services.

2024 Communication Outcome

1. Sell a diverse range of products through various channels, focusing on business cooperation with major contract clients, retail market chain channels, and non-chain channels, to achieve diversified partnership relationships.
2. Optimize the TTL eshop and expand external e-commerce channels.
3. Direct customer satisfaction rate is 98.8%, while the indirect customer satisfaction rate is 99.4%.

Communication Channels	Frequency of Communication	Communication Channels	Frequency of Communication
Customer Satisfaction Survey	Once a year	Achievement-based Travel Rewards for Outstanding Customers	From time to time
Product Description and Review Promotion Campaign	From time to time	Media	From time to time
Customer Counter Visits/Store Sales Visits/Phone Calls	From time to time	Business Communication Meeting	From time to time

Stakeholder Supplier

Corresponding Material Topics

- Consumer Health/Customer Safety
- Uninterrupted Operation
- Circular Economy

Importance

TTL, as a food industry participant, prioritizes supplier management for raw material quality management.

2024 Communication Outcome

Distributed the "Supplier ESG Sustainability Self-Assessment Questionnaire" to domestic procurement firms with contracts over 3 million, receiving 135 completed responses.

Communication Channels	Frequency of Communication	Communication Channels	Frequency of Communication
Tendering Procedures and Procurement Contracts	From time to time	Face-to-Face Meeting	From time to time
Procurement Seminar with Business Partners	From time to time	Phone Calls, Correspondence, Meetings	From time to time

Stakeholder Media		Importance Optimal platforms for external communication and dissemination.	
Corresponding Material Topics <ul style="list-style-type: none"> · Quality Management · Consumer Health/Customer Safety · Distributor Management · Information Security and Privacy Protection · Marketing and Labeling 		2024 Communication Outcome <ol style="list-style-type: none"> 1.Integrate ESG into brand marketing to enable consumers to participate in sustainable actions in their daily lives. 2.In 2024, TTL revised and updated all product labeling checklists to ensure compliance with the latest regulatory requirements. 	
Communication Channels		Frequency of Communication	
Product Launch Events, Press Releases, Advertisement Placements, Media Visits, Face-to-Face Meetings, Phone Calls, Other Communication Software		From time to time	

Stakeholder NGOs		Importance Actively engage with external organizations to discuss specific issues and values diverse perspectives.	
Corresponding Material Topics <ul style="list-style-type: none"> · Quality Management · Consumer Health/Customer Safety · Marketing and Labeling 		2024 Communication Outcome No significant events have occurred.	
Communication Channels		Frequency of Communication	
Organizations such as the Dongshi Foundation and environmental NGOs.		The relevant organizations' concerns are currently communicated through the competent authority, the Ministry of Finance.	

Stakeholder Community Residents		Importance Implement corporate social responsibility by maintaining positive relations with local communities, actively engaging in social contributions, and enhancing local welfare.	
Corresponding Material Topics <ul style="list-style-type: none"> · Quality Management · Consumer Health/Customer Safety · Distributor Management · Information Security and Privacy Protection · Marketing and Labeling 		2024 Communication Outcome The distilleries and breweries integrate local cultural characteristics and collaborate with local governments to organize multiple events, such as the Taoyuan Brewery Guishan Beer Festival, the Pingtung Distillery Farewell to the Southern Country Carnival, the Chiayi Kaoliang Liquor Culture Festival - Zhuyeqing Cup Bartending Competition, and the Taipei Beer Festival.	
Communication Channels		Frequency of Communication	
Social Participation Activities		From time to time	
0800 Hotline/0800 Service Email		Instantly	
Communication Channels		Frequency of Communication	
Seminars and Awareness Campaigns		From time to time	

External Participation

Organization Name	Role in Participation
Chinese Personnel Executive Association	Member
Chinese Arbitration Association, Taipei	Member
Internal Audit Association of the Republic of China	Member
Computer Audit Association	Member
Taiwan Association for Food Science and Technology	Member
Tobacco Institute of the Republic of China	Member
Confectionery, Biscuit, and Floury Food Industry Association	Member
The Chinese National Association of Industry and Commerce, Taiwan (CNAIC)	Member
Taiwan Union of Nurses Association	Member
Industrial Safety and Health Association (ISHA) of the R.O.C	Member
Taipei, Taichung, Tainan, Kaohsiung, and Hsinchu Bar Associations	Member
Taiwan Bar Association	Member
Taiwan Beverage Industries Association	Member
Institute for Biotechnology and Medicine Industry	Member
Taiwan Food Industry Development Association	Member
Taiwan Cleaning Product Association	Member
New Taipei Cosmetics Industry Association	Member
Taiwan Fermenting Food Manufacturing Industry Association	Member
Chinese Association of Graphics Science & Technology	Member
Industrial Associations, Advancement Associations, and Fellowship Associations of Each County and City	Member
Miaoli Glass Association	Member
Greater Puli Area Tourism Development Association	Member
Tainan City Association for the Promotion and Development of Tourism Factories	Member
Chiayi Tourism Factory and Cultural Industry Development Association	Member
Total Quality Food Association	Member
Taiwan Food Industry Development Association	Member
Yilan Museum Family Association	Member
Taoyuan International Airport Airline Representatives Joint Committee	Member
Taoyuan Duty-Free Shop Taoyuan Airport Industry Development Association	Member
Importers & Exporters Association	Member

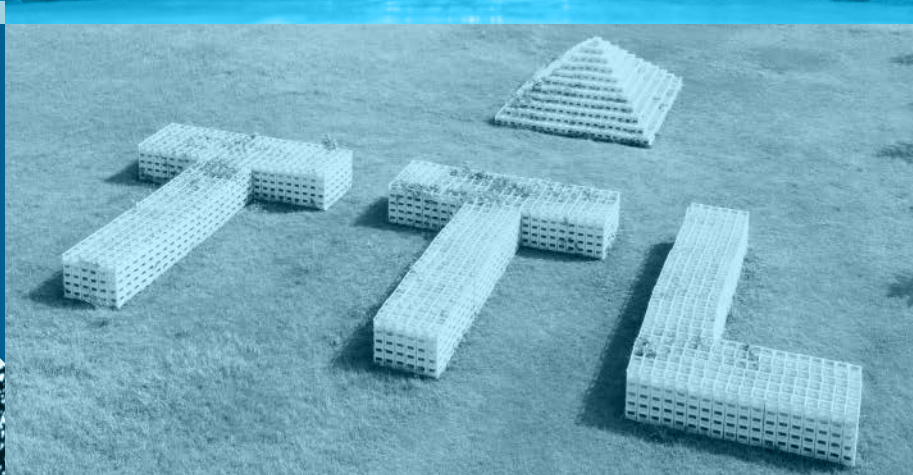
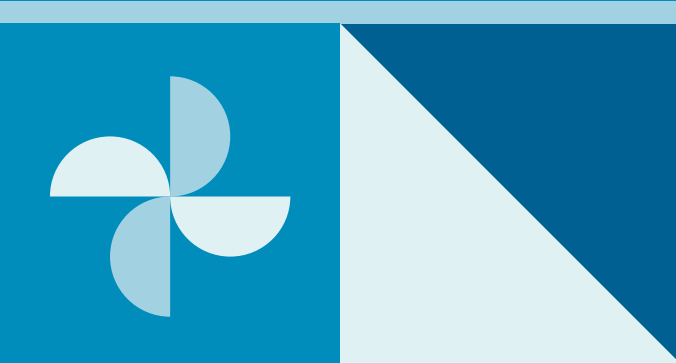
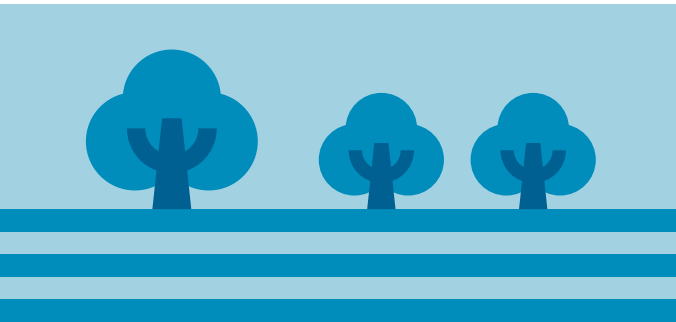
01 Corporate Governance

1.1 Corporate Governance

1.2 Risk Management and Legal Compliance

1.3 Sustainable Supply Chain Management

1.4 Information Security



TTL upholds the vision of “Pursuing Sustainable Innovation and Becoming an International Enterprise.” We continuously strengthens our corporate governance framework, formulates policies on integrity management, and implements risk management and internal control systems. Through well-established regulations and standardized operating procedures, TTL fosters a culture of integrity and governance to guide the Company’s sustainable development.

Aligning with Material Topics

Operating Performance, Uninterrupted Operation, Market Presence, Legal Compliance, Information Security, and Information Security and Privacy Protection

Aligning with Sustainable Development Goals (SDGs)



Conducted **1,692** audits with a **99.07%** improvement rate in addressing audit deficiencies.



Held **9** internal compliance education and training sessions, with a total of **917** participants.



Distributed Supplier ESG Sustainability Self-Assessment Questionnaires with revenues exceeding NT\$ 3 million, receiving a total of **135** responses.



Internal staff completed a total of **7,701** instances of information security online courses.



Held **9** legal compliance education and training sessions, with a total of **917** participants.



Issued the **"Operational Guidelines for the Protection of Whistleblowers and Complainants at Taiwan Tobacco & Liquor Corporation"**

1.1 Corporate Governance

TTL, as a state-owned enterprise, carries the dual mission of advancing national policies and promoting economic development. In a rapidly changing market and regulatory environment, the Company strictly implements food safety and quality control measures, fully practices ESG sustainability principles, and actively builds a green corporate structure. It is committed to providing consumers with high-quality products and services, and continues to steadily progress toward its vision of internationalization.

1.1.1 Business Strategy and Performance

Financial Performance

In response to the rapid changes in the market environment and the increasingly stringent regulatory standards, TTL continues to advance its corporate transformation. Centering marketing strategies on consumer demand, the Company consistently launches new products that align with market trends to enhance product value and service experience. Simultaneously, we accelerate the expansion into overseas markets to elevate the international visibility of our brand. In addition, asset management has been strengthened to improve resource utilization efficiency. Active efforts are being made to revitalize and develop assets in order to create more diversified sources of revenue and enhance the overall competitive strength of the enterprise. In 2024, TTL reported operating revenue of NT\$43.079 billion, a pre-tax net profit of NT\$4.301 billion, and earnings per share (after tax) of NT\$0.82. Detailed financial performance is available in the Company’s Shareholders’ Meeting Annual Report 2024.

Tobacco and Alcohol Regulations Tighten, Constricting Market Scope

In the face of increasingly stringent external regulatory environments, TTL maintains a high level of professionalism. We adapt our strategies flexibly to respond to market demand changes, stabilize financial performance, and ensure sustained leadership in a competitive landscape.

Year	Regulatory Name	Key Points of the Legislative Amendments	Impact on TTL
2022	<ul style="list-style-type: none"> 1. Article 185-3 of the Criminal Code 2. Act Governing the Punishment of Violation of Road Traffic Regulations 3. Criminal Code of the Armed Forces 	<ul style="list-style-type: none"> 1. Strengthening the penalties for drunk driving offenses includes measures such as confiscating vehicles in cases of first-time offenders causing serious injury or death, extending the cumulative period for repeat offenses of drunk driving and refusal to undergo alcohol testing to 10 years, and increasing the maximum fine for passengers in the same vehicle to NT\$15,000. 2. It is explicitly stipulated that the highway authority may publish the names, photographs, and details of violations of individuals who have committed a second drunk driving offense within 10 years. 	In addition to a significant decrease in consumer willingness to purchase alcoholic beverages at on-premise channels such as restaurants, the pandemic has led to self-regulated reductions in outings and gatherings, severely impacting the Company's beer sales.
2024	Tobacco Hazards Prevention Act	<ul style="list-style-type: none"> 1. Comprehensive prohibition on the manufacture, import, sale, supply, display, and advertising of tobacco-like products (including electronic cigarettes). 2. Expand the scope of smoke-free areas. 3. The area of the warning text and graphics has been increased to 50%. 4. Increase the minimum age for smoking to under 20 years old. 5. Tobacco products shall not contain additives that have been officially prohibited. 6. Strictly regulate new types of tobacco products that meet the definition of tobacco products (such as heated tobacco products). Establish an additional health risk assessment review mechanism, and only upon passing the review may manufacturing and importation be permitted. 	Heated tobacco products are still under review, while the market is flooded with illegal heated tobacco products, impacting the traditional cigarette market.

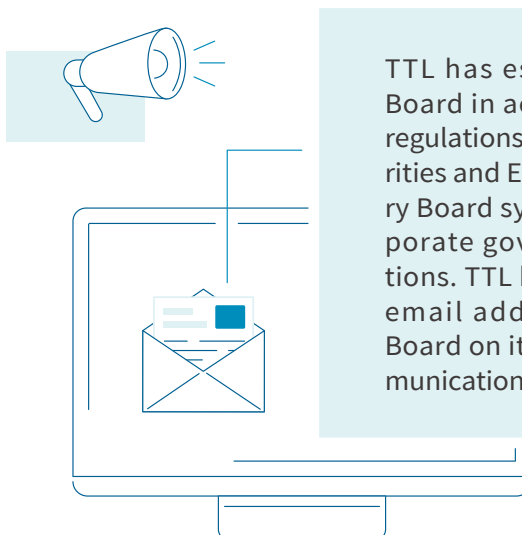
1.1.2 Corporate Governance

TTL upholds the principle of integrity in governance, continuously strengthening the corporate governance culture to establish a foundation for sustainable operations. The Company adheres to principles of transparency and responsible governance, establishing Corporate Governance Code of Practice, Risk Management Implementation Guidelines, Internal Control Systems, and Integrity Management Policies. These clearly regulate the disclosure of financial and non-financial information and ensure information is publicly disclosed in accordance with the law to protect the rights and interests of stakeholders.


To deepen sustainable governance, the Company has established a Sustainable Development Committee, chaired by the Chairperson, with the President serving as the Vice Chair. The Committee convenes Senior Vice Presidents to form four major subcommittees. Additionally, a collaborative mechanism has been established with the Risk Management Committee to conduct cross-departmental cooperation and response planning for key risks such as climate change, legal compliance, operational disruptions, information security, and supply chain resilience. This promotes the integration of sustainability and risk governance, enhancing the overall corporate resilience and effectiveness of sustainable management.

Internal Corporate Governance

TTL is a publicly listed company with unified management and ownership rights. It is a state-owned enterprise wholly owned by the Ministry of Finance, holding 100% of the shares. Its stock is not traded on the open market. The Board of Directors is the highest governing body. All directors and supervisors are appointed by the Ministry of Finance, totaling 14 directors. Among them, 3 directors represent the labor union, 2 are independent directors, and there are 5 supervisors. TTL pays attention to gender equality among Board of Directors members. The total number of male directors and supervisors is 12, and the total number of female directors and supervisors is 7. To ensure the effective operation of the Board of Directors and safeguard the interests of stakeholders and shareholders, the Company has established the "TTL Board of Directors Organizational Rules" and set up the Board of Directors Secretariat. The Board of Directors convenes regularly to deliberate and decide on significant business matters and urgent issues concerning the Company's operations. In the year 2024, a total of 13 meetings were held, with an average attendance rate of 95.71% among the directors and supervisors.



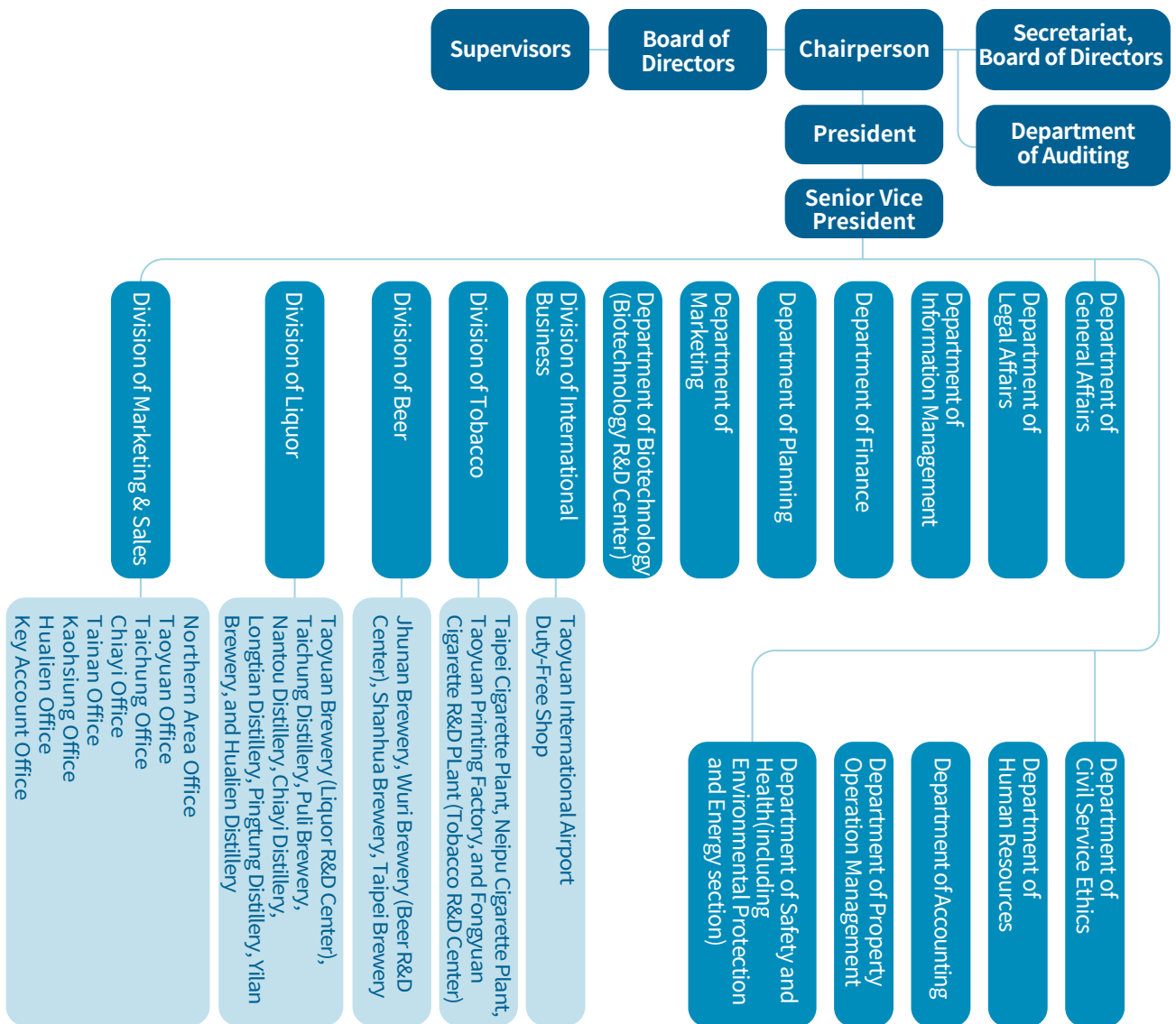
TTL has established a Supervisory Board in accordance with its internal regulations and Article 14-4 of the Securities and Exchange Act. The Supervisory Board system ensures effective corporate governance and daily operations. TTL has also set up a dedicated email address for the Supervisory Board on its website to facilitate communication with stakeholders.



Supervisors' Mailbox

TTL adheres to the personnel regulations for state-owned enterprises in determining remuneration and bonuses for senior executives and employees. The salary structure for senior executives is set by the Ministry of Finance, and the Company has not established an independent remuneration committee. The performance evaluation of directors and supervisors is based on factors such as attendance at board meetings and involvement in the Company. Their contributions to medium- and long-term business strategies, operational objectives, annual plans, budgets, operational efficiency, risk management, legal compliance, internal control, and internal auditing are also considered. This approach ensures the effective functioning of the Board of Directors and enhances the operational efficiency of the Company.

Organizational Structure of TTL



TTL has its primary operational activities managed by the Division of Marketing & Sales, Division of International Business, Division of Tobacco, Division of Liquor, Division of Beer, and Department of Biotechnology. Additionally, TTL has established support departments including the Department of Marketing, Department of Planning, Department of Finance, Department of Information Management, Department of Legal Affairs, Department of General Affairs, Department of Safety and Health, Department of Accounting, Department of Human Resources, Department of Civil Service Ethics, and Department of Property Operation Management to facilitate and advance its various business activities.

Integrity Management and Anti-Corruption Governance

TTL regards integrity management as the essence and standard of excellent corporate governance. In adherence to the "Code of Ethical Conduct for Listed and Over-the-Counter Companies," TTL has established its own "Code of Ethical Conduct for Taiwan Tobacco & Liquor Corporation," which stipulates that the behavior of executives and employees at all levels must align with the company's ethical conduct standards. Furthermore, to establish a robust corporate governance system, TTL has adopted the "Corporate Governance Best Practice Principles" for compliance.

Corporate Governance Best Practice Principles



Conflict of Interest Avoidance

Board members adhere to a high level of self-discipline. If any agenda items discussed by the Board of Directors involve a potential conflict of interest that could harm the Company's interests, the board member in question will recuse themselves from the discussion. The Deputy General Manager of the Department of Planning is appointed as the Corporate Governance Officer to oversee and assist in monitoring corporate governance matters, thereby enhancing the effectiveness of corporate governance supervision.

Integrity and Anti-Corruption

TTL is a state-owned enterprise, and all employees are uniformly subject to the "Public Servants' Integrity and Ethics Standards." New employees who have been on the job for more than six months have all received 100% anti-corruption education and training. To further promote the advocacy of integrity regulations, the Company continues to collaborate with various branches to hold anti-corruption activities, consolidating a culture and values of honest management, and further enhancing employees' sense of identification and cohesion with the Company.



To be safe,  don't drink and drive.

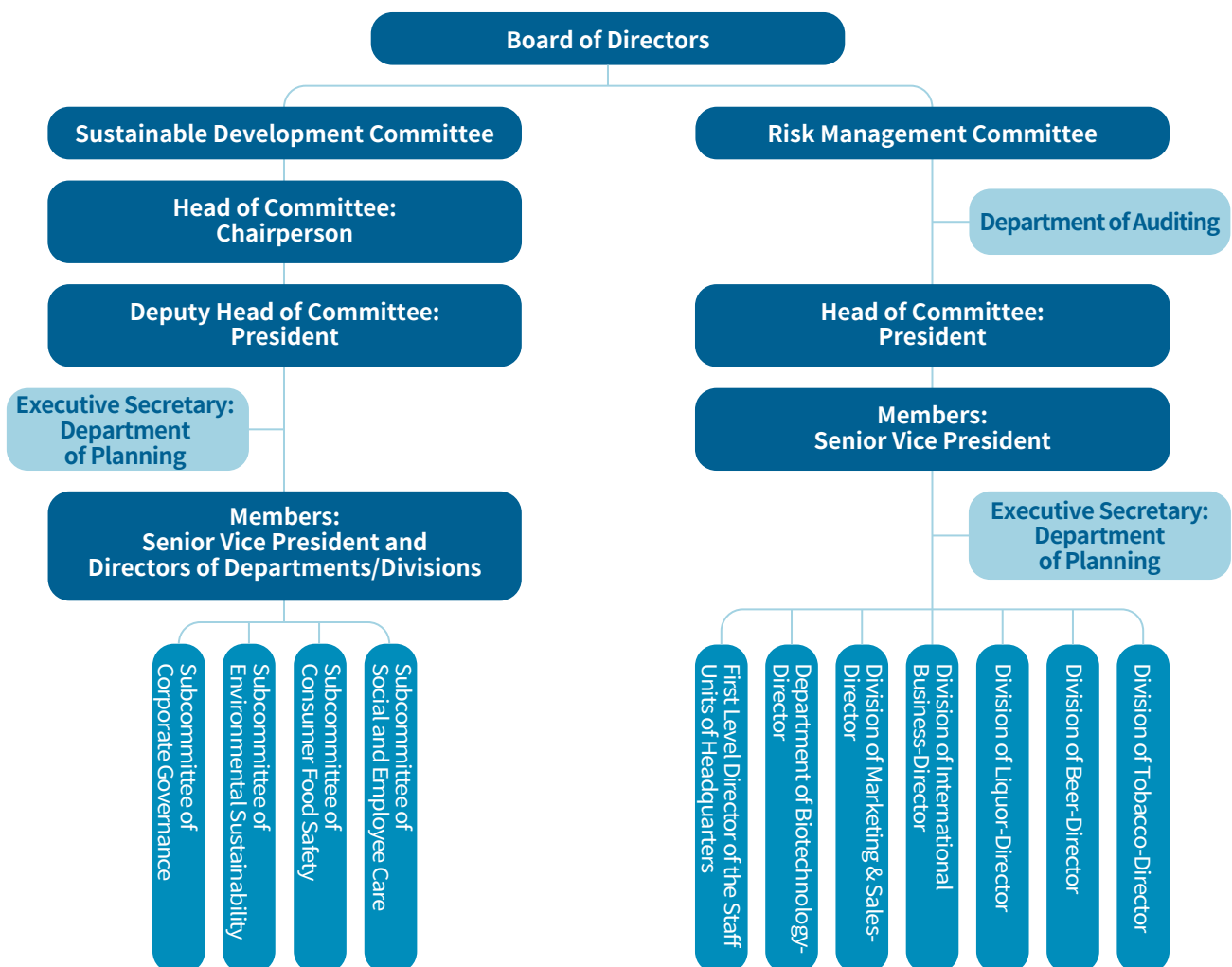
1.2 Risk Management and Legal Compliance

1.2.1 Risk Management Mechanism

To integrate risk management into its corporate culture, TTL has actively implemented a risk management mechanism. In 2012, TTL established the "Risk Management Implementation Guidelines," which delineates a risk management framework comprised of the Board of Directors, the Department of Auditing, the Risk Management Committee, the Department of Planning, and primary units. This framework supervises and reviews risk events and drives the execution and control of risk management activities, with the goal of ensuring the stable and sustainable development of the Company's business operations and overall management, thereby achieving long-term corporate sustainability.

The Risk Management Committee at TTL is composed of the management team and senior executives. The Committee convenes quarterly to assess various risk events and their impact, formulates response measures, and directs units to regularly review relevant regulations, government announcements, and current events within their business areas. This includes collecting pertinent information to establish internal standards for compliance and enhancing overall employee awareness of operational, strategic, and crisis-related risks. At the same time, collaboration is carried out through the Sustainability Development Committee to steadily implement the Company's operational strategies.

TTL Risk Management and Sustainable Development Committee Organizational Structure Diagram



In 2024, risk source analysis revealed that 72.60% of risks originated from external environments, with political and regulatory factors being the most significant. The remaining 27.40% of risks were attributed to internal environments, primarily related to operational activities. Prior to the implementation of control mechanisms, the inherent risk index averaged 9.13. After the relevant units proposed and enacted control measures, the residual risk index decreased to 4.28, effectively reducing both the probability and impact of risk occurrences.

1.2.2 Internal Control and Audit

TTL, in accordance with the "Regulations Governing Establishment of Internal Control Systems by Public Companies" issued by the Financial Supervisory Commission of the Executive Yuan, has developed internal control systems and detailed rules for the implementation of internal audits to promote sound management of the Company and ensure the achievement of the three major objectives of internal control. The components include five major elements: control environment, risk assessment, control activities, information and communication, and monitoring activities. The scope of formulation covers the internal control systems of all operational activities of the Company, and is divided according to the Company's business activities into the following eight major cycles and information system processing operations, as well as other related control operations.

Effectiveness of Internal Control in 2024



1.2.3 Legal Compliance

TTL places great importance on legal compliance. We conduct organizational operations and implements controls in accordance with relevant laws, regulations, and the internal rules and regulations to safeguard the Company's interests. Regular compliance training is conducted to ensure employees adhere to key legal standards, and the company continuously monitors and identifies updates in legal requirements. Internal compliance guidelines are regularly updated to ensure legality, thereby enhancing corporate governance performance.

Legal Compliance and Standards Development



Statistics of Litigation and Penalty Cases Arising from Products and Labeling in the Past Three Years

	2022	2023	2024
Number of Product and Service Regulatory Violations (Number of Cases)	0	0	0
Number of Non-Compliance with Labeling Regulation (Number of Cases)	0	0	0

1.3 Sustainable Supply Chain Management

1.3.1 Supply Chain Management Policy

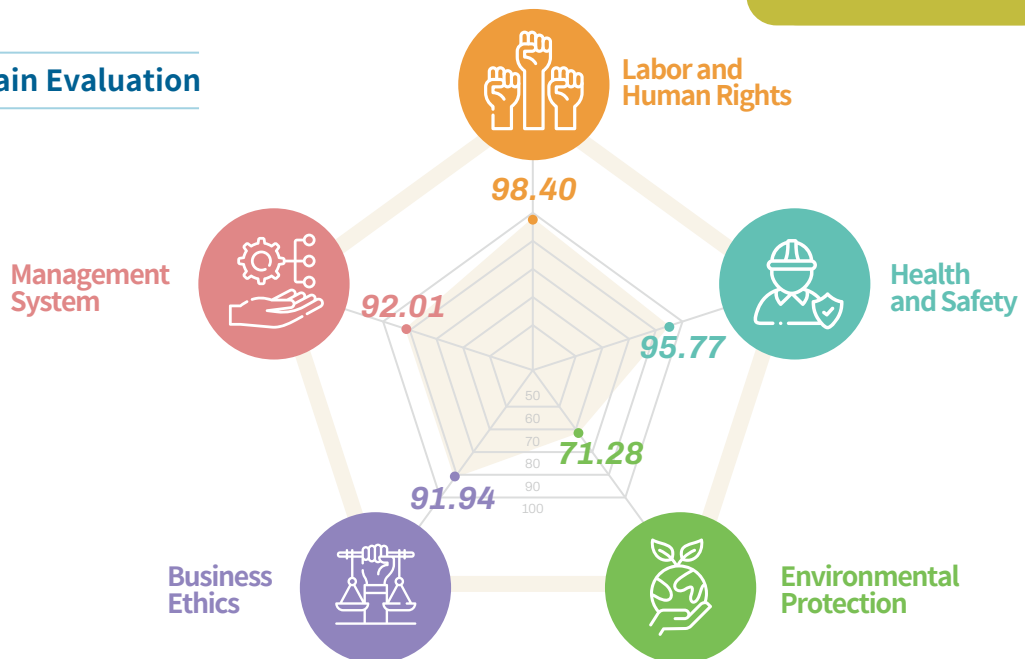
Sustainable Supplier Management and Improvement

TTL collaborates with suppliers to jointly promote sustainable development. Following the two major strategies of "Sustainable Supplier Management" and "Localized and Green Procurement," the Company implements a comprehensive sustainable supply chain management mechanism and establishes the "Supplier Code of Conduct of Taiwan Tobacco & Liquor Corporation." The Company conducts vendor selection procedures in accordance with the "Government Procurement Act." Before the bid opening, it verifies through the Government e-Procurement System whether the bidding vendors are listed on the blacklist, and requires vendors to provide tax-related information to ensure their operational integrity and transparency, thereby strengthening supply chain management and risk control capabilities.

Three Key Points for Supply Chain Management

- Quality Control
- Supply Chain Traceability
- Supplier Compliance

TTL Supply Chain Evaluation



The 2024 ESG Questionnaire Evaluation Results for Taiwan Tobacco & Liquor Corporation's supply chain indicate that the overall supply chain has achieved commendable results across the five key dimensions. However, there remains room for improvement in the environmental protection dimension. A detailed analysis of the questionnaire suggests that the slightly lower score in this area is primarily due to only 43.28% of suppliers having conducted greenhouse gas inventories or calculated their greenhouse gas emissions.

TTL will continue to monitor the scoring status of its suppliers, striving to establish the goal of "Building a Sustainable Supply Chain" as set by the Subcommittee of Corporate Governance. Future plans include defining key Tier 1 suppliers based on criteria such as transaction volume, order quantity, and uniqueness. For items with lower scores, enhanced audits will be promoted. Through supplier audits and reviews, the actual conditions of suppliers will be understood. Subsequently, suppliers will be gradually required or assisted to make improvements, working together to develop a sustainable supply chain.

1.3.2 Sustainable Procurement

To further strengthen the sustainability management of the supply chain, we have established a tiered system and management measures based on different supplier risks. We require suppliers to comply with the Code of Conduct, complete a sustainability management self-assessment questionnaire, and continuously promote and jointly protect Taiwan's ecological environment.

Local Procurement

TTL bears the responsibility of promoting agricultural development in Taiwan. By implementing a local procurement strategy, it supports the development of local agriculture, provides farmers with stable market demand, and simultaneously creates more local employment opportunities.

2024 Local Procurement



Beer Products

Japonica rice, wheat, lychee juice, wax apple syrup, pineapple juice, lychee juice, mango juice, guava juice, passion fruit juice, red quinoa, Job's Tears

Amount of Local Procurement Raw Materials

NT\$ **320** million

Proportion of Local Procurement Raw Materials

20%



Alcoholic Products

Rice

Amount of Local Procurement Raw Materials

NT\$ **37** million

Proportion of Local Procurement Raw Materials

6.88%

Green Procurement

TTL, in order to reduce environmental impact, prioritizes the use of cardboard boxes made from over 80% recycled pulp when procuring bulk paper packaging materials for its Production Division. The Company encourages packaging suppliers to use recycled pulp in the manufacture of cardboard boxes. Additionally, beer aluminum cans contain more than 10% recycled aluminum content. In response to the net-zero green lifestyle, the Company prioritizes the purchase of environmentally certified products for daily operational equipment and supplies. In 2024, the green procurement achievement rate reached 100%, effectively promoting green consumption trends and realizing environmental protection benefits.

Supplier Audits and Certifications

TTL conducts comprehensive annual inspections of all outsourced food manufacturing contractors to ensure that products comply with food safety and hygiene regulations. At the same time, outsourced manufacturers of food and biotechnology products are required to provide detailed production traceability information, including the name of raw materials, source brands, country of origin, packaging methods, and supplier information. They must also clearly disclose quality management certifications for raw materials (such as ISO 22000 or HACCP systems), submit legal certificates for the use of additives, and declare that no illegal additives, industrial-use raw materials, or expired raw materials are used, in order to ensure product safety and protect consumer health rights.

1.4 Information Security

TTL prioritizes information security and privacy protection. When implementing e-commerce channels, multiple cybersecurity measures are taken to enhance system security. The Company closely monitors emerging cybersecurity risks and continuously upgrades protective measures to ensure the proper management and safeguarding of customer information. Additionally, the Company conducts training to raise employees' awareness of privacy protection, thereby ensuring the security of personal data and maintaining customer trust and satisfaction.

1.4.1 Information Security Policy



Information Security Management Upgrades

TTL complies with the "Information and Communication Security Management Act" and related legal regulations. Additionally, in coordination with the Ministry of Finance's promotion, it implements various information security measures, strengthens information security advocacy, and incorporates information security requirements into information service procurement contract specifications. To enhance the information security protection level of the TTL eshop and data center network, the Company annually maintains the information security management system and continuously improves it. This includes conducting relevant training, inventorying information assets, evaluating information and communication system risks, performing internal audits, and holding management review meetings. Through these processes, the awareness and experience of information security management are gradually integrated into employees' daily operations.

Implementation of ISO 27001

TTL continues to enhance its information security management. It has implemented the ISO/IEC 27001 Information Security Management System for the TTL eshop, data centers, and network infrastructure. This implementation exceeds the requirements for Level C information security responsibilities mandated for specific non-governmental agencies under the Information and Communication Security Management Act. In 2024, the Company plans to upgrade the ISO/IEC 27001 international standard certification for the TTL eshop, data centers, and network, ensuring the continued validity of the certification.

Information Security Incident Drill in 2024

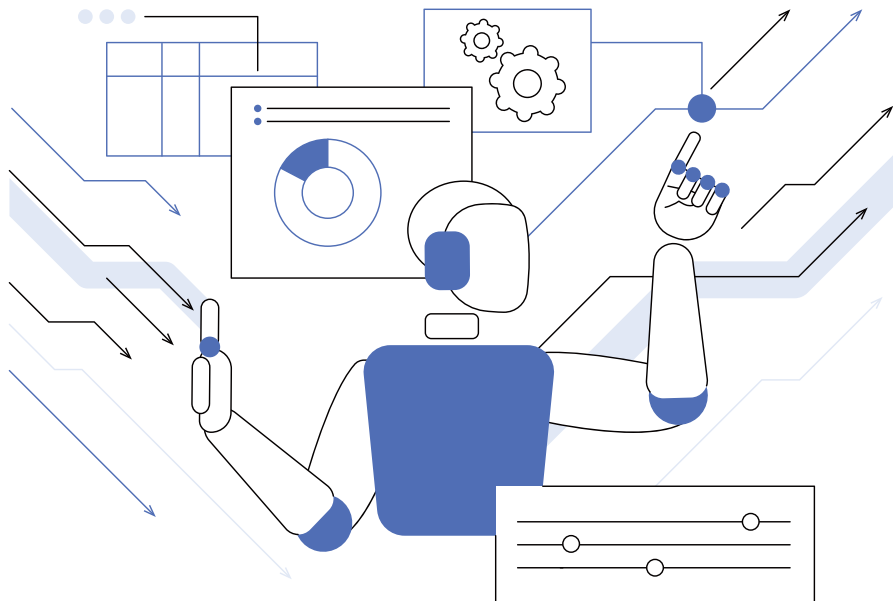
Drill	Implementation Effectiveness in 2024
 Malicious Email Drill	The malicious email links or attachments were clicked a total of 0 times.
 Information and Communication Security Incident Reporting Drill	Received commendation from the Ministry of Finance.

1.4.2 Information Equality and Innovation

To enhance the competitiveness of TTL and actively promote digital transformation, the Company is expanding the integrated application of AI, BI, and robotics. In 2024, the development of robots for generating channel revenue control reports, company-wide unit sales management reports, and VPN expiration alert notifications will be completed. These robots will handle large volumes of tedious and highly repetitive tasks, operating 24/7 without interruption, which will significantly reduce human intervention, improve operational efficiency, service quality, and user satisfaction.

Effectiveness of Digital Innovation Promotion

Item	Content	Performance
Revenue Control Report Generation Bot	The bot regularly and automatically connects to the data warehouse to perform a comparative analysis of sales amounts for the current and previous periods according to the Company's channels and product categories.	Data inquiry, analysis, output, and original manual operations took at least 4 to 5 hours. After automation by bots, the process was reduced to 20 minutes.
Company-wide Unit Sales Management Report Generation Bot	The bot regularly and automatically connects to the ERP system and the data warehouse system to consolidate relevant sales data.	Previously, the compilation and statistical analysis of relevant data required manual processing, taking at least 3 to 4 hours to complete. With the implementation of robotic process automation, the task is now completed within 20 minutes, significantly enhancing operational efficiency.
VPN Expiration Alert Notification Bot	The VPN account expiration dates of electronic forms are regularly and automatically checked by a bot, which then automatically sends email notifications to the relevant network administrators to carry out the VPN account closure procedures.	By automating through the use of bots, the risk of information security breaches caused by human oversight during inspections is avoided, effectively ensuring the company's information security.

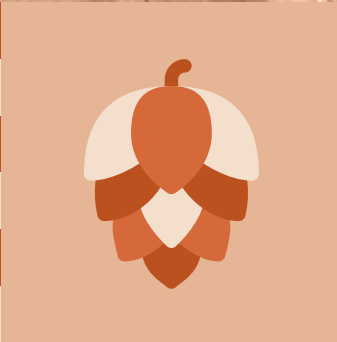
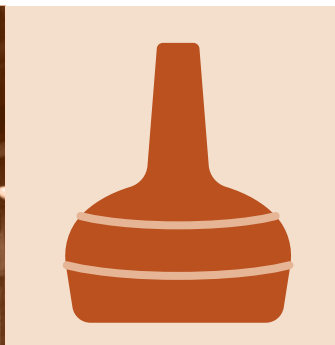


02 Quality Management

2.1 Product Quality and Safety Management

2.2 Customer Service and Communication

2.3 Product Innovation Marketing



TTL adheres to its commitment of "Stay True for a Century, Be Reliable and Safe," strengthening its food management system and continuously investing in innovative research and development to launch products that combine local characteristics with quality assurance. In 2024, we continued to deepen food safety inspection technologies and management processes, striving for excellence from products to services. We actively expanded our domestic and international market presence, hoping to showcase Taiwan's brand strength and local culture to a wider audience.

Aligning with Material Topics

Quality Management, Consumer Health/Customer Safety, Marketing and Labeling, Distributor Management, Innovation and Research & Development.


Aligning with Sustainable Development Goals (SDGs)



 <p>100% compliance rate for outsourced food product suppliers upon comprehensive audits.</p>	 <p>100% compliance rate for in-house testing items conducted by the alcoholic beverages analysis laboratory.</p>
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 <p>Maintenance of the new TAF ISO 17025 laboratory certification for the alcoholic beverages analysis laboratory.</p>	 <p>A total of 143 medals won in international competitions.</p>
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 <p>97.3% customer satisfaction rate among domestic customers.</p>	<p>96% customer satisfaction rate among export customers.</p>	<p>100% customer satisfaction rate at duty-free shops.</p>
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 Continuous maintenance of ISO 22000 Food Safety Management System certification and HACCP (Hazard Analysis Critical Control Point) certification **for 9 distilleries and 3 breweries.**

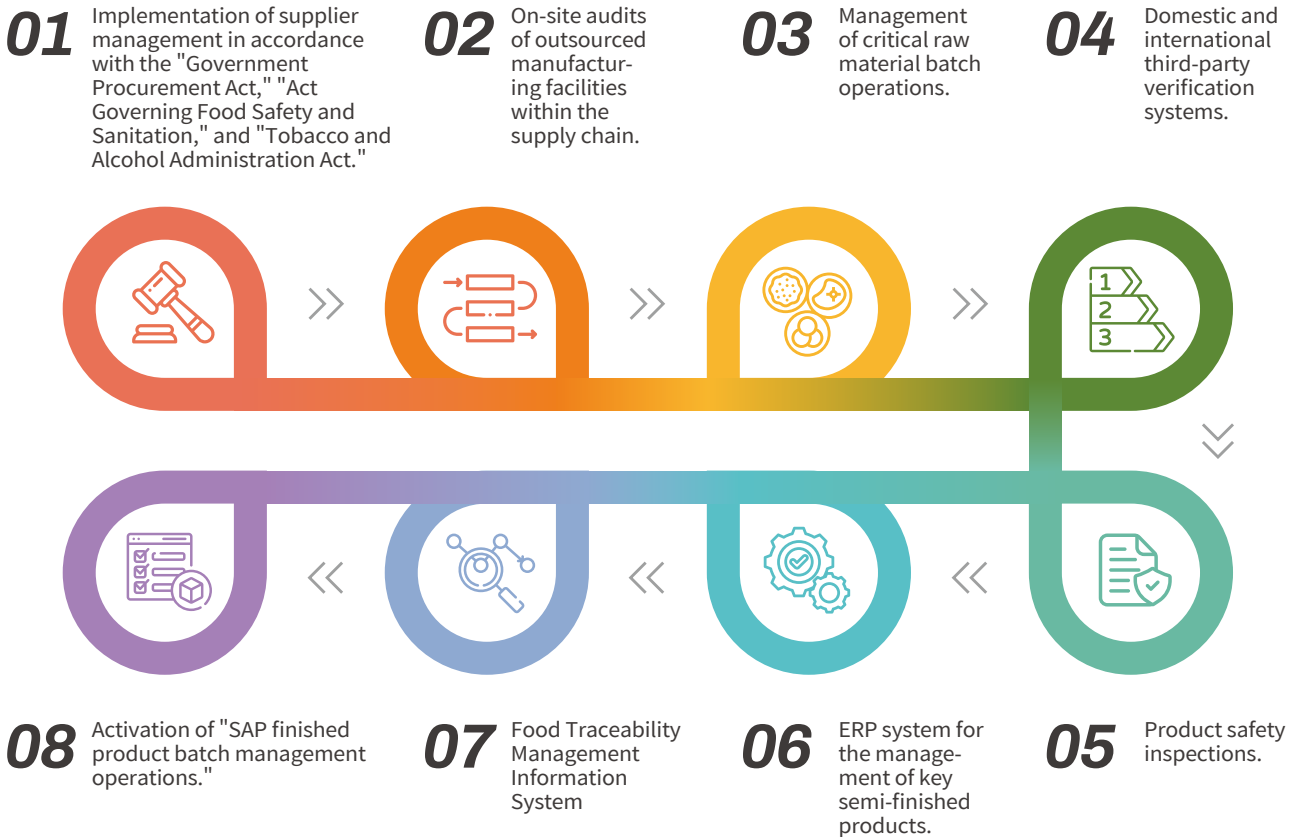
2.1 Product Quality and Safety Management

2.1.1 Quality Management

TTL adheres to the commitment of "Stay True for a Century, Be Reliable and Safe." We exercise strict control at every stage, from raw material production and processing to sales, to ensure product stability and high quality. The Company has established the "Total Quality Management" (TQM) Implementation Guidelines" and set up the TQM Committee to promote the quality policy of "full participation, economic efficiency, customer satisfaction, and innovative value." The Committee holds meetings quarterly to track implementation progress and review effectiveness based on the seven major aspects of TQM. It also formulates improvement measures to strengthen quality management practices.

To enhance the diversity and objectivity of the management system, the TQM Committee has also established a third-party expert consultation mechanism. This allows for the engagement of external experts to provide professional advice, assisting in the optimization of the food safety management system, strengthening product traceability and supplier management mechanisms, and further implementing comprehensive quality management.

TTL's TQM Food Safety Assurance Process



2.1.2 Product Compliance and R&D Innovation

ISO 9001

The Company operates 9 distilleries, 3 tobacco factories, and 3 breweries, all of which have fully implemented the ISO 9001 Quality Management System. Following the PDCA (Plan, Do, Check, Act) cycle framework, the quality management processes are thoroughly enforced. Each factory adheres to the seven quality management principles established by ISO 9001, implementing standardized operating procedures, comprehensive quality slogans, raw material incoming inspection and finished product shipment inspection mechanisms, non-conforming product handling areas, and customer complaint handling processes. This effectively controls process quality and manages product risks, ensuring that products leaving the factory comply with regulations and company quality requirements.

ISO 22000 and HACCP

To safeguard consumer food safety, the 9 distilleries and 3 breweries under the TTL have not only fully obtained ISO 9001 Quality Management System certification but have also concurrently implemented the ISO 22000 Food Safety Management System and the HACCP Hazard Analysis and Critical Control Points system, thereby strengthening the existing PDCA quality management mechanism. Through the integration of the aforementioned systems, a comprehensive food safety protection framework is established, covering all stages including food research and development, raw material procurement, manufacturing, packaging, storage, transportation, sales, and consumption. This framework aims to comprehensively reduce the risk of contamination or hazards, ensuring the hygiene and safety of the supply chain. In 2024, TTL continues to maintain three international certifications: ISO 9001, ISO 22000, and HACCP, achieving a coverage rate of 100%. Additionally, multiple products have obtained the Taiwan Quality Food (TQF) mark, CAS Excellent Agricultural Product mark, and Excellent Liquor mark, demonstrating a strong commitment to product safety and quality.

Product Innovation Strategy

In response to the ongoing changes in market trends and consumer behavior, TTL upholds a spirit of innovation, positioning products as the key carriers for realizing sustainable value, and developing forward-looking and diversified innovation strategies. In 2024, TTL will focus on four major strategic directions: deepening the application of by-products, strengthening quality control, expanding local specialties, and enhancing the benefits of industry-academia collaboration. The company will continue to launch products that combine market potential with social value, thereby achieving its development goals of corporate innovation and sustainable progress.



Four Major Product Innovation Outcomes in 2024

Aspect	Actions	Outcomes
 Resource Recycling and Reuse	<ul style="list-style-type: none"> Reutilization of brewing by-products. 	<ul style="list-style-type: none"> Development of 6 products using sake lees as raw material.
 Professional Certification	<ul style="list-style-type: none"> Actively pursuing product patents, certifications, and awards. Establishment of a cosmetics factory and obtaining quality certification. 	<ul style="list-style-type: none"> A total of 6 types of patents/certifications/awards have been obtained for 4 products. Establishment of a GMP-certified cosmetics factory to produce seven products.
 Local Connection	<ul style="list-style-type: none"> Developing localized specialty products. 	<ul style="list-style-type: none"> Development of 6 items of alcoholic beverages using local ingredients Research and development of Premium Sake Ale Taiwan Beer. Research and development of Zhushan Beer.
 Industry-Academia Collaboration	<ul style="list-style-type: none"> Continued collaboration with the Industrial Technology Research Institute. 	<ul style="list-style-type: none"> Implementation of the Scented Beauty Industry Advancement Program.

Resource Recycling and Reuse

TTL has long been committed to the reuse of by-products from liquor production. In 2024, we continued to focus on sake lees as the core raw material to develop six key products, demonstrating its capability in resource transformation and product innovation. Furthermore, in 2024, market reach continued to expand through cross-industry collaboration. By partnering with shopping channel distributors, four personal cleansing and skin care products were launched, further enhancing the application value of sake lees. This initiative generated approximately NT\$10.18 million in annual revenue, reinforcing a development model that integrates resource sustainability with industrial benefits.

Key Sake Lees Products for 2024



Cheers Mate Restoring Peptide Drink



Black Yeast Golden Anti-Aging Essence



Sake Lees Essence Rejuvenating Youth Serum (Gold Edition - Safflower Variant)



Premium Sake Lees Genetic Repair Essence



Sake Lees Rejuvenating Youth Essence (Nantou Distillery 45th Anniversary Limited Edition)



Better Than You - Joint Health Care Products (For Dogs)

First-Line Quality Control

From Outsourcing to In-House Production: Establishing an Owned Cosmetics Factory to Build a Quality Backbone

To strengthen product quality control capabilities, TTL has established its own cosmetics factory. In addition to developing new products, it has also converted some previously outsourced processes to in-house production. This effectively enhances the control over production processes and the stability of quality, reflecting the company's consistent commitment to product quality.

The cosmetics factory has obtained GMP certification and produces seven products, including a series of hop-based shampoo, body wash, hand wash, anti-wrinkle eye cream, essence, and revitalizing cream. Through professional standards and independent production, the factory fulfills its commitment to quality management.



Key Products Manufactured by the Cosmetics Factory



Hops Shampoo
(Two Variants)



Hops Shower
Gel



Hops Hand
Wash

Firming
Anti-Wrinkle
Eye Cream



Moisturizing
Anti-Wrinkle
Essence



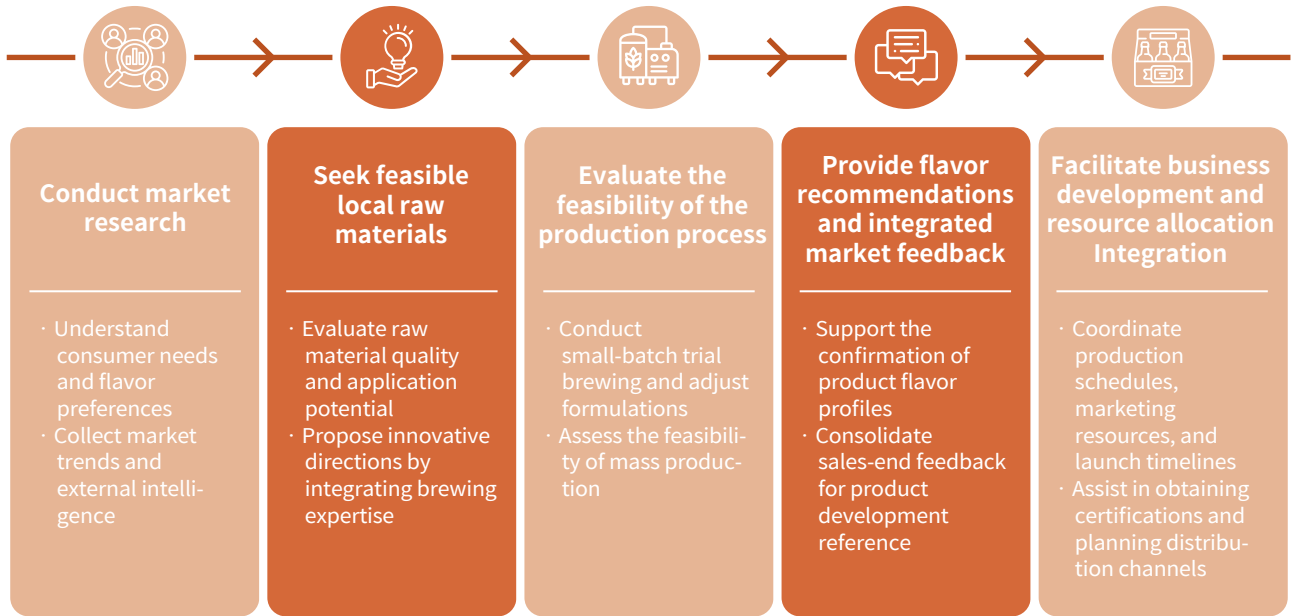
Anti-Wrinkle
Revitalizing
Cream



Local Connection

TTL deeply roots itself in local communities and values the emotional connection to the land. It has long actively selected distinctive fruits and agricultural raw materials from various regions of Taiwan for product development. Through its alcoholic beverages, it carries the local terroir and cultural imagery, continuously expanding cooperation opportunities with local farmers' associations and raw material suppliers. Each year, it launches multiple new products featuring local characteristics, supporting domestic agriculture and strengthening regional ties.

Local Ingredient-Based Alcohol Product Development Process



Citrus & Lavender Craft Gin centers on winter sweet oranges, blending local Taiwanese ingredients such as ailanthus prickly ash, honey-scented black tea, madou pomelo, and grapefruit, showcasing a multi-layered aroma of fruit and herbs.

Coriander Craft Gin features Yunlin's specialty cilantro as its main ingredient, combined with Taiwan's local ingredients such as ailanthus prickly ash and old ginger, creating a unique blend of spicy and herbal flavors.

Zhushan Beer
Collaborating for the third time with the Alishan Forest Railway Office and integrating resources from the Chiayi County Government, we selected the highly acclaimed Aurora Hami Melon and Tianhua Hami Melon, known as the "Hermès of melons," to brew the limited edition "Zhushan Beer," showcasing the achievements of cross-industry cooperation and the charm of local fruits.

Sweet Touch - Guava and Rose Apple Beer features a meticulously crafted blend of domestically produced pearl guava juice from southern Taiwan and locally sourced rose apple syrup, offering a rich, refreshing taste that captures the essence of Taiwan's tropical fruits.

Premium Sake Ale Taiwan Beer
In collaboration with the Wuri Dist. Farmers' Association, we selected the "Fragrant Beauty Rice" from the Taichung Wuxi River Basin and combined it with sake brewing techniques to develop the uniquely flavored "Sake Ale," showcasing the results of cross-industry cooperation and support for local agricultural products.

Sweet Touch - Mango and Passion Fruit Beer features domestically produced Aiwon mangoes and Tainong No. 1 passion fruit juice, delivering a well-balanced sweet and tangy tropical flavor that highlights the richness of locally sourced Taiwanese fruits.



To be safe,  don't drink and drive.

Industry-Academia Collaboration

TTL has collaborated with the Industrial Technology Research Institute for many years. Since 2015, they have jointly conducted multiple research projects on brewing raw materials and by-products. By integrating biotechnology, they have developed biotechnological products including health foods and drinks, skin care products, as well as cleaning products. Starting from the core tobacco and alcohol business, we implement the policy of maximizing resource utilization (reuse). We are committed to researching by-products of alcohol brewing, aiming to develop market-differentiated products with unique characteristics and efficacy. This effort is intended to establish a brand image guaranteed by the state-owned enterprise. We also aspire to transform brewing by-products into unique core raw materials that are high-value, high-added-value, and possess excellent applicability.

In 2024, a collaboration with the Industrial Technology Research Institute was undertaken to advance the Scented Beauty Industry Advancement Program. This project utilized by-products generated during the beer brewing process, combined with biotechnology fermentation techniques, to transform brewer's spent grain into cosmetic raw materials that have soothing and skin-repairing properties without causing irritation. Concurrently, the raw materials were subjected to literature submission, application for the International Nomenclature of Cosmetic Ingredients (INCI) name, and patent application.

2.1.3 Product Liability and Food Safety

Legal Compliance

TTL places great importance on product labeling responsibilities and strictly adheres to legal compliance. Upholding the principle of information transparency, the Company ensures that consumers can clearly understand the product contents and precautions. Physical retail channels convey correct usage concepts through labeling and warnings, while online channels such as the TTL eshop fully disclose product features and specifications on the product pages. In response to regulatory changes, all product labeling checklists were comprehensively updated in 2024 to strengthen labeling management and protect consumer rights.

Internal Inspection

To ensure product quality, the TTL Biotechnology R&D Center has established an alcohol analysis laboratory. This laboratory is responsible for developing a rigorous testing system and coordinating core raw materials and technical research. According to the requirements of the competent authorities or internal methods, inspections are conducted on finished products and semi-finished products to protect consumer rights and product safety. In 2024, the laboratory's internal testing expenses totaled NT\$58,666,306, representing 0.136% of the Company's total net operating revenue.

Transparency in Food Traceability Information

TTL strives to enhance food safety management measures by integrating multiple systems, including the ISO 9001 Quality Management System, SAP system, factory food safety traceability system, and the food distribution tracking system at business locations, to ensure food safety. In accordance with the government's "Food Safety Tracking and Tracing Inquiry Platform," food industry operators are required to maintain complete records of the food production chain, enabling consumers to query product traceability records through a web browser.

Internal and External Laboratory Testing

The Biotechnology R&D Center's beverage analysis laboratory has obtained ISO 17025 certification from the Taiwan Accreditation Foundation (TAF), demonstrating its high-level professional testing capabilities and ensuring compliance with international standards. In 2024, the laboratory conducted 8 different types of tests on beverages, with a 0% failure rate for all tests.

2.1.4 International Awards

TTL actively participates in international competitions, international award evaluations, and various national and regional food and tobacco and alcohol exhibitions, leading Taiwanese tobacco and liquor products onto the international stage and expanding their global recognition. In 2024, TTL products participated in the Monde Selection World Quality Evaluation Awards, receiving a total of 50 medals (8 Grand Gold, 26 Gold, 15 Silver, and 1 Bronze). Additionally, awards from other international spirits and beer competitions including CMB, WWA, ISC, IWSC, SFWSC, and WBA totaled 93 medals, bringing the overall total to 143 medals.

Award-Winning Images of TTL Products



2.2 Customer Service and Communication

To continuously optimize product and service experiences, TTL integrates production and marketing resources, promotes product innovation and packaging optimization, and establishes a digital commerce platform. We deepen channel management through diverse marketing tools and consumer interactions, and manages operations using quantitative indicators such as customer satisfaction. In 2024, domestic customer satisfaction reached 97.3%, export customer satisfaction was 96%, and duty-free shop customer satisfaction was 100%, demonstrating a high level of recognition from various channels and consumers for the Company's performance. The Company will continue to drive service improvement through genuine feedback.

To be safe,  don't drink and drive.

2.3 Product Innovation Marketing

2.3.1 Deepening Local Market

TTL promotes the concept of a circular economy, showcasing Taiwan's local cultural characteristics, and is committed to developing products that utilize by-products of liquor production and local agricultural specialties. The Company adopts a "consumer-centric" marketing strategy as its main axis, integrating sales channel deployment and promotion, while continuously optimizing and integrating resources across the three major aspects of "product, brand, and sales." This approach promotes organizational restructuring and innovation, achieving a virtuous cycle that strengthens the marketing advantages of TTL.

Domestic Marketing Strategy

TTL adheres to the principle of integrity, implements quality management under strict standards, and continuously incorporates innovative elements across various processes including product research and development, packaging, and marketing. The Company values consumer communication and employs five major marketing strategies to integrate product services with sustainability principles. By leveraging its brand influence, TTL aims to raise awareness among its broad customer base about environmental friendliness, local agriculture, and cultural creation. The goal is to encourage customers to adopt sustainable practices in their daily lives.

Responsible Marketing

- Adhering to the principles of information transparency without exaggeration and strictly complying with government regulations, alcohol product advertisements prominently display warning messages to promote the concept of responsible drinking to the public.
- Introduce cooperative resources and implement the concept of designated driving to reduce the risk of drunk driving, further demonstrating the company's responsibility and commitment to ensuring consumer safety.



In 2024, a collaboration with LINE GO was launched to introduce ride vouchers, emphasizing the core principle of "Don't drink and drive." After participating in the beer event, consumers can use their ride tickets to enjoy convenient ride-hailing services, ensuring a safe return home and reducing the risk of drunk driving.

Experiential Marketing

- TTL enhances brand awareness and expands target customer groups through experiential marketing, while deepening consumers' perception of product quality and characteristics, thereby fostering brand loyalty.
- In November 2024, the "OMAR Single Malt Whisky 15Y Px Solera Sherry Cask" product launch event was held. The brand ambassador was invited to explain the flavor profile of the whisky on-site, paired with gourmet food and beverages, allowing attendees to deeply experience the product's unique characteristics. In collaboration with the National Museum of History, four paintings by Master Lin Yu-Shan were incorporated into the packaging design, showcasing the brand spirit of "Upholding Tradition, Fearless Innovation." Through this artistic cross-industry partnership, the concept of tasteful living was conveyed, successfully enhancing consumer recognition and favorability toward the brand.

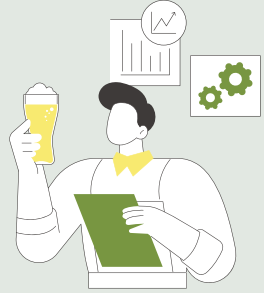


To be safe,  don't drink and drive.

Green Marketing

TTL actively promotes green marketing strategies, integrating sustainability concepts from raw material selection to packaging design, demonstrating its commitment to environmental protection and local agriculture. We not only convey environmentally friendly values through innovative products but also actively support Taiwanese agricultural products and promote a green lifestyle. This enables consumers to easily participate in sustainable actions through their daily consumption.

1. Facing the surplus production of agricultural products in Taiwan, the Company leveraged its research and development expertise to launch a seasonal limited-edition beer infused with the flavors of local fruits. In recent years, several non-alcoholic beverages such as "Lychee Oolong Tea" and "Mango Iced Tea" have been launched to expand the non-alcoholic consumer base. In 2024, a new series of beers called the "Sweet Touch," featuring dual fruit flavors made from locally sourced fruits, was introduced, allowing the concept of sustainability to naturally integrate into everyday drinking choices.
2. In response to consumers' expectations for environmental sustainability, a new "Taiwan Beer Song Beer ECO-PACK" 6-pack packaging was launched in 2024. It uses adhesive-free bonding and recyclable pulp materials, reducing paper usage while balancing practicality and aesthetics, conveying the brand's commitment to environmental friendliness. For detailed information, please refer to the Sustainability Special Feature: Stylish Plastic Reducing, Sustainable Packaging.



Differentiated Marketing

1. Strengthening the Parent Brand Image: Taiwan Beer leverages its status as a state-owned brand and its association with Taiwanese identity to connect with local culture, sports events, and lifestyle dining habits. This approach aims to create a highly recognizable brand image, further driving the positioning and differentiated communication of its product portfolio, thereby enhancing overall brand value and consumer confidence.
2. Focusing on trends in the youth market: Observing that the new generation values drinking occasions and personal style, we have launched the refreshing-flavored "Taiwan Beer Gold Medal ONE" and a high-alcohol cocktail brand to respond to Generation Z's preferences for health, functionality, and a sense of ritual.
3. Innovative Co-Branding and Limited Edition Packaging: Collaborate with high-quality brands to conduct cross-industry partnerships. Through festive themes, social community topics, and limited edition packaging, revitalize brand image and enhance market buzz and appeal.



Brand Rejuvenation

In response to the new generation of consumers' expectations for brand interaction, lifestyle, and topical relevance, TTL actively promotes brand rejuvenation. This is achieved through the use of promotional giveaways, cross-industry collaborations, and digital communication methods, aligning closely with the daily language and consumption habits of the younger customers. In 2024, the "Taiwan Beer" brand served as the central axis, connecting influential cross-sector partners such as FamilyMart convenience stores, the classic snack brand Kuai-Kuai, and popular video games. This collaboration aimed to create innovative marketing topics with collectible value and high social media engagement, successfully capturing the attention of Generation Z, strengthening the brand's youthful image, and deepening emotional connections with the new generation of consumers.



FamilyMart Stress Relief Squeeze Can



Taiwan Beer x Kuai Kuai's Corn & Coconut Flavour Beer (Limited Edition)



To be safe,  don't drink and drive.

2.3.2 Overseas Expansion and Diversified Layout

TTL International Sales are divided into export markets and duty-free markets. Overseas operations cover the Americas, Europe, Middle East, Asia, and Australasia regions, primarily trade with foreign distributors and free-quote clients. Duty-free channels contain mainly operate duty-free shops at Taoyuan International Airport, supplying duty-free tobacco and alcohol to inbound and outbound travelers, and cooperate with other duty-free store operators. TTL overseas sales not only involve joint managing and marketing with distributors and key partners in local countries but also participate in international exhibitions such as the Foodex Japan, the FHA-Food & Beverage, the Kyoto Formosa Taiwan Plus Event, the opening of Taiwan Pavilion in Cultural Olympiad, the German Inter Taba, the SIAL Paris, and the World Tobacco Middle East. These efforts aim to increase the brand visibility of TTL, to promote its featured products, and to develop potential new customers.



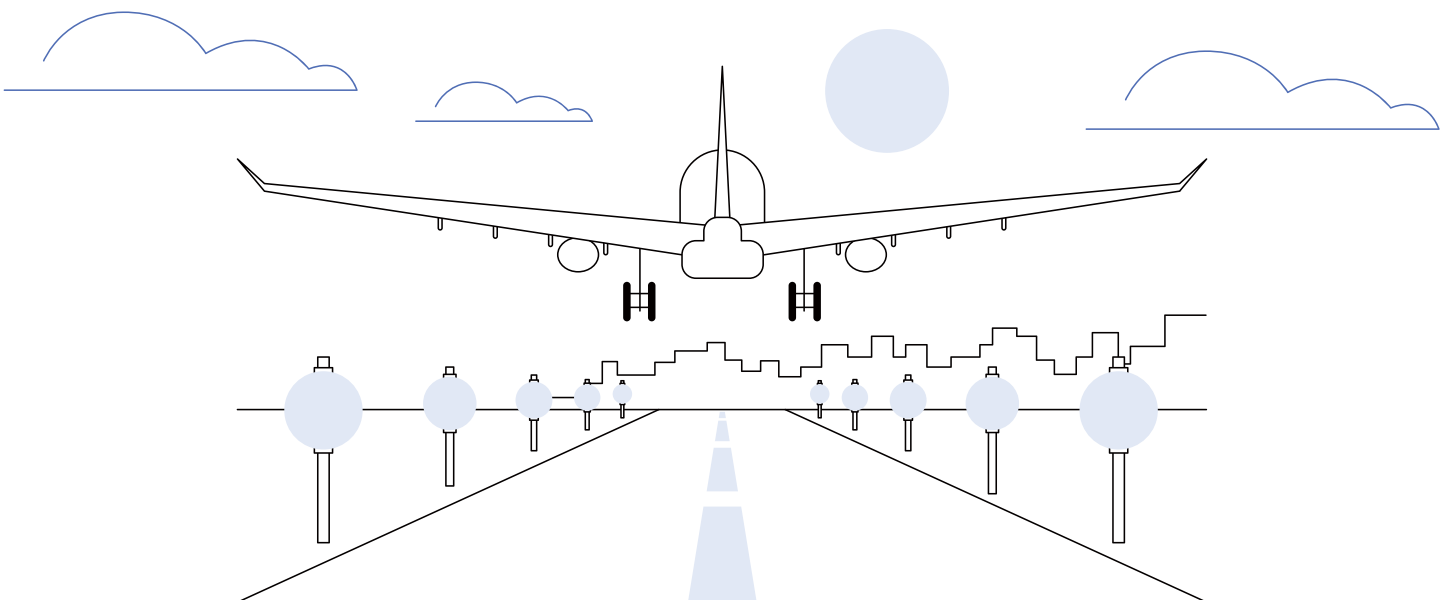
Distributors, Importers

- Sign trial sales agreements with potential clients in emerging markets.
- Develop customized products and provide marketing resources for promotion in targeted potential markets.
- Participated in major exhibitions in various regions and provide marketing resources to overseas distributors.
- Select featured products to meet diverse market needs and diversify the product portfolio to expand market presence.



Duty-Free Shops

- Diversify promotional and tasting activities.
- Continuously optimize the product portfolio by developing or introducing new products.
- Strengthen the cooperation with tour leaders and guides.
- Expand the marker of duty-free products.
- Enhance the overall image of duty-free shops.
- Continue to implement incentive programs for high-priced and high-profit key liquors.

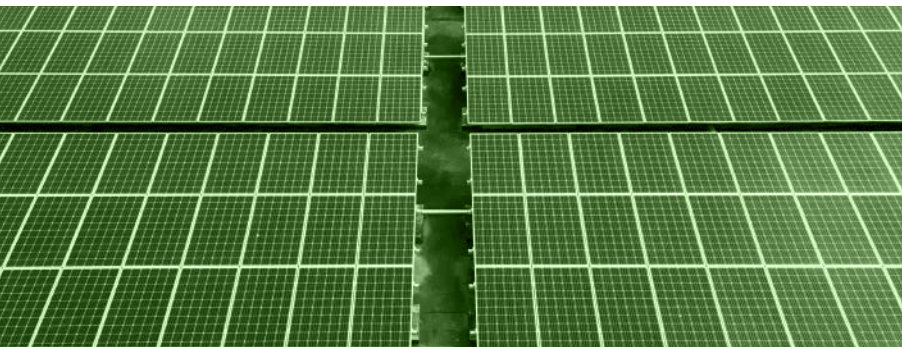


03 Green Economy

3.1 Climate Change Mitigation and Adaptation

3.2 Green Operations

3.3 Sustainable Environment



The Subcommittee of Environmental Sustainability under TTL’s Sustainable Development Committee continues to advance various environmental protection goals and strategies. Throughout the production and sales processes of tobacco, liquor, beer, and biotechnology-related products, TTL integrates the principles of circular economy and environmental friendliness, fully implementing its vision of green operations.

Aligning with Material Topics

Circular Economy

Aligning with Sustainable Development Goals (SDGs)



Total environmental protection expenditures for 2024 reached NT\$ **334.55** million.



The Greenhouse Gas Database currently contains **20** years of greenhouse gas emissions data through 2024.



In 2024, a total of **57** energy-saving projects were planned, with a proposed investment amount of NT\$ **197.65** million.



Chiayi Distillery awarded the **Bronze Medal** in the 6th National Enterprise Environmental Protection Award.



Total energy consumption decreased by **7.39%** compared to 2023, with electricity consumption reduced by **4.49%**, fuel consumption reduced by **3.18%**



The total volume of waste generated in 2024 was approximately **102,718** metric tons, with a reuse rate exceeding **98.82%**



The total consumption of water resources decreased by **7.9%** compared to 2024. Investment in water resource projects reached NT\$ **137.57** million.

3.1 Climate Change Mitigation and Adaptation

Since 2021, TTL has disclosed climate-related information in accordance with the four frameworks of the Task Force on Climate-Related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). This disclosure outlines TTL's climate governance framework and climate response strategies, identifies various climate risks and opportunities, and conducts three scenario analyses to understand how climate events may impact TTL's operations and finances. The initiative aims to implement climate risk management and align with the United Nations Sustainable Development Goals (SDGs).

3.1.1 Climate Governance

Climate Governance Framework

As domestic and international regulatory frameworks on climate governance continue to evolve, the environmental management challenges faced by corporations have become increasingly diverse. In response, the Subcommittee of Environmental Sustainability has developed a strategic roadmap addressing key sustainability issues, including greenhouse gas emissions, water resource management, circular economy and waste management, ecological conservation, and raw material management. In addition to establishing issue-specific goals and performance indicators to guide departmental actions, TTL integrates climate governance principles into daily operations across all organizational levels, striving to minimize negative environmental impacts to the greatest extent possible.

Supervisory Level

Board of Directors	<ul style="list-style-type: none"> Supervise TTL's significant risks and opportunities associated with climate change. Provide guidance on corporate sustainability strategies, action plans, annual budgets, and achievement of sustainability goals.
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Management Level

Report   Supervise

Sustainable Development Committee	<ul style="list-style-type: none"> Supervise TTL's significant risks and opportunities associated with climate change. Provide guidance on corporate sustainability strategies, action plans, annual budgets, and achievement of sustainability goals. Review the operational risks associated with senior executive management and cross-departmental coordination. The Sustainability Development Committee will include climate issues in its discussions. Sustainable performance criteria will be established based on an assessment of climate risks and opportunities. Management strategies, indicators and targets will be established, and the President and Senior Vice President will monitor progress on a quarterly basis.
Environmental Protection Management Review Committee	<ul style="list-style-type: none"> Develop response strategies in accordance with environmental protection regulations and laws. Supervise affiliated organizations in the performance of their environmental protection responsibilities. Review other environmental protection management issues.
Greenhouse Gas Inventory and Voluntary Reduction Promotion Committee	<ul style="list-style-type: none"> Ongoing review of the effectiveness of greenhouse gas reduction efforts. Develop and review the greenhouse gas inventory plan. Supervise affiliated organizations in the execution of greenhouse gas inventory, verification, registration, and reduction activities.

Control Level

Report   Supervise

Environmental Protection and Energy section	<ul style="list-style-type: none"> Develop, implement, and monitor environmental protection programs for affiliated organizations. Guide relevant departments in implementing and achieving annual goals within the environmental energy promotion plan. Reviewing environmental energy action plans implemented by various organizations and conducting ongoing evaluations.
Energy Conservation Promotion Subcommittee	Oversee and evaluate the formulation, execution effectiveness, and target management of annual plans for energy conservation and solar PV promotion, while ensuring the effective implementation of power efficiency management plans at production plants and operational sites.
Subcommittee of Environmental Sustainability	Researching and promoting issues related to building an energy-efficient, low-carbon environment and green businesses.
Various departments (offices) and factories (sites) of TTL	To achieve and manage these performance targets, thereby realizing TTL's vision of sustainability through concrete actions.

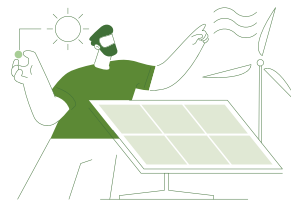
2050 Net-Zero Carbon Emissions Pathway

TTL is committed to achieving net-zero emissions by 2050, in line with the government's "Taiwan's 2050 Net-Zero Emissions Pathway". TTL has implemented various carbon reduction measures, including improving the energy efficiency of equipment, installing solar photovoltaic systems, and adopting other energy-saving practices. The Company has also strengthened its commitment to circular economy principles in production and local sourcing of low-carbon footprint raw materials. TTL regularly conducts greenhouse gas inventories to assess the impact of its business activities on greenhouse gas emissions, enabling the implementation of appropriate emission reduction measures and improvement strategies. Through these ongoing efforts, TTL is steadily working towards its net-zero emissions goal.



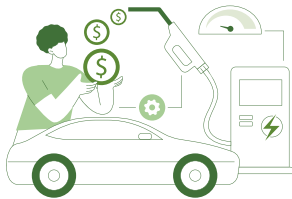
2005 Greenhouse Gas Inventory

Greenhouse gas inventories have been compiled since 2008, with data going back to 2005. These inventories serve as the basis for ongoing efforts to reduce emissions.



2014 Carbon Reduction Plan

Install solar PV systems and establish solar PV projects in phases.



2022 Carbon Footprint

- Promote the acquisition of product carbon footprint and green factory certification.
- Align with policies to implement net-zero green living.
- Evaluate the feasibility of biomass energy power generation from sludge and distiller's grains.
- Evaluate the installation of charging stations.



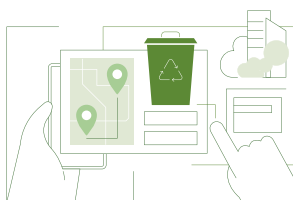
2030 Green Economy

- Reduce carbon emissions by 50% compared to the base year (2005) (Scope 1 and 2).
- Electrify all civil servant vehicles.
- In line with policies, progressively implement Level 1 building energy efficiency or near-zero carbon buildings.
- Implementing ISO 50001 energy management systems among Energy-heavy Industry.
- Evaluate carbon-negative technologies—carbon capture, utilization and storage (CCUS).



2040 Carbon Neutrality

Renewable energy sources accounted for 20% of the total.



2045

Continuous carbon reduction or purchasing carbon credits, green energy.

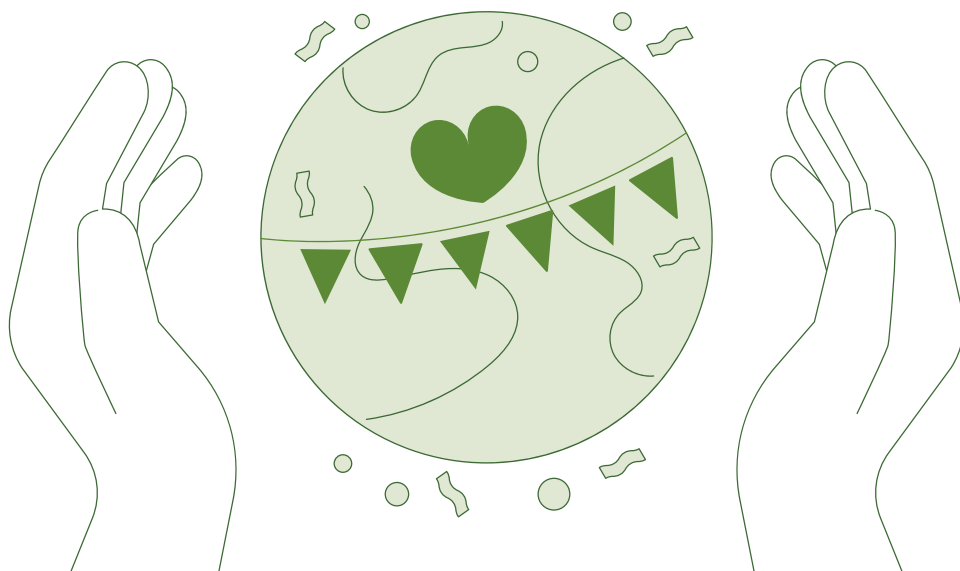


Achieving Net-Zero Emissions by 2050

Climate Change and Adaptation Strategy

TTL closely monitors global climate change trends. In accordance with the TCFD disclosure framework, it addresses four core elements: governance, strategy, risk management, and metrics & targets. The Sustainable Development Committee serves as the internal functional body responsible for managing climate-related risks and opportunities. Annually, it collects and analyzes information on international climate-related trends and industry concerns, formulates internal assessment questionnaires regarding climate-related risks and opportunities, and convenes relevant departments to assist in identifying climate-related risks and opportunities that may result in significant financial impacts.

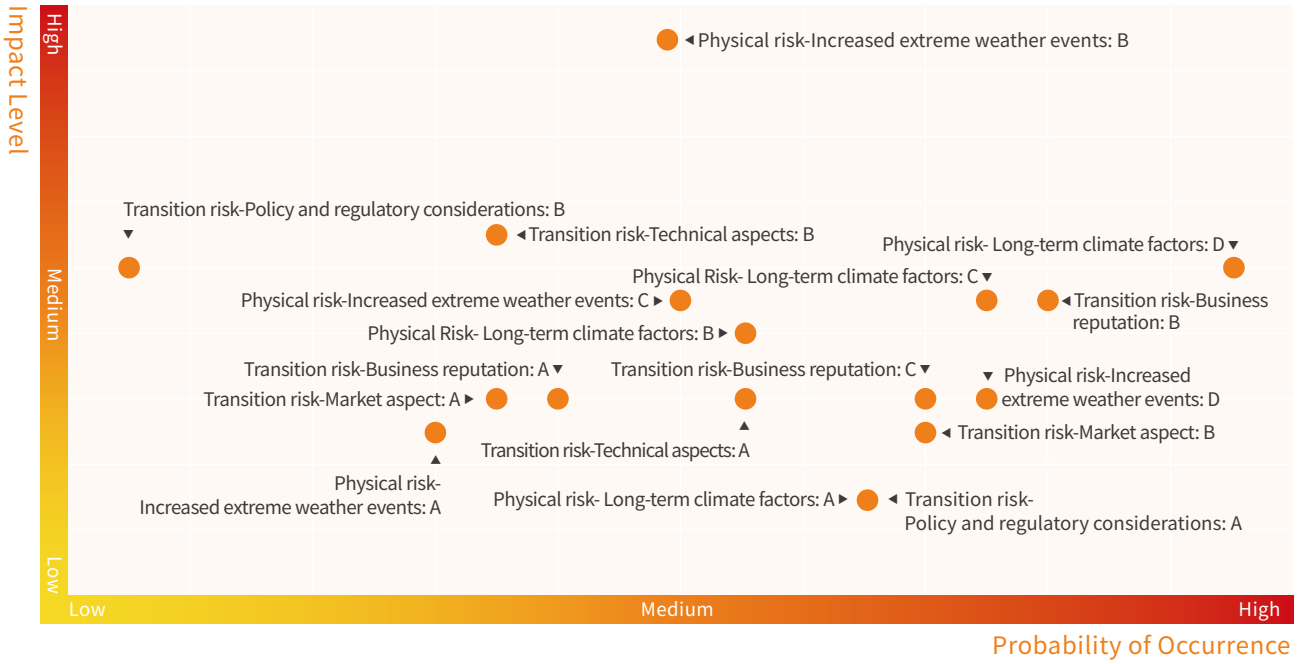
	Governance	Strategy	Risk Management	Indicators and Objectives
2024 Action Plan	<ul style="list-style-type: none"> Enhanced executive-level awareness and understanding of climate change response. 	<ul style="list-style-type: none"> Strengthened sustainability performance transparency in accordance with TCFD and SASB disclosure frameworks and metrics. 	<ul style="list-style-type: none"> Identification of significant climate-related risks and opportunities. 	<ul style="list-style-type: none"> Continuously promote carbon reduction and energy transition by establishing corporate sustainability KPIs.
Content of Initiatives for 2024	<ul style="list-style-type: none"> Implemented corporate governance and international sustainability standards by addressing disclosure requirements such as TCFD and SASB. Improved climate change response awareness through targeted education and training programs. Continuously manage and update short-, medium-, and long-term ESG goals through a rolling management process. 	<ul style="list-style-type: none"> Conducted risk assessments based on TCFD recommended risk categories to understand the distribution of climate change-related risks. Engaged in deeper analysis and communication of climate change-related risks and opportunities, thereby formulating short-, medium-, and long-term strategies to address impacts on organizational operations, strategy, and financial planning, enhancing TTL's climate resilience. Prepared a dedicated TCFD chapter in the sustainability report. 	<ul style="list-style-type: none"> Conducted regular risk assessment procedures based on TCFD-recommended categories of climate-related risks. Utilized the likelihood and impact of risks and opportunities as a basis for operational planning and strategic decision-making. Convene quarterly Risk Management Committee meetings to review the implementation status of climate risk events and corresponding response strategies. 	<ul style="list-style-type: none"> Established a greenhouse gas emissions inventory database. Continue to advance solar photovoltaic installation projects. Prioritized procurement of water-saving certified equipment. Replaced aging pipelines and repair leaking water lines. Enhanced water resource management and utilization, with an evaluation of implementing water footprint assessment.



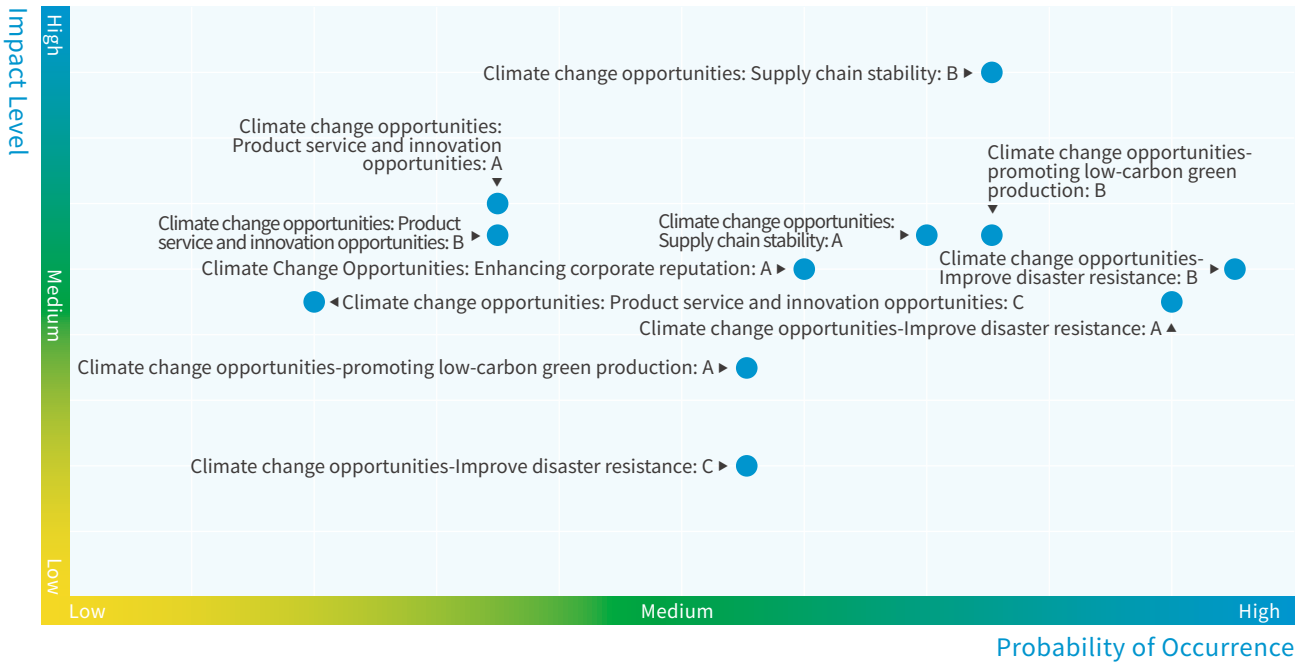
3.1.2 Climate Risks and Opportunities

Climate Risk and Opportunity for TTL

Climate Change Risk Matrix for TTL



Climate Change Opportunity Matrix for TTL



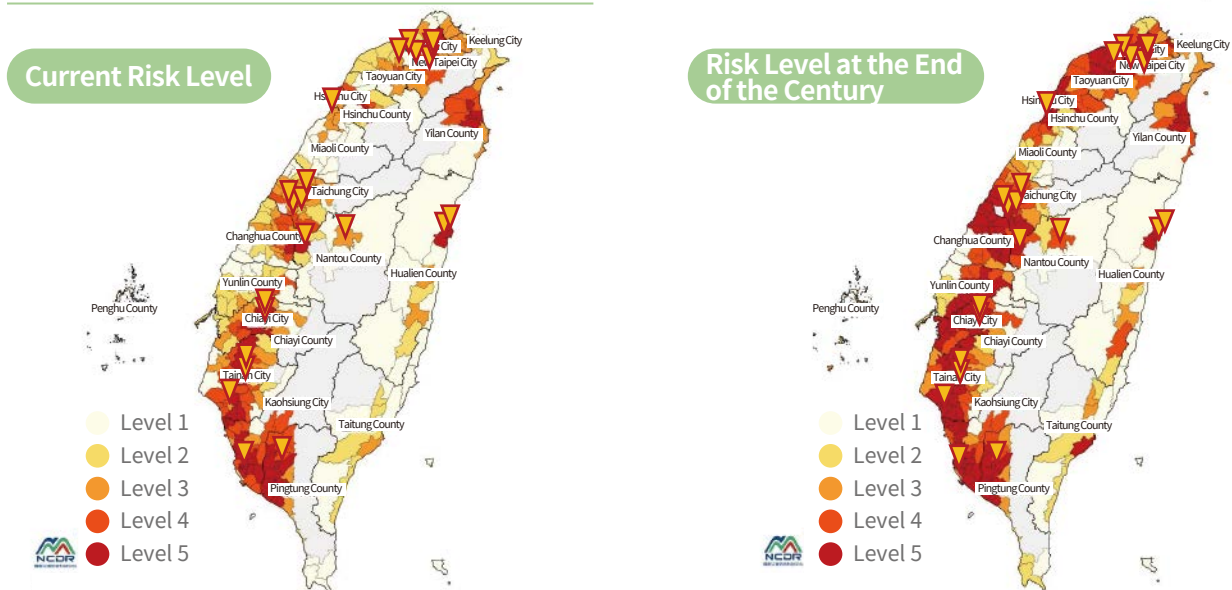
3.1.3 Climate Change Risk Scenario Analysis

To enhance climate change risk management capabilities, the Company has adopted the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), with reference to the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) and the International Energy Agency (IEA) Net Zero by 2050 roadmap. By integrating practical climate scenario analysis approaches from domestic and international industry peers, we systematically assess the potential impacts of climate-related risks and opportunities on our operations and financial performance, and formulate corresponding management strategies.

Flood Risk Analysis

TTL utilizes the disaster risk maps provided by the “Climate Change Disaster Risk Adaptation Platform” to overlay and analyze the locations of its 25 factories and business sites. By comprehensively assessing the “hazard level,” “vulnerability,” and “exposure” of each site, TTL further estimates the flood disaster potential level for each location (with risk levels categorized from Level 1 to Level 5, ranked from low to high). These findings are incorporated into the risk assessment model to quantify the potential financial impacts under current and future scenarios.

Flood Risk Maps for TTL's Company Sites



Response

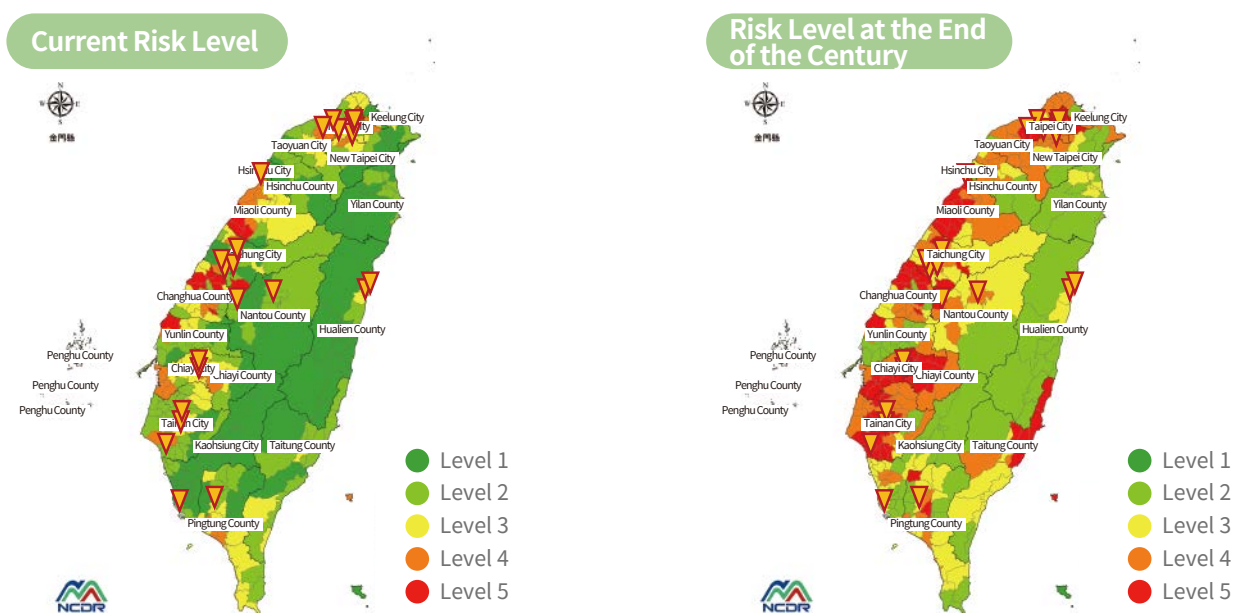
In anticipation of increased rainfall in the future and considering that some factories are located on flat terrain, which may lead to flooding, TTL has conducted a prudent assessment of potential hazards and formulated flood contingency measures to prevent operational disruptions. Particular emphasis has been placed on strengthening flood prevention measures at the three facilities previously identified as having the greatest potential financial impact. The flood risk management mechanisms are as follows:

1. Compliance with Emergency Response and Reporting Procedures established by the Company and its affiliated units.
2. Continuous monitoring of weather and disaster alerts, including observation of meteorological conditions and river water levels. When disaster warnings are issued, appropriate countermeasures will be taken, such as adjusting production schedules and properly relocating goods to elevated areas.
3. Regular implementation of 6S inspections and cleaning of drainage ditches and sewers within operational areas to maintain environmental cleanliness and ensure proper functioning of drainage systems.
4. Deployment of flood prevention equipment, such as sandbags or flood barriers, at business locations identified as having flood risk, as needed.
5. Personnel training to enhance understanding of flood-related emergency procedures and improve timely response capabilities.

Drought Hazard Risk Analysis

In recent years, the impacts of extreme weather events have intensified, with an increasing frequency of drought disasters. Based on the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) and referencing data from the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP), TTL assessed drought risks for its production facilities and raw material sources under the worst-case scenario, SSP5-8.5. The analysis uses the maximum number of consecutive dry days within a year as a key indicator to project drought risk for the period from 2075 to 2099.

Drought Risk Maps for TTL's Company Sites



Response

Water is a critical raw material in alcoholic beverage production. As drought frequency increases, water shortages may result in production interruptions, affecting output and delivery schedules. Among all facilities, Jhunan, Wuri, and Shanhua Breweries—being the largest water consumers—will be most impacted. To mitigate the risk of production stoppages due to water scarcity, the following control mechanisms have been implemented:

1. Monitoring reservoir storage levels using the “Taiwan Area Major Reservoir Storage Report” provided by the Water Resources Agency, Ministry of Economic Affairs. If storage levels fall below the three-year average and the authorities announce phased water restrictions, the Company will initiate semi-finished goods stockpiling based on market demand and water usage conditions.
2. Adjusting production and water usage for mashing, packaging, and cleaning processes according to the stage of water restriction, centralizing production to reduce water consumption during operations, and filling storage tanks to capacity during water supply periods.
3. Testing and utilizing groundwater when water shortages persist for extended periods, switching to groundwater as needed.
4. Inspecting and maintaining water pipelines to prevent leakage.
5. Complying with government directives when water shortages become severe, following orders issued by relevant authorities.
6. Developing a water management plan, setting rational water usage targets (e.g., water consumption per production unit), and evaluating wastewater treatment, recycling, and reuse to further reduce water consumption and ensure optimal water resource management.

TTL continues to implement water conservation initiatives, actively urging all facilities to reduce both process and domestic water consumption. Measures include replacing aging pipelines and equipment, piloting rainwater harvesting systems at selected sites, and establishing contingency plans for water scarcity. These efforts aim to enhance TTL’s water resource utilization and management capabilities. Detailed strategies for water resource management, including measures to increase supply and reduce demand, are described in Section 3.3.2, Water Resource Management.

Analysis of Carbon Fee Cost Levels

TTL conducts its analysis based on three carbon emission evolution scenarios proposed by the International Energy Agency (IEA): the Stated Policies Scenario (STEPS), the Announced Pledges Scenario (APS), and the Net Zero Emissions by 2050 Scenario (NZE). The Company incorporates five projected carbon price benchmarks—namely, the “fee rates recommended by the Ministry of Environment,” “Greenpeace suggested fee rates,” “EU carbon tax forecast,” “NGFS 2050 Net Zero,” and “NGFS Below 2 ° C”—to evaluate the potential cost and risk implications for TTL from 2024 through 2050 under the dynamic interplay of these scenarios.

Estimated Carbon Fee Cost for TTL

Unit: NT\$

Carbon Emission Scenario	Carbon Price Scenario	Projection Year		
		2030	2040	2050
STEPS Stated Policies Scenario	Green Peace	143,853,385	370,981,219	933,095,596
	EU ETS	298,141,730	516,585,890	933,095,596
	NGFS_2050 Net Zero	814,338,667	2,312,785,166	4,542,398,982
APS Announced Pledges Scenario	Green Peace	126,013,517	225,199,674	378,410,232
	EU ETS	261,167,912	313,587,233	378,410,232
	NGFS_2050 Net Zero	713,349,080	1,403,948,338	1,842,137,357
NZE Net Zero Emissions Scenario	Green Peace	98,414,145	80,487,335	0
	EU ETS	203,967,140	112,077,430	0
	NGFS_2050 Net Zero	557,111,976	501,777,193	0

Response

TTL actively promotes a circular economy model for low-carbon and clean production, implementing comprehensive carbon management measures such as greenhouse gas inventory, carbon footprint assessment, carbon reduction, carbon offsetting, and carbon neutrality. These initiatives are pursued across four key dimensions: supply, utilization, manufacturing, and environment, with the ultimate goal of achieving net-zero emissions. Detailed response measures can be found in Section 3.3.1, Greenhouse Gas Management, which outlines the Company’s efforts in implementing energy-saving and carbon-reduction policies.

3.2 Green Operations

3.2.1 Practice of Circular Economy

Action Plan	Key Performance for 2024
<ul style="list-style-type: none"> · Recycling and Reutilization of Brewing By-products · Tobacco Waste Recycling and Reuse · Carbon Dioxide Purification and Reuse 	<ul style="list-style-type: none"> · Breweries generated a total reuse value of NT\$19.88 million from by-products. · Tobacco factories recycled 368,104 kilograms of tobacco dust and fragments. · The three major breweries purify and reuse the carbon dioxide generated during the fermentation process, without purchasing additional carbon dioxide for beer product carbonation, resulting in a total reduction of 4,011 metric tons of carbon emissions.
<ul style="list-style-type: none"> · Use of Recycled Pulp · Glass Bottle Recycling and Reuse 	<ul style="list-style-type: none"> · Utilized recycled paper pulp content of 75% or higher. · Recovered a total of 164,319,897 glass wine bottles, achieving a recycling rate of 101.23%.
<ul style="list-style-type: none"> · Solar PV Applications 	<ul style="list-style-type: none"> · As of 2024, the cumulative solar photovoltaic power generation reached 83.59 million kWh, with cumulative electricity sales revenue amounting to NT\$433.36 million.

Note: For details on solar photovoltaic applications, please refer to Section 3.3.4 "Energy Management."

Recycling and Reutilization of Brewing By-products

TTL, leveraging its core tobacco and liquor business, adheres to the principle of resource maximization through its Reuse action plan. In the liquor production process, by-products such as distillers' grains and yeast are repurposed using core fermentation and strain cultivation technologies to develop biotechnology-based food products. Additionally, other by-products generated during brewing are resold to Taiwan Fertilizer Company and the agricultural and livestock industries for use as organic fertilizers and animal feed. In 2024, the cumulative output of whisky distillers' grains reached 1,026.7 metric tons, all of which were recovered and auctioned for reuse by the livestock industry. For beer production, the cumulative output of brewer's grains totaled 27,286 metric tons, with the majority auctioned for reuse as animal feed, except for a small amount consumed for testing, quality inspections, or academic collaboration purposes.



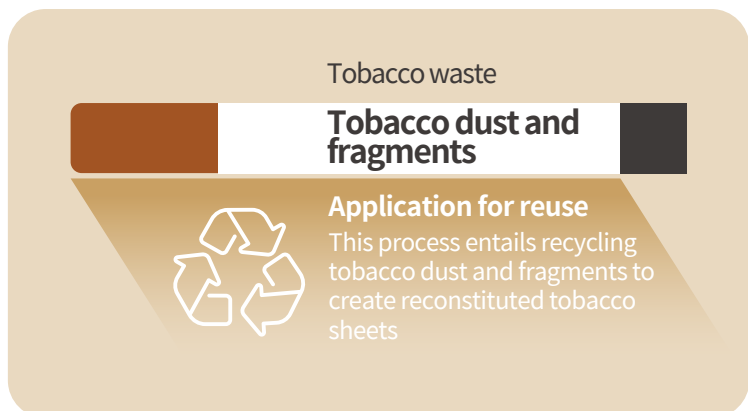
Achieved an almost **100%** raw material recycling and reuse rate



This resulted in an economic benefit increase exceeding **NT\$1,988** million

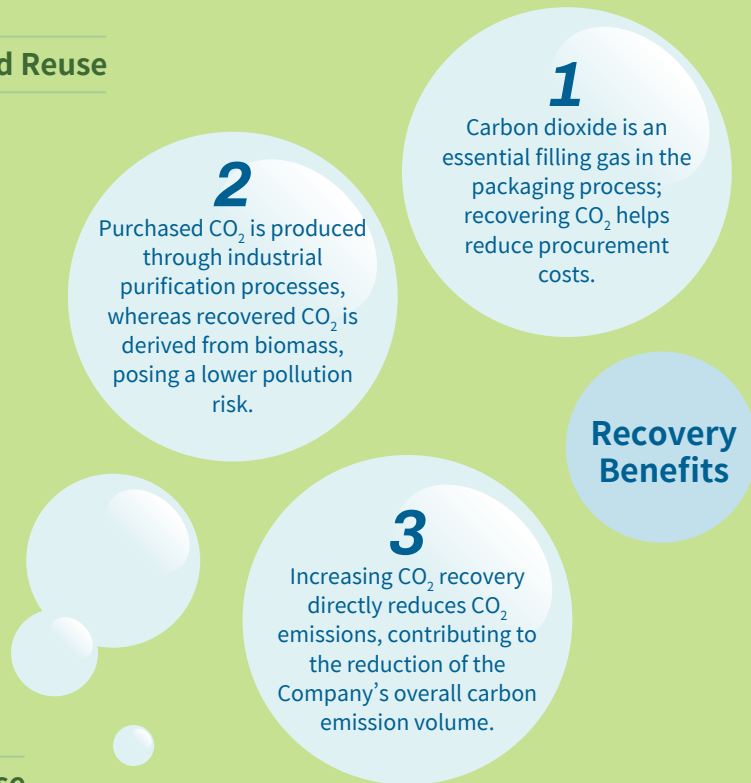
Tobacco Waste Recycling and Reuse

The Company recycles cigarette manufacturing by-products and reprocesses them into reconstituted tobacco sheets. In 2024, a total of 368,104 kilograms of tobacco dust and fragments were collected, of which 251,960 kilograms were utilized for the production of reconstituted tobacco sheets, and 116,144 kilograms were sold as by-products. This achieved a 100% recycling and reuse rate.



Carbon Dioxide Purification and Reuse

The three major breweries purify and reuse the carbon dioxide generated during the fermentation process, without purchasing additional carbon dioxide for beer product carbonation, resulting in a total reduction of 4,011 metric tons of carbon emissions.



Glass Bottle Recycling and Reuse

TTL has established a reverse logistics system for the collection of four categories of glass wine bottles, building a circular economy network in collaboration with convenience stores, supermarkets, hypermarkets, traditional grocery stores, and its own business units across Taiwan. With a history of over 50 years, TTL encourages consumers and distribution partners to participate in bottle recovery through a deposit refund system, making every return action a vital step in jointly realizing a circular economy. In 2024, TTL recovered a total of 164 million glass wine bottles, achieving a recycling rate of 101.23% and generating an estimated NT\$969 million in cost savings through reduced new bottle manufacturing.

2024 Recycling Outcomes

Quantity of Recycled Glass Wine Bottles
164,319,897 bottles

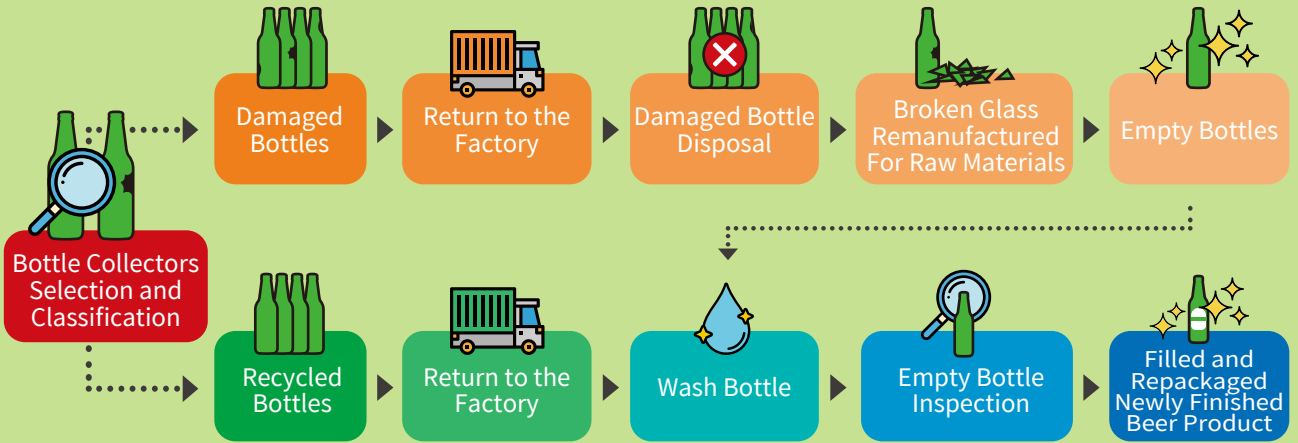
Recycling rate
101.23%

Total cost savings
NT\$**969** million

The stacked length of the recovered bottles could circle Taiwan more than **46** times.

Note1: Recycling Rate = Quantity of Category 4 Glass Wine Bottles Recycled in 2024 / Sales Volume of Category 4 Glass Wine Bottle Products in 2024.
 Note2: Based on an estimate using 600 mL, 30 cm tall Taiwan Beer glass bottles and brown square bottles, a total of 164,319,897 bottles were recycled in 2024, which is equivalent to an approximate height of 49,295,969 meters. Considering that the circumference of Taiwan is approximately 1,073 kilometers, the total length of these recycled glass bottles would be roughly equivalent to circling Taiwan 46 times.
 Note3: On average, recycling one empty bottle saves approximately NT\$5.9. In 2024, savings from bottle recycling costs amounted to approximately NT\$969 million.

Reuse of Glass Bottle Preforms: Building an Efficient Circular Model



The Company implements a “preform reuse” approach for recycling glass wine bottles, which bypasses crushing and remanufacturing processes by directly cleaning and sanitizing the bottles for reuse. This method currently represents the most environmentally sustainable and cost-effective circular practice. Bottles that cannot be reused are crushed into cullet and recycled in our proprietary furnaces to be remelted into new bottles, further minimizing raw material waste. Additionally, we have established procurement standards requiring that newly manufactured glass bottles contain 50% to 70% recycled glass content, thereby reinforcing sustainability responsibilities throughout the production process via supply chain management.



Number of Reuses for Bottles
Increasing to **5** cycles



Newly Purchased Glass Bottle Raw Materials
50% to 70% recycled cullet glass from used bottles



Compared to manufacturing entirely new glass bottles, reusing recycled bottles as original containers can reduce process-related carbon emissions by over 20%. This practice not only fosters positive circular interactions between the Company and its stakeholders but also strengthens societal recognition and implementation of the circular economy. Together, these efforts create a sustainable development model that balances environmental protection with economic benefits.



3.2.2 Ecological Conservation and Education

Since 2023, TTL has established three ecological ponds at the Taipei Cigarette Plant, Pingtung Distillery, and Jhunan Brewery. These ecological ponds not only contribute to hydrological regulation and landscape enhancement but also serve to protect local biodiversity. Following the certification of the Chiayi Distillery as an Environmental Education Facility, in 2024, the Company continued to maintain environmental and ecological efforts across all plants. Notably, the Wuri Brewery obtained certification as an Environmental Education Facility under the Ministry of Environment’s National Environmental Research Academy’s “Environmental Education PaPaGO” program. Moving forward, the Company plans to integrate tourism at liquor and brewery sites with ecological environmental education, providing enriched natural and cultural spaces and leveraging corporate influence to promote environmental education.

Wuri Brewery Environmental Education Program



The Wuri Brewery Environmental Education Park has been established as a Beer Environmental Education Learning Center, representing Taiwan’s first environmental education facility themed around beer culture. It not only integrates the historical and cultural heritage of Taiwan Beer into its environmental education curriculum but also actively pursues carbon reduction goals. The center offers environmental education programs centered on the theme of “Environmentally Friendly Practices,” employing experiential and interactive approaches. Participants engage in hands-on activities involving the reuse of process waste, fostering the integration of sustainable resource utilization into everyday life.

To be safe,  don't drink and drive.

3.3 Sustainable Environment

TTL annually invests resources in promoting green logistics projects, upgrading equipment, and developing solar PV systems. The Company consistently emphasizes environmental protection and strives to make significant contributions in both profitability and sustainable environmental practices.

Environmental Protection Management Plan

1



Regularly conduct self-inspections, record-keeping, and maintenance of pollution control facilities to ensure compliance with regulations.

2



Complete regulatory assessments each quarter to ensure compliance with regulations.

4



Continue to implement the ISO 14001 Environmental Management System to ensure its effectiveness.

3



Regular monitoring, reporting, and payment of pollution fees.

3.3.1 Greenhouse Gas Management

Greenhouse Gas Management Strategy

TTL continuously reviews its greenhouse gas inventory results to identify emission hotspots and trends, analyze controllable factors, and enhance the effectiveness of various GHG reduction measures. The Company's carbon reduction vision targets a 50% reduction in GHG emissions by 2030 compared to the base year of 2005. In 2024, emissions (Scope 1 and 2) decreased by 43.79% relative to the 2005 baseline. Since 2005, the Company has established a 20-year GHG emissions inventory database, enabling precise monitoring of emission trends and hotspots, as well as tracking and evaluating carbon reduction performance.

Results of Greenhouse Gas Management Implementation

In 2024, the greenhouse gas emission intensity was 45.48 kg CO₂e per NT\$10,000 revenue, representing an increase of 29.54% compared to 2023. Although energy-saving projects continued to be implemented and total emissions (Scope 1+2) decreased, the Company's revenue declined by 21.62% from 2023, resulting in a higher emission intensity.

3.3.2 Water Resources Management

Water Resources Management Strategy

1. Each plant will be required to prepare water balance diagrams and calculate recycling rates based on water usage charge collection procedures. This information will be used to develop water conservation measures.
2. Each factory should gradually install water meters as needed. Water consumption data from each unit's meter should be compiled into trend charts to identify anomalies early and facilitate timely improvements.
3. All factories are requested to submit semi-annual water balance diagrams, recycling rates, and water meter usage trend charts to this company for management purposes. This will facilitate the rational use of water.
4. In accordance with the 80/20 rule, companies with significant water consumption are required to submit their water conservation plans as part of the 2024 Environmental Energy Action Plan. Continuous improvement and review of these plans is expected.
5. In 2024, Jhunan Brewery has initiated preliminary planning to implement ISO 46001.

Water Resources Management Implementation Results

1. The total water consumption of the three major breweries each decreased by more than 2% compared to the same period last year, with Jhunan Brewery reducing by 15.20%, Wuri Brewery by 3.43%, and Shanhua Brewery by 8.36%.
2. The Taichung Distillery completed the installation of a rainwater harvesting system on the roof of its storage building in 2023. This new system was integrated with the existing rainwater harvesting infrastructure. In 2024, the distillery collected approximately 2,116 tons of rainwater.

3.3.3 Pollution and Waste Management

Waste Discharge Management Strategy

Comply with the Waste Disposal Act and its associated regulations.



TTL strictly adheres to the Waste Disposal Act and related secondary legislation. The majority of the waste generated is general industrial waste, consisting mainly of spent grains, spent yeast, plastic waste, brewing sludge, and paper. The Company generated only 7.2 metric tons of hazardous waste during operations. Chemical mixtures generated during quality control testing were all low in concentration. In addition, there were no incidents involving oil, fuel, waste, or chemical substances in 2024.

Engage a qualified vendor to manage this matter



General industrial waste is disposed of properly through qualified vendors for recycling, landfilling, or reuse. Hazardous waste discharge operations are conducted to the highest standards and handled by qualified vendors.

Results of Waste Emission Management Implementation

In 2024, the total waste generated by TTL's factories amounted to approximately 102,717.5 metric tons, of which 101,502.9 metric tons were reused, achieving a recycling rate of 98.82%. The Company continues to promote circular economy practices for materials such as brewing sludge, lees (grains), tobacco dust (leaves), glass bottles, and fermentation carbon dioxide, resulting in a gradual reduction in the amount of waste requiring disposal.

3.3.4 Energy Management

Energy Management Strategy



To achieve net-zero carbon emissions and enhance energy conservation and carbon reduction, the Company has established an energy management strategy. This strategy focuses on accelerating the replacement of outdated energy-consuming equipment, implementing boiler replacement projects, and adopting Best Available Techniques (BAT) to optimize production processes and manage energy usage effectively. Each affiliated unit carries out its own environmental and energy action plans in accordance with the Company's environmental energy promotion program. In collaboration with the Industrial Technology Research Institute's energy audits, we continuously strive to reduce energy consumption and improve energy efficiency.

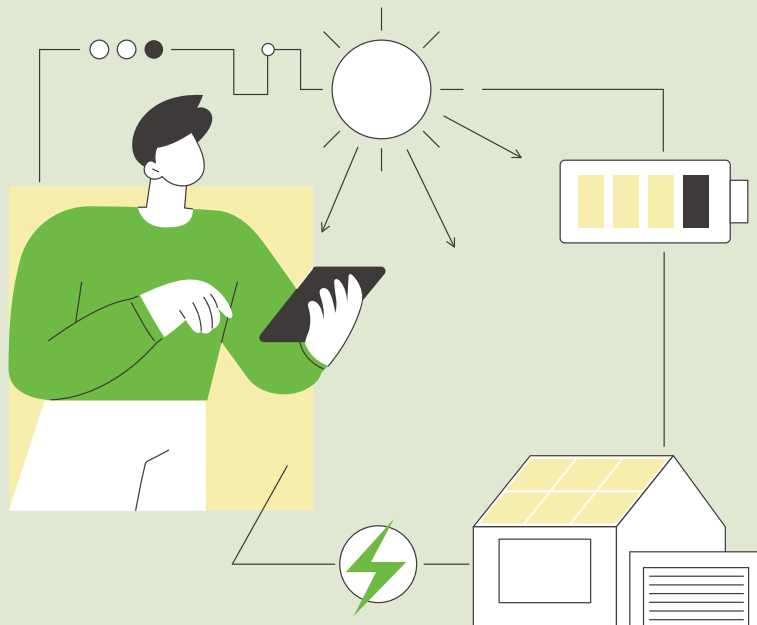
Energy Management Implementation Results



In 2024, the Company's energy consumption (calculated based on calorific value) was primarily sourced from natural gas, followed by electricity and petroleum products. Overall energy usage decreased by approximately 7.39% compared to 2023, with electricity consumption declining by 4.49% and petroleum products by 3.18% compared to the previous year.

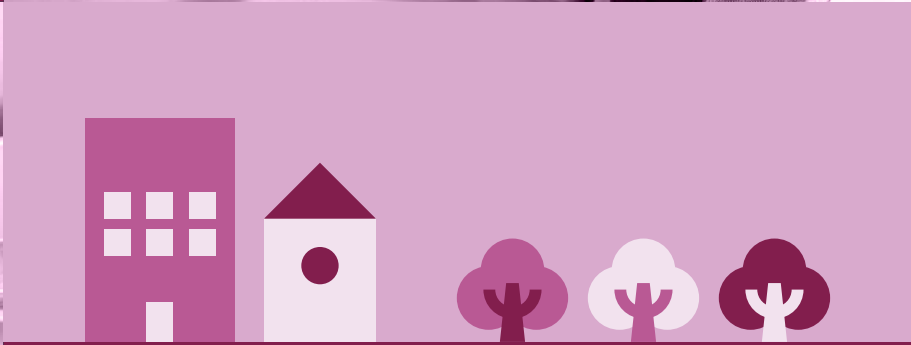
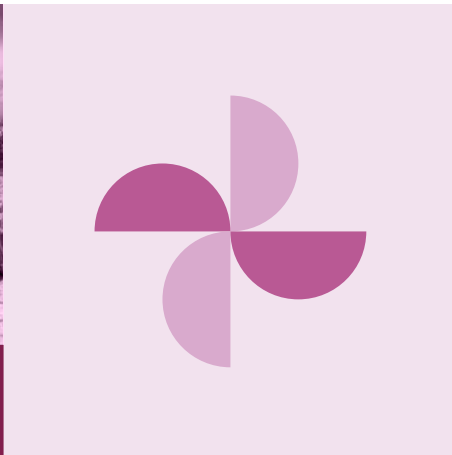
Achievements in Solar Photovoltaic Installation

TTL is committed to supporting Taiwan's 2050 net-zero transformation target and in response to the Renewable Energy Development Act, has accelerated the installation of solar photovoltaic (PV) power generation systems. The Company continues to promote energy recovery initiatives and has implemented the solar PV installation plan in multiple phases. Currently in its fourth phase, the 2024 projects—including the Wuri Brewery, Jhunan Brewery Bottling Department, and three solar PV sites at Jhunan Brewery—have all been completed on schedule. As of 2024, the cumulative solar photovoltaic power generation reached 83.59 million kWh, with cumulative electricity sales revenue amounting to NT\$433.36 million.



04 Happy Workplace and Social Prosperity

- 4.1 Human Resource Management
- 4.2 Workplace Diversity and Prosperity
- 4.3 Occupational Safety
- 4.4 Social Prosperity

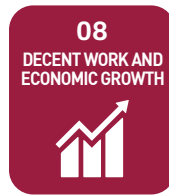


Employees are the cornerstone of TTL’s sustainable operations. The Company is committed to safeguarding employment security and fostering individual growth, while establishing robust communication mechanisms to create a diverse, equitable, inclusive, and transparent workplace. At the same time, the Company actively fulfills its corporate social responsibility through initiatives such as charitable donations, support for sports development, community care, and local co-prosperity, thereby strengthening ties with local communities and ensuring the implementation of social responsibility.

Aligning with Material Topics

Aligning with Sustainable Development Goals (SDGs)

Workplace Health and Safety



A total of **22,179** hours of human rights education and training courses.



Total annual expenditure on education and training: NT\$ **39.76** million.



No human rights violations were reported.

No cases of gender discrimination.



Employee welfare subsidies surpassed NT\$ **22** million.



451 employees applied for certification subsidies.



91.53% return-to-work rate after parental leave.

Taipei Brewery nursery room has received an **excellent rating**

4.1 Human Resource Management

Employee Composition

TTL employs two categories of regular employees: “Staff” and “Graded Position Personnel,” with key positions primarily held by officially appointed employees. To boost morale among grassroots employees and promote outstanding talent, the Company periodically conducts examinations for the transfer of graded personnel to staff positions, ensuring smooth promotion channels for entry-level employees. In 2024, a total of 42 graded personnel were promoted to staff positions. As of 2024, the Company had 4,501 regular employees, primarily engaged in manufacturing, packaging, equipment maintenance and repair, process control, and transportation of finished products and raw materials, which are labor- and technology-intensive tasks. Historically, the proportion of male employees (71%) has been higher than that of female employees (29%).

Talent Development

The Company has established four major training programs focused on core competencies, professional competencies, general competencies, and managerial competencies as the foundation for designing annual employee training plans. Course content is tailored to business requirements and employee characteristics, supplemented with both physical and online learning resources to provide diverse learning channels aligned with domestic and global trends, creating a comprehensive learning journey. In 2024, employees completed a total of 179,257 training hours, averaging 39 hours per employee.



4.2 Workplace Diversity and Prosperity

Human Rights Management Policy

TTL encourages employees from diverse backgrounds and with different characteristics to express a wide range of perspectives, embedding the values of Diversity, Equity, and Inclusion (DEI) into its corporate culture and translating them into concrete actions. In 2024, the Company established a Human Rights Policy, incorporating international human rights conventions into operational considerations to ensure equal opportunities in employees' career development. At the same time, all operating sites, suppliers, and business partners are required to respect fundamental human rights. The Company strengthens employee awareness through human rights education and training, and has implemented multiple feedback channels to gather diverse opinions and ensure the realization of human rights protection. In 2024, TTL employed 61 persons with disabilities and 75 employees of Indigenous identity in excess of the statutory requirements, fully providing employment opportunities to safeguard equal job rights for all groups. These efforts underscore TTL's commitment to fostering a diverse workplace and inclusive culture.

Labor-Management Communication

TTL values labor-management communication and has established multiple channels to enable employees to promptly express opinions and stay informed on key issues, fostering workplace cohesion. The Company regularly holds labor-management meetings to develop action plans and disclose meeting minutes, thereby promoting vertical communication and safeguarding the rights and interests of both labor and management. In 2024, a total of six labor-management meetings were convened, during which 14 proposals were discussed, covering topics such as labor relations, work efficiency, and personnel affairs.

Communication Outcomes of the Labor-Management Meeting

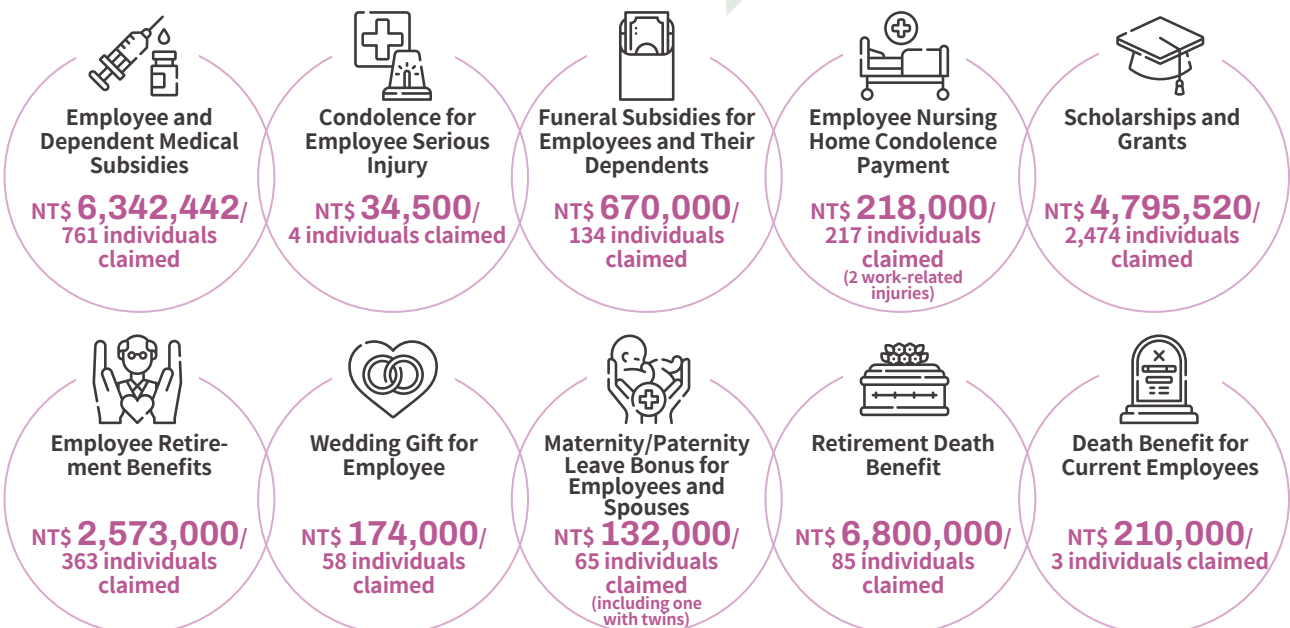
Labor Conditions

Evaluation of eligibility criteria for family care leave and occupational injury leave, enhancement of retirement benefits, assistance with attendance during natural disasters, and employee recommendations.

Other Recommendations

Additional recommendations include recruitment of new employees, suggestions on product manufacturing and marketing strategies, employee promotions, recommendations on workforce requirements, and adjustments to employee health examination budgets.

Employee Benefits



4.3 Occupational Safety

TTL places great emphasis on occupational health and safety, prioritizing employee well-being and striving to create a zero-accident workplace. The Company is committed to upholding four key principles: providing a safe and healthy working environment and preventing occupational injuries and illnesses; implementing comprehensive risk management and complying with all applicable OSH laws and regulations; ensuring full employee participation and communication to enhance individual awareness of safety and health; and continuously improving OSH performance to fulfill corporate social responsibility. TTL is dedicated to fostering a secure and reassuring workplace. In addition, the Company promotes a culture of physical activity and team spirit by encouraging employees to form sports clubs such as table tennis, badminton, and tennis. Financial subsidies are provided to support these activities, thereby enhancing employees' physical and mental well-being, improving work efficiency, and creating a healthy and vibrant workplace atmosphere.

Employee Health Management and Promotion Initiatives

In 2024, the Company organized 12 seminars on mental health promotion and stress management. An internal Employee Wellness Platform is available on the corporate intranet, featuring access to the Employee Assistance Task Force and various mental health-related resources, providing professional support and up-to-date information to help employees actively manage their health and enhance their physical and mental well-being. Under the Employee Assistance Program (EAP), each employee is entitled to three hours of free mental health counseling services annually. In addition, for cases involving sexual harassment, the Company offers an extra six hours of free mental health counseling related to the incident. Employees seeking support for mental health issues can access initial consultation services through multiple channels, including EAP-designated email, messaging platforms, a 24-hour hotline, and a toll-free 0800 service number.

To foster a harmonious and safe workplace, the Company conducts training programs on topics such as inclusive workplace practices, emotional management, interpersonal communication, and occupational safety and health. These initiatives aim to ensure employees' physical and mental well-being, strengthen labor relations, and support the sustainable development of the enterprise.



Employee Vaccination Program



Health Management Seminars

Occupational Safety Mechanism

TTL adheres to domestic and international occupational safety and health standards and is committed to enhancing management efficiency and preventive measures with the ultimate goal of achieving zero workplace accidents. The Company has established an autonomous occupational safety and health management mechanism to mitigate workplace risks. Since 2018, TTL has engaged professional institutions to conduct training programs and implement a PDCA management system, along with comprehensive workplace diagnostics and identification and mitigation of potential hazards. Furthermore, the Company has obtained dual certification in ISO 45001:2018 Occupational Health and Safety Management System and CNS 45001, thereby strengthening its risk control capabilities and aligning with international labor development trends.

Safety Partner Program

TTL promotes a safe working environment and seeks to prevent occupational accidents through various initiatives, including the two-year renewal program of the Safety Partner Scheme, implementation of the Taiwan Occupational Safety and Health Management System (TOSHMS) certification, and improvement of safety facilities for high-risk and critical processes. The Company also conducts Job Safety Analysis (JSA), establishes Standard Operating Procedures (SOPs) for safe operations, and develops a joint audit plan under the Safety Partner Scheme. TTL enforces contractor supervision and management, provides comprehensive education and training programs, and organizes regional forums and executive-level meetings to strengthen communication and promote safety awareness across all levels of the organization.



In 2024, TTL's headquarters and all affiliated factories successfully obtained certification under the CNS 45001 Occupational Safety and Health Management System, with a total of 18 units certified. Among them, the Shanhua Brewery and Taoyuan Printing Factory were recognized with the Occupational Health and Safety Excellence Award for outstanding implementation of workplace safety measures, while the Chiayi Distillery and Longtian Distillery received the National Five-Star Award for Occupational Health and Safety.

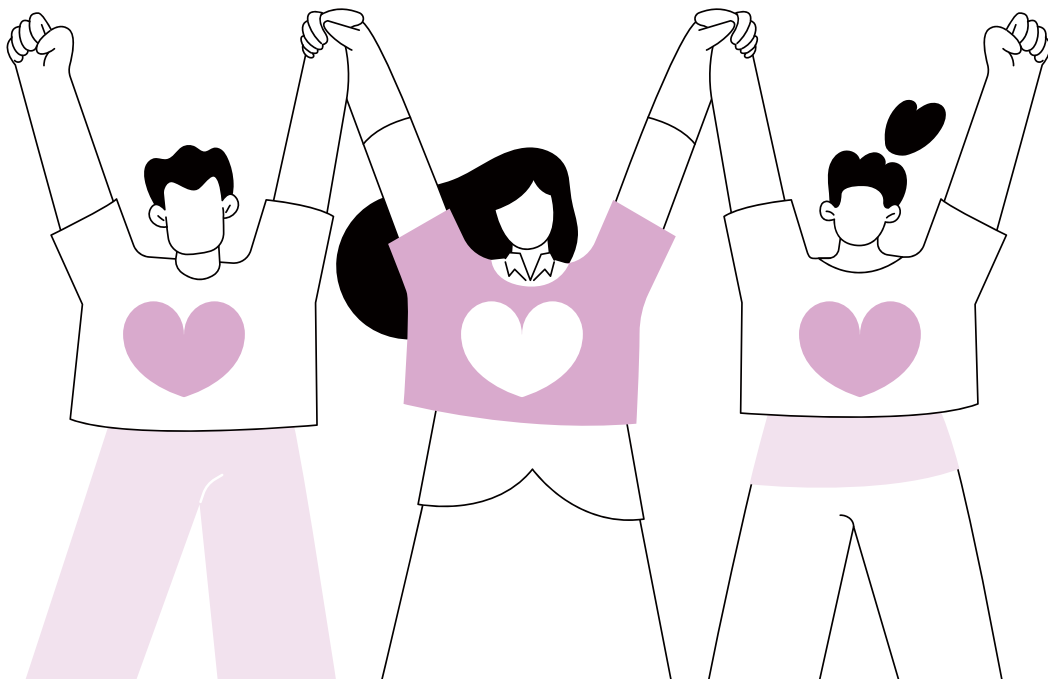
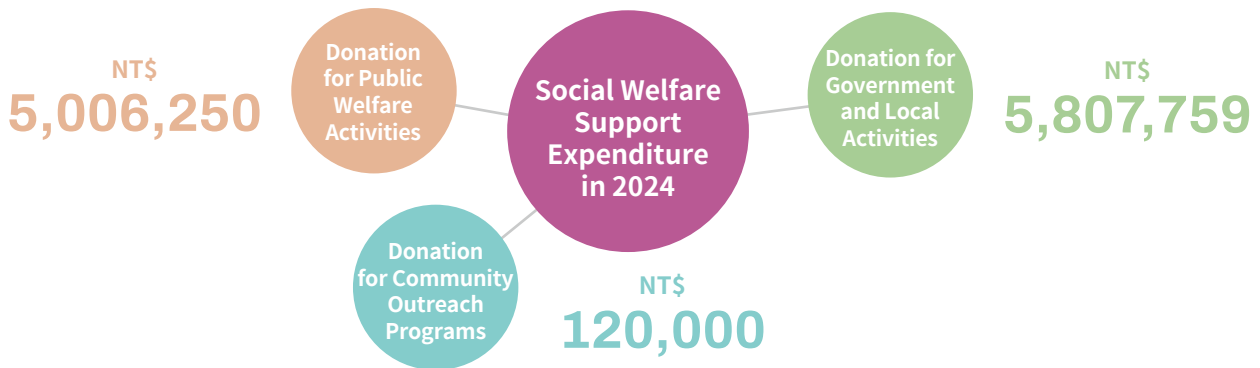
4.4 Social Prosperity

TTL implements its social engagement initiatives through four key pillars: public welfare participation, community care, sports development, and shared prosperity with local communities. TTL remains committed to addressing diverse social issues and aligns its efforts with the United Nations' Sustainable Development Goals (SDGs). Through sponsorship of public welfare activities, neighborhood engagement programs, and donations to government agencies, the Company actively contributes to building a more inclusive and sustainable society.

4.4.1 Public Welfare Participation

Philanthropic Contributions

As part of its social responsibility, TTL strives to provide financial support and services to disadvantaged groups. The company also actively participates in charitable activities to raise awareness and encourage employee involvement in social welfare initiatives.



4.4.2 Supporting Athletic Talent

Taiwan Beer Basketball

In 2024, TTL organized the Taiwan Beer Basketball Summer Camp, featuring professional players from the Taiwan Beer Basketball Team as instructors. The camp integrated a structured curriculum with professional-level training and competitive elements, offering participants a diverse and enriching experience. Through hands-on participation, attendees were encouraged to develop positive personal traits such as focus, optimism, and teamwork.



Taiwan Beer Baseball

The Taiwan Beer Baseball Team actively promotes grassroots public welfare initiatives, including organizing the Taiwan Beer Cup University Top-Tier Baseball Championship, Taiwan Beer Cup Women's Baseball Championship, and the Taiwan Beer Baseball Camp. These efforts aim to advance women's participation in baseball and advocate for gender equality, aligning with the SDGs as a long-term objective. Through these initiatives, TTL fulfills its corporate social responsibility and contributes to sustainable development.



4.4.3 Community Prosperity

TTL is promoting the "Plan to Revitalize and Restore the Glory of the Tourist Distillery and Brewery" aimed at renovating and transforming local distilleries and breweries by integrating regional characteristics and cultural elements. This initiative seeks to preserve and showcase the historical legacy of TTL's distilleries and breweries while collaborating with local governments to jointly develop the tourism industry. By linking with nearby tourist attractions, the project helps attract visitors, stimulate the local tourism and leisure economy, and foster shared prosperity with surrounding communities.

Specialty Distilleries and Breweries for Local Regeneration

TTL actively works with local governments to integrate local cultural creativity into its distilleries. This results in themed distilleries that showcase distinct regional characteristics. The Company also incorporates interactive experience facilities that provide innovative experiences for the public.

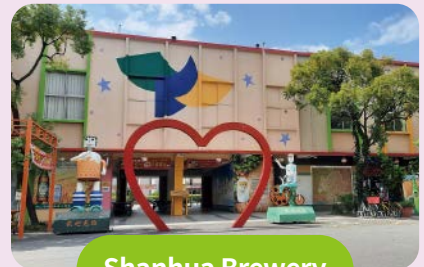
TTL Distilleries and Breweries



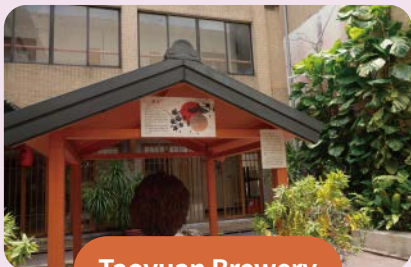
Jhunan Brewery



Wuri Brewery



Shanhua Brewery



Taoyuan Brewery



Taichung Distillery



Nantou Distillery

To be safe,  don't drink and drive.



Puli Brewery



Chiayi Distillery



Longtian Distillery



Hualien Distillery



Yilan Brewery



Pingtung Distillery

To be safe,  don't drink and drive.

Summary of ESG performance

Ch1 Corporate Governance

Key Performance Indicators	2024 Performance
Operating Revenue (NT\$billion)	445.87
Operating Costs (NT\$billion)	349.15
Gross Profit (NT\$billion)	81.64
Operating Expenses (NT\$billion)	51.45
Operating Income (NT\$billion)	30.18
Non-operating Income (Loss) (NT\$billion)	12.81
Net Profit Before Tax (NT\$billion)	43.00
Earnings per Share (Pre-Tax), NT\$/Share	0.98
ROA (Annualized; Pre-tax; %)	5.93%
ROE (Annualized; Pre-tax; %)	6.73%
Total Assets (NT\$billion)	1,177.18
Total Equity (NT\$billion)	1,070.60
Average Attendance Rate of Directors and Supervisors (%)	95.71%
Average Speaking Rate of Directors and Supervisors	92.82%
Corporate Governance Evaluation (Score)	100
Annual Training for Directors and Supervisors (hours)	136
Integrity Education Outreach (hours)	44
Internal Audits (items)	1,692
Internal Audit Improvement Rate (%)	99.07%
Public Servant Integrity and Ethics Violations (cases)	0
Regulatory Violations Related to Products and Services (cases)	0
Instances of Non-Compliance with Labeling Regulations (cases)	0

CH2 Quality Management

Key Performance Indicators	2024 Performance
Internal Inspection Expenses (NT\$)	58,666,306
Internal Inspection Expenses as a Percentage of Total Net Revenue (%)	0.136%
Total Expenditure on Outsourced Testing (NT\$)	4,845,283
Number of breweries certified with ISO 22000 Food Safety Management System	3
Number of distilleries certified with ISO 22000 Food Safety Management System	9
Self-Inspection Item Pass Rate (%)	100%
Domestic Customer Satisfaction Rate (%)	98.8%
Export Customer Satisfaction Rate (%)	96%
Duty-Free Shop Customer Satisfaction Rate (%)	100%
Number of Service Hotline Calls Received (cases)	5,147
Number of Cases Handled by the Service Hotline (cases)	5,147
Customer Complaint Response Rate (%)	100%

Note: The total expenditure for outsourced testing mainly covers costs incurred by the Biotechnology R&D Center for commissioning external parties to calibrate instruments, etc.

Product Traceability and Tracking Management Situation of Taiwan Tobacco and Liquor in 2024

TTL Product Traceability and Tracking Management - Total Food Items Produced	84
Items Registered and Uploaded to "ftfacebook" (items)	81
Percentage (%)	96.43%

2024 Audit Status of Outsourced Food Product Suppliers

Total Number of Audits	Audit Ratio	Compliance Rate
48	100%	100%

Self-Conducted Testing Items by the Biotechnology R&D Center's Alcohol Analysis Laboratory

Inspection Items	Name of Test Item	Number of Samples Tested	Number of Compliant items	Number of Non-Compliant Items	Non-Compliance Rate
Methanol	Hygiene Standards for Alcohol Products	607	607	0	0%
Heavy Metal Lead	Hygiene Standards for Alcohol Products	596	596	0	0%
Sulfur Dioxide	Hygiene Standards for Alcohol Products	588	588	0	0%
Preservative - Sorbic Acid	Preservatives in Alcoholic Products	356	356	0	0%
Preservative - Benzoic Acid	Preservatives in Alcoholic Products	338	338	0	0%
9 Kinds of Plasticizers	Plasticizers in Alcoholic Products	303	303	0	0%
Coloring Agents	Coloring Agents in Alcoholic Products	346	346	0	0%
Citrinin	Mycotoxin	10	10	0	0%

Ch3 Green Economy

Key Performance Indicators	2024 Performance
Direct Greenhouse Gas Emissions (t-CO ₂ e)	109,058.80
Indirect Greenhouse Gas Emissions (t-CO ₂ e)	62,115.18
Glass Bottle Recycling (bottles)	164,319,897
Tobacco Dust and Fragments Recycling (kg)	368,104
Cumulative Solar Photovoltaic Power Generation (kWh)	83,588,090
Solar Photovoltaic Equipment (sites)	34
Total Environmental Protection Expenditure (NT\$10,000)	33,455
Total Waste Generated (metric tons)	102,718

2024 Energy Consumption Status (Unit: Megajoules)

Electricity	488,462,837
Natural Gas	622,927,759
Gasoline	232,320,168
Total Energy Consumption	1,343,710,764

2024 Water Resource Utilization

Total Water Withdrawal (Unit: Million Liters, ML)	
Surface Water	600
Groundwater	958
Seawater	0
Produced Water	0
Third-party Water	1,588
Total Water Withdrawal	3,146
Total Water Discharge (Unit: Million Liters, ML)	
Total Water Discharge	2,734
Total Water Consumption (Unit: Million Liters, ML)	
Total Water Consumption	412

Ch4 Happy Workplace and Social Prosperity

Key Performance Indicators	2024 Performance
Full-time employees (persons)	4,501
Female employees (persons)	1,298
Male employees (persons)	3,203
Average age (years)	47.49
Proportion of Staff (%)	32%
Proportion of Graded Position Personnel (%)	68%
Employee turnover (persons)	488
Employee turnover rate (%)	10.7 %
Number of employees with disabilities (persons)	172
Number of employees hired with indigenous status (persons)	99
Starting salary levels of new employees compared to basic salary in Taiwan - Staff (%)	150%
Starting salary levels of new employees compared to basic salary in Taiwan - Graded Personnel (%)	129%
Labor retirement reserve fund account amount (NT\$)	8,098,630,687
Taiwan Tobacco and Liquor retirement fund account (NT\$)	154,034,151
Number of retirees (persons)	367
Employees eligible for parental leave (persons)	281
Employees who have actually applied for parental leave (persons)	41
Employees who should return to work within the same year after parental leave (persons)	34
Employees who have actually returned to work after parental leave (persons)	33
Parental leave return rate (%)	97%
Number of employees returning to work after leave (previous year) (persons)	59
Number of employees who have returned to work for over a year (previous year) (persons)	54
Retention rate of employees after returning from leave (previous year) (%)	97%
Average training hours per employee - Male Staff (hours)	38.22
Average training hours per employee - Female Staff (hours)	43.78
Proportion of workers in the Occupational Safety and Health Committee (%)	36%
Number of people who went through general health examinations (persons)	4,566
Expenditure on general health check-ups (NT\$10,000)	717
Number of special health check-ups for the year 2024 (persons)	1,301
Number of participants in environmental, safety, and health training courses (person-times)	8,030
Training expenses for environmental safety and health courses (NT\$10,000)	690
Occupational injury rate for males (IR)	0.011
Occupational injury rate for females (IR)	0
Occupational disease rate for males (ODR)	0
Occupational disease rate for females (ODR)	0
The lost day rate for males (LDR)	10.811
The lost day rate for females (LDR)	3.970
Male absentee rate (AR)	0.003
Female absentee rate (AR)	0.002
Number of fatalities (persons)	0
Number of employees joining the union and the proportion of total employees covered by the collective agreement (%)	98%
Number of labor-management meetings held (times)	6
Support for charitable activities, community outreach events, and government donations (NT\$)	10,934,009

Quantity of Production Equipment and Total Volume of Products Sold

	Total quantity of products sold (Mhl)	Quantity of production equipment
Division of Beer	2.093	Taipei, Zhunan, Wuri, Shanhua
Division of Liquor	0.672	Taoyuan, Taichung, Chiayi, Pingtung, Hualien, Yilan, Puli, Nantou, Longtian
Total	2.765	13

2024 Appendix

Appendix 1. Global Reporting Initiative (GRI) Standards Content Index

Statement of use GRI 1 used	TTL has reported the information from January 1, 2023, to December 31, 2023, according to the GRI 2022 Standards.
Applicable GRI	GRI 1: Infrastructure 2021
Industry Standards	N/A

GRI Standards	Disclosure items	Corresponding chapter	Page No.	Remark	
GRI 2: General Disclosures 2021	Organizational and reporting practices				
	2-1	Detailed organizational information	About the report	13	
	2-2	Entities Included in the Organization's Sustainability Report	About the report	2	
	2-3	Reporting period, frequency, and contact person	About the report	2	
	2-4	Restatements of information			not apply
	2-5	External assurance	Assurance Report of Independent Auditors	80	
	Activities and workers				
	2-6	Activities, Value Chain, and Other Business Relationships	1.3 Sustainable Supply Chain Management	33	
	2-7	Employees	4.2 Workplace Diversity and Prosperity	68	
	2-8	Non-employee workers	4.2 Workplace Diversity and Prosperity	68	
	Governance				
	2-9	Governance structure and composition	1.1 Corporate Governance	28	
	2-10	Nominating and selecting the highest governance body	1.1 Corporate Governance	28	
	2-11	Chair of the highest governance body	1.1 Corporate Governance (See Chinese Section 1.2.1 for details.)	28	
	2-12	Highest governance body's role in monitoring impact management	1.1 Corporate Governance	28	
	2-13	Head of Impact Management	1.1 Corporate Governance	32	
	2-14	Highest governance body's role in sustainability reporting	1.1 Corporate Governance	14	
	2-15	Conflicts of Interest	1.1 Corporate Governance	28	
	2-16	Communicate key material events	1.1 Corporate Governance	32	
	2-17	Collective knowledge of highest governance body	1.1 Corporate Governance	28	
	2-18	Evaluating the highest governance body's performance	1.1 Corporate Governance(See Chinese Section 1.1.2 for details.)	28	
	2-19	Remuneration policy	4.2 Workplace Diversity and Prosperity	68	
	2-20	Process for determining remuneration	4.2 Workplace Diversity and Prosperity	68	
	2-21	Total annual remuneration ratio	Summary Of ESG Performance	75	
	Strategies, policies, and practices				
	2-22	Sustainable Development Strategy Statement	Major Operational Themes and Sustainable Value Chain	17	
	2-23	Policy commitments	About This Report	1	
	2-24	Introduce policy commitments	Major Operational Themes and Sustainable Value Chain	17	
	2-25	Procedures for Remediating Negative Impacts	Stakeholder Communication Status	21	
	2-26	Mechanisms for Seeking Advice and Raising Concerns	Stakeholder Communication Status	21	
2-27	Regulatory compliance	1.2 Risk Management and Legal Compliance	31		
2-28	Membership of associations	External Participation	24		
Stakeholder Engagement					
2-29	Stakeholder engagement approach	Stakeholder Communication Status	21		
2-30	Collective bargaining agreements	4.2 Workplace Diversity and Prosperity	68		

Appendix 2.

Sustainability Accounting Standards Board(SASB)

The Sustainability Accounting Standards Board (SASB) Indicators Comparative Table

There are 77 industries under 11 sectors of the SASB Materiality Map by the SASB Standards according to the search results for industry categories on the SASB official website. TTL has selected two applicable indicators to conduct the disclosure:

Sector: Food & Beverage

Industry: Alcoholic Beverage, Tobacco

Alcoholic Beverage

Disclosure Topics	Indicator Code	Disclosure Indicator	Nature	Description
Energy Management	FB-AB-130a.1	1. Total energy consumption (GJ)	Quantification	1. In 2024, TTL's energy consumption volume was 1,343,710,764 megajoule. 2. TTL's electric grid electricity usage was 100%. 3. Refer to details in Summary Of ESG Performance.
		2. Percentage of electricity used (%)		
		3. Percentage of renewable energy usage volume (%)		
Water Resource Management	FB-AB-140a.1	1. Total water withdrawal volume (m ³)	Quantification	1. The 2024 total water withdrawal volume was 3,146 million liters. 2. 0%. TTL did not use water resources from high water resource pressure areas.
		2. Percentage (%) of total water usage volume of the total water usage volume and high or extreme high water resource pressure regions.		
	FB-AB-140a.2	Describe water resource management risks and strategies for reducing risks.	Qualitative	Refer to 3.3.2 Water Resources Management on TTL's water resources management risks and strategies.
Responsible Drinking and Marketing	FB-AB-270a.1	Percentage (%) of alcohol drinking age reminders in advertisements.	Quantification	100% of the TTL's publications for alcohol drinks related advertisements and promotional materials include alcohol drinking age reminders.
	FB-AB-270a.2	Number of cases for unqualified labeling.	Quantification	0 cases. There had been no incidents of unqualified labeling in 2024.
	FB-AB-270a.3	Marketing or labeling related lawsuits damages amount.	Quantification	NT\$ 0. There had been no monetary losses that arise from marketing or labeling related lawsuits in 2024.
	FB-AB-270a.4	Describe execution situation for promoting responsible drinking.	Qualitative	TTL continues to promote Gold Medal Free Non-Alcoholic Beer Flavored Drink, and is committed to promoting responsible drinking through various warnings and wine tasting events. Beer Type products Beer drinks The growth for domestic non-alcohol drinks market is not as expected. It is necessary to expand the drinking group, combining the advantages of non-alcohol and promote drinking non-alcohol drinks products. Segment and Word of Mouth Marketing Focus on word of mouth by segment instead of mass promotion. Expand product experience through KOL, digital advertorial, event product reviews. Liquor type products Promote Responsible Drinking Consumers to sign agreement on responsible drinking. Designated Driving Services (DDS) In line with the MOF's promotion of getting designated driving services (DDS) after drinking, TTL has established uniform warning labeling guidelines. Display the warning sign clearly and add the related warnings on getting DDS after drinking.

Disclosure Topics	Indicator Code	Disclosure Indicator	Nature	Description									
Packaging Lifecycle Management	FB-AB-410a.1	1. Total weight of packaging materials (t). 2. Percentage (%) of recycled or reclaimed materials for packaging materials. 3. Percentage (%) of packaging materials that can be recycled, reused or biodegradable.	Quantification	Refer to details in Sustainability Highlights. The Taiwan laws and regulations regulate that the Post-Consumer Recycled Plastics or recycled plastics cannot be used in food product packaging materials.									
	FB-AB-410a.2	Describe strategies to reduce environmental impacts from the packaging materials lifecycle.	Qualitative	Refer to details in Sustainability Highlights.									
Environment and Social Impacts of Raw Materials Supply Chain	FB-AB-430a.1	Evaluate the social and environmental responsibilities of the suppliers based on the below aspects. 1. Unqualified rate. 2. The corrections measures for (a) materials and (b) not material unqualified products.	Quantification	In 2024, there were no unqualified cases for social and environmental responsibilities of the Tier One suppliers of TTL.									
Raw Material Traceability	FB-AB-440a.1	Percentage (%) of beverage ingredients that are sourced from high or extreme high water pressure areas.	Quantification	0%. TTL did not use water resources from high water resource pressure areas.									
	FB-AB-440a.2	List the beverage ingredients ranking and describe the traceability risks of the raw materials.	Qualitative	<table border="1"> <thead> <tr> <th>Main Ingredients</th> <th>Environmental and Social Risks</th> </tr> </thead> <tbody> <tr> <td>Malted barley</td> <td>Droughts or climate change that result in raw materials price volatility.</td> </tr> <tr> <td>Hops</td> <td>Droughts or climate change that result in raw materials price volatility.</td> </tr> <tr> <td>Edible ethanol</td> <td>Droughts or climate change that result in raw materials price volatility.</td> </tr> <tr> <td>Rice</td> <td>Droughts or climate change that result in raw materials price volatility.</td> </tr> </tbody> </table>	Main Ingredients	Environmental and Social Risks	Malted barley	Droughts or climate change that result in raw materials price volatility.	Hops	Droughts or climate change that result in raw materials price volatility.	Edible ethanol	Droughts or climate change that result in raw materials price volatility.	Rice
Main Ingredients	Environmental and Social Risks												
Malted barley	Droughts or climate change that result in raw materials price volatility.												
Hops	Droughts or climate change that result in raw materials price volatility.												
Edible ethanol	Droughts or climate change that result in raw materials price volatility.												
Rice	Droughts or climate change that result in raw materials price volatility.												
Activity Indicators	FB-AB-000.A	Total volume of sales products (Mhl)	Quantification	Total quantity of products sold (Million Hectoliters)	Quantity of production equipment								
				Division of Beer									
				2.093 Mhl	Taipei Beer Works 、 Zhunan 、Wurih 、Shanhua								
				Division of Liquor									
0.672 Mhl	Taoyuan 、Taichung 、 Chiayi 、Pingtung 、 Hualien 、Yilan 、Puli 、 Nantou 、Longtian												
Total													
2.765Mhl	13												
FB-AB-000.B	Quantity of production equipment	Quantification											
FB-AB-000.C	Total mileage for the fleet (km)	Quantification	The estimation of the mileage for the fleet was extensive. Refer to 3.1 Climate Change and Adaptation.										

Tobacco

Disclosure Topics	Indicator Code	Disclosure Indicator	Nature	Description									
Public Health	FB-TB-260a.1	(1) Gross profit and (2) Net Sales for the manufactured products listed below: (a) Non-tobacco products containing nicotine. (b) Heated Tobacco Products	Quantification	TTL does not have related products to the sales indicator's requirements. The gross profit and net sales are NT\$ 0.									
	FB-TB-260a.2	Describe the risks and opportunities evaluation procedures for tobacco harm reduction.	Qualitative	TTL strictly abides by the Tobacco Hazards Prevention Act and related laws and regulations to conduct products sales and risks evaluation.									
Marketing Strategies	FB-TB-270a.1	Marketing, labeling, or advertisements related lawsuits damages amount.	Quantification	In 2024, the damages amount arising from marketing, labeling or advertisements related lawsuits for TTL was NT\$ 0.									
	FB-TB-270a.2	Describe the company's marketing strategies and position relating to Article 11 and 13 of the WHO Framework Convention on Tobacco Control (WHO FCTC).	Qualitative	TTL abides by and fulfils the related position of the WHO FCTC completely.									
Activity Indicators	FB-TB-000.A	Sales volume for the combustible tobacco products: (1) Cigarettes (2) Cigar (3) Other tobacco products for smoking	Quantification	Cigarettes 4037.17 (million pieces). Cigar 0 piece. Other tobacco products for smoking 2.25 (metric tons)(exported cut tobacco products)									
	FB-TB-000.B	Sales volume for the combustible tobacco products: (1) Traditional smokeless tobacco. (2) Non-tobacco products containing nicotine. (3) Heated Tobacco Products. (4) Nicotine replacement therapy (NRP)	Quantification	<table border="1"> <thead> <tr> <th>Non-combustible Products</th> <th>2024 Sales Volume</th> </tr> </thead> <tbody> <tr> <td>Traditional smokeless tobacco.</td> <td>0</td> </tr> <tr> <td>Non-tobacco containing nicotine.</td> <td>0</td> </tr> <tr> <td>Heated Tobacco Products.</td> <td>0</td> </tr> <tr> <td>Nicotine replacement therapy (NRP)</td> <td>0</td> </tr> </tbody> </table>	Non-combustible Products	2024 Sales Volume	Traditional smokeless tobacco.	0	Non-tobacco containing nicotine.	0	Heated Tobacco Products.	0	Nicotine replacement therapy (NRP)
Non-combustible Products	2024 Sales Volume												
Traditional smokeless tobacco.	0												
Non-tobacco containing nicotine.	0												
Heated Tobacco Products.	0												
Nicotine replacement therapy (NRP)	0												

SASB Materiality Map: <https://materiality.sasb.org/>
 SASB Official Website. Please refer to <https://www.sasb.org>

Appendix 3 : TCFD Index

Aspect	Recommended disclosures	Page
Governance	Describe the board's oversight of climate-related risks and opportunities	P51
	Describe management's role in assessing and managing climate-related risks and opportunities	P51
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	P54
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	P53
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios	P55
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks	P54
	Describe the organization's processes for managing climate-related risks	P51
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	P51
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	P54
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	P76
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	P53

Assurance Report of Independent Auditors



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English Translation of a Report Originally Issued in Chinese

Assurance Report of Independent Auditors

To Taipei Rapid Transit Corporation

1. Scope

We have been engaged by Taiwan Tobacco & Liquor Corporation. to perform a limited assurance engagement in relation to and report on selected sustainability performance indicators included in Taiwan Tobacco & Liquor Corporation 2024 Sustainability Report.

Regarding the sustainability performance indicators selected by Taiwan Tobacco & Liquor Corporation and their applicable criteria, please refer to appendix A.

Management responsibility

Taiwan Tobacco & Liquor Corporation is responsible for the preparation of 2024 Sustainability Report in accordance with adequate criteria, including referencing to Global Reporting Initiatives ("GRI") GRI Standards, and for the design, execution and maintenance of internal controls in regard with report preparation to support the collection and presentation of the Report.

Independent Auditor's Responsibility

Our responsibility is to plan and perform limited assurance engagement in accordance with the TWSAE3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by Taiwan Accounting Research and Development Foundation.

2. Assurance

The procedures performed in limited assurance engagement vary in nature and timing, and are less in extent than for a reasonable assurance engagement so that the level of assurance is substantially lower than reasonable assurance engagement. While we considered the effectiveness of Taiwan Tobacco & Liquor Corporation internal controls when determining the nature and extent of procedures, our review was not designed to provide assurance on internal controls.

To conclude for limited assurance, our procedures performed included:

- Interviewing with Taiwan Tobacco & Liquor Corporation management and personnel to understand the Taiwan Tobacco & Liquor Corporation implementation of overall sustainability and reporting process;
- Understanding the main stakeholders of Taiwan Tobacco & Liquor Corporation and their expectations and needs as well as interaction protocols by interview or examination of



documentation and how Taiwan Tobacco & Liquor Corporation responded to those expectations and needs;

- Performing analytical procedures on selected sustainability performance indicators, gathering and checking other supporting documentation and management information obtained, testing on sample basis if necessary;
- Reading Taiwan Tobacco & Liquor Corporation Sustainability Report to ensure the implementation of overall sustainability and reporting process is consistent with our understanding.

3. Limitations

Non-financial information contained within sustainability reports are subject to measurement uncertainties. The selection of different measurement techniques can result in materially different measurement. Also assurance engagements are based on selective testing of information being examined, and it is not possible to detect all of the existing material misstatements whether resulting from fraud or error.

4. Quality and Independence

We are in conformity with TWSQC1 "Quality Control for Public Accounting Firms" to establish and maintain a sound system of quality control, including code of professional ethics, professional standards and those written policies and procedures in applicable regulations. We are also in conformity with related independence and other ethics requirements in Taiwan's Norm of Professional Ethics, which basic principles are integrity, objectivity, professional competence and due care and professional behavior.

5. Conclusion

Based on our procedures and obtained evidence, nothing has come to our attention that causes us to believe that any material modifications or adjustments should be made to the selected sustainability indicators in accordance with applicable criteria.

Lu, Chian Uen
Ernst & Young
July 25th, 2025
Taipei, Taiwan, Republic of China

Notice to Readers

The reader is advised that the sustainability report has been prepared originally in Chinese. In the event of a conflict between the assurance report and the original Chinese version or difference in interpretation between the two versions, the Chinese language assurance report shall prevail.



Appendix A

No.	Section	Article Title	Subject matter information	Benchmarking Description	Applicable Benchmarking
1	2.1.2	Product Compliance and R&D Innovation	<p>To safeguard consumer food safety, the 9 distilleries and 3 breweries under the TTL have not only fully obtained ISO 9001 Quality Management System certification but have also concurrently implemented the ISO 22000 Food Safety Management System and the HACCP Hazard Analysis and Critical Control Points system, thereby strengthening the existing PDCA quality management mechanism. Through the integration of the aforementioned systems, a comprehensive food safety protection framework is established, covering all stages including food research and development, raw material procurement, manufacturing, packaging, storage, transportation, sales, and consumption. This framework aims to comprehensively reduce the risk of contamination or hazards, ensuring the hygiene and safety of the supply chain. In 2024, TTL continues to maintain three international certifications: ISO 9001, ISO 22000, and HACCP, achieving a coverage rate of 100%. Additionally, multiple products have obtained the Taiwan Quality Food (TQF) mark, CAS Excellent Agricultural Product mark, and Excellent Liquor mark, demonstrating a strong commitment to product safety and quality.</p>	<p>To enhance food hygiene, safety, and quality, assessments and improvements are conducted on aspects including personnel, operational premises, facility hygiene management, and quality assurance systems. This affects the primary product and service categories, along with the corresponding percentages.</p>	<p>In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator One requires enhanced disclosure of performance indicators</p>



No.	Section	Article Title	Subject matter information	Benchmarking Description	Applicable Benchmarking						
2	1.2.3	Legal Compliance	<p>Statistics on Lawsuits and Penalties Related to Taiwan Tobacco and Liquor Due to Products and Labeling in 2024</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td>Number of Cases of Products and Services Violating Regulations</td> <td>0</td> </tr> <tr> <td>Number of Cases of Non-compliance with Labeling Regulations</td> <td>0</td> </tr> </tbody> </table>	Year	2024	Number of Cases of Products and Services Violating Regulations	0	Number of Cases of Non-compliance with Labeling Regulations	0	<p>The categories and frequency of incidents involving violations of health and safety regulations related to products and services, as well as instances of non-compliance with regulations regarding information and labeling of products and services.</p> <p>Additionally, the number of product recalls and the total weight of recalled products.</p>	<p>In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Two requires enhanced disclosure of performance indicators.</p>
Year	2024										
Number of Cases of Products and Services Violating Regulations	0										
Number of Cases of Non-compliance with Labeling Regulations	0										
3	2.1.2	Product Compliance and R&D Innovation	<p>The Company operates 9 distilleries, 3 tobacco factories, and 3 breweries, all of which have fully implemented the ISO 9001 Quality Management System. Following the PDCA (Plan, Do, Check, Act) cycle framework, the quality management processes are thoroughly enforced. Each factory adheres to the seven quality management principles established by ISO 9001, implementing standardized operating procedures, comprehensive quality slogans, raw material incoming inspection and finished product shipment inspection mechanisms, non-conforming product handling areas, and customer complaint handling processes. This effectively controls process quality and manages product risks, ensuring that products leaving the factory comply with regulations and company quality requirements.</p> <p>To safeguard consumer food safety, the 9 distilleries and 3 breweries under the TTL have not only fully obtained ISO 9001 Quality Management System certification but have also concurrently implemented the ISO 22000 Food Safety Management System and the HACCP Hazard Analysis and Critical Control Points system, thereby strengthening the existing PDCA quality management mechanism. Through the</p>	<p>The percentage of products manufactured in facilities that have been independently verified to comply with internationally recognized food safety management system standards.</p>	<p>In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Four requires enhanced disclosure of performance indicators.</p>						



No.	Section	Article Title	Subject matter information	Benchmarking Description	Applicable Benchmarking												
			integration of the aforementioned systems, a comprehensive food safety protection framework is established, covering all stages including food research and development, raw material procurement, manufacturing, packaging, storage, transportation, sales, and consumption. This framework aims to comprehensively reduce the risk of contamination or hazards, ensuring the hygiene and safety of the supply chain. In 2024, TTL continues to maintain three international certifications: ISO 9001, ISO 22000, and HACCP, achieving a coverage rate of 100%.														
4	1.3.2	Sustainable Procurement	<p>2024 Audit Status of Outsourced Food Product Suppliers</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Total Number of Audited Suppliers</th> <th>Audit Ratio</th> <th>Qualification Ratio</th> <th>Audit Subjects</th> </tr> </thead> <tbody> <tr> <td>2024</td> <td>48</td> <td>100%</td> <td>100%</td> <td>Product Quality, Process Specifications, Production Line, Environmental Equipment Safety and Hygiene, Quality Control Records, Comprehensive Assessment, Performance and Delivery Status</td> </tr> </tbody> </table>	Year	Total Number of Audited Suppliers	Audit Ratio	Qualification Ratio	Audit Subjects	2024	48	100%	100%	Product Quality, Process Specifications, Production Line, Environmental Equipment Safety and Hygiene, Quality Control Records, Comprehensive Assessment, Performance and Delivery Status	The number and percentage of supplier audits conducted, along with audit items and outcomes.	In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Five requires enhanced disclosure of performance indicators.		
Year	Total Number of Audited Suppliers	Audit Ratio	Qualification Ratio	Audit Subjects													
2024	48	100%	100%	Product Quality, Process Specifications, Production Line, Environmental Equipment Safety and Hygiene, Quality Control Records, Comprehensive Assessment, Performance and Delivery Status													
5	APPE - NDIX	CH2 Quality Management	<p>Product Traceability and Tracking Management Situation of Taiwan Tobacco and Liquor in 2024</p> <table border="1"> <thead> <tr> <th colspan="2">Year</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td colspan="2">TTL Product Traceability and Tracking Management - Total Food Items Produced (items)</td> <td>84</td> </tr> <tr> <td colspan="2">Items Registered and Uploaded to "fracebook" (items)</td> <td>81</td> </tr> <tr> <td colspan="2">Percentage (%)</td> <td>96.43%</td> </tr> </tbody> </table>	Year		2024	TTL Product Traceability and Tracking Management - Total Food Items Produced (items)		84	Items Registered and Uploaded to "fracebook" (items)		81	Percentage (%)		96.43%	The situation of mandatory or voluntary product traceability and tracking management in accordance with regulations, along with the percentage of related products among the total products.	In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Six requires enhanced disclosure of performance
Year		2024															
TTL Product Traceability and Tracking Management - Total Food Items Produced (items)		84															
Items Registered and Uploaded to "fracebook" (items)		81															
Percentage (%)		96.43%															



No.	Section	Article Title	Subject matter information	Benchmarking Description	Applicable Benchmarking																																												
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6	2.1.3	Product Responsibility Labels and Food Safety Disclosure	<p>In 2024, the laboratory spent NTD 58,666,306 on internal testing, which accounted for 0.136% of the company's total net revenue. (Unit: NTD)</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td>Internal Inspection Expenditure (Amount in NTD)</td> <td>58,666,306</td> </tr> <tr> <td>Internal Inspection Expenses as a Percentage of Total Net Revenue (%)</td> <td>0.136%</td> </tr> <tr> <td>Total Expenditure on Outsourced Testing (NTS)</td> <td>4,845,283</td> </tr> </tbody> </table> <p>Note: The total expenditure for outsourced testing mainly covers costs incurred by the Biotechnology R&D Center for commissioning external parties to calibrate instruments, etc.</p> <p>The Biotechnology R&D Center's beverage analysis laboratory has obtained ISO 17025 certification from the Taiwan Accreditation Foundation (TAF), demonstrating its high-level professional testing capabilities and ensuring compliance with international standards. In 2024, the laboratory conducted 8 different types of tests on beverages, with a 0% failure rate for all tests.</p> <table border="1"> <thead> <tr> <th>Inspection Item</th> <th>Number of Samples Tested</th> <th>Number of Failures</th> <th>Failure Rate</th> </tr> </thead> <tbody> <tr> <td>Methanol</td> <td>607</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Heavy Metal Lead</td> <td>596</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Sulfur Dioxide</td> <td>588</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Preservative - Sorbic Acid</td> <td>356</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Preservative - Benzoic Acid</td> <td>338</td> <td>0</td> <td>0%</td> </tr> <tr> <td>9 Kinds of Plasticizers</td> <td>303</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Coloring Agents</td> <td>346</td> <td>0</td> <td>0%</td> </tr> <tr> <td>Citrinin</td> <td>10</td> <td>0</td> <td>0%</td> </tr> </tbody> </table>	Year	2024	Internal Inspection Expenditure (Amount in NTD)	58,666,306	Internal Inspection Expenses as a Percentage of Total Net Revenue (%)	0.136%	Total Expenditure on Outsourced Testing (NTS)	4,845,283	Inspection Item	Number of Samples Tested	Number of Failures	Failure Rate	Methanol	607	0	0%	Heavy Metal Lead	596	0	0%	Sulfur Dioxide	588	0	0%	Preservative - Sorbic Acid	356	0	0%	Preservative - Benzoic Acid	338	0	0%	9 Kinds of Plasticizers	303	0	0%	Coloring Agents	346	0	0%	Citrinin	10	0	0%	<p>The situation of mandatory or voluntary establishment of food safety laboratories in accordance with regulations, testing items, test results, related expenditures, and the percentage of such expenditures to net operating revenue.</p>	<p>In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Seven requires enhanced disclosure of performance indicators.</p>
Year	2024																																																
Internal Inspection Expenditure (Amount in NTD)	58,666,306																																																
Internal Inspection Expenses as a Percentage of Total Net Revenue (%)	0.136%																																																
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7	APPE - NDIX	2024 Energy Consumption Status	<table border="1"> <thead> <tr> <th>Year</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td>Electricity</td> <td>488,462,837</td> </tr> <tr> <td>Natural Gas</td> <td>622,927,759</td> </tr> <tr> <td>Oil</td> <td>232,320,168</td> </tr> <tr> <td>Total Energy Consumption</td> <td>1,343,710,764</td> </tr> </tbody> </table>	Year	2024	Electricity	488,462,837	Natural Gas	622,927,759	Oil	232,320,168	Total Energy Consumption	1,343,710,764	Total energy consumption, percentage of purchased electricity, and renewable energy utilization rate	"In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Eight requires enhanced disclosure of performance indicators."														
Year	2024																												
Electricity	488,462,837																												
Natural Gas	622,927,759																												
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8	APPE - NDIX	2024 Water Resource Utilization	<table border="1"> <thead> <tr> <th>Year</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td colspan="2">Total Water Withdrawal (Unit: Million Liters, ML)</td> </tr> <tr> <td>Surface Water</td> <td>600</td> </tr> <tr> <td>Ground Water</td> <td>958</td> </tr> <tr> <td>Seawater</td> <td>0</td> </tr> <tr> <td>Produced Water</td> <td>0</td> </tr> <tr> <td>Third-Party Water</td> <td>1,588</td> </tr> <tr> <td>Total Water Withdrawal</td> <td>3,146</td> </tr> <tr> <td colspan="2">Total Water Discharge(Unit: Million Liters, ML)</td> </tr> <tr> <td>Total Wastewater Discharge</td> <td>2,734</td> </tr> <tr> <td colspan="2">Total Water Consumption(Unit: Million Liters, ML)</td> </tr> <tr> <td>Total Water Consumption</td> <td>412</td> </tr> </tbody> </table>	Year	2024	Total Water Withdrawal (Unit: Million Liters, ML)		Surface Water	600	Ground Water	958	Seawater	0	Produced Water	0	Third-Party Water	1,588	Total Water Withdrawal	3,146	Total Water Discharge(Unit: Million Liters, ML)		Total Wastewater Discharge	2,734	Total Water Consumption(Unit: Million Liters, ML)		Total Water Consumption	412	Total water withdrawal and total water consumption.	In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Nine requires enhanced disclosure of performance indicators.
Year	2024																												
Total Water Withdrawal (Unit: Million Liters, ML)																													
Surface Water	600																												
Ground Water	958																												
Seawater	0																												
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No.	Section	Article Title	Subject matter information		Benchmarking Description	Applicable Benchmarking
9	APPE - NDIX	Quantity of Production Equipment and Total Volume of Products Sold	Division of Beer		Sold product weight and number of production facility locations.	In accordance with Article 4, Appendix 1-1 of the 'Operating Guidelines for Preparation and Disclosure of Sustainability Reports by Listed Companies,' Performance Indicator Ten, along with its associated Q&A, requires enhanced disclosure of performance indicators for the restaurant industry.
			Total quantity of products sold (Million Hectoliters)	2.093 Mhl		
			Quantity of production equipment	Taipei Beer Brewery、Jhunan、Wurih、Shanhua		
			Division of Liquor			
			Total quantity of products sold (Million Hectoliters)	0.672 Mhl		
			Quantity of production equipment	Taoyuan、Taichung、Chiayi、Pingtung、Hualien、Yilan、Puli、Nantou、Longtian		
			Total			
			Total quantity of products sold (Million Hectoliters)	2.765Mhl		
Quantity of production equipment	13					



TTL

臺灣菸酒股份有限公司
Taiwan Tobacco & Liquor Corporation



2024

Environmental, Social,
& Corporate Governance Report

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