

KT&G TCFD Alignment & Plan

Version 2021-2



Alignment & Plan

2021.05.12

Disclaimer

This data includes predictive information on risk analysis and financial impact according to our business operations. It contains uncertainties that is premised on the analysis of internal and external business environmental changes, which might occur near in the future. In addition, as this material is based on preceding or reliable data source, we do not guarantee the accuracy or completeness of the material and its contents. Please be noted that this data cannot be used as evidence of legal responsibility for the investment result of investors under any circumstances.

TCFD Alignment Approach

After becoming TCFD supporter in 2020, we aim to fully engage in disclosing actual and potential financial impact caused by climate change, complying with regulations, and setting reduction target.

TCFD Recommendations



TCFD is an organization established by the International Financial Stability Board (FSB) that recommends companies to identify risks and opportunities related to climate change and disclose their financial impact.

TCFD Alignment Approach

Governance

- Improve governance for climate-related risk/opportunities management and oversight
- Strengthen the role of the Board of Directors, executives and working-level organizations in managing climate change and ESG issues

2 Strategy,

- Demonstrate climate-related risk and opportunities
- Analyze financial impact of climaterelated risks and opportunities on business, strategy
- Analyze resilience of strategies according to various scenarios (below 2°C, 1.5°C)

4 Targets & Metrics

- Disclose quantitative indicators to manage climate-related risk and opportunities
- Set reduction targets and monitor performance to tackle climate change

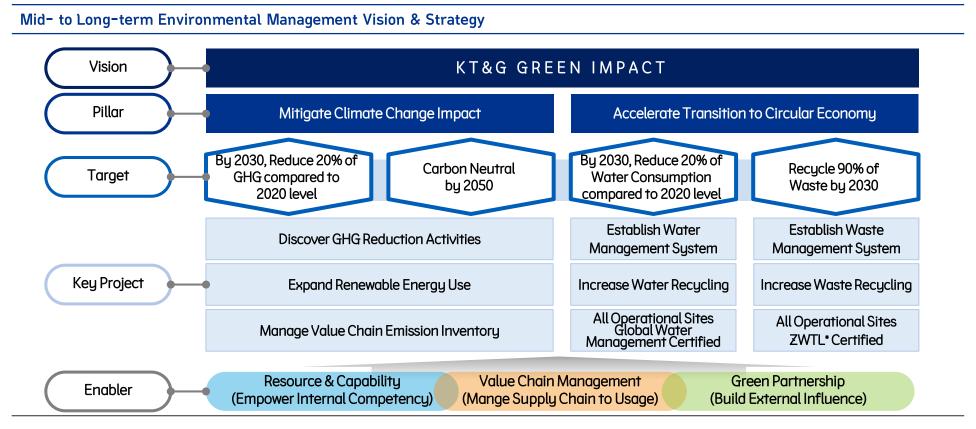
3 Risk Management

- Establish process for identifying and managing physical/transition risks and opportunities due to climate change
- Integrate climate-related risk and opportunities management process to company's risk management framework

To respond to growing demand of international stakeholders, KT&G is actively participating in tackling climate change. Also, we are committed to increasing disclosure on how we are addressing the effects of climate change by establishing management system that complies with TCFD recommendations. We will continue updating TCFD alignment status to effectively communicate with internal and external stakeholders.

KT&G Environmental Management

We established Environmental Management Vision & Strategy that includes commitment to climate change mitigation and transition to circular economy with aim to promote KT&G's "Green Impact" in the society.



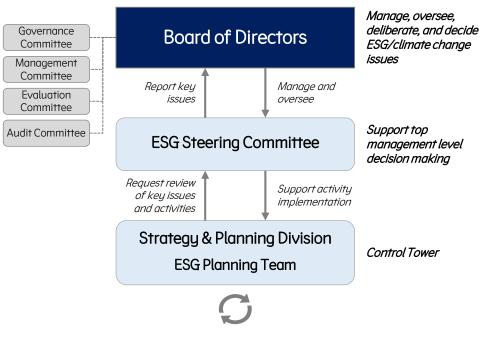
KT&G established sustainable environmental management strategies to create shared values for its own and stakeholders. We aim to minimize the environmental impact and drive transition to circular economy across our operations and overall value chain. In particular, we set mid- to long-term goals and derived key projects in field of GHG emission mitigation, water and waste management. We will build internal competence, manage value chain and build external partnerships to systematically implement the projects to achieve our goals.

^{*} Zero Waste to Landfill

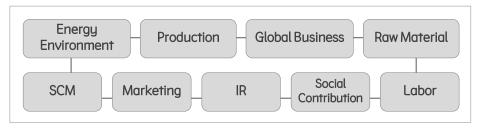
(1) Governance

KT&G has reorganized governance structure to take action against mid- to long-term climate-related risks and established ESG Planning Team under the Strategy & Planning Division as a Control Tower to discuss ESG issues comprehensively within the company.

Climate Change Organization and R&R



[ESG/Environment Task Force]



Board of Directors

In September 2020, we granted the authority of making decisions on ESG issues to the Board. The Board is responsible for reviewing the mid- to long-term climate change strategies according to KT&G's ESG approach. Also, it approves major ESG activities, manages and oversees their implementation.

ESG Steering Committee

ESG Management Committee, which consist of chiefs from all business fields, supports top management's decision making. It reviews major ESG/ environmental issues regularly and reports to the Board.

ESG Planning Team

The ESG Planning Team, newly composed as the ESG Control Tower under the CFO, is responsible for establishing an ESG/environmental management system that meets global standards.

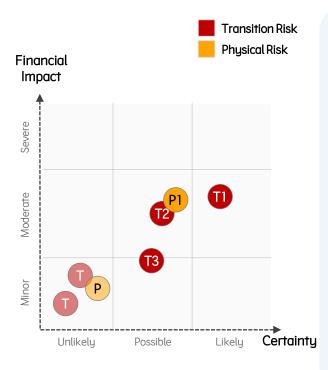
ESG/Environment Task Force

The Task Force, which is composed of working level consultative body from all business fields, holds meetings for major ESG issues to review implementation status of activities such as GHG reduction.

(2) Strategy

KT&G comprehensively analyzed the key factors of climate change risks and its impact on our business and established mitigation strategies based on identified risks.

Analysis on Climate Change Risks and Mitigation Strategies



Risk Identification and Assessment

Policy & Legal (T1)

As a designated entity under K-ETS, we need to purchase extra carbon credits if the emission exceeds the allowance. Due to intensifying global carbon regulation and extra spending on renewable energy, we could face additional financial burden.

Market (T2)

Increase in tobacco leaf production costs is expected due to rising energy price such as LNG, electricity, and gasoline. Increase in raw material costs will raise total production costs.

Reputation (T3)

If water shortage continues due to climate change, it may pose risks such as intensifying competition to secure water as tobacco industry is water-intensive.

Acute (P1)

We expect increase in operation costs due to unusual weather condition such as typhoons and heavy rains that could affect tobacco leaf yield or supply chain causing fluctuations in quality, difficulties in managing distribution and inventory.

KT&G Risk Mitigation Measures

We estimate Business-as-Usual emissions to predict shortfalls compared to allowance, monitor carbon credit prices, and proactively implement emission reduction projects to minimize financial burden.



In order to reduce water-related risk, we evaluated the risk level of domestic and overseas facilities and established the risk management system.

We identify weather patterns where domestic and international tobacco leaf and raw material suppliers are located in. Then, we prepare countermeasures to prevent supply chain damage in advance.

We identify transition and physical risks that may occur from climate change across our business. Also, we evaluate their materiality based on probability of occurrence and financial impact on business. We have prioritized risks that we should manage and measures to address them by discussing comprehensively within the company and receiving consultation from external experts.

(2) Strategy

KT&G comprehensively analyzed the key factors of climate change opportunities and its impact on our business and established strategies to seize them.

Analysis on Climate Change Opportunities and Realization Strategies



Opportunity Identification and Assessment

Products & Services (O1)

By enhancing product sustainability expanding sales of low-carbon products and reducing waste, we will proactively respond to consumers' needs of ecofriendly products and enhance resource circularity throughout the entire value chain.

Resilience (O2)

By participating in global initiatives related to climate change and renewable energy, we can contribute to developing mid- to long-term risk mitigation solution and strengthening its capabilities.

Resource Efficiency (O3)

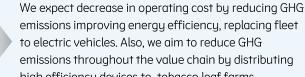
By enhancing production facility performance and improving energy efficiency, we could reduce operation and energy costs and contribute to transition to a low-carbon industry.

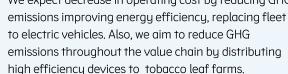
KT&G Opportunity Realization Measures

We aim to minimize the environmental load throughout the life-cycle of the product by developing products that meet consumer needs' utilizing eco-friendly materials and recycling returned NGP devices and promoting our sites to be ZWTL certified.



By responding to global initiatives and external rating agencies such as CDP Climate Change and CDP Water Security, we have strengthened internal capacity in environmental risk management such as GHG emissions reduction and water management.





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(3) Risk Management

KT&G has established climate change risk management process to cope with climate change. We plan to improve the risk management process by integrating it with the corporate business strategy.

Climate Change Risk Management Process

- Analyze trend and changes in internal and external business environment
- Create a long list for potential R&O due to climate change
- ldentify Risks & Opportunities (R&O)
- Receive evaluation from internal executives and external experts' consultation
- Review potential financial impact due to climate change
- 2 Determine Financial Impact of R&O
- Seek measures to mitigate risks and realize opportunities to align our business plan with climate change mitigation approach
- Derive Approach to Respond Climate Change

Prepare preemptive measures to cope with climate change by regularizing risk management process

- Set Climate Change/ ESG Management Approach
- Set and apply mid- to longterm climate change and ESG strategy approach
- Review key
 5 Climate Change/
 ESG Issues
- The Board deliberates and decides major climate change and ESG issues

- Monitor Progress
- Gather performance result for each activity
- Assess progress against the objectives and analyze results

Identify Risks & Opportunities

KT&G annually conducts climate change risk management process to ensure that climate change issues are considered in all management decisions. We create a long list for climate change risks and opportunities to establish short, medium and long-term approach through internal evaluation, executive review and external consultation.

Manage and Respond

The executive reviews the climate change risks and opportunities approach and their linkage to company's business strategy. By reviewing the necessary mid- to long-term investment expenditures or financial resources, the executive will consider them in the overall business plan.

Monitor and Evaluate

To efficiently manage the impact of climate change risks and opportunities, we are considering to establish monitoring and evaluation system. Also, we have included those in KPIs and organizational management performance.

: Identify Risks & Opportunities

: Manage and Respond

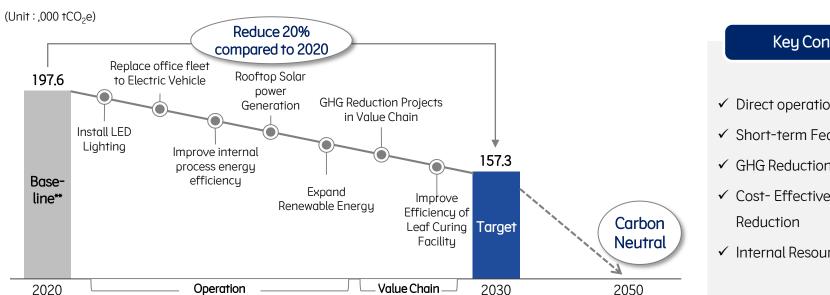
: Monitor and Evaluate

(4) Targets & Metrics

We set GHG reduction target based on SBT* to actively respond to climate change. We commit to reduce entire value chain emissions by 20% by 2030 compared to 2020 and achieve Carbon Neutral by 2050 and to transparently monitor and disclose emissions from each scope.

Mid- to Long-term GHG Reduction Target and Activities

Reduce Value Chain GHG Emissions by 20% by 2030 compared to 2020 & Achieve Carbon Neutral by 2050



** Baseline includes the entire value chain. Scope 3 emission could be re-calculated after advancing data management system, and the figures are not officially verified.

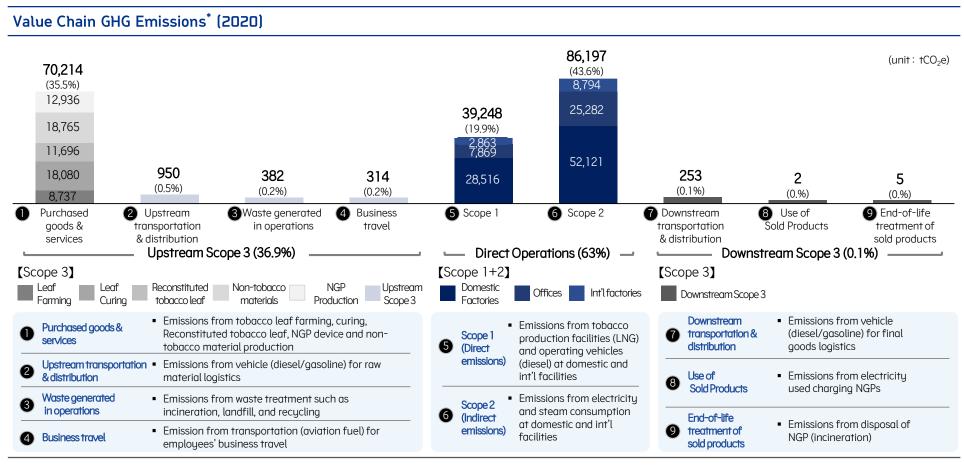
Key Consideration

- ✓ Direct operations/ Value Chain
- ✓ Short-term Feasibility
- ✓ GHG Reduction Potential
- ✓ Cost- Effectiveness of Emission.
- ✓ Internal Resource & Capability

KT&G set emissions reduction target based on SBT according to the Paris Agreement, which aims to curb average global temperature increase below 2°C and limit to 1.5°C compared to the pre-industrial level. We aim to reduce emissions by 20% (scope 1+2 25%, scope 3 12.3%) by 2030 compared to 2020 level and achieve carbon neutral by 2050. To achieve our goals, we consider possibility to implement in short-term, GHG reduction potential, and effectiveness of each GHG reduction activities. We proactively respond to climate change by improving energy efficiency in our operations and utilizing renewable energy power and etc.

(4) Targets & Metrics

KT&G's value chain GHG emissions as 2020 is 197,565 tons where 63% of emissions are from direct operations and 37% from value chain. We will continuously manage scope 3 by inventory advancement.



We aim to strengthen our responsibility for direct and indirect GHG emissions caused by our business activities. To accurately manage scope 3 emissions from raw material procurement to consumer use as well as emissions from offices to factories, we plan to gradually advance the data management system.

^{*} Scope 3 emission could be re-calculated after advancing data management system, and the figures are not officially verified.

Next Step

KT&G will disclose implementation status for TCFD recommendations on KT&G report or official website and update them frequently to communicate with our stakeholders more transparently.

Next Step to Enhance TCFD Alignment

- We plan to predict economic and social change in accordance with different climate change scenarios (e.g. IPCC, IEA, and etc.) and analyze climate change mitigation strategies and financial impacts in detail to minimize uncertainty caused by mid- to long-term climate change risks.
- We will **identify climate change risks and opportunities by region/industry/direct operation and value chain**, and examine the vulnerability and countermeasures of climate change in detail.
- We will expand the scope of responsibility for GHG emissions from KT&G business by advancing the value chain emissions (scope 3) calculation method.
- We promote an environmental management system that meets stakeholders' expectations by transparently disclosing the performance of the mid- to long-term GHG reduction goal annually.