

CLIMATE-RELATED RISK MANAGEMENT SUMMARY REPORT 2024



30 MAY 2025

1. INTRODUCTION TO TCFD

The Task Force on Climate-related Financial Disclosures (TCFD) has developed recommendations for businesses to assess and manage climate-related impacts appropriately. This includes disclosing financial information to investors and other stakeholders, enabling them to understand and mitigate potential financial impacts from climate change. TCFD disclosure aims to demonstrate how climate considerations are integrated into internal processes and business objectives, structured around four pillars: governance, strategy, risk management, and metrics and targets.

2. PURPOSE OF THIS DOCUMENT

True Corporation is a global leader in the telecommunications industry, providing network services and communication equipment. The company recognizes the global effort needed to limit the increase in average global temperature to below 1.5°C compared to pre-industrial levels, as outlined in the Paris Agreement. True understands its crucial role in pushing for these efforts. The company aims to integrate climate-related issues into its business strategy, enhancing opportunities in the transition to a low-carbon economy while increasing flexibility to mitigate potential impacts of climate change.

Climate impacts affecting the telecommunications industry, both positive and negative, are critical considerations for True in ensuring sustainable growth and operational resilience. True has set targets to reduce Scope 1 and 2 greenhouse gas emissions by 42% and Scope 3 emissions by 25% by 2030 compared to base year 2020. Additionally, True aims for carbon neutrality by 2030. In addition, True has committed to achieving net-zero emissions by 2050, aligned with SBTi (Science Based Targets initiative).

To demonstrate its commitment to climate action to stakeholders, True has joined the Task Force on Climate-Related Financial Disclosures (TCFD) supporter to assess risks and opportunities and prepare to adapt to climate change align with TCFD recommendations and global best practices.

Table of Contents

Chapter	Description	Page
1	Climate-related Risk and Opportunity Assessment in Accordance with the Task Force on Climate-related Financial Disclosures (TCFD) <ul style="list-style-type: none"> 1. Governance 2. Strategy 3. Risk Management 4. Metrics and Targets 	1
2	Climate Risk Assessment - Physical Risks <ul style="list-style-type: none"> 1. Case Study: Climate Change Physical Risk Assessment 2. Case study: Financial Impact of Physical Risks 	22
3	Climate Risk Assessment - Transition Risks	31
4	Physical Climate Risk Adaptation	35
5	Climate Related Opportunities	36
6	Sustainable Products	39
7	Procedure for Climate Alignment in Trade Association Sponsorship	40

Disclaimer: Chapters 2 to 4 contain information relating to the future up to 2050. The analyses conducted in this report do not reflect any views of True Corporation on future impacts from climate change, and instead reflect the results of scientific investigation from IPCC and other parties. As climate-related scenario analysis is still in its infancy for telecommunication companies globally, these analyses are provided for the reader to communicate the company's pilot exercise on scenario analysis and to communicate True's commitment to understanding the impacts of climate change to the company's finances. Therefore, these analyses are not yet recommended for any further analysis by third parties. Over time, True is committed to improving these analyses to meet TCFD ultimate requirements to help contribute to markets where companies are able to disclose climate-related information for financial institutions' decision making.

Chapter 1 Climate-related Risk and Opportunity Assessment in Accordance with the Task Force on - Climate-related Financial Disclosures (TCFD)

Climate change is a critical challenge in today's world, Gathering significant attention globally. Recognizing its potential impact on business operations, True has become a supporter of the TCFD and has rigorously analyzed and evaluated climate-related risks and opportunities in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) framework. This comprehensive assessment encompasses four key elements outlined in Figure 1 below.

Figure 1: Task Force on Climate-Related Financial Disclosures Framework



Recommendations and Supporting Recommended Disclosures

1. Governance	2. Strategy	3. Risk Management	4. Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Source: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, October 2021

Disclosure Aligned with Force on Climate Related Financial Disclosure (TCFD) Framework

Governance	
Recommendation disclosure	Sources
1. Describe the board's oversight of climate-related risks and opportunities.	Page 4 of this report (PDF Page 7) Annual Report 2024, PDF Page 161 https://investor.truecorp.co.th/misc/AR/20250227-true-ar2024-en.pdf
2. Describe management's role in assessing and managing climate-related risks and opportunities.	Page 4-7 of this report (PDF Page 7-10) Sustainability Report 2024, Page 8,62 https://truesustainability.info/sustainability/wp-content/uploads/2025/05/true-sustainability-report-high-NN-EN.pdf

Strategy	
Recommendation disclosure	Sources
1. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long Term	Page 9, 13-15 of this report (PDF Page 12, 16-18)
2. Describe the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning.	
3. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	

Risk Management	
Recommendation disclosure	Sources
1. Describe organization's processes for identifying and assessing climate-related risks.	Page 16-17 of this report (PDF Page 19-20) Sustainability Report 2024, Page 20-23 https://truesustainability.info/sustainability/wp-content/uploads/2025/05/true-sustainability-report-high-NN-EN.pdf
2. Describe the organizations' processes for managing climate-related risks.	
3. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	

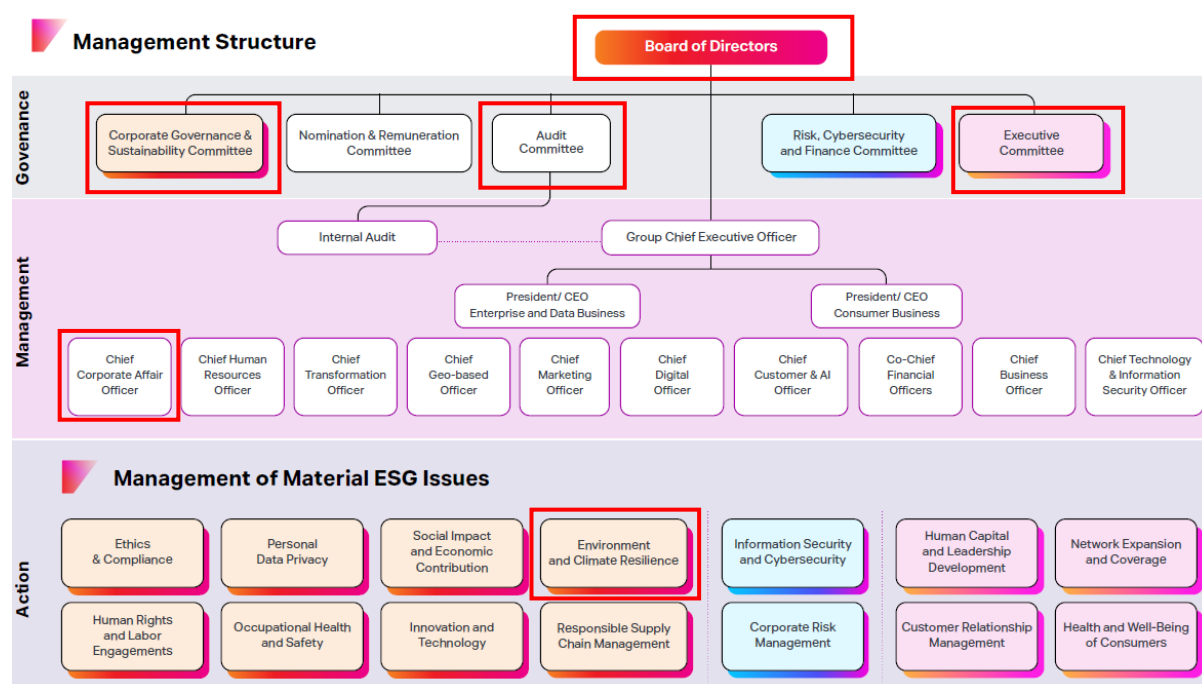
Metrics & Targets	
Recommendation disclosure	Sources
Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	Page 17-18 of this report (PDF Page 20-21) Sustainability Report 2024, Page 10 https://truesustainability.info/sustainability/wp-content/uploads/2025/05/true-sustainability-report-high-NN-EN.pdf
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Page 18-21 of this report (PDF Page 21-24) Sustainability Report 2024, Page 63 and 84 https://truesustainability.info/sustainability/wp-content/uploads/2025/05/true-sustainability-report-high-NN-EN.pdf
Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Page 18-20 of this report (PDF Page 21-23) Sustainability Report 2024, Page 62 https://truesustainability.info/sustainability/wp-content/uploads/2025/05/true-sustainability-report-high-NN-EN.pdf

1. Governance

True has established the Corporate Governance and Sustainability Board Committee, comprising experienced board members with expertise in ESG operations and management, to oversee all sustainability and climate-related issues. Additionally, the Company has created the Sustainability Division to drive sustainability efforts, with the Board of Directors serving as the highest-level management unit to ensure operations align with sustainability policies and climate strategies to achieve predefined objectives and sustainable growth. To effectively manage climate-related issues and impacts, the Board of Directors of True is directly responsible for the climate strategy and climate-related risk management plan proposed by the Corporate Governance and Sustainability Board Committee.

GHG intensity reduction target is a part of the company's corporate KPI, which is tied to the variable compensation of CEO. For Network Operations Team, network electricity consumption, as network operations account for over 90% of the company's total electricity consumption, electricity consumption within the network operations is a key performance indicator of the highest-ranking executive in network operations, Chief Technology Officer. Employees who have initiated or contributed to a successful projects or initiatives in efficiency enhancement received innovation Point, which qualify them for higher variable compensation.

Figure 2: Sustainability Management Structure and Risk Management Structure



Board's Oversight of Climate-related Risks and Opportunities

Governing Body/ Named Position	Roles and Responsibilities	Meeting Frequency
Board of Director	<p>The Chairman has the duties and responsibilities of the chief of the Board of Directors to supervise, follow up and monitor the due performance of the Board of Directors and other Board-committees to achieve business objectives and plans.</p> <p>Authorities and Responsibilities of The Board of Directors for Sustainability, Climate-related Risks and Opportunities:</p> <ul style="list-style-type: none"> Oversee compliance of the conducting of the Company's business with the applicable laws, objectives and Articles of Association of the Company and resolutions of the Shareholders' meetings. Oversee the Company's Corporate Governance for long-term ESG & Climate Related Issue which consist of (1) Annually review and approve visions, strategy, missions, business plans and financial target and monitor the implementation thereof, (2) Evaluate the performance of the Company, Chairman of the Executive Committee and the President (Co), (3) Ensure senior management succession, (4) Adopt policies regarding business ethics and codes of conduct, disclosure, related party transactions and insider trading, and monitor compliance with those policies adhering to moderation, reasonableness and self-immunity system and (5) Oversee compliance with accounting standards, risk management, financial and other controls and applicable laws; 	Quarterly

Governing Body/ Named Position	Roles and Responsibilities	Meeting Frequency
Executive Committee	<p>Authorities and Responsibilities of the Executive Committee for Sustainability, Climate-related Risks and Opportunities:</p> <ul style="list-style-type: none"> ● Formulate business direction, mission, strategies, business plan and financial goals and submit to the Board of Directors for approval including ensure President (Co) and Executives have the effective implementation of the Company's business plan in accordance with relevant laws and regulations. ● Review and approve matters related to the business such as Investments, Budget and Expenditure, Organization Management Matters, Sustainability and Climate Related Matters etc. that subject to authority delegated from the Board of Directors. ● Scrutinize issues and tasks prior to their submission to the Board of Directors for consideration, except where the tasks are under the responsibility or authority of other sub committees, they will be scrutinized by such related Committees prior to being directly submitted to the Board of Directors. ● Acknowledge of internal audit reports concerning preventive and audit measures. Damage or possible loss which could severely affect the company must be immediately reported by the Group Internal Audit to the Executive Committee ● Consider or approve any issues which are assigned by the Board of Directors. 	Quarterly
Corporate Governance and Sustainability Committee	<p>The Corporate Governance and Sustainability Committee is responsible directly to the Board of Directors in accordance with the duties and responsibilities assigned to them. Additionally, the Board of Directors is also responsible to third parties for the operation of the Company</p> <p>Authorities and Responsibilities of the Corporate Governance Committee for Sustainability, Climate-related Risks and Opportunities:</p> <ul style="list-style-type: none"> ● Propose corporate governance policy of the Company to the Board of Directors ● Advise the Board of Directors on matters concerning corporate governance ● Ensure that the duties and responsibilities of the Board and management comply with corporate governance policy ● Review the corporate governance policy of the Company and propose recommendation for revision to the Board of Directors to continuously ensure consistency and compatibility with the businesses of the Company 	Quarterly
Audit Committee	<p>The Audit Committee has duties and responsibilities to review the internal audit procedure relating to the compliance with the Company's measure and this also included climate-related issue, strategy, and target. In this regard, the Audit Committee assigns Internal Audit team to review the process and operation of the business to ensure that they follow the measures, policies, codes of conduct, authority, regulations and requirements of the supervisory agencies, and relevant laws. The Internal Audit team reports the review result to the Audit Committee regularly and annually.</p>	Annually

Governing Body/ Named Position	Roles and Responsibilities	Meeting Frequency
Sustainability and Environmental Management System (EMS) Steering Committee	<p>Role and responsibilities of this committee include:</p> <ol style="list-style-type: none"> 1. Evaluate environmental risks associated with all organizational services and activities. 2. Identify legal requirements related to environmental risks and communicate them in relevant contexts. 3. Establish control measures to mitigate identified risks and create an action plan to manage the identified risks. 4. Lead the systematic implementation of the Company's environmental management system. 5. Launch initiatives to enhance environmental performance by optimizing processes, reducing supply chain impacts, and meeting sustainability targets within an environmental management system framework. 6. Implement corrective actions for any non-conformities identified during internal audits of the environmental management system. Report findings to the Chief Corporate Affairs Officer and ensure appropriate corrective and preventive actions are taken. 7. Monitor and review the implementation of the environmental management system and report the performance results of the environmental management system to the Chief Corporate Affairs Officer. 	Quarterly

Management's Role in Assessing and Managing Climate-related Risks and Opportunities

Governing Body/ Named Position	Roles and Responsibilities	Meeting Frequency
Chief Corporate Affairs Officer	<p>The Company has established a Sustainability Division under the supervisor of the Chief Corporate Affairs Officer, who is responsible for overseeing company-wide Environmental, Social, and Governance matters for the company's sustainability strategy and initiatives, and serves as the Chief Sustainability Officer (CSO), overseeing climate-related strategy, risk management, and disclosures. This position reports directly to the Corporate Governance and Sustainability Committee of the Board, ensuring alignment with the company's strategic direction and long-term sustainability objectives. Head of Sustainability Division is responsible for ensuring that our environmental management practices achieve the annual sustainability targets and contribute to the Sustainability Goals 2030.</p>	Monthly

Governing Body/ Named Position	Roles and Responsibilities	Meeting Frequency
Risk Management Committee	The Company has established the “Risk Management Committee” and officially announced “Risk Management Policy and Framework”, in order to integrate risk management with its business strategy and operations. The Management complied with the policy and reported to the Risk, Cybersecurity and Finance Committee on a regular basis. Risk and crisis management is important to True and stakeholders. It is the tool for managing and making plans to respond quickly to changes in the business environment, including disruption in the telecommunications industry, consumer demand for more connectivity, cybersecurity, market and political tensions, delays in the supply chain, climate change issue and loss of customers due to emerging diseases, and other emerging risks, which may have positive and negative impacts on the Company's business operations.	Bi-annual
Head of Sustainability Division	Authorities and Responsibilities of the Head of Sustainability Division for Sustainability, Climate-related Risks and Opportunities: <ul style="list-style-type: none"> • Advise the Board of Directors on matters concerning corporate wide-ESG and climate related issues. • Review the corporate wide-ESG and climate-related issues, monitoring and propose recommendation for revision to the Corporate Governance and Sustainability Committee to continuously ensure consistency and compatibility with the businesses of the Company 	Quarterly

Climate-Related Management Incentive

True set key performance indicators as climate-related management incentives and company's remuneration for the organization, executives, and employees across all departments. These KPIs are embedded at the individual, team, departmental, and corporate levels to drive collective efforts toward achieving the True Sustainability Goals 2030 (Refer to Annual Report 2024, Pages 70–72).

The Company conducts comparisons with industry peers on total shareholder return to determine executive short term incentives and measurements. These financial metrics include Revenue Growth, EBITDA, Net Income and Free Cash Flow in which the Return on Equity measurement is integrated. The executive pay linked to KPIs also include non-financial metrics, alongside sustainability metrics such as climate change and environmental development performance. These aim to achieve the following True Sustainability Goals 2030.

True Sustainability Goals 2030	
E: Environmental Dimension (Living Together)	KPI
Climate Resilience	Reduction of carbon emissions of organization's operations and Carbon Neutrality in Scope 1 and 2, compared to 2020 base year
Electronic Waste Management	100% zero-landfill in electronic waste from business operations and those of consumer voluntary campaigns
Water Stewardship	42% reduction in water withdrawals per revenue compared to 2020 base year
Responsible Supply Chain Management	100% of significant tier-1 suppliers are audited

S: Social Dimension (Living Well)	
Health & Well-being of Consumers	25% of total revenue from products and services that help promote health and/or well-being of consumers
Social Impact & Economic Contribution	500,000 smallholder entrepreneurs and individuals of vulnerable groups receiving digital upskilling for jobs and income generation opportunities
Innovation	200 patents of innovations and interventions granted and filed.
Stakeholder Engagements	88% engagement score of multi-stakeholder perception survey
Network Availability	98% of 5G network coverage of population throughout the nation
G: Governance Dimension (Living Right)	
Corporate Governance	Highest rating received from the Corporate Governance Reporting (CGR)
Human Rights	100% human rights due diligence conducted in own business operations and in significant tier-1 suppliers
Digital Inclusion and Education	36 million people and internet users receiving access to education, life-long learning and digital upskilling
Leadership & Human Capital Development	100% employees participating in digital reskilling and upskilling
Cybersecurity & Data Privacy	100% of significant business operations certified on ISO 27000 and compliant to Personal Data Privacy Act B.E. 2562 (PDPA)

Climate-related Public Policy Engagement

TRUE aims to actively contribute towards limiting global warming to below 1.5 degrees and achieving net zero emissions in alignment with the Paris Agreement. This will be accomplished through engagement with trade associations. To joining the **UN Global Compact Network Thailand** to declare our intention to reduce greenhouse gas emissions to Net Zero by 2050 or no later than 2070. TRUE is a member of the **Thailand Carbon Neutral Network (TCNN)** and a member of **the Federation of Thai Industries (FTI)**, actively collaborating with other private companies, government agencies, and communities to supports the enhancement of industries in the country, promoting SMEs, fostering trade partnerships, digital business collaboration, and climate action. Moreover, TRUE develops a comprehensive management system that covers all of our jurisdictions in order to support Climate-related Public Policy, as outlined below.

- 1. Review:** conduct an analysis comparing the current policies and public policies to determine their alignment with the goals of the Paris Agreement, specifically focusing on direct climate-related activities and trade associations.
- 2. Monitoring:** Regularly track and communicate detailed policy changes to address and reduce misalignments with the climate change policy positions of trade associations.
- 3. Engagement:** Engage with internal and external stakeholders to enhance a shared perspective on climate policy alignment.
- 4. Disclosure:** Actively report on climate-related direct engagement activities and the climate policy positions and activities of trade associations.

2. Strategy

True embraces the digital era while conducting business to achieve a balance between the economy, society, and the environment based on circular economy principles. To create an efficient climate strategy and energy management plan aligned with TCFD recommendations, we have established three distinct timeframes for analyzing climate-related risks, their financial implications, and potential opportunities: short-term (0-3 years), mid-term (3-6 years), and long-term (6-10+ years). These analyses inform our management measures, technology adaptation plans, and financial planning strategies significantly.

Aligned with our goals of achieving Carbon Neutral by 2030, and Net Zero by 2050, we are committed to efficiently utilizing natural resources and minimizing the environmental footprint of our business operations. This commitment is realized through our 3Rs Strategy (Reduce, Reuse, and Recycle), in adherence to the Climate Change and Environmental Management Framework.

Furthermore, we have established environmental policies and targets covering areas such as greenhouse gas emissions, water reuse, and waste management. These efforts are supported by our Environmental Management System (EMS), which conforms to the ISO 14001:2015 standard.

To drive continuous improvement, we have formed an Innovation and Sustainability Committee along with a Working Group on Environmental Management. These bodies play a crucial role in ensuring that our environmental practices are aligned with our targets and effectively contribute to our sustainability objectives.

In addition, we apply Climate Change and Environmental Impact Management Framework throughout the supply chain and regularly assess risks, opportunities, and impacts. In parallel, the same framework is also applied to all stages of our value chain of company's products with risks, opportunities and impacts assessed as well. We have then set strategy and sustainability targets, create policies, implement, measure and communicate stakeholders, accordingly.

Figure 3: Climate Change and Environmental Impact Management Framework



Initiatives for Greenhouse Gas reduction

Climate change may affect the business operations of True, if resources are used inefficiently or are not prepared for impacts such as severe droughts and extreme weather. We have taken action to mitigate the impacts of climate change and reduce greenhouse gas emissions through various projects and activities (Figure 4), including adaptation plans and actions as following,

Initiatives	Actions
Reduce GHG emission from operations	<ul style="list-style-type: none"> - Apply AI and ML to enhance the energy efficiency of signal poles and networks. - Support and engage with stakeholders to develop adaptation action plans.
Improve energy efficiency e.g. <ul style="list-style-type: none"> • Network Modernization • Energy Management in Base Station and Data center • Air conditioning in office building 	Increase awareness and capacity building along the value chain, including applying Artificial Intelligence (AI) and machine learning (ML) to analyze and improve energy efficiency in our operations.
Increase renewable energy use e.g. <ul style="list-style-type: none"> • Solar Energy • PPA (Power Purchase Agreement) • i-REC (Renewable Energy Certificate) 	Invest in renewable energy for producing clean energy at cell sites, office building, and data center building to help reduce emissions from energy consumption.
Reduce waste in supply chain <ul style="list-style-type: none"> • E-waste Treatment & Recycling • GHG Capture and Utilization 	Improve infrastructure to cope with events That might be occurred from climate change.
Promote sustainability logistics <ul style="list-style-type: none"> • Electric Vehicles & Charging Stations • Promote mass transportation service 	Reduce transportation, promote the use of low-emission transportation, and invest in potential commuting technologies.
Carbon Neutrality Events & Programs	Invest in high-quality certified offsetting programs to offset residual emissions in each region, e.g., the purchase of carbon credits, solar roof installations in communities, and planting/reforestation.
Digital technology adaptation <ul style="list-style-type: none"> • Data allocation on cloud • e-bill 	Improve ICT infrastructure Data allocation to cloud and encourage the customer to use on application instead paper advertising.

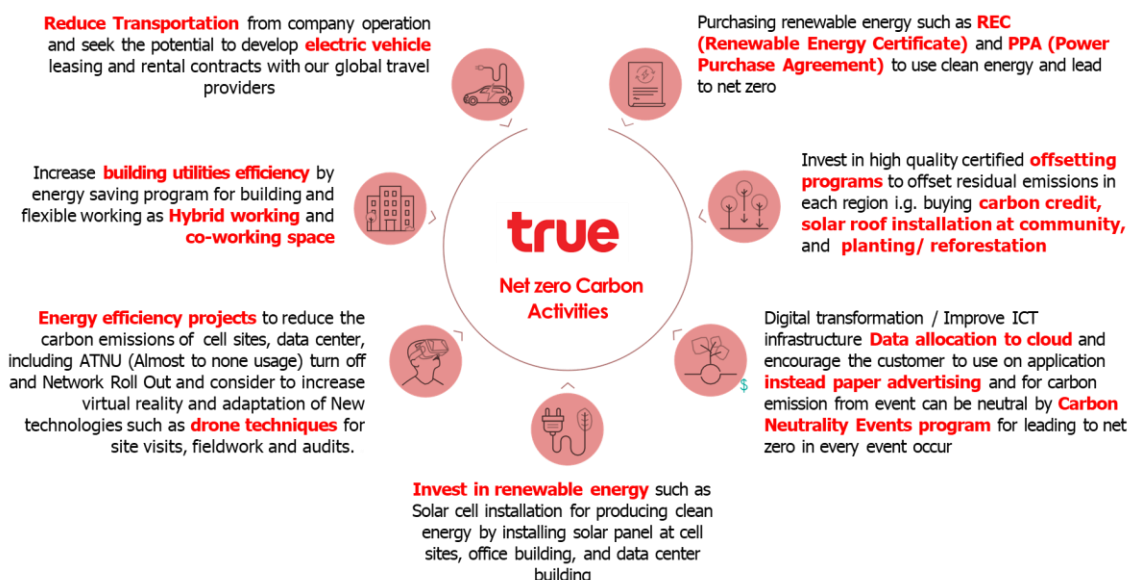


Figure 4. Net-zero carbon activities

Greenhouse Gas Reduction and Low-Carbon Strategies

In 2024, The Company has implemented plans to reduce GHG emissions and low carbon projects under the Projects or Activities as outlined below;

- **Renewable Energy:** The Company continued to install solar cell panels and entered into the power purchase agreement (PPA) with business partners at more base stations and Mobile Switching Center (MSC). In 2024, we installed 2,819 solar cells, which electricity generation 7,110 MWh/year and greenhouse gas emissions reduction 2,837 tonCO₂e/year. Since the start of the project, a total of 10,406 solar cells have been installed with a capacity of 46.15 MWp (target: 40 MWp) and 35,216 MWh/year generated, greenhouse gas emissions reduction by 14,051 tonCO₂e/year. Additionally, solar cells have been installed on the roofs of offices, generating approximately 507 MWh of clean energy per year and reducing greenhouse gas emissions by 202 tonCO₂e /year
- **Energy Efficiency:** True combined signal towers to improve network efficiency through the **Network Modernization project**, into a single grid. We have delved deeply into usage details in each area combined with the use of Artificial Intelligence (AI) and Machine Learning (ML) to analyze, optimize energy consumption and as the result to achieve energy efficiency. Additionally, True installed electricity consumption efficiency energy-saving equipment or changed some equipment at base stations and exchange nodes by changing network equipment that save more energy such as high-efficiency air conditioners and improved Radio Access Network (RAN) equipment have been deployed. These efforts have resulted in 165,039 MWh/year of electricity savings and 65,850 tons CO₂e/year reduction in greenhouse gas emissions.
- **Innovation in GHG Emissions Reduction:**
Paperless Service : True has continuously adopted digital platforms both within and outside our operation to reduce paper usage. AI technology is used instead of paper forms for internal approvals, with a target of 100% automation in daily operations by 2027. For customers, True has expanded **True e-billing and True e-Tax Invoice** system to replace paper-based invoices and receipts. This initiative

reduces paper usage by 362 million sheets/year, equivalent to 1,808 tons and helps avoid greenhouse gas emissions 3,800 tons CO₂e/year.

Smart Energy Product : True developed the **TrueX application** to track and manage energy usage for Smart Home customers. Using Internet of Things (IoT) technology and the Energy Analytics Platform, along with smart energy products in order to reduce electricity consumption and avoid greenhouse gas emissions.

True iService & TRUE VWORLD : True utilizes the **True iService online platform** to provide customer service, reducing greenhouse gas emissions by minimizing customers' fuel consumption from travel. The Company also supports the use of **True Virtual World (True VWORLD) as a teleconference platform**, allowing meetings with both internal and external stakeholders, reducing fuel consumption and greenhouse gas emissions from travel. Additionally, True promotes the **True Car Free Day** initiative, encouraging employees to reduce emissions from commuting. In 2024, 1,065 employees participated in the program, reducing 627 gCO₂e/day.

- **Forestation for Carbon Absorption**: Creating a digital society and promoting planting trees through the We Grow application to records tree data, takes photos, tracks, and shares the growth of trees, both individually and those planted with organizations and various activities. It also tracks CO₂ storage data to help capture carbon dioxide. The WE GROW app is a tool that supports tree planting in modern society. It also links to social networks of tree planters from partner organizations with significant roles in environmental and forestry sectors. It supports 4 languages: Thai, English, Chinese, and German. In 2024, the app recorded a total of 6,266,127 trees, which have absorbed 332,132 tons of CO₂.
- **Internal Carbon Pricing (ICP)**: True adopted Internal Carbon Pricing (ICP) to set a shadow price at 600 THB/tonCO₂e for GHG Scope 1&2 emission, This approach supports climate risk assessment, conduct cost-benefit analysis, drive energy efficiency and low-carbon investments, planning for Renewable Energy Certificate (REC) and carbon offset budgets, and incentivize consideration of climate-related issues in all business decision making to select low-carbon projects at an initial phase, identify and size low carbon opportunities, our purchasing decision, and achieving of climate-related targets. It also navigates domestic regulations, such as the upcoming Climate Change Act.
- **Carbon credits**: Regarding our goal in Carbon Neutral 2030, True actively supports the carbon credit market mechanism by purchasing 1,000 tonCO₂e of carbon credits in 2024.
- **Renewable Energy Certificate (REC)**: Apart from implementing measures to reduce greenhouse gas emissions from corporate activities, True has also actively supported the use of renewable energy. In 2024, we purchased Renewable Energy Certificate or REC (market based) to offset 241,735.75 MWh of electricity consumption from Hydropower Plant under the International Renewable Energy Certificate (I-REC) standard. Reducing greenhouse gas emissions by 96,453 tons CO₂e/year.

As greenhouse gas emissions have steadily increased in recent years, global temperatures continue to rise, resulting in severe climatic variability, extreme weather events, and sea level rise. True has analyzed and assessed the risks and opportunities that may affect the company's business and finances according to the TCFD framework, considering two scenarios as detailed in the table below.

Climate Related Risks	Scenario	Description	Impact to Business	Time horizon*
Transition Risk				
*Policy & Legal	Business as Usual (BAU)	As Thailand has pledged the Nationally Determined Contribution (NDC) to the UNFCCC to reduce greenhouse gas emissions by 20-25% compared to the business as usual by 2030, aiming to reach carbon neutrality by 2050, and net zero greenhouse gas emissions by or before 2065. The Company may have to take part in the efforts to reduce greenhouse gases to achieve the national emissions target.	Reputation and recognition from environmentally conscious consumers.	All time frames
*Current regulation, Emerging regulation and legal risk	1.5 °C	The Climate Change Act is expected to be enacted in the near future, which requires the Company to report greenhouse gas emissions, reductions, and adaptation to climate change. The following legal liabilities challenge from climate change impact is also expected to be assessed and monitored for the businesses' need to adapt and mitigate the impacts.	<ul style="list-style-type: none"> • Reputation and recognition from environmentally conscious consumers. • Cost of climate change operations throughout the supply chain • Legal liabilities challenge from climate change impact 	All time frames
Technology	BAU	No change or regress in technologies that reduce greenhouse gas emissions.	Lose opportunities to invest in new energy and cost saving technologies.	Medium-term
	1.5 °C	New technologies that can reduce greenhouse gas emissions more effectively.	Cost of improving or changing technologies, which must be implemented earlier than anticipated.	Medium-term
Market	BAU	Financial market disruption and climate change impact.	Revenue from customers decreases through lower carbon competitors.	Short-term
	1.5 °C	Stakeholders are becoming more aware and conscious of climate change, causing the demand for low-carbon goods and services to increase.	Cost of producing low-carbon goods and services, as well as research and development of services that help mitigate greenhouse gas emissions to respond to customer needs.	Medium-term

Climate Related Risks	Scenario	Description	Impact to Business	Time horizon*
Reputation	BAU	Stakeholders expect green business operations.	Reputation and recognition from environmentally conscious consumers.	All time frames
	1.5 °C	Stakeholder expect the Company to set and achieve greenhouse gas emissions reduction targets or conduct activities to reduce climate change impact.	The Company's reputation and brand value may be affected or revenue may decrease if the Company does not have a clear direction or take part in the efforts to drive climate change goals.	All time frames
Physical Risk				
Acute	BAU	Abrupt physical impacts and severe natural disasters may cause business disruption.	<ul style="list-style-type: none"> • Damages from business disruption. • Cost of repairing or replacing damaged equipment. • In 2011, TRUE Loss 133 Million Baht from major floods. 	Short and medium-term
	1.5 °C	Abrupt physical impacts, natural disasters, damages to equipment.	Cost of repairing or replacing damaged equipment.	Short and medium-term
Chronic	BAU	Equipment damages due to climatic conditions, such as damages to the cooling system due to rising temperatures, may cause business disruption.	<ul style="list-style-type: none"> • Damages from business disruption. • Cost of repairing or replacing damaged equipment such as batteries shortened lifespan. 	Medium and long-term
	1.5 °C	Temperature rise may shorten equipment life spans.	Cost of preventive measures or new technologies.	Medium and long-term

Remark: Short-term (0-3 years), Medium-term (3-6 years), Long-term (6-10+ years)

Climate Related Opportunities	Scenario	Description	Impact to Business	Time horizon
Resource Efficiency and Energy Source	BAU	Improve energy efficiency and use renewable energy in business operations.	Reduce energy cost and consumption but lose opportunities to increase efficiency.	Medium and long-term
	1.5 °C	Improve energy efficiency and choose clean fuels or increase renewable energy proportion.	<ul style="list-style-type: none"> • Reduce cost by saving energy and increasing energy efficiency. • Reduce cost by choosing renewable energy such as solar energy, biomass, etc. 	Medium and long-term
Products and Service	BAU	Promote low-carbon services such as solar cells installation at base stations, major exchanges and transmission nodes.	Earn a reputation for the Company.	All time frames
	1.5 °C	Promote and develop more new low-carbon services.	<ul style="list-style-type: none"> • Gain a good reputation for the Company. • Revenue from environmentally conscious customers increase. • Development of climate-related innovations. 	All time frames
Markets	BAU	Market interest in low-carbon products and services.	Opportunity to increase competitiveness.	Medium-term
	1.5 °C	Enhance competitiveness in low-carbon product and service market or the government has climate-related incentives.	<ul style="list-style-type: none"> • Communicate with stakeholders to increase brand value and participate in reducing greenhouse gas emissions. • Opportunities to increase revenue from sustainable products, green products, and environmentally conscious customers. • Access to new market segments. 	Medium and long-term
Resiliency	BAU	Prepare for climate change.	Investment in design and construction of structures to protect against impacts of climate change such as flooding.	Medium and long-term
	1.5 °C	Prepare for climate change and government's rules and regulations related to climate change adaptation.	<ul style="list-style-type: none"> • Investment in design and construction of structures to protect against impacts of climate change such as flooding. • Set a plan to adapt or prevent business disruption from climate change. 	Medium and long-term

Remark: Short-term (0-3 years), Medium-term (3-6 years), Long-term (6-10+ years)

3. Risk Management

The company has established the Strategic Risk Management Committee and the Business Continuity Management Committee to oversee risk identification and assessment, develop a risk management framework and strategies, and create a risk management plan to mitigate potential business disruptions. The risk and crisis management framework encompasses eight categories of risks, aligning with the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management (ERM) – Integrated Framework 2017 and ISO 22301 standards.

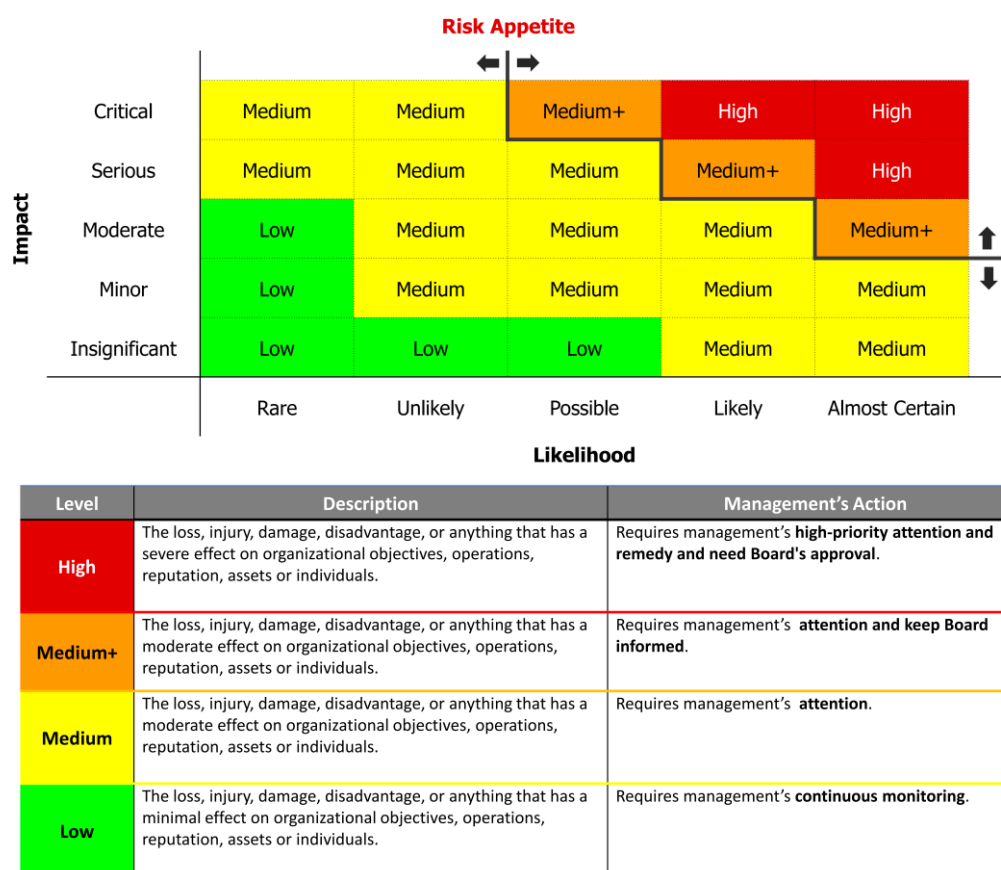
Figure 5: Risk and Crisis Management Framework



The company are integrated into a multi-disciplinary, company-wide risk management process. The climate change risks and opportunities are embedded into the company's centralized enterprise risk management program, ensuring comprehensive coverage of all types and sources of risks and opportunities. A risk matrix is used to identify and classify risks across eight areas. Impact severity and likelihood of occurrence are considered when selecting material risks to develop a risk management plan.

In addition, the company recognizes the importance of environmental dependencies on natural resources such as energy inputs, water resources, and biodiversity that are critical to its operational continuity and long-term resilience. These environmental dependencies are increasingly relevant as climate change and nature degradation may disrupt access to key resources, supply chains, and infrastructure reliability. Additionally, The company has also used the IBAT to assess its nature-related dependencies and impacts, and manage potential impacts on biodiversity in relevant areas, aligning with frameworks such as the Taskforce on Nature-related Financial Disclosures (TNFD), to ensure resilience and long-term value creation.

Figure 6: Risk Rating and Risk Rating Definition



4. Metrics and Targets

True has set ambitious goals to achieve Carbon Neutrality (Scope 1 & 2) by 2030. In addition, True has SBTi-validated targets to reduce Scope 1&2 emissions by 42%, Scope 3 by 25% by 2030, according to the Science-Based Target Initiative (SBTi) as show in Figure 7-8, with a goal of achieving Net Zero emissions by 2050 compared to base year 2020. **Both the near-term and long-term targets have been validated by the SBTi**, aligning with the Paris Agreement's goal of limiting global warming to 1.5°C pathway.

In addition to joining the UN Global Compact Network Thailand to declare our intention to reduce greenhouse gas emissions to Net Zero by 2050 or no later than 2070, True Group has been certified as a climate action leading organization by the Thailand Carbon Neutral Network.

Figure 7: True sustainability Goals 2030

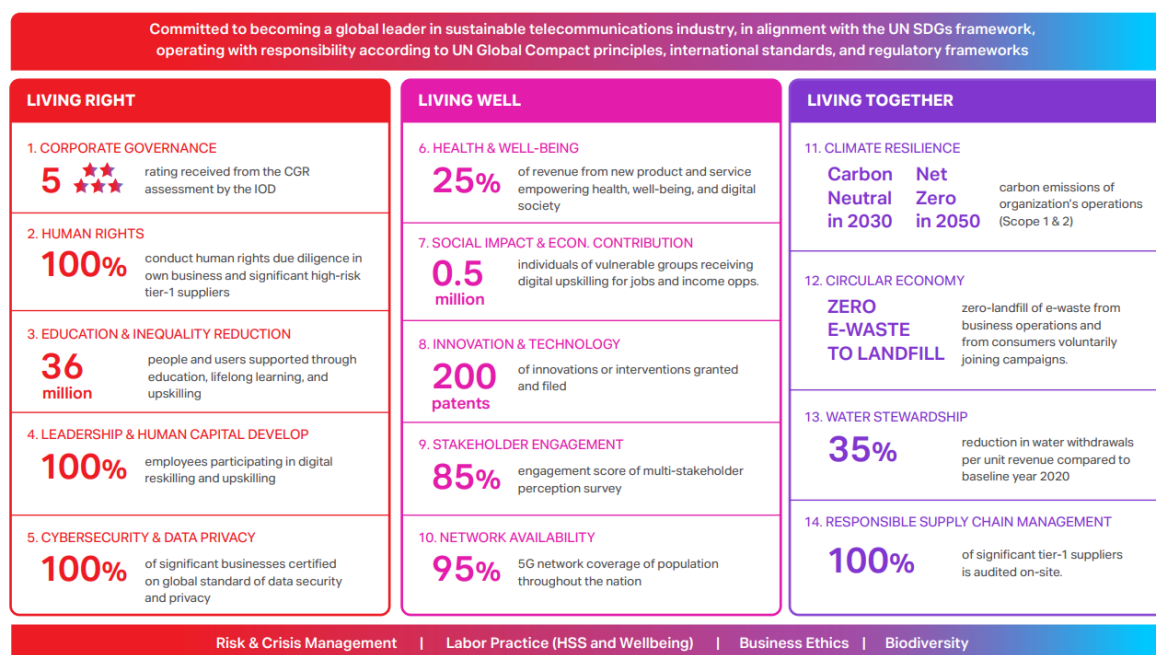
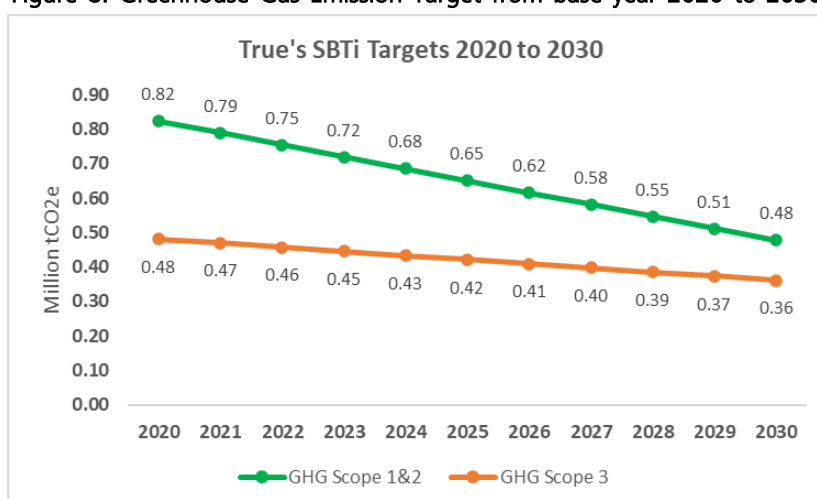


Figure 8: Greenhouse Gas Emission Target from base year 2020 to 2030.



Remark:

(1) Green line represents Greenhouse gas emission target of Scope 1 & Scope 2 (Market Based), baseline 2020 was 823,131 TonCO₂e which will be reduced 42% by 2030

(2) Orange line represents Greenhouse gas emission target of Scope 3, baseline 2020 was 481,486 TonCO₂e which will be reduced 25% by 2030.

(3) Data of both dtac and True

Targets 2024	Performance 2024
<ul style="list-style-type: none"> Reduce Scope 1 and 2 greenhouse gas Absolute emissions by 16.8 percent compared to the base year 2020. Reduce water withdrawal per revenue by 40 percent compared to the base year 2020. Achieve zero e-waste to landfill. 	<ul style="list-style-type: none"> Scope 1 and 2 greenhouse gas emissions was reduced by 18.5 percent compared to the base year 2020. Water withdrawal per revenue was reduced by 44 percent compared to the base year 2020. Zero e-waste to landfill.

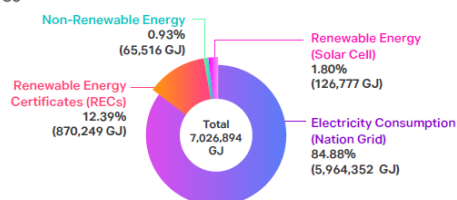
Figure 9: Climate-Related Performance 2024

Energy consumption and Climate Change, Water Management and Waste Management

Summary of Energy Performance 2024

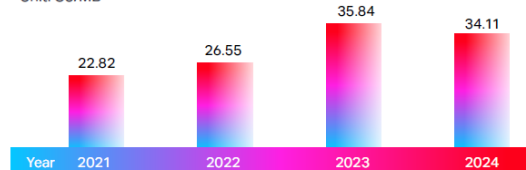
Share of Energy Consumption 2024

Unit: GJ



Energy Consumption per Revenue

Unit: GJ/MB

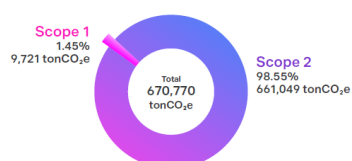


Note: 1. True Performance only from 2021-2022
2. Combined Performance True and dtac in 2023-2024

Summary of Climate Change Performance 2024

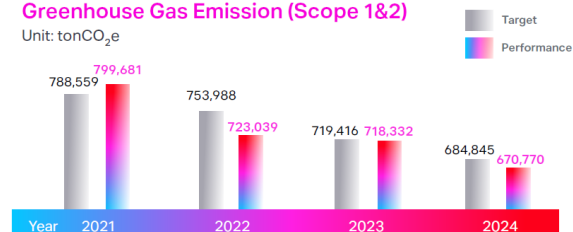
Share of Greenhouse Gas Emission (Scope 1 & 2)

Unit: tonCO₂e



Greenhouse Gas Emission (Scope 1&2)

Unit: tonCO₂e

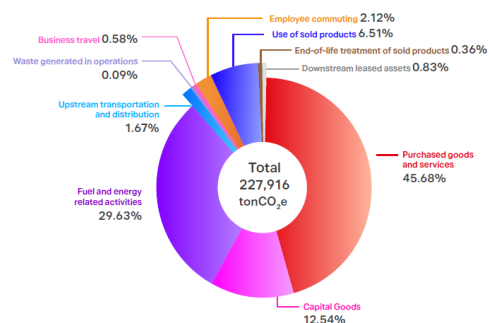


Note: Overall performance results of True-DTAC

Greenhouse Gas Emission (Scope 3)

Unit: tonCO₂e

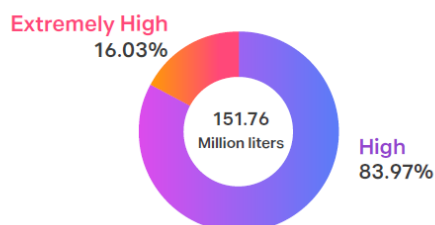
	Category 1	Purchased goods and services	104,111	45.68%	
	Category 2	Capital Goods	28,586	12.54%	
	Category 3	Fuel and energy related activities	67,503	29.63%	
	Category 4	Upstream transportation and distribution	3,797	1.67%	
	Category 5	Waste generated in operations	201	0.09%	
	Category 6	Business travel	1,311	0.58%	
	Category 7	Employee commuting	4,826	2.12%	
	Category 11	Use of sold products	14,838	6.51%	
	Category 12	End-of-life treatment of sold products	829	0.36%	
	Category 13	Downstream leased assets	1,888	0.83%	



Water Management Performance in 2024

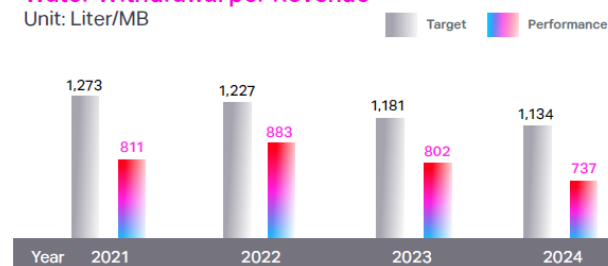
Proportion of Areas with Water Stress

True consumed 151.76 million liters of municipal water, with 83.97% sourced from units located in high-risk areas and 16.03% from those in extremely high-risk areas.



Water Withdrawal per Revenue

Unit: Liter/MB

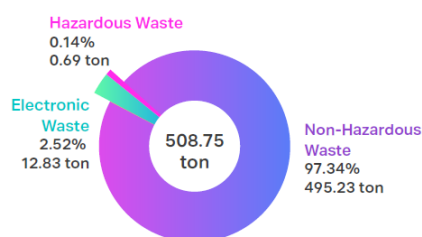


Note: 1. True Performance only from 2021-2022
2. Combined Performance True and dtac in 2023-2024

Waste Management Performance in Own Operation 2024

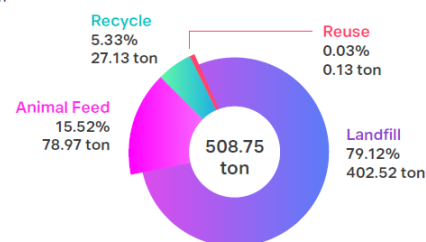
Share of Waste Generated

Unit: Ton



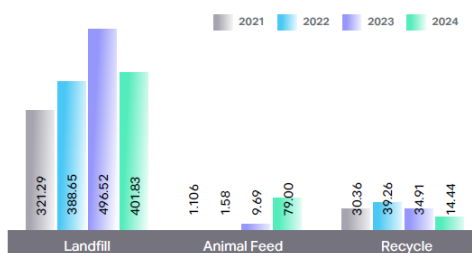
Share of Waste Disposal

Unit: Ton



Non-Hazardous Waste Disposal

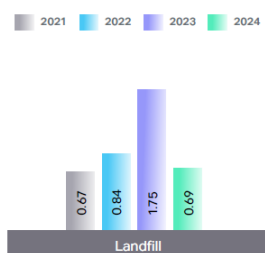
Unit: Ton



Note: 1. True Performance only from 2021-2022
2. Combined Performance True and dtac in 2023-2024
3. Total waste disposal was disposed offsite the company
4. The disposal of hazardous waste and e-waste through landfill is limited to hazardous waste only

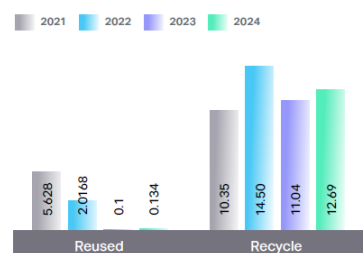
Hazardous Waste Disposal

Unit: Ton



Electronic Waste Disposal

Unit: Ton



Source: Sustainability Report 2024, Page 62-71

<https://truesustainability.info/sustainability/wp-content/uploads/2025/04/2024ENG-true-sustainability-report.pdf>

Performance Summary (Environment) : Since 2023, the data combines both True and dtac, while the data for 2021-2022 includes only True.

Data Description	Unit	2020	2021	2022	2023	2024
Total revenue	Million Baht	138,212	143,655	135,076	202,856	206,020
Energy consumption	GJ	3,232,317.05	3,422,512.34	3,586,836.34	7,270,511.59	7,026,893.52
Energy Intensity	GJ per Million Baht	23.39	23.82	26.55	35.84	34.11
GHG Emissions Scope 1 & 2 (Market-based)	tonCO ₂ e	417,508	337,189	320,115	718,332	670,770
Total Indirect GHG emissions (GHG Scope 3)	tonCO ₂ e	295,299.00	316,191.00	244,594.00	343,832.00	227,916.05
GHG (Scope 1 and Scope 2) Intensity	tonCO ₂ e per Million Baht	3.02	2.35	2.37	3.54	3.26
Water withdrawal	Mega liter	182.31	116.47	119.28	162.67	151.76
Total Waste	Metric tons	693.15	369.40	441.85	554.01	508.75

Combined Environment Performance of True and dtac

Data Description	Unit	2020	2021	2022	2023	2024
Total revenue	Million Baht	217,030	224,975	215,675	202,856	206,020
Energy consumption	GJ	6,199,397.98	6,827,279.49	7,722,345.69	7,270,511.59	7,026,893.52
Energy Intensity	GJ per Million Bath	28.56	30.35	35.81	35.84	34.11
GHG Emissions Scope 1 & 2 (Market-based)	tonCO ₂ e	823,131	799,681	723,039	718,332	670,770
Total Indirect GHG emissions (GHG Scope 3)	tonCO ₂ e	481,486.00	469,448.85	457,411.70	445,374.55	433,337.40
GHG (Scope 1 and Scope 2) Intensity	tonCO ₂ e per Million Baht	3.79	3.55	3.35	3.54	3.26
Water withdrawal	Mega liter	231.16	155.56	155.82	162.67	151.76
Total Waste	Metric tons	857.82	496.47	565.62	554.01	508.75

Chapter 2 Climate Risk Assessment - Physical Risks

Thailand is expected to face increasing climate change-related risks, including the intensification of natural hazard events. These impacts will affect nearly all organizations, including the telecommunications industry. Given that telecommunication services are vital to the well-being and security of the general public, the potential impacts on True is expected to be significant. To prepare for these impacts, we have conducted a scenario analysis of climate-related physical risks to identify vulnerabilities across True's operations and upstream activities. The results of this assessment will be used to develop a climate change adaptation plan (refer to Chapter 4), incorporating mitigation measures tailored to specific contextual factors.

The following Representative Concentration Pathways (RCP) scenarios have been selected:

- RCP 2.6 (Very Stringent), which corresponds to a <2°C temperature rise by the end of the century due to global efforts to reduce emissions.
- RCP 8.5 (Business as Usual), which corresponds to a 3.7°C temperature rise by the end of the century due to minimal to no efforts to reduce emissions.

The timeframes selected for this assessment are 2030 (short-term, in line with SBTi), 2040 (medium-term), and 2050 (long-term, where physical impacts are more pronounced and transition risks are expected globally as Net Zero targets are pursued).

Both quantitative and qualitative climate-related scenario analyses have been conducted including:

1. Case Study 1 - Climate Change Physical Risk Assessment

Qualitative assessment conducted at a provincial level, covering Bangkok and the top 10 provinces outside of Bangkok, by revenue, that True operates in. The coverage of this assessment by percentage of revenue is 55%. A physical risk assessment for True's upstream activities has also been conducted.

2. Case Study 2 - Financial Impact of Physical Risks

Quantitative assessment estimating the impacts of the physical climate-related risks identified in terms of financial impacts.

Case study 1 - Climate Change Physical Risk Assessment

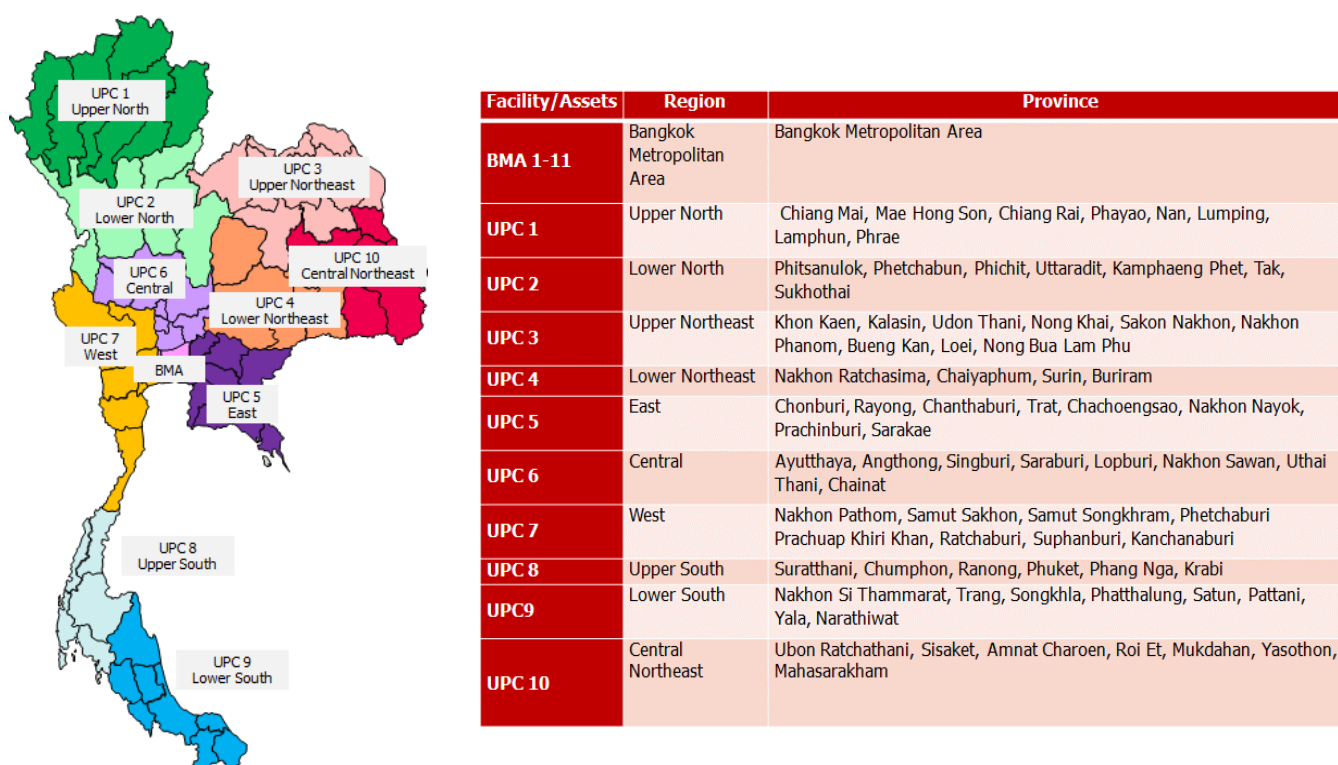
Physical Risk Assessment Scope:

The scope of this assessment covers True's operations and upstream activities.

Operations

True's operations are based in Thailand and comprise 3 major types of assets: network operation (base station and transmission and major exchange), data centers, and office buildings. These major assets are distributed across Thailand, categorized into the following regions as shown in Figure 10.

Figure 10: True Operational assets across Thailand



To assess potential physical risks to True's operations, a physical risk assessment was conducted at the provincial level to determine risks from natural hazards. Bangkok and the top 10 provinces outside of Bangkok, by revenue, is considered. The coverage of this context-specific assessment is 55 percentage of revenue (covering majority of assets).

The following provinces, Bangkok and top 10 provinces by revenue, were covered in this assessment:

1. Bangkok
2. Chiang Mai
3. Chonburi
4. Khon Kaen
5. Nakhon Ratchasima
6. Nonthaburi
7. Pathumtani
8. Rayong
9. Samut Prakarn
10. Songkhla
11. Ubon Ratchathani

Upstream

In addition to conducting a physical risk assessment for True's operations, the physical risk of True's top 3 critical suppliers in 2024 (in terms of spending) was also conducted at a provincial level based on factory location. The following provinces were covered as part of True's upstream physical risk assessment:

1. Guangdong, China
2. Henan, China
3. Jiangsu, China

Method:

Historical baseline data, representing risk likelihood, and climate projection data, representing risk intensity, for 2030 (short-term), 2040 (medium-term) and 2050 (long-term) timeframes under the RCP 2.6 and RCP 8.5 scenarios were evaluated to determine risk trends (i.e. increasing or decreasing risk intensity in different scenarios). Natural hazards assessed include water scarcity, urban floods, riverine floods, coastal floods, extreme heat, landslides, and cyclones.

Natural Hazard Categorization

Natural Hazard	Baseline Categorization	Indicator (Projected Data)
Water Scarcity	Hazard was classified based on catchment level Water Stress, which is the ratio of water withdrawal to available renewable water resource.	Water Stress (SPEI Drought Index).
Riverine Floods	River flood and urban flood hazards were classified using a threshold of "area flooded to damaging intensity threshold of 0.5m. The area threshold is 1% of the Administrative (ADM) unit for river flood, and 4% of the ADM unit for urban flood.	5-Day Maximum Rainfall (mm).
Urban Floods		1-Day Maximum Rainfall (mm).
Coastal Floods	Hazard was classified using a similar rationale to riverine and urban floods.	Sea Level Rise (cm above 2000 level).
Extreme Heat	Extreme heat hazard classification was based on heat stress as indicated by daily maximum Wet Bulb Globe Temperatures.	Maximum Temperature (°C).
Landslide Hazards	Hazard was classified based on the frequency of rainfall-induced landslide events.	5-Day Maximum Rainfall (mm).
Cyclone	Cyclones were classified using wind speed, provided as frequency-severity data. The damaging intensity threshold is 80km/h.	Change in sustained wind speed compared to baseline figures (%).

Summary of Projection for Key Climate Variables:

Results of the physical risk assessment for True's operations and upstream activities are presented in terms of risk trends indicating changes to risk intensity under the RCP 2.6 and RCP 8.5 at 2030 (short-term), 2040 (medium-term) and 2050 (long-term) timeframes using the following scale (increase or decrease relative to baseline levels):

-3	-2	-1	0	1	2	3
Significant Decrease	Moderate Decrease	Slight Decrease	No Change	Slight Increase	Moderate Increase	Significant Increase

Operations:

Baseline (Risk Likelihood)

Province	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Chiang Mai	Low	1 High	3 High	N/A	Medium	2 High	3 Low
Chonburi	Low	1 High	3 High	3 High	3 Medium	2 Medium	2 High
Khon Kaen	Very low	1 High	3 High	3 N/A	Medium	2 Low	1 Very Low
Nakhon Ratchasima	Medium	2 High	3 High	3 N/A	Medium	2 Medium	2 Low
Nonthaburi	Medium	2 High	3 High	3 N/A	High	3 Very low	1 Medium
Pathum Thani	Medium	2 High	3 High	3 N/A	High	3 Very low	1 Medium
Rayong	Low	1 High	3 High	3 High	3 Medium	2 Medium	2 High
Samut Prakarn	Medium	2 Low	1 Medium	2 High	3 High	3 Very low	1 High
Songkhla	Very low	1 High	3 High	3 High	3 Medium	2 High	3 High
Ubon Ratchathani	Very low	1 High	3 High	3 N/A	Medium	2 Low	1 High
Bangkok	Medium	2 Medium	2 Medium	2 High	3 High	3 Very low	1 High

RCP 2.6 Scenario

Hazard	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Indicator	Water Stress (SPEI Drought Index)	Change in 1-Day Rainfall (mm)	Change in 5-Day Rainfall (mm)	Sea Level Rise (cm above 2000 level)	Change in Avg Max Temperature	Change in 5-Day Rainfall (mm)	Sustained Wind Speed
Province	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050
Chiang Mai	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Chonburi	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Khon Kaen	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Nakhon Ratchasima	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Nonthaburi	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Pathum Thani	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Rayong	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Samut Prakarn	2 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Songkhla	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Ubon Ratchathani	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Bangkok	2 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1

RCP 8.5 Scenario

Hazard	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Indicator	Water Stress (SPEI Drought Index)	Change in 1-Day Rainfall (mm)	Change in 5-Day Rainfall (mm)	Sea Level Rise (cm above 2000 level)	Change in Avg Max Temperature	Change in 5-Day Rainfall (mm)	Sustained Wind Speed
Province	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050
Chiang Mai	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Chonburi	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Khon Kaen	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Nakhon Ratchasima	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Nonthaburi	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Pathum Thani	2 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Rayong	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Samut Prakarn	2 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Songkhla	1 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1
Ubon Ratchathani	1 1 1	-1 -1 -1	3 3 3	N/A	2 1 2	2 2 2	1 1 1
Bangkok	2 1 1	-1 -1 -1	3 3 3	1 1 1	2 1 2	2 2 2	1 1 1

Upstream (Suppliers):

Baseline

Province	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Guangdong	Medium	High	High	High	High	High	High
Henan	High	High	High	N/A	High	Medium	High
Jiangsu	High	High	High	High	High	Low	High

RCP 2.6 Scenario

Hazard	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Indicator	Water Stress (SPI) Drought Index	Change in 1-Day Rainfall (mm)	Change in 5-Day Rainfall (mm)	Sea Level Rise (cm above 2000 level)	Change in Avg Max Temperature	Change in 5-Day Rainfall (mm)	Sustained Wind Speed
Province	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050
Guangdong	2 1 1 1	3 1 2 2	3 1 2 2	N/A N/A N/A	3 2 2 2	1 2 3	1 1 1
Henan	3 1 1 1	3 1 2 2	3 1 2 2	N/A N/A N/A	3 2 2 2	1 2 3	1 1 1
Jiangsu	3 1 1 1	3 1 2 2	3 1 2 2	3 1 1 1	3 2 2 2	1 2 3	1 1 1

RCP 8.5 Scenario

Hazard	Water Scarcity	Urban Floods	Riverine Floods	Coastal Floods	Extreme Heat	Landslides	Cyclones
Indicator	Water Stress (SPI) Drought Index	Change in 1-Day Rainfall (mm)	Change in 5-Day Rainfall (mm)	Sea Level Rise (cm above 2000 level)	Change in Avg Max Temperature	Change in 5-Day Rainfall (mm)	Sustained Wind Speed
Province	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050	BSL 2030 2040 2050
Guangdong	2 1 1 1	3 1 2 2	3 1 2 2	3 1 1 1	3 1 2 2	1 2 3	1 1 1
Henan	3 1 1 1	3 1 2 2	3 1 2 2	N/A N/A N/A	3 2 2 2	1 2 3	1 1 1
Jiangsu	3 1 1 1	3 1 2 2	3 1 2 2	3 1 2 2	3 2 2 2	1 2 3	1 1 1

The results of the physical risk assessment can be determined by the risk trend of each hazard. The general trends under each climate scenario and timeframe can be summarized as follows:

Operations

Baseline (2021): Urban floods, riverine floods, coastal floods, and cyclones were identified as high-risk hazards with high-risk likelihood.

Scenario	2030 (Short-term)	2040 (Medium-term)	2050 (Long-term)
RCP 2.6	Moderate to significant increase: <ul style="list-style-type: none"> Riverine flood Landslide 	Significant increase: <ul style="list-style-type: none"> Riverine flood Landslide 	Significant increase: <ul style="list-style-type: none"> Riverine flood Landslide
RCP 8.5	Moderate-significant increase: <ul style="list-style-type: none"> Riverine flood Moderate-slight increase: <ul style="list-style-type: none"> Cyclones Landslide Extreme heat 	Significant increase: <ul style="list-style-type: none"> Riverine flood Landslide risk Moderate increase: <ul style="list-style-type: none"> Extreme heat Cyclone 	Significant increase: <ul style="list-style-type: none"> Riverine flood Landslide Cyclone

Upstream (Suppliers)

Baseline (2021): Water scarcity, urban floods, riverine floods, coastal floods, extreme heat, and cyclones identified as high-risk hazards with high-risk likelihood.

Scenario	2030 (Short-term)	2040 (Medium-term)	2050 (Long-term)
RCP 2.6	Moderate increase: <ul style="list-style-type: none"> Urban flood Extreme heat 	Moderate increase: <ul style="list-style-type: none"> Urban flood Riverine flood Extreme heat Landslide 	Moderate significant increase: <ul style="list-style-type: none"> Urban flood Riverine flood Moderate increase: <ul style="list-style-type: none"> Extreme heat Landslide
RCP 8.5	Moderate increase: <ul style="list-style-type: none"> Urban flood Extreme heat Cyclone 	Significant increase: <ul style="list-style-type: none"> Urban flood Moderate increase: <ul style="list-style-type: none"> Riverine flood Extreme heat Cyclone 	Significant increase: <ul style="list-style-type: none"> Urban flood Riverine flood Extreme heat Landslide Cyclone

Natural Hazard Implications to True's Operations

General potential significant risks to True's operations have been identified.

Natural Hazard	Potential Risks to True's Operations
Water Scarcity	· True's operations are not heavily reliant on water availability. However, the unavailability of water for domestic use at True's assets will impact day to day operations.
Riverine Floods	· Increased cost for replacement or repair of damaged assets, especially electrical equipment and components that may be damaged upon contact with water.
Urban Floods	· Impact on safety and ability for employees to come to work.
Coastal Floods	· Will only affect coastal provinces. The loss of land due to permanent inundation at the asset location will require True to relocate the asset entirely. · Impact on accessibility (i.e. the asset may become temporarily stranded). · Increased cost for replacement or repair of damaged assets, especially electrical equipment and components that may be damaged upon contact with water. · Impact on the safety and ability for employees to come to work.
Extreme Heat	· Overheating and breakdown of equipment. · Reduced efficiency of equipment such as batteries in network facilities causing increase in replacement frequency.
Landslide Hazards	· Increased cost for replacement or repair of damaged assets. · Impact on safety and ability for employees to come to work.
Cyclone	· Increased cost for replacement or repair of damaged assets such as cell towers. · Impact on accessibility (i.e. the asset may become temporarily stranded). · Impact on safety and ability for employees to come to work.

Summary of Potential Financial Impacts to True

Financial Impact	RCP 2.6	RCP 8.5
Revenue (downstream)	Low: It is unlikely that any physical risk impact would affect revenue as users would still need to use True's telecommunication and data services, especially during any acute physical risk event (e.g. flooding) where people will want to be in contact with family and friends. This has been confirmed by our financial analysis based on past flooding events in Case Study 2, where even under RCP 8.5 financial impacts to revenue from flooding are limited.	
CAPEX	Low to Medium: All natural hazards have an overall similar effect: damage to True's assets, especially telecommunication equipment that is out in the open such as base stations and mobile towers. Any damaged equipment will need to be replaced or repaired. However, in RCP 2.6 most severe events are limited and any such damages become less frequent than in RCP 8.5 case.	Medium: RCP 8.5 increases the frequency of extreme events. However, given True has already adapted to some of these events, it is unlikely that any severe damage will occur to True equipment, for example in flooding it is expected that most equipment will be moved to higher locations.
OPEX (operational, energy)	Low: There are limited impacts to OPEX as additional energy required to cool equipment and offices is limited to due global average temperature rise being limited to <2°C.	Low: Even with rising temperatures, overall impact to air conditioning and cooling costs is likely to be limited as our energy costs are mostly for our base station equipment (excluding cooling) and any incremental increase on air is unlikely to make any material impact to overall energy costs.
OPEX Upstream Suppliers (purchased goods)	Low: Even though our suppliers are located in areas with high risk, we have not yet experienced any severe impacts to our supply chain to date. Under RCP 2.6, impacts are likely to be similar as for present day.	Low: With suppliers, we will be able to identify high risk suppliers and find substitutes over time. Even in the case where there are supply chain interruptions, revenues from product sales only make around 10% of our total revenue. Additionally, any impacts to our major suppliers of mobile phones (e.g. Apple, Samsung) would affect our competitors equally.

Case study 2 – Financial Impact of Physical Risks

Operations:

As shown in Case Study 1 (Climate Change Physical Risk Assessment), riverine floods were identified as a high likelihood hazard at baseline level with intensity projected to significantly moderately increase in 2030 (short-term) and 2040 (medium-term). Also, there is a significant increase in 2050 (long-term). Historically, Thailand suffered from a major flooding event in 2011 which affected 65 provinces from October 2011 to January 2012.

We have used the 2011 flood event to estimate the potential financial impact to our operations. In 2011, the flood impacted True's operations by damaging True's assets and consequently affecting the ability for True to fully provide services. This impact is reflected in True's revenue from services in Q4 of 2011 which decreased by -0.6% (quarter on quarter) as a result from the flood, mainly from impacts to pay TV and online segments. This translates to a loss in revenue from services by approximately 86 million baht. We have estimated the potential financial impact under the assumption that the percentage change in 5-day maximum rainfall (compared to baseline rainfall) is equal to the change in amount of damage from the baseline impacts of -0.6% from the 2011 baseline impacts (as indicated by loss in service revenue).

The following results represent service revenue loss estimated for 100% of our operations (True Move, True Online, True Visions), with the percentage change in rainfall calculated based on 10 provinces that represent 55% of our revenue as included in Case Study 1. Impacts are also in line with our projected revenue to EBITDA growth. In line with our Enterprise Risk Management criteria these risks are all classified as "insignificant" in 2030, "insignificant" in 2040, and "minor" in 2050 in terms of financial impact.

Scenario	Service Revenue Loss (million baht)			Percentage Service Revenue Loss			Percentage Loss of Profit (EBITDA)		
	2030	2040	2050	2030	2040	2050	2030	2040	2050
RCP 2.6	209.5	235.6	264.8	-0.16%	-0.16%	-0.17%	-0.09%	-0.02%	-0.01%
RCP 8.5	210.9	241.3	275.6	-0.16%	-0.17%	-0.17%	-0.09%	-0.02%	-0.01%

Estimated financial implications of the risk before taking action amount to 210.90 million Baht, and estimated costs of these actions amount to 45.92 million Baht.

Upstream (Suppliers):

In addition to providing telecommunication services, True also sells an extensive range of mobile handsets (mostly smartphones and smart devices) and related accessories which are bought from suppliers. Therefore, delays in product shipment from suppliers due to impacts from natural hazard events can potentially impact True's operations. With reference to Case Study 1 (Climate Change Physical Risk Assessment), baseline risk likelihood levels for True's suppliers are categorized as high. Under the RCP 8.5 scenario, hazard intensity increase more severely for 2030, 2040, and 2050 timeframes compared to the RCP 2.6 scenario for several natural hazards. Therefore, we can expect greater financial impact under the RCP 8.5 scenario where more suppliers are being simultaneously impacted by natural hazards (due to increased hazard intensity) and an increase in the frequency of shipment delays with longer delay periods.

We have conducted this assessment based on the assumption that True's top 3 suppliers as presented in Case Study 1 (suppliers from China in Guangdong, Henan, Jiangsu) will contribute 30% (10% each) to the revenue from product sales. Future revenue from product sales was projected up to 2050 using average growth in revenue from product sales from 2017-2021. The potential financial impact that may occur was estimated under 3 scenarios where up to 3 suppliers may be impacted at the same time causing delays in shipment between 1-21 days. Under the worst-case scenario where all 3 suppliers are simultaneously impacted with a delay in the shipment of products by 21 days, the estimated financial impact is approximately 1.2 billion baht in 2030, 4.1 billion baht in 2040, and 14 billion baht in 2050. From our analysis, days delayed of 1-3 days roughly approximates to the RCP 2.6 scenario, while delays of 7-21 days roughly correlates to RCP 8.5. Impacts are also in line with our projected revenue to EBITDA growth.

In line with our Enterprise Risk Management criteria these risks are all classified as “minor” to “serious” in 2030 and “minor” to “critical” in 2040 depending on the number of suppliers simultaneously impacted. These risks are considered “critical” in 2050 regardless of the number of suppliers simultaneously impacted, in terms of financial impact.

Scenario	Days Delayed	Loss of Revenue from Product Sales (million baht)								
		1 Supplier Impacted			2 Suppliers Impacted			3 Suppliers Impacted		
		2030	2040	2050	2030	2040	2050	2030	2040	2050
RCP 2.6	1	19.4	66.4	228.1	38.7	132.9	456.1	228.0	456.1	684.1
	3	58.1	199.3	684.2	116.1	398.6	1,368.3	174.2	1,368.3	2,052.5
RCP 8.5	7	135.5	465.1	1,596.4	271.0	930.2	3,192.7	406.5	3,192.7	4,789.1
	14	271.0	930.1	3,192.7	542.0	1,860.3	6,385.4	813.0	6,385.4	9,578.2
	21	406.5	1,395.2	4,789.1	813.0	2,790.5	9,578.2	1219.4	9,578.1	14,367.2

Scenario	Days Delayed	Percentage Loss of Revenue from Product Sales		
		1 Supplier	2 Suppliers	3 Suppliers
RCP 2.6	1	0.03%	0.05%	0.08%
	3	0.08%	0.16%	0.25%
RCP 8.5	7	0.19%	0.38%	0.58%
	14	0.38%	0.77%	1.15%
	21	0.58%	1.15%	1.73%

Scenario	Days Delayed	Percentage Loss of Profit (EBITDA)								
		1 Supplier Impacted			2 Suppliers Impacted			3 Suppliers Impacted		
		2030	2040	2050	2030	2040	2050	2030	2040	2050
RCP 2.6	1	0.01%	0.01%	0.00%	0.02%	0.01%	0.01%	0.03%	0.02%	0.01%
	3	0.03%	0.02%	0.01%	0.05%	0.04%	0.03%	0.08%	0.06%	0.04%
RCP 8.5	7	0.06%	0.04%	0.03%	0.12%	0.09%	0.07%	0.18%	0.13%	0.10%
	14	0.12%	0.09%	0.07%	0.24%	0.18%	0.13%	0.36%	0.27%	0.20%
	21	0.18%	0.13%	0.10%	0.36%	0.27%	0.20%	0.53%	0.40%	0.30%

Transition Scenario Analysis – Climate Impact on Electricity Cost: 2030 (short-term), 2040 (medium-term) and 2050 (long-term)

Introduction:

Sensitivity analysis is conducted for 2030 (short-term), 2040 (medium-term) and 2050 (long-term) to prepare True for the possible impact from the upcoming regulatory carbon price in Thailand.

Assumptions: The carbon price used in this scenario analysis was selected according to the International Energy Association (IEA) forecast report on World Energy Model. The model forecast carbon price in 2 scenarios: Stated Policies (STEPS) and Sustainable Development (SDS). As the report did not forecast specifically for Thailand, the carbon price selected in this calculation is based on China's Carbon price scenario as China is the closest related country referred to by IEA.

Source: <https://www.iea.org/reports/world-energy-model/macro-drivers>

Impacts in baseline scenario (STEPS): carbon pricing in baseline in line with IEA STEPS scenario are around 1,044 THB/tCO₂e in 2030 and 1,566 THB/tCO₂e in 2040 and 1,915 THB/tCO₂e in 2050. This has a relatively low impact to True because the total amount paid to carbon price is approximately 763 THB million which is 0.71% compared to our projected EBITDA in 2030 and approximately 998 THB million which is 0.71% compared to our projected EBITDA in 2040 and approximately 1,060 THB million which is 0.63% compared to our projected EBITDA in 2050.

Impacts in SDS scenario: under SDS carbon prices are around 1,392 THB/tCO₂e in 2030 and 3,829 THB/tCO₂e in 2040 and 5,570 THB/tCO₂e in 2050. This causes payment to government around 3 times higher than in baseline, therefore our costs are also increased around 3 times. In overall view, this has a relatively low impact to True because the total amount paid to carbon price is approximately 1,120 THB million which is 1.04% compared to our projected EBITDA in 2030 and approximately 2,439 THB million which is 1.73% compared to our projected EBITDA in 2040 and approximately 3,084 THB million which is 1.83% compared to our projected EBITDA in 2050.

Quantitative impact:

Scenario	Financial Impact to Cost (THB Million)		
	2030 (short-term)	2040 (medium-term)	2050 (long-term)
Baseline (STEPS)	763	998	1,060
SDS	1,120	2,439	3,084
Change due to carbon price	357	1,441	2,024

Mitigation Measures:

- If True wishes to mitigate the cost of carbon under carbon price of THB 1,392 per tCO₂e (under SDS scenario) in 2030, it must reduce linear growth use of electricity to below than 10% and use renewable electricity with lower price than grid electricity.
- If True wishes to mitigate the cost of carbon under carbon price of THB 3,829 per tCO₂e (under SDS scenario in 2040, it must reduce linear growth use of electricity to below than 10% and use renewable electricity with lower price than grid electricity.
- If True wishes to mitigate the cost of carbon under carbon price of THB 5,570 per tCO₂e (under SDS scenario in 2050, it must reduce linear growth use of electricity to below than 10% and use renewable electricity with lower price than grid electricity.

Apart from True conducting climate transition risk assessment on its own operation, True also conduct for their upstream and downstream activities.

Upstream transition risks:

We have evaluated qualitative impact of transition risk to our suppliers. The primary transition risk that we identified was carbon pricing. We did not view this as a risk since our competitors will also face the same impacts of carbon pricing. In addition, many suppliers such as Huawei and Apple have GHG targets in place and are unlikely to face heavy carbon pricing.

Downstream transition risks:

Our consumers have limited impact since they do not face any direct impact from carbon pricing. In addition, True works with its suppliers to ensure that its products are environmentally friendly, so there is limited impact that demand for True's products and services will reduce due to changes in market.

Transition Scenario Analysis – Thailand's carbon tax impact: 2030 (short-term), 2040 (medium-term) and 2050 (long-term)

Introduction:

Thailand's Excise Department will impose a carbon tax scheme on energy, transport, and industrial sectors to help the country reach carbon neutrality target by 2050 and net zero target by 2063. The carbon tax establishment and enforced will be a significant financial risk because the limitation of greenhouse gas emission and also the carbon tax rate are raising while the business is expanding.

Scenario analysis is conducted for 2030 (short-term), 2040 (medium-term) and 2050 (long-term) to prepare True for the possible impact from the upcoming carbon tax scheme in Thailand.

Assumptions: Since Thailand's carbon tax scheme is now in progress of studying and law enforcement processes, Thai's implementation of taxing carbon emissions will be done in line with Singapore's carbon tax structure. According to the SDS scenario, Thailand will implement a carbon tax in the next 4 years (by 2028), while in the STEPs scenario, it will start in the next 6 years (by 2030), with a preparation period (Thai will charged only 40% of first stage of Singapore Carbon Tax) from 2030 to 2039., thereby providing a broad-based price signal to encourage companies to reduce their GHG emissions. If TRUE does not take action to reduce their scope 1 and 2 GHG emissions since 2020, company will face a significant amount of carbon tax that will directly impact on operational cost.

Source:

<https://carbonherald.com/thailand-to-introduce-carbon-tax-in-3-major-industries/>

[https://www.niskanencenter.org/singapores-manufacturing-friendly-carbon-](https://www.niskanencenter.org/singapores-manufacturing-friendly-carbon-tax/#:~:text=The%20tax%20is%20currently%20set,gray%20line%20in%20figure%20below).)

[tax/#:~:text=The%20tax%20is%20currently%20set,gray%20line%20in%20figure%20below\).](https://www.niskanencenter.org/singapores-manufacturing-friendly-carbon-tax/#:~:text=The%20tax%20is%20currently%20set,gray%20line%20in%20figure%20below).)

Impacts in baseline scenario (STEPS): Baseline for carbon tax price is aligned with carbon tax rate scenario for 2030 (short-term), 2040 (medium-term) and 2050 (long-term). Estimated carbon tax rate are around 52 THB/tCO₂e in 2030, 129 THB/tCO₂e in 2040 and 1,165 THB/tCO₂e in 2050. This has a relatively low impact to True because the total amount paid to carbon price is approximately 52 THB million which is 0.06% compared to our projected EBITDA in 2030 and approximately 157 THB million which is 0.15% compared to our projected EBITDA in 2040 and approximately 1,714 THB million which is 1.47% compared to our projected EBITDA in 2050.

Impacts in SDS scenario: Baseline for carbon tax price is aligned with carbon tax rate scenario for 2030 (short-term), 2040 (medium-term) and 2050 (long-term). Estimated carbon tax rate are around 129 THB/tCO₂e in 2030, 1,165 THB/tCO₂e in 2040 and 1,295 THB/tCO₂e in 2050. This has a relatively low impact to True because the total amount paid to carbon price is approximately 129 THB million which is 0.14% compared to our projected EBITDA in 2030 and approximately 1,412 THB million which is 1.36% compared to our projected EBITDA in 2040 and approximately 1,904 THB million which is 1.63% compared to our projected EBITDA in 2050.

Quantitative impact:

Scenario	Financial Impact to Cost (THB Million)		
	2030 (short-term)	2040 (medium-term)	2050 (long-term)
Baseline (STEPS)	52	129	1,165
SDS	129	1,165	1,295

Mitigation Measures:

- If True wishes to mitigate the cost of carbon tax of THB129 per tCO₂e (under SDS scenario) in from 2030, it must reduce greenhouse gas scope 1 and 2 emission to zero, offset the use of electricity by i-REC purchasing and use renewable electricity than grid electricity.
- If True wishes to mitigate the cost of carbon tax of THB1,165 per tCO₂e (under SDS scenario) in from 2040, it must reduce greenhouse gas scope 1 and 2 emission to zero, offset the use of electricity by i-REC purchasing and use renewable electricity than grid electricity.
- If True wishes to mitigate the cost of carbon under carbon price of THB 1,295 per tCO₂e (under SDS scenario in 2050, it must reduce greenhouse gas scope 1 and 2 emission to zero, offset the use of electricity by i-REC purchasing and use renewable electricity than grid electricity.

Apart from True conducting climate transition risk assessment on its own operation, True also conduct for their upstream and downstream activities.

Upstream transition risks:

We have evaluated qualitative impact of transition risk to our suppliers. The primary transition risk that we identified was the responsibility for paying carbon tax. We did not view this as a risk since our suppliers do not responsible in Greenhouse Gas scope 1 and 2 emission and not responsible for carbon tax paying of TRUE. In addition, TRUE's suppliers such as Huawei and Apple have GHG targets in place and TRUE also plan to update the supplier policy every year as well.

Downstream transition risks:

Our consumers have limited impact since they do not face any direct impact from carbon tax in a short term. But for medium and long term the carbon tax policy and enforcement from government might have an effect to consumers by additional tax or vat for product and service purchasing. However, True works with its suppliers to ensure that its products are environmentally friendly and have the lowest impact on consumers.

In conclusion, estimated financial implications of the risk before taking action amount to 129.32 million Baht, and estimated costs of these actions amount to 69.59 million Baht.

Chapter 4 Physical Climate Risk Adaptation

Introduction:

From the physical risk assessment identified in Chapter 2, True has prepared an adaptation plan to address the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause or taking advantage of opportunities that may arise.

From Case study 1 (Climate Change Physical Risk Assessment), as riverine flooding was categorized as a high-risk hazard, True have prepared a flood adaptation plan including response measures and implementation timescales for True's assets as shown in Table below.

Responses	Description	Implementation Timescale (Baseline 2024)
Asset Level Impact Assessment	Undertake an asset level flood risk assessment to identify and quantify the risks to flooding, key vulnerable areas, assets at risk and High Flood Level (HFL). Use this information to develop a hazard mitigation plan. This also involves review of the current waste rock disposal practices.	Annually Monitoring
Flood Forecasting and Monitoring	Implementation of flood forecasting, early warning and monitoring systems to ensure adequate action within a reasonable time to minimize flood related losses.	3-5 years
Stakeholder Capacity building	This includes implementation of training, awareness and capacity building programs within the communities for disaster management during natural hazards and construction of shelters for protection against flooding.	1-3 years
Storm Water Drainage and Management	Evaluate the areas across the asset which are prone to localized inundation. Construct storm water drainage for a higher return period (50 years). Desilting and maintenance of storm drains at regular intervals.	Within 1 year
Flood Walls or Bunds	Hard Wall such as Cement Concrete or rubble masonry or earthen bund to prevent ingress of storm water into critical areas.	1-3 years
Plantation or Afforestation	Plantation of trees or green cover to minimize run-off related soil erosion and destabilization of slopes.	1-3 years

With TRUE committed to achieving carbon neutrality (scope 1,2) by 2030. In addition, True has SBTi-validated targets to reduce Scope 1&2 emissions by 42%, Scope 3 by 25% by 2030, and net-zero by 2050 (compared to the base year 2020), our business strategies must align closely with these targets outlined in our SBTi commitment plan. Specifically, our plan includes a 42% reduction in greenhouse gas emissions from scope 1 and 2, and a 25% reduction from scope 3 emissions. To attain these objectives, TRUE will implement crucial actions to manage our emissions directly at their sources. This involves enhancing our management of energy sources, consumption, and efficiency, presenting an excellent opportunity to improve energy efficiency and increase the utilization of renewable energy across our operations. Furthermore, there is a prospect to augment the proportion of low-carbon products and services, which will fortify our long-term business readiness.

Details of TRUE's primary climate opportunities are outlined as follows:

Opportunity 1: Resource efficiency and energy sources

Description: Regarding TRUE's greenhouse gas emission goals and the upcoming Thailand Climate Change Act, which includes considerations for carbon tax, we are taking steps to install energy-saving tools and equipment in our network infrastructure and continue to expand our use of solar power to help reduce greenhouse gas emissions and mitigate the regulatory impacts on business operation costs in the near future. True prioritizes sustainable energy use throughout its operations, with a particular focus on maximizing the efficiency of electrical consumption within its cell tower network, a critical component of our business. To achieve this goal, True leverages data analytics to identify areas for improvement and measure the effectiveness of our energy reduction initiatives across all departments. True combined signal towers to improve network efficiency through the Network Modernization project, into a single grid. We have delved deeply into usage details in each area combined with the use of Artificial Intelligence (AI) and Machine Learning (ML) to analyze, optimize energy consumption and as the result to achieve energy efficiency.

Additionally, True installed electricity consumption efficiency energy-saving equipment or changed some equipment at base stations and exchange nodes by changing network equipment that save more energy such as high-efficiency air conditioners and improved Radio Access Network (RAN) equipment have been deployed. These efforts have resulted in 165,039 MWh/year of electricity savings. The company also implements training programs and communication activities to raise employee awareness and encourage energy-saving practices.

In addition, solar investments could provide long term return on investment, eventually making the electricity cheaper than purchasing from the grid. This also increases its independence from external electricity suppliers. In 2024, we have grown to a total of 14,051 solar cell base stations installed with a capacity of 46.15 MWp and 35,216 MWh/year generated. Additionally, solar cells have been installed on the roofs of offices, generating approximately 507 MWh of clean energy per year.

Estimated total avoided emissions per year:

We saved up to 35,216 MWh/Year of electricity and reduced 14,051 tonCO₂e/Year of greenhouse gas emissions in 2024 by solar cell installation at more base stations and Mobile Switching Center (MSC). Since the start of the project, a total of 10,406 solar cells have been installed with a capacity of 46.15 MWp (target: 40 MWp).

Total cost saving: For solar cells that have been installed at base stations & transmission to reduce GHG as well as to save electricity costs (10 years). We estimate the value of 1,472 million Baht cost calculated from the electricity generation from solar cell x avg. cost of electricity x 10 year. With this calculation We estimated the investment of 584 million Baht, calculated from solar cell installation cost at base stations & transmission across the country.

Opportunity 2: Low emission services

True has continued the development and trial of new products and services which address issues related to climate change, its VROOM (VDO conference service/ solution) can reduce fuel consumption from transportation to reduce Scope 3 emissions and attract more customers who need our services such as retail service, conference, training, or work from home through the VROOM Application. True VROOM platform can reduce fuel consumption of both the company and customers. VROOM could save the corporate cost of VDO conference software licenses and R&D expenses. In addition, the software allows cost reduction in operations e.g., from 50% reduction in office building rents and employee travel expenses are reduced by 60% due to the Work from Home (WFH) policy. Therefore, this implies the reduction of emissions from employees commuting, resulting in a positive environmental impact. We also adopt the digital platforms for both internal and external operation such as reducing internal paper usage by switching to digital approval platform via True Connect application and replacing customer paper-based billing with the True e-billing and True e-Tax Invoice systems.

Moreover, True encourages customers to use energy efficiently with Smart Energy Solutions for business customers. We apply Internet of Things (IoT) technology and an Energy Analytics Platform to smart devices to track energy use, manage, and control energy consumption systematically. This comprehensive approach promotes environmental responsibility and empowers businesses to optimize their energy usage. We expect to save about 15% of energy consumption, ultimately leading to cost savings as well.

Estimated total avoided emissions per year:

The avoided emission from True VROOM usage can be calculated based on the following information and assumption: (1) Total True employee in 2024: half of True employee is 3,696 persons with 50% Work from Home (WFH) policy at least have 1 meeting per day, (2) Assume that the round trip distance between company and employee's house is 10 km., (3) The gasoline consumption rate of 1500-cc automobile (IPCC Vol.2 table 3.2.1, 3.2.2, DEDE) and (4) The annual average price of gasohol 95 in Thailand amount in 2024. In conclusion, the estimated avoided emission by TRUE vroom is 2,413 tCO₂e/year, In addition to reduce paper used, we continue replaced paper-based billing with e-billing and e-tax invoices (True e-Tax Invoice/e-Receipt) sent through SMS or e-mail, which reduced paper consumption by up to 362 million sheets/year, equivalent to 1,808 tons and helps avoid greenhouse gas emissions 3,800 tonCO₂e/year.

Total revenues from climate change product and service(s) in FY:

1. "True VROOM" VDO conference service/ solution can reduce fuel consumption from transportation. We estimated revenue from providing VROOM service of at least 95.27 million Baht (Package price x No. of users). With this calculation We estimated the investment of 64.55 million Baht.
2. e-Billing Program: We provide important information for customers to change their traditional billing invoices (hard copy) to e-Billing Program, which reduced paper up to 362 million sheets and cost saving 79.54 million Baht (paper cost x No. of sheets).

Opportunity 3: True iService

Description: True enhances its customer service capabilities continuously to ensure efficiency, speed, convenience, and safety. This involves providing a diverse range of digital service channels to serve customers of all groups comprehensively. Customers can receive services such as purchasing products, changing packages, and conducting transactions through digital platforms 24 hours a day.

True has developed the True iService application to meet the needs of consumer behavior in the digital age, focusing on convenient and fast online transactions. True iService is one of the Company's services along with TrueMoney Wallet and TrueID application, which allow customers to: (1) Check their balance & data usage (2) Easy and secure payment transaction and (3) Manage their services via the application or website. Therefore, by using True iService, the GHG emissions generated from customer travelling to shops and paper billing are avoided.

Estimated total avoided emissions per year:

The avoided emissions generated from customer travelling to shops can be calculated based on the following information and assumptions by using Estimated Number of usage (App & Website) 15.8 million Monthly Active Users (the data combines both True and dtac) in year 2024, the average distance of true shop and potential customers and The gasoline consumption rate of 1500-cc automobile (IPCC Vol.2 table 3.2.1, 3.2.2, DEDE). The estimated avoided GHG emissions from customer travelling by using True iService is 10,115 tCO₂e/year

Total cost saving:

The cost saving can be calculated based on the following information and assumptions: (1) Estimated Number of usage (App & Website) 15.8 million Monthly Active Users (the data combines both True and dtac) in year 2024, (2) the average distance between True shop and potential customers and The gasoline consumption rate of 1500-cc automobile (IPCC Vol.2 table 3.2.1, 3.2.2, DEDE) and (4) The annual average price of gasohol 95 in Thailand amount in 2024. The estimated avoided GHG emissions from customer travelling by using True iService is 377 Million THB/year. With this calculation We estimated the app development cost about 18.11 million Baht.

In conclusion, the total estimated annual financial benefits of the three opportunities amount to 699.11 million Baht, while the current annual costs associated with developing these opportunities amount to 141.04 million Baht.

Chapter 6 Sustainable Products

Although based in Thailand with no direct operations within the EU, the company is committed to advancing sustainable products and has proactively aligned its practices with EU Taxonomy criteria.

1. The True Easy Swap / Easy Trade is considered taxonomy-eligible under EU Taxonomy Business Activity “Marketplace for the trade of second-hand goods for reuse” It operates as a B2C physical marketplace, connecting individual customers with device producers and certified recycling partners for Category C26: Manufacture of electronic products.

Substantial contribution:

The True Easy Swap / Easy Trade program facilitates e-waste management by promoting device reuse and responsible recycling. It provides a convenient channel for customers to exchange used electronic devices, such as smartphones, for new ones, extending product lifecycles and preventing landfill waste.

The trade-in process is user-friendly and accessible nationwide at True retail locations, promoting equitable access to sustainable services. It connects customers with retail shops for smartphone trading. Customers can evaluate their used devices in-store and receive a trade-in discount for new purchases. Collected devices are sorted for reuse, while unsuitable ones are recycled according to environmental standards.

2. The Smart Building and Energy Management System (SBEMS) is an AI-powered, integrated platform developed in-house by TRUE Digital Group (TDG) and launch its “Climate Technology Platform” to accelerate sustainable operations in buildings and infrastructure across Thailand. It falls under the EU Taxonomy business activity “Data-driven solutions for GHG emissions reductions”. SBEMS integrates multiple systems to deliver high-impact, climate-aligned outcomes, and helps our clients from telecom sites, data centers, to large commercial buildings, digitize and decarbonize their operations in line with national and global climate goals. It supports regulatory compliance and ESG reporting, while delivering direct financial benefits through energy savings, carbon reduction, and operational efficiency.

Substantial Contribution:

SBEMS leverages AI, IoT, and environmental intelligence to drive sustainable revenue and facilitate climate-positive transformation for customers. It significantly reduces GHG emissions through data-driven capabilities.

SBEMS combines key functions into a centralized digital platform, including:

- Energy Management System (EMS): Provides real-time energy monitoring and efficiency tracking.
- Building Management System (BMS): Offers centralized control of critical building operations for optimal energy use.
- AI-driven HVAC Optimization: Reduces cooling energy by up to 30% through predictive analytics, weather data, and occupancy patterns, aligning with ASHRAE standards.
- Facility and Utility Management: Optimizes water and electricity systems.
- Solar Rooftop Integration: Enables on-site renewable energy generation and tracking.
- GHG Accounting and Carbon Footprint Tracking: Monitors emissions at both organizational and product levels, aligning with ISO 14064 and ISO 14067.

Advanced Technology Integration: Embeds AI, IoT, and environmental intelligence to drive climate-positive transformations.

3. The company has developed innovative digital applications aimed at reducing the need for physical travel and supporting low-carbon lifestyles. These include: 1. MorDee: a telemedicine application that enables users to consult with doctors and receive prescriptions online, and 2. True App: This application facilitates various online transactions. These innovations are under the EU Taxonomy business activity “Close-to-Market Research, Development and Innovation”.

Substantial Contribution

These digital innovations make a substantial contribution to climate change mitigation by:

- Reducing Fuel Consumption: Remote medical consultations and online transactions via apps reduce transport demand, resulting in lower fossil fuel use.
- Lowering GHG Emissions: Decreased fuel use leads to lower CO₂ and GHG emissions from vehicles.
- Promoting Behavioral Change: The apps promote sustainable habits by providing convenient, low-carbon options for daily activities.
- Enhancing Efficiency: Apps improve logistics and service access, fostering a resource-efficient society.

The company continues to support sustainable products through 3 projects, in alignment with the EU Taxonomy criteria. In 2024, the sustainable revenue is approximately 2,071 million Baht.

Year	2021	2022	2023	2024
% Turnover of environmentally sustainable activity (Taxonomy eligible)	0.00002%	0.96%	0.70%	1.01%

Chapter 7 Procedure for Climate Alignment in Trade Association Sponsorship

The procedure for climate alignment in trade association sponsorship aligns with the Sponsorship, Donations and/or Other Social Contributions Procedure of the Company.

True has Sponsorship, Donations and/or Other Social Contributions Procedure approved by CEO in place to ensure that all Contributions by the Company are made with transparency and are consistent with the Code of Conduct, Anti-Corruption Policy, Business Partner Management Policy, and True Sustainability Goals, including commitment to align with the Paris Agreement, and that the risks emerging from these activities are mitigated.

The Sponsorship and Donation Committee (composed of top management in corporate affairs, compliance, legal, and sustainability areas) is responsible for reviewing and providing recommendations on all sponsorships, donations and other contributions including lobbying activities and trade association membership, and those made by any of True's subsidiaries. This committee reports to the Board of Directors.

The process and assessment include four steps:

1. Initiation,
2. Screening and Initial Risk Rating,
3. Approval Process, and
4. Dismemberment

True has specified an annual basis to assess this procedure to ensure the alignment of sponsorship, donation, and other contributions including trade associations and other direct lobbying activities with all identified criteria which include:

- Human and Labor Rights
- Health, Safety and People Security
- Environment and Climate Policy & Commitment aligned with the Paris Agreement.
- Prohibited/Unethical Business Practices
- Information Security and Personal Data Protection
- Trade Compliance.

In case of misalignment, appropriate discrepancies shall be addressed through extensive discussions and engagements with involved parties.

Reporting: The Head of Compliance & Monitoring, as the Procedure Owner, shall provide a summary report of sponsorship, donation, and other contributions to external activities and trade of associations including assessment reports and their position regarding climate policy and report to the Committee, the Compliance Committee, and the Board of Directors annually or more frequently, as requested.

True, its subsidiaries and all jurisdictions are committed to address climate change issues and support governmental laws, regulations and policies which are aligned with the Paris Agreement to promote effective climate change management and have joined various networks related to climate change management. True has actively developed and implemented management systems for lobbying activities and trade association membership related to climate change applying to True operation and all jurisdictions under company supervision to encourage collaborative climate actions and ensure that trade association in which True engages is consistent with True's climate position.

TCNN: True is an active member of the Thailand Carbon Neutral Network (TCNN) established by the Thailand Greenhouse Gas Management Organization. TCNN aims to foster collaboration among private sector, government, and local/community stakeholders in reducing greenhouse gas emissions. Its mission is to promote sustainable growth in a climate-friendly society, ultimately striving for net-zero greenhouse gas emissions in alignment with the global aspirations set forth in the Paris Agreement for climate change mitigation.

GCNT: As a founding member of the Global Compact Network Thailand (a local network in the country), True supports the use of its comprehensive technology capabilities to drive climate change initiatives, create opportunities, and develop people, while also supporting the achievement of the United Nations Sustainable Development Goals and joined the UN Global Compact Network Thailand to declare our intention to reduce greenhouse gas emissions to Net Zero by 2050 or no later than 2070.

FTI: As a member of the Federation of Thai Industries (FTI), True supports the enhancement of industries in the country, promoting SMEs, fostering trade partnerships, digital business collaboration, and climate action.

True has set ambitious goals to achieve Carbon Neutrality (Scope 1 & 2) by 2030. In addition, True has SBTi-validated targets to reduce Scope 1&2 emissions by 42%, Scope 3 by 25% by 2030, and net-zero by 2050 (compared to the base year 2020).

Additionally, As part of its environmental action, the company held “True Supplier Forum: Transition to Net Zero” to engage its high-spending suppliers in concerted efforts to indirect greenhouse gas emissions (Scope 3) throughout supply chain which closely aligns with the Science Based Targets initiative (SBTi). Furthermore, True supports our suppliers to achieve this target together by providing GHG platform to report their greenhouse gas emissions and assisting them to reduce greenhouse gas emissions.