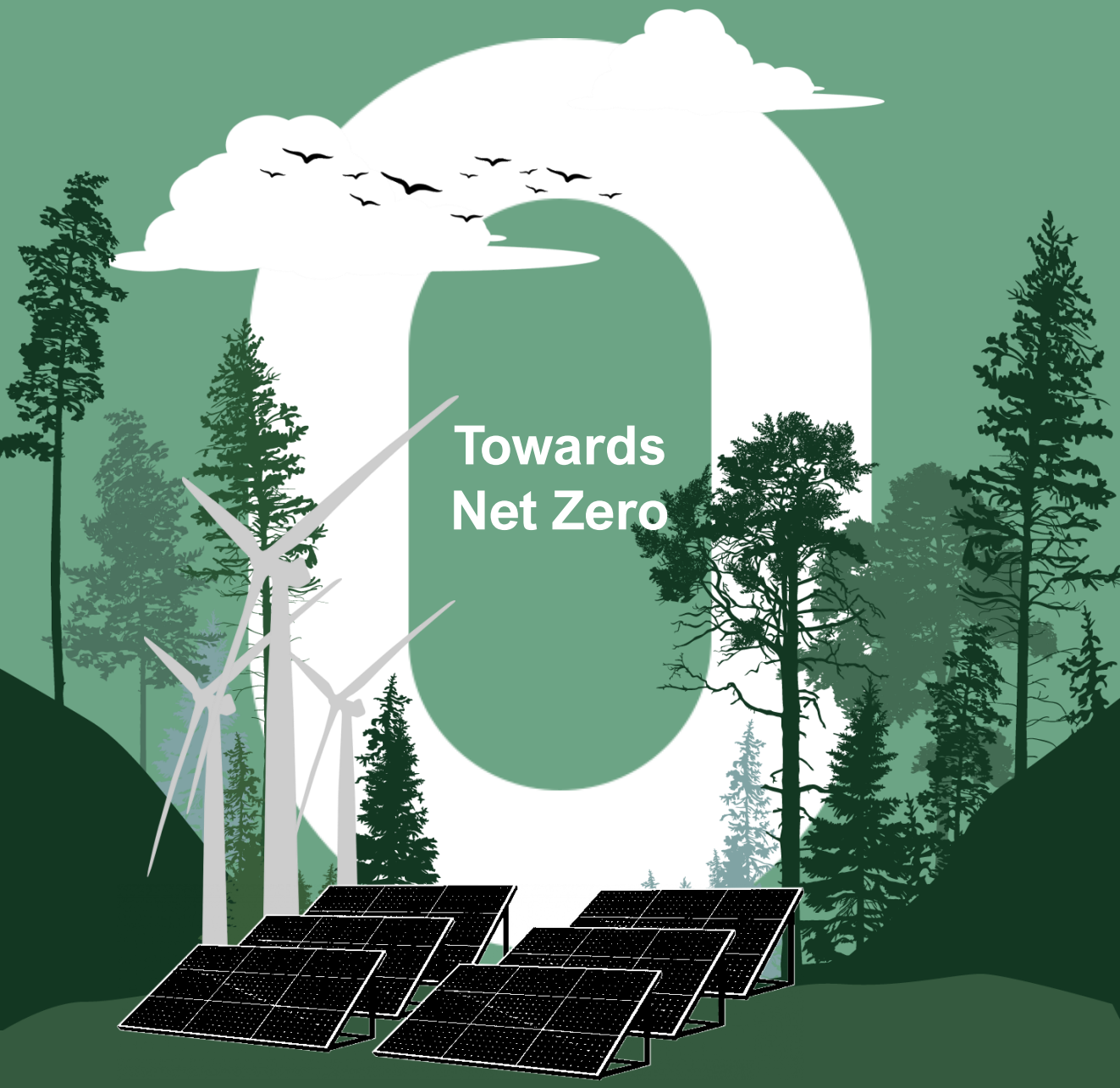

Charoen Pokphand Group's

Climate-Related
Risk Management Report

Prepared in accordance with the
Task Force on Climate-Related Financial
Disclosures (TCFD) recommendations

เครือเจริญโภคภัณฑ์

CP FOR SUSTAINABILITY
ซีพี...เพื่อความยั่งยืน

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C.P. GROUP

CLIMATE RESILIENCE COMMITMENT

Climate change is a critical global challenge with potentially significant and devastating impacts to economy, society and the environment. Solving climate crisis requires full cooperation from all sectors from every country.

Charoen Pokphand Group (C.P.Group), as a private sector company of manufacturing and services, is aware of its role in the emissions of greenhouse gases and recognizes that it has a responsibility to tackle problems posed by climate change. Moreover, by recognizing the urgency of the climate crisis, Charoen Pokphand Group joined United Nation (UN) “Race to Zero” campaign and signed “Business Ambition for 1.5°C Commitment Letter”, the global movement of leading companies aligning their business with the most ambitious aim of the Paris Agreement, to limit global temperature rise to 1.5°C above preindustrial levels and reach net-zero by 2050 for the best chance of avoiding the worst impacts of climate change.

Charoen Pokphand Group also committed to set science-based emissions reduction targets in line with 1.5°C emissions scenarios and submit Science Based Targets (SBT) submission to ensure the strongest ambition in the short, medium to long term and align with trajectories that lead to net-zero value chain emissions by 2050, in line with the criteria and recommendations of the Science Based Targets initiative (SBTi). Charoen Pokphand Group is committed to conducting business responsibly, reducing the climate change impact that may occur, protecting the environment, using natural resources and energy efficiently and going towards "Low Carbon Economy”.

“NET ZERO” Goal by 2030

Furthermore, Charoen Pokphand Group also dedicated to become Carbon Neutral Organization by setting “Net Zero” goal by 2030 in the organization by reducing greenhouse gases emissions, promoting renewable energy programs, encouraging all employees, stakeholders and business partners to join for carbon emission reduction programs, in order to continuously minimize the carbon emission from the organization. Charoen Pokphand Group requires all business units in all countries to set a common goal to achieve carbon neutral from its operations owned or controlled by the company by the year 2030.

C.P. GROUP

CLIMATE RESILIENCE JOURNEY

1993
Set up the Group's Centralized Environmental Department

1996
Announced First Environmental Policy and appointed First Environmental Committee

1999
Established the Environmental Office

2004
- Announced the C.P. Group Safety, Health, and Environment Policy
- Announced Energy Efficiency Policy and Target and Run an Energy-Saving Campaign at Group level

2009
Participated in the United Nations Climate Change Conference (UNFCCC) as Thailand’s private sector delegates, since COP15 until today

2015
- Assigned Chief Sustainability Officer and Established Sustainability, Good Governance and Corporate Communication Office (SGC)
- Launched “We Grow” Project and Application to increase green areas throughout Thailand and to help absorb GHGs.
- Participated in Thailand’s Voluntary Emission Reduction Program (T-VER) developed by TGO

2016
- Announced C.P. Group’s 2020 Sustainability Strategy and Committed 10% GHG emission reduction by 2020
- Participated in setting up and became founding member of the United Nations Global Compact Network Thailand

2017
- Awarded Asia’s Best First Time Sustainability Report Awards 2017 organized by CSR Works International
- Received Outstanding New Comer Award from CSR Club and ThaiPat Institute

2020
- Committed Carbon Neutral in organization by 2030
- Pledged United Nation (UN)“Race to Zero” campaign and signed “Business Ambition for 1.5°C Commitment Letter”
- Summited to Science Based Targets Initiatives (SBTi)

2021
- Published the C.P. Group’s Towards Net Zero Report
- Announced the C.P. Group’s Environmental Sustainability Policy and Guideline and Climate Resilience Policy

IMPLEMENTATION OF TCFD RECOMMENDATIONS

Charoen Pokphand Group has put in place a framework for climate change management across our entire supply chain. We have established policies and targets that cover energy efficiency, renewable energy use, waste management, and plastic packaging use reduction. We further assess climate-related risks and opportunities, conduct scenario analysis according to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) which is globally recognized for climate-related risk management from the perspective of financial institutions, and develop comprehensive risk management plans that include physical, technology, market, policy, legal, and reputational risks.

Charoen Pokphand Group has implemented the following core elements of recommended climate-related financial disclosures including Governance, Strategy, Climate Risk Management, and Metrics and Targets; which will be elaborated in this report.

In addition, the Group communicates our performance on climate change impact management and mitigation to our stakeholders through various channels. These include our Sustainability Report, the Communication on Progress to the UN Global Compact, and CDP's climate change disclosure program.

CORE ELEMENTS OF TCFD RECOMMENDED CLIMATE-FINANCIAL DISCLOSURES

GOVERNANCE
Established management committees at the Group and Business Group levels to govern climate-related risks and opportunities.

STRATEGY
Implemented a business strategy for climate change management that aligns with the Group's financial strategies and plans

RISK MANAGEMENT
Integrated risk and opportunity assessment results, and the operational contexts of each country, into climate change management approaches

METRICS & TARGETS
Adopted indicators and targets to assess and manage climate related risks and opportunities that align with the Group's financial risk management

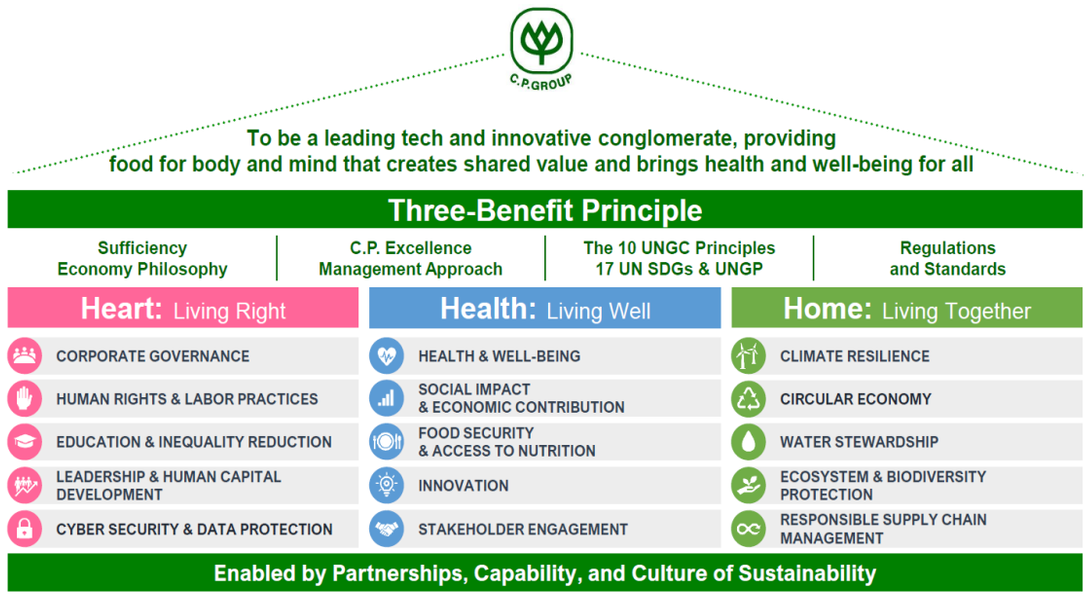
1. GOVERNANCE

C.P. Group under supervision and guidance from CEO has carried out the Group's 2030 Sustainability Goals and assess it 15 goals and material sustainability issues and supported all 17 United Nations Sustainable Development Goals (SDGs).

C.P. Group has implemented the sustainability framework that drives the Group's operations and established the Sustainability, Good Governance and Corporate Communication Office (SGC Office) and SGC Operating Committee, which takes responsibility for outlining management approaches, monitoring, verifying, and ensuring confidence that C.P. Group's overall sustainability performance is efficient and in line with its targets and vision.

The Board oversees and review key sustainability issues including climate-related issues and approve the annual Sustainability, as well as, support overall business operations within the organization to adhere to C.P. Group's sustainability goals, aligning with international sustainability principles. Moreover, C.P. Group Board's also assigned Chief Sustainability Office (CSO) to oversee and responsible for all sustainability issues of the Group.

C.P. GROUP
2030 SUSTAINABILITY FRAMEWORK



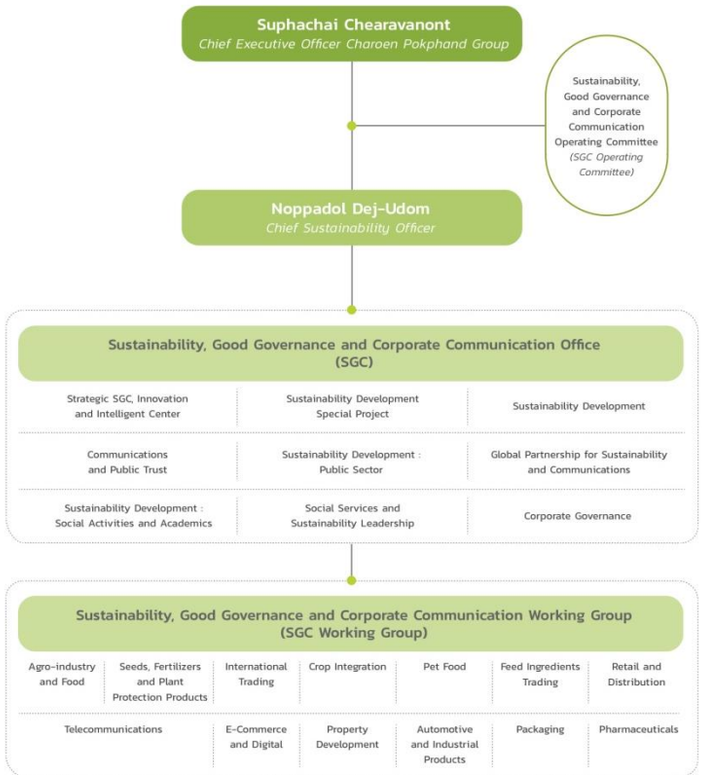
The SGC Operating Committee is composed of 14 senior executives from the Group and its business groups.

The Committee is responsible for driving C.P. Group's strategies, issuing C.P. Group's sustainability policies and measures, engaging with and disclosing information to stakeholders, managing risks and reviewing climate strategies including climate scenario analysis, risks and opportunities and plan the necessary measures to mitigate the impacts.

The SGC Operating Committee meets and reports on sustainability progress and performance bimonthly at 'C.P. Group's Vision to Action' seminar, presenting to over 400 top executives from all of C.P. Group's Thai and overseas business groups. The CEO also sits as chairman of "SGC Office" and "SGC Operating Committee" which has direct responsibility for climate-related issues.

Moreover, C.P. Group's CEO, CSO and Board Committee joint responsibility to review, monitor and guide C.P. Group 2030 Sustainability Goals, especially the strategy in respect of climate issues across the businesses. Sustainability Development Team under SGC Office is assigned by CEO, CSO and SGC Committee to drive, monitor, review and support C.P. Group's 2030 sustainability framework, policy, guidelines, and strategic targets including climate change issues

C.P. GROUP
SUSTAINABILITY CLIMATE-RELATED GOVERNANACE STUCTURE



The Group's CEO also led the organization to participated in various platforms that tackle climate issues including United Nation (UN) "Race to Zero" campaign, signed "Business Ambition for 1.5◦C Commitment Letter", "Caring for Climate" initiative and submitted Science Based Targets (SBT), as well as, reaffirm its commitment to ambitious targets: to become a carbon neutral by 2030.

Moreover, C.P. Group also announced several climate-related and environmental policy including Environmental Sustainability Policy and Guideline, Climate Resilience Policy, Circular Economy Policy and other related policies.

The Chief Sustainability Officer (who also vice-chairs of SGC Office responsible on all sustainability issues of the Group) acts as the climate change champion to facilitate collaboration among all Business Units to integrate the climate change management, climate risks and opportunities into the strategy.
His responsibilities also include reviewing, guiding, monitoring and overseeing the sustainability performance (including climate change, energy consumption, GHG emissions, GHG reduction, emission reduction projects and others related issues) to the SGC Committee bimonthly. Moreover, the Sustainability Development team under SGC office is assigned by CEO, CSO and SGC Committee to drive, assess, monitor and report on sustainability issues including climate-related issues.

The Sustainability Development team under SGC Office has the roles and responsibilities to:

1. Drive C.P. Group's Environmental Sustainability Policy, Guidelines, Climate Change Issues and strategic targets, to best suit the nature of business within each country/region of operation.
2. Develop the company's management systems, standards, directions and strategic goals consistent with C.P. Group's Sustainable Development Goals, covering Climate Change issues.
3. Support and coordinate with the Sustainability, Good Governance, and Corporate Communication Office (SGC Office) in driving C.P. Group's Sustainability, Environment, as well as. Climate related strategy and others strategic targets.
4. Assess Climate-related risk and opportunity on the group's businesses, strategy, and financial planning, in accordance with TCFD recommendations.
5. Monitor and analyze environmental performances in accordance with Climate Change issues on a regular basis.
6. Report the environmental performances to the Board of Directors, SGC Committee and relevant committee at least once a year.
7. Communicate and advise all BU and employees on Environmental Sustainability including climate issues, build up knowledge and understanding for employees, in addition to continuously engage with stakeholders throughout the supply chains and report through Charoen Pokphand Group's Sustainability Report annually.

C.P. Group through the Sustainability Development team under SGC Office (SD-SGC) is monitoring the progress on energy consumption, energy efficiency, GHG emissions, GHG reduction on a monthly basis through our global reporting system and analysis the performance. The performance of all sustainability issues, esp. climate-related data will be review by CSO, CEO, and SGC Committee and the Board at least once a year.

Climate change was embedded into C.P. Group strategies, policies and guidelines to provide guidance to all employees and inform all stakeholders about C.P. Group's commitment on climate-related issues. These strategies, policies and guidelines are publicly available on C.P. Group's website a
www.cpgroupglobal.com/sustainability.

2. STRATEGY

C.P. Group has set up a framework for climate change management covering our entire supply chain including management commitment, assess risks, opportunities and impacts, define targets and policies, implement, measure results, and communicate with stakeholders. We have established climate change policies and targets, as well as, assess climate-related risks and opportunities, conduct scenario analysis according to the recommendations of the TCFD, and develop comprehensive risk management plans that include physical and transition risks.

Additionally, the Group communicates with our stakeholders on our performance on climate change impact management and mitigation, through various channels.

To understand the impact of climate change on our businesses, C.P. Group has assessed and identified the risks and opportunities throughout the value chain (Direct operation , Upstream and Downstream) including short-term, medium-term, and long-term risks and opportunities; the financial impacts, strategy, and overall business impact of those; and the resilience of a company's strategy to cope with climate-related scenarios.

The climate-related risk assessment helps C.P. Group to understand the impact of climate-related risks and opportunities on businesses, recognize the actual and potential financial impacts on revenues, expenditures, assets and liabilities, and capital and financing, allocate ownership to drive specific actions around them and take relevant steps to address those risks and opportunities.

C.P. GROUP
CLIMATE-CHANGE MANAGEMENT FRAMEWORK

The Climate-Related Risks can be divided into two major categories:

(1) Transition Risk (risks related to the transition to a lower-carbon economy) including policy and legal, technology, market and reputation risks; Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

- **Policy and Legal Risks**
  Policy actions both national and international around climate change continue to evolve, such as changing in environmental legislation, implementing of carbon tax, cap-and-trade, or carbon-pricing mechanisms to reduce GHG emissions, shifting energy use toward lower emission sources, adopting energy-efficiency solutions. Failure to mitigate this risk may impact our operating costs, cash flow, asset impairment, early retirement of existing assets due to policy and regulation changes, financial position, business and reputation.

  In case of policy and legal risk, Thailand has developed NDCs commitment to contribute to the Paris Agreement and aims to reduce GHG emissions by 20-25% from projected BAU levels by 2030. Furthermore, the countries that C.P. Group operated in also developed and submitted their NDCs including China, India, Russia and others, with the aim to contribute to the Paris Agreement goals. Even though, Thailand or other Asian countries in which C.P. Group mainly have operations in are still not require any businesses to cap their GHG emissions or pay carbon taxes at the moment, however, it is likely that Thailand may use carbon pricing (carbon market mechanism) to drive emission reductions in Thailand in the near future. C.P. Group must ensure that it complies with applicable regulations in order to maintain its ability to operate all Group's businesses, the CG office, risk management and Sustainability Development team under SGC Office regularly review compliance with current and potential future law and regulations.

- **Technology Risk**
  Technological improvements or innovations that support the transition to a lower-carbon, energy efficient economic system can have a significant impact on organizations. For example, cost for lower emission technologies, cost of investment of new technologies and innovation, cost from increased energy and power consumptions, development and use of renewable energy, and energy efficiency.

  C.P. Group continuously evaluates and explores the technologies and innovations that might impact the group, not only on the risks side, but also considered the opportunities that those technologies might bright to the company as well. However, failure to develop and adopt new technologies and innovation may lead to the organization to fall behind the competition, not meet the future regulations, and fail to meet consumer new behavior to tend to be toward low carbon consumption and others.

- **Market Risk**
  Through shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are increasingly taken into account, as well as, change in customer behavior towards low carbon products. One of the transition risks that C.P. Group considered when assesses our climate-related risk analysis is Market risk. Market related risks such as change in customer behavior towards low carbon products, reduced market demand for higher carbon products and services, increased demand for energy-efficient and lower-carbon products and services, if we fail to meet consumer new behavior, trend and expectation toward low carbon consumption, we might face impact to our overall business performance and financial impact including decrease in total revenue, increase in cost of raw material, decrease in reputation and trust.

- **Reputation Risk**
  Reputation is tied to changing customer or community perceptions of an organization's contribution to a lower-carbon economy. There are growing expectation from stakeholders on climate responsibility and awareness on climate issues, therefore, the risk from reputation is also considered when assessed the group's climate-related risks.

  C.P. Group's reputation and branding are our valuable assets. Therefore, it is important for C.P. Group to take the lead and actions on climate change issues, as a private sector company of manufacturing and services, we are aware of our role in the GHG emissions reduction and recognizes that it has a responsibility to tackle problems posed by climate change. We dedicated to become Carbon Neutral Organization by setting "Net Zero" goal by 2030 in the organization (Scope 1 + Scope 2) by reducing GHG emissions, promoting renewable energy programs, encouraging all employees, stakeholders and business partners to join for carbon emission reduction programs. Failure to deliver or achieve the targets might damage the corporate reputation and trust as a sustainable business, therefore, we have set strong KPIs, strategies and plans in order to achieve those ambitious goals.

(2) Physical Risk (risks related to the physical impacts of climate change) including acute and chronic risks. Physical risks may have financial implications such as direct damage to assets and indirect impacts from supply chain disruption. .

- **Acute Risk**
  Acute Risks that might impact to C.P. Group are including increased severity of extreme weather events, cyclones, droughts or floods which may have financial implications such as direct damage to assets, property damage due to flooding, affect our infrastructure, indirect impacts from supply chain disruption, distribution disruption, production failure and disruption especially on agricultural products, reduce water availability, increase water stress in some areas, affect the well-being of our employees, the continuity of our operations, our customers, and the communities which our operations depend on. C.P. Group has assessed the impact from these acute risks and plan for mitigation actions, as well as, prepare for future events from acute risks that might affect our operations and value chain.

- **Chronic Risk**
  Refer to longer-term shifts in climate patterns such as rising mean temperatures, changes in precipitation patterns, sea level rise or chronic heat waves. Chronic risks are considered as mid- to long-term risks to the group which include severe extremes of climate, changing in precipitation patterns, extreme variability in weather pattern such as rising mean temperatures, changes in precipitation patterns, sea level rise, chronic heat waves, water scarcity etc.

  The impact of chronic risks can cause financial implications for our business, lead to reduced sales revenue/output, increase in operating costs and business interruption, increase in capital costs and damage across operations and supply chains with consequences for input costs, revenues, asset values, and insurance claims, decrease in production yield, increase in operation cost, shorten lifetime of equipment, higher energy consumption, as well as, threaten the food security of our organization and value chain.

Therefore, C.P. Group has frequently assessed the impact from these physical risks and plan for adaptation and mitigation actions and roadmaps, as well as, prepare for future events from those risks that might affect our operations and value chain.

C.P. GROUP
CLIMATE-RELATED RISKS AND OPPORTUNITIES

Whereas, the effort to mitigate and adapt to climate change can also produce opportunities for organizations, the climate-related opportunities include resource efficiency, energy source, products/services, markets and resilience.

- **Resource Efficiency**
  Can reduce operating costs, improve resource and energy efficiency over the medium to long term and contribute to the global emissions reduction such as developing efficient lighting and heating solutions, circular economy solutions, water usage and treatment solutions, and developing electric vehicles.

- **Energy Source**
  Organizations that shift their energy usage toward low emission energy sources such as solar, wind, hydro or biofuels could potentially save on annual energy costs.

- **Products and Services**
  Organizations that innovate and develop new low-emission products and services may improve their competitive position on shifting consumer and producer preferences such as low carbon products, carbon footprint labeling and marketing.

- **Markets**
  Organizations that pro-actively seek opportunities in new markets or types of assets may be able to diversify their activities and better position themselves for the transition to a lower-carbon economy.

- **Resilience**
  Including organizations capacity and ability to respond to transition risks and physical risks. Opportunities include improving efficiency, designing new production processes, and developing new products.

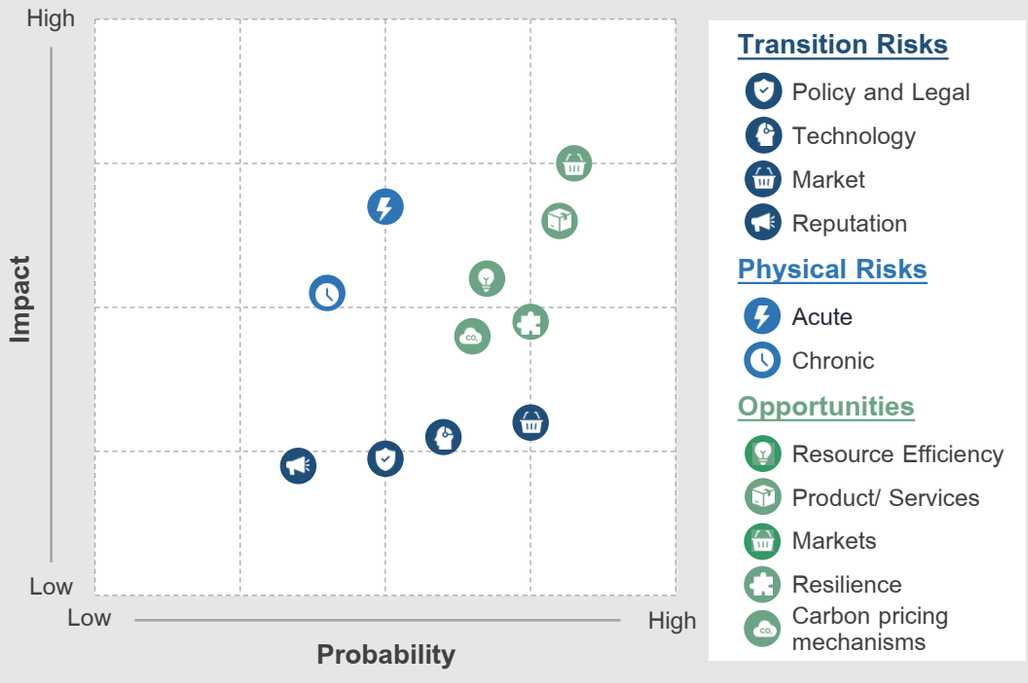
3. CLIMATE RISK MANAGEMENT

C.P. Group has identified the short-term, medium-term, and long-term climate-related risks and opportunities, as well as, identified and prioritized the probability and impact of those risks and opportunities to the group. These climate-related issues have been integrated into C.P. Group's Sustainability Framework and Climate Change Management the group's resilience to climate change.

To understand the impact of climate change on our businesses, C.P. Group has assessed and identified the risks and opportunities throughout the value chain (Direct operation, Upstream and Downstream) including short-term, medium-term, and long-term risks and opportunities; the financial impacts, strategy, and overall business impact of those; and the resilience of a company's strategy to cope with climate-related scenarios. The time period of the assessment is designed in line with the Group's Sustainability Framework, Climate Risk Assessment and the Risk Management to assess the risks and opportunities of the organization annually or when facing significant environmental / climate-related changes.

The climate-related risk assessment helps C.P. Group to understand the impact of climate-related risks and opportunities on businesses, recognize the actual and potential financial impacts on revenues, expenditures, assets and liabilities, and capital and financing, allocate ownership to drive specific actions around them and take relevant steps to address those risks and opportunities. The impacts of climate-related risks and opportunities on businesses were assessed using 2DS, IEA 450, NDCs, RCP2.6 and RCP8.5 scenarios. Thus the results of this analysis allow the Group to recognize the importance of impact of climate change to our business, develop the actions to mitigate and adapt, reduce GHG emission, and further ensure our business driving toward sustainability.

ASSESSMENT OF CLIMATE-RELATED RISKS AND POTIENTIAL MATRIX



C.P. GROUP
CLIMATE-RELATED RISKS, OPPORTUNITIES AND POTIENTIAL FINANCIAL IMPACT

RISK TYPE	CLIMATE-RELATED RISKS	TIME HORIZON	POTENTIAL FINANCIAL IMPACTS
Transition Risks	**Policy and Legal**		
	○ Carbon pricing mechanisms ○ Enhanced emissions reporting obligations ○ Mandates on and regulation of existing products and services ○ Exposure to litigation ○ Increased pricing of GHG emissions ○ Increased costs associated with carbon-intensive products and minimizing embodied carbon in the supply chain, especially if commodities are sourced overseas because of border carbon adjustments. ○ Increased expenditure associated with the use of non-renewable energy.	Medium–Term	○ Increased Operating Costs from mandatory climate change regulations ○ Increased operations cost for high carbon activities (e.g. higher compliance costs, increase insurance premiums) ○ Asset impairment, early retirement of existing assets due to policy changes ○ Increased costs, reduced demand for products and services resulting from fines and judgments. ○ Threats to securing license to operate for high carbon activities ○ Emerging concern about liabilities
	Technology		
	○ Cost to transition to lower emission technology ○ Unsuccessful investment in new technologies ○ New technologies that disrupt Markets	Short–Term	○ Increased cost for develop lower emission technologies ○ Decreased revenues ○ Increased energy consumptions costs ○ Development and use of renewable energy, energy efficiency.
	Market		
	○ Changing customers behavior ○ Increase cost of raw material ○ Uncertainty on market trend ○ Increased demand for energy efficient, lower-carbon ○ products and services	Medium–Term	○ Reduced demand for products ○ and services due to change in customers preferences ○ Increased production costs ○ Decreased in revenue
	Reputation		
	○ Increase expectations for responsible conduct from stakeholders, including investors, lenders, and consumers. ○ Shifts in consumer preferences ○ Fail to meet the stakeholders and consumers need	Short–Term	○ Reduced revenues, reputation and brand value ○ Risk of loss of trust and confident in management

RISK TYPE	CLIMATE-RELATED RISKS	TIME HORIZON	POTENTIAL FINANCIAL IMPACTS
Physical Risks	**Acute**		
	○ Increased severity and frequency of extreme weather events such as floods, droughts, cyclones rain falls, higher temperatures, change in precipitation ○ Increased likelihood and severity of wildfires ○ Operational disruption	Medium–Term	○ Increased raw material costs ○ Increased operation costs ○ Decreased revenues ○ Decreased asset values
	Chronic		
	○ Changes in precipitation patterns and extreme variability in weather patterns ○ More frequent of severe extremes events ○ Increasing extreme temperature, hot days, sea level rise, coastal erosion, drought, floods, ○ Increased spread of infectious diseases.	Short–Term	○ Increased business interruption and damage across operations and supply chains ○ Increased operation costs ○ Reduced Revenues ○ Reduced asset values ○ Increased insurance claims ○ Reduce yield of agriculture products ○ Impact ecosystem both on land and below water.

OPPORTUNITIES TYPE	CLIMATE-RELATED OPPORTUNITIES	TIME HORIZON	POTENTIAL FINANCIAL IMPACTS
Resource Efficiency	○ Use of more efficient production and distribution processes and more sustainable raw material ○ Use of more efficient mode of transport ○ Reduce waste and use circular economy solutions ○ Reduced water consumption ○ Improve resource and energy efficiency	Long–Term	○ Reduced operating costs ○ Increased production capacity ○ Increased in revenues ○ Reduced energy costs
Energy Source	○ Use of low emission energy sources such as solar, wind, hydro or biofuels ○ Use of new low-emission technologies ○ Participate in carbon market, carbon reduction mechanisms	Long–Term	○ Reduced operation costs ○ Reduced exposure to future fossil fuels prices increased ○ Increased reputation ○ Return on investment on low emission technologies ○ Enhanced competitive advantage through decreased energy costs and alignment with customer preferences.

OPPORTUNITIES TYPE	CLIMATE-RELATED OPPORTUNITIES	TIME HORIZON	POTENTIAL FINANCIAL IMPACTS
Products And Services	○ Develop new low-emission products and services ○ Shift in consumer preferences ○ Development of new products and services through innovation and R&D	Medium–Term	○ Improve competitive position on shifting consumer and producer preferences such as low carbon products, carbon footprint labeling ○ Increased revenue from demand for low-emission products and services ○ Increased brand value
Markets	○ Organizations that proactively seek opportunities in new markets may be able to diversify their activities and better position themselves for the transition to a lower carbon economy.	Medium–Term	○ Increased revenues through access to new markets ○ Increased reputation and brand value
Resilience	○ Organization capability to respond to transition risks and physical risks ○ Participate in renewable energy programs ○ Adopt energy efficiency measure ○ Join Climate mitigation and adaptation projects and activities	Long–Term	○ Increased revenue through new products and services related to ensuring climate resilience ○ Increased market valuation ○ Increased organization reputation ○ Increased reliability of supply chain and ability to operate under various conditions

C.P. Group uses scenario analysis to understand climate-related risks and opportunities to its operations and assess how climate change may affect the businesses. C.P. Group's climate change-related scenarios include both transition and physical risks.

There are many climate change scenarios conducted by various organizations, however, the most commonly used scenarios are the Intergovernmental Panel on Climate Change (IPCC) which mainly focus on physical scenarios and the International Energy Agency (IEA) which focus on transition scenarios. By using both types of scenario analysis allows C.P. Group to account for full range of implications of climate change to inform suitable short-term, medium-term to long-term strategic thinking, assess and manage climate-related risks and opportunities into an organization's broader risk management strategy, as well as, identify financial impact from those scenarios.

TRANSITION RISKS

The transition risk scenarios including policy and legal, technology, market and reputation can affect C.P. Group's operation and supply chain, such as, new law and regulation on low carbon emissions, carbon tax, and increase in demand for energy efficiency and low carbon products and services. The IEA transition scenario is the most well-known and widely used for transition to a low carbon economy. Among all transition scenarios available, IEA 2DS, IEA 450 and National Determined Contributions (NDCs) scenarios were applied to assess C.P. Group's transition risks.

In case of policy and legal risk, Thailand has developed NDCs commitment to contribute to the Paris Agreement and aims to reduce GHG emissions by 20-25% from projected BAU levels by 2030. Furthermore, the countries that C.P. Group operated in also developed and submitted their NDCs including China, India, Russia and others, with the aim to contribute to the Paris Agreement goals. Even though, Thailand is still not require any businesses to cap their GHG emissions or pay carbon taxes at the moment, however, it is likely that Thailand may use carbon pricing (carbon market mechanism) to drive emission reductions in Thailand in the near future.

IEA 2DS Scenario

The International Energy Agency 2 degree scenario (IEA 2DS) describes the energy system where emission trajectory is aligned with that of recent climate science research, which indicates that there is an 80% chance that global temperature increase will not exceed 2 °C when compared to pre-industrial revolution period. The IEA 2DS sets the target of cutting CO_2 emissions by almost 60% by 2050 (compared with 2013), followed by continued decline after 2050 until carbon neutrality is reached. The IEA 2DS identifies changes that help ensure a secure and affordable energy system in the long run, while emphasizing that transforming the energy sector is vital, but not enough on its own.

The IEA 2DS has multiple assumptions on different energy related variables such as proportion of renewable energy, increase utilization of energy from diverse sources, and low carbon technologies. There are multiple scenarios by different agencies that describe similar transition to low carbon economy, however the IEA 2DS is one of the most well-known and referenced.

IEA 450 Scenario

IEA's WEO (World Energy Outlook) 450 scenario (IEA 450) is expressed as realizing a 50% chance of limiting warming to a 2 °C rise by 2100 (originally based upon a projected warming limit of 2 °C through limiting the concentration of GHG's to around 450 ppm of CO_2 equivalent through the policy-driven improvements in energy efficiency and other commitments), and offers steps by which that goal might be achieved. The IEA 450 scenario references many separate efforts that are required to reduce energy-related emissions from 2015 to 2040, including stronger deployment of technologies that are familiar and available at a commercial scale today, which may deliver close to 60% of the emissions reductions. The IEA recently updated global demand for oil would fall by 11% between 2014 and 2030, while demand for natural gas would grow by 8% during that period.

International Energy Agency
Secure Sustainable Together

In the past, C.P. Group considers those climate policies that have been formally adopted by government; however, this scenario provides a comparison point against which new policies can be assessed. Therefore, the company has incorporated existing energy policies, as well as, an assessment of the results likely to occur from implementation of announced intentions, notably those in climate pledges submitted for the UNFCCC Paris Climate Agreement (COP21).

Nationally Determined Contributions (NDCs) Scenario

The Paris Agreement under UNFCCC requests each country to outline and communicate their post-2020 climate actions, known as Nationally Determined Contributions (NDCs). The NDCs embody efforts by all countries to reduce their national emissions and adapt to the impacts of climate change. The NDC also serves as a target to control emissions from all national sources. Under its NDC commitment to contribute to the Paris Agreement, Thailand has developed NDCs and aims to reduce GHG emissions by 20-25% from projected BAU levels by 2030. Furthermore, the countries that we operated in also developed and submitted their NDCs including China, India, Russia and others, with the aim to contribute to the Paris Agreement goals to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.

NDCs are built on domestic policy considerations around what constitutes a practical, sound pathway to a low-carbon economy in light of energy security requirements. Furthermore, the Thai government has set a target of reaching peak carbon emissions in 2030 and then achieving net zero emissions in 2065, which will help reduce the risk of being banned by trade partners and help secure more free trade agreements in the future. This goal can be achieved through the promotion of electric vehicles and use of renewable energy in the industrial sector, among other measures.

The key implications of NDCs include new laws and regulations to manage and limit national carbon emissions. Carbon market, carbon tax, and cap and trade are instruments which assigns a price to carbon emissions as a way to encourage businesses, especially those classified as heavy emitters to reduce the GHG emission. Even though, Thailand is still not require any businesses to cap their GHG emissions or pay carbon taxes. However, it is likely that Thailand may use carbon pricing (carbon market mechanism) to drive emission reductions in Thailand in the near future.

POTENTIAL FINANCIAL IMPACTS:

Transition Risks

1) Policy and Legal

As the global trend towards low carbon society and ambition to limit the world's temperature to well-below 2°C scenario or 1.5°C if possible, therefore we assume that all governments will act rigorously to reduce their greenhouse gases emission and the private sectors are among the key factors that can help to achieve that goal. C.P. Group also committed to become carbon neutral from Scope 1+ Scope2 by 2030; therefore we need to find the solutions and actions to reduce those GHG emissions from our operations.
The range of carbon pricing and carbon credit at the moment are ranging from lower than 1 USD up to 65 USD per tonCO2e depend on which markets and from the IEA450 scenario the average carbon cost for low carbon transition scenario (2°C) are around 75 – 100 USD per tonCO_2e. We have projected our 2030 greenhouse gases emission from Scope 1 and Scope 2 to be around 2.84 million tonCO2e with 85% renewable energy consumption.

Additionally, C.P. Group has set a goal to reduce 10% of GHG emissions by 2020 with base-year on 2015. However, in 2020, C.P. Group has reduced 8.4% GHG emissions which is still not met the target, therefore C.P. Group voluntary bought carbon credits from carbon reduction projects in Thailand under TGO's T-VER (Thailand Voluntary Emission Reduction Program) scheme including renewable energy projects such as hydro power and energy generation from biomass to offset and achieve our 10% emission reduction goal or equal to 1,141,627 Thai Baht.

Moreover, If the carbon pricing mechanism, carbon tax, or cap-and-trade are implemented in the country that C.P. Group operated in to reduce GHG emissions such as shifting energy use toward lower emission sources and adopting energy-efficiency solutions, Failure to comply with those mechanisms may impact our operating costs, asset impairment, financial position, business and reputation. We have estimated the increasing in operating costs, carbon taxes, as well as, early retirement of existing assets due to policy and regulation changes.

In order to minimize the impact from emerging regulation risks which include the risk from policies and regulations change, carbon taxation, increasing in more low carbon standards for products and services, C.P. Group will need to set and apply internal carbon pricing and platform, climate-related and low carbon certification and verification to ensure that our operations are complied with those changes.

2) Market and Reputation

C.P. Group considered not only the impact of climate-related risks to our direct operations, but also our upstream and downstream in the value chain. From the assessment, it showed that Market risk has significant impact to the group. Moreover, from our latest materiality assessment, it indicated that climate change became one of most important issues that our customers and stakeholders concerned.

People behavior change towards climate crisis is obvious and the need for low carbon products and services are getting higher. The organizations that pro-actively seek opportunities in new markets or assets may be able to diversify their activities and better position themselves for the transition to a lower-carbon economy. Failure to do so, might take us into the position where we cannot meet the customers need which including reduced demand for products and serviced due to shift in customer preferences which can increase production costs due to changing input prices (such as energy and water) , and output requirement (such as waste treatment, wastewater treatment, circular economy), and increased demand for energy-efficient, lower-carbon products and services which might need more verification and certification from third-party.
Since most of our products and services are low-carbon products and we have implement LCA, carbon footprint for products and organization for many years, therefore, the financial implication of market risks from customer behavior changes are assumed to impact the revenue of the group not more than 5%.

In order to minimize the impact from decreased in revenue from customer behavior changes, C.P. Group has implementing more environmental, low-carbon and sustainable labels and certifications for products and services, replacing old equipment and investing in high-technology and low-carbon emission machinery, as well as, increasing R&D budget for low-carbon, environmental friendly and sustainable products and services. Additionally, by meeting the customers changing behavior towards low carbon economy can have significant impact to C.P. Group including increase revenues from increased demand for low-carbon products and services. Therefore, C.P. Group has expanded and developed our low carbon emission and environmentally friendly products and services. The overall revenue is estimated to increase around 5% through the consumption of our low carbon, environmentally friendly and sustainable products and services.


The Pinggu Modern Agricultural Integrated Project, Pinggu District, Beijing, China

3) Technology

New technologies and innovations are also one of the transition risks that C.P. Group taken into account when assessed our Climate-related risks and opportunities. The technology and innovation that support the transition to a lower-carbon society can have a significant impact on the organization including financial impacts from the cost of investment of new technologies and innovation, increasing in energy and power consumption, development of renewable energy and others. C.P. Group continuously evaluates and explores the technologies and innovations that might impact the group, not only on the risks side, but also considered the opportunities that those technologies might bring to the company as well. For C.P. Group, Use of lower-emission sources of energy and energy efficiency are considered as primary climate-related opportunity drivers in own operation which can help us reduced the operation cost, increased energy efficiency, reduced energy cost and can eventually reduce our overall greenhouse gases emission. Moreover, C.P. Group also committed to become carbon neutral organization by 2030, by using more renewable energy, reducing energy consumption, improving energy efficiency, going toward circular economy solutions.

Moreover, in order to achieve the target to become Carbon Neutral Organization by 2030, C.P. Group will need to shift from the energy and electricity consumption towards low emission energy and renewable resources such as solar, wind, hydro or biomass, and we plan to increase the renewable consumption to 85% by 2030 to achieve this goal. From this challenge to shift from high-emission energy sources to renewable energy, we see the opportunities in development of new products such as renewable energy, renewable electricity. The new products and services will not only use for emission reduction in the direct operations, but also increase our revenues through access to new and emerging markets. The potential financial impacts from development of new business that provided low-carbon products and services to the market by invest in renewable energy business e.g. solar power.

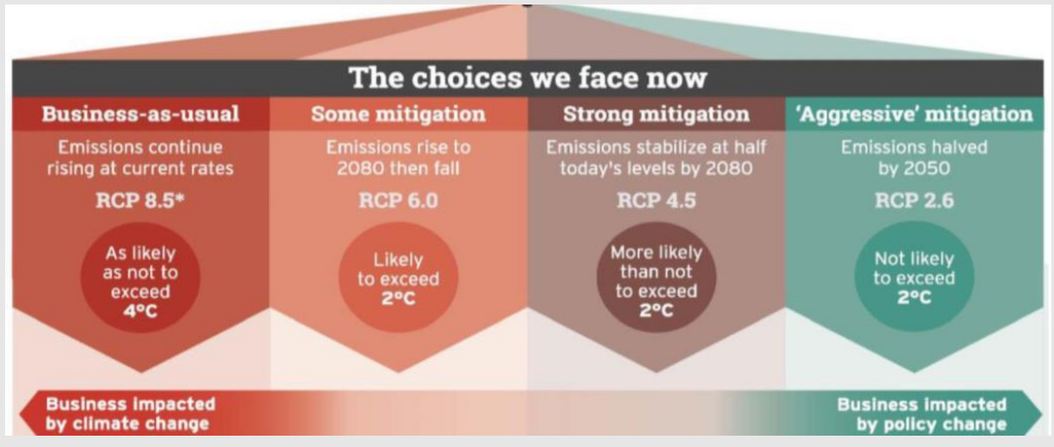
However, failure to develop and adopt new technologies and innovation may lead to the organization to fall behind the competition, not meet the future regulations, and fail to meet consumer new behavior to tend to be toward low carbon consumption and others.

PHYSICAL RISKS

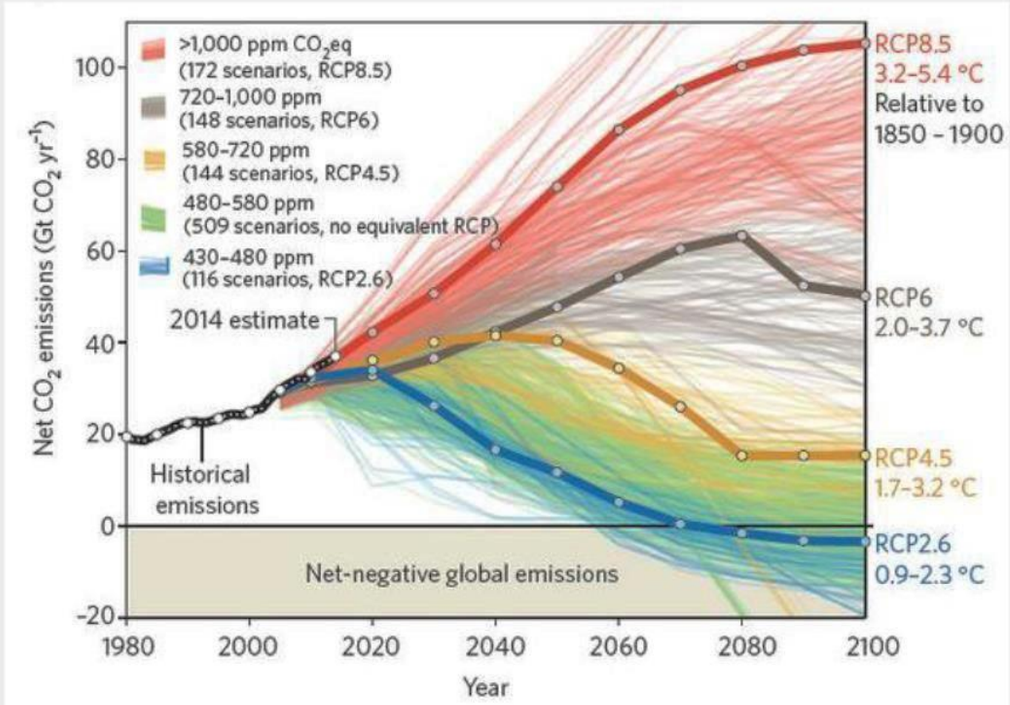
Physical risk scenarios assess the impact of acute or chronic physical change related to climate change. An example of physical risks such as changes in precipitation patterns, extreme variability in weather patterns, extreme temperatures, and impact to water scarcity and droughts which may affect C.P. Group's supply chain especially agricultural commodities, increased raw materials cost due to low crop yields availability and quality and decreased revenues due to reduced production capacity. C.P. Group's agricultural business units are relied on a variety of raw material; the change in climate and weather pattern can lead to decrease in production, increase in raw material cost, operational cost. However, C.P. Group has initiated many projects and activities together with our farmers, suppliers, and other business partners along supply chain to tackle on these issues.

For physical risk scenario, the IPCC's Representative Concentration Pathway 2.6 or RCP2.6 scenario and RCP 8.5 were used by assess the impact of change in mean (average) temperature and Induced changes in natural resources to the organization. The IPCC explores four potential futures depending on what policies governments adopt to cut emissions. The four RCP scenarios each project a certain amount of carbon to be emitted by 2100 and, as a result, lead to a different amount of human-driven climate change. Climate change will continue after 2100 and elevated temperatures will remain for many centuries after human CO2 emissions cease.

IPCC 4 REPRESENTATIVE CONCENTRATION PATHWAY (RCP) SCENARIOS



CO_2 Emissions Pathways and Temperature Outcomes in IPCC AR5 RCP Scenarios



RCP 2.6

Representative Concentration Pathway2.6 or RCP2.6 scenario is referred to as pathways to emphasize that the primary purpose is to provide time-dependent projections of atmospheric GHG concentrations, both a specific long-term concentration outcome and the trajectory that is taken over time to reach that outcome. RCP2.6 is the IPCC's low emission ‚peak-and-decline' scenario pathway and is representative of a scenario in line with the Paris Agreement's well below 2°C limit or if possible limited to 1.5°C target. RCP2.6 assumes that global annual GHG emissions peak between 2010-2020, with emissions declining substantially thereafter and becoming negative in 2100. RCP2.6 is an ‚aggressive' mitigation and could cut the emissions halved by 2050;

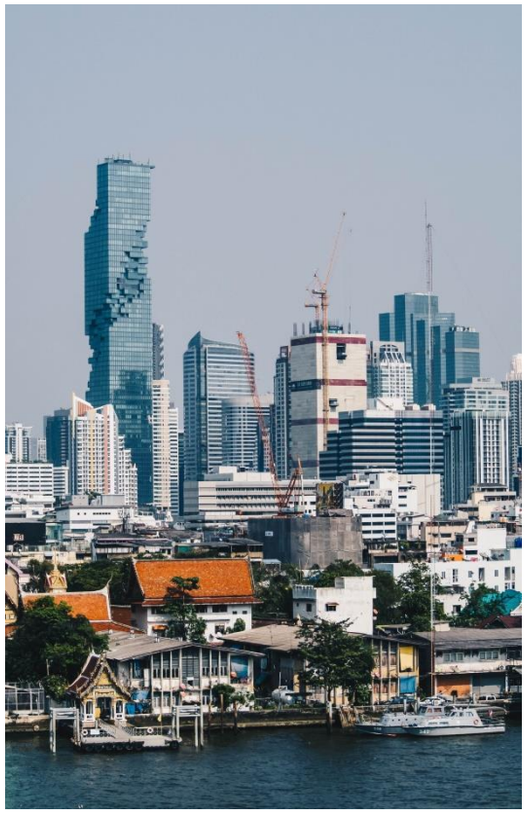
Therefore the temperature is not likely to exceed 2 ◦C. This will involve reductions in energy demand, agricultural emissions, extensive electrification and decarbonizing electricity generation, reduced demand for high-emission products and services, and carbon dioxide removal.

However, even though we can limit the temperature not to exceed 1.5°C world, the weather patterns are still affected including hotter extreme temperatures, increases in amount of heavy rainfall, increased amount of droughts and floods but lesser than the 2°C scenario.

RCP 8.5

RCP 8.5 represents as a business as usual scenario, or a worst-case scenario. The RCP 8.5 pathway delivers a temperature increase of about 4.3˚C by 2100, relative to preindustrial temperatures. RCP 8.5 refers to the concentration of carbon that delivers global warming at an average of 8.5 watts/m^2 across the planet and is contrasted with RCP 2.6 scenario, which would deliver about 1.8˚C by 2100. This scenario focuses on the physical effects from climate change, if temperatures increase beyond 4˚C when compared to pre-industrial revolution period, the extreme weather threats will be found.
RCP 8.5 scenario is characterized by increasing concentrations of greenhouse gases, driven by a growing energy demand, an extensive use of coal throughout the century and low rates of technological development and adoption. Climate change would be substantial compared to the present day. There would be an increased extreme high temperature, precipitation pattern, more floods and droughts, and sea level rise.

To address this risk, the group is studied and identified the impact that might affected our operations and supply chain, we also used tools to assess the risk from each site including water stress and water scarcity using Aqueducts and other tools.

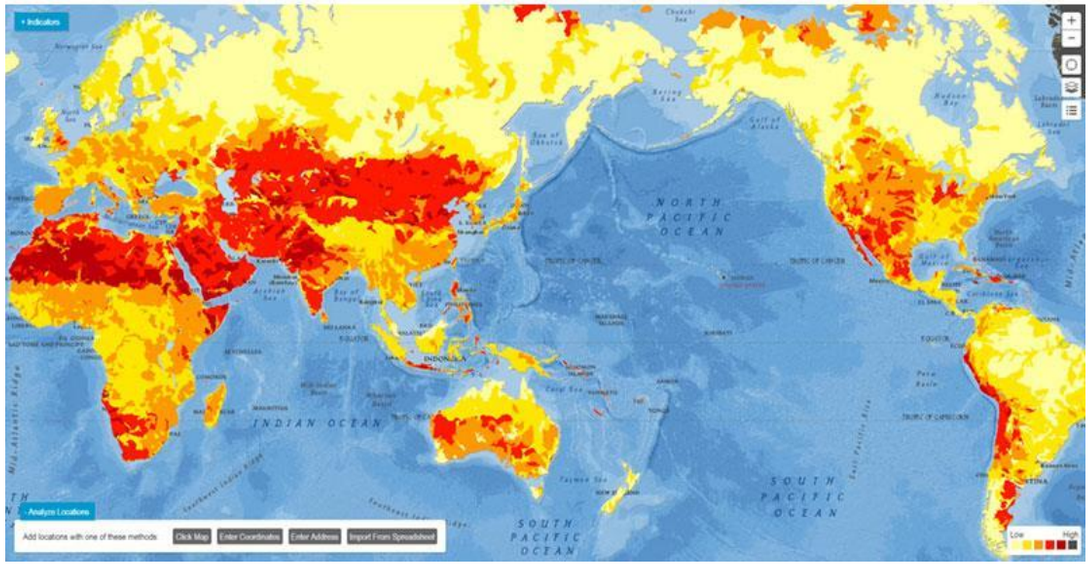


Types of Physical Risk Assessment Tools & Resources

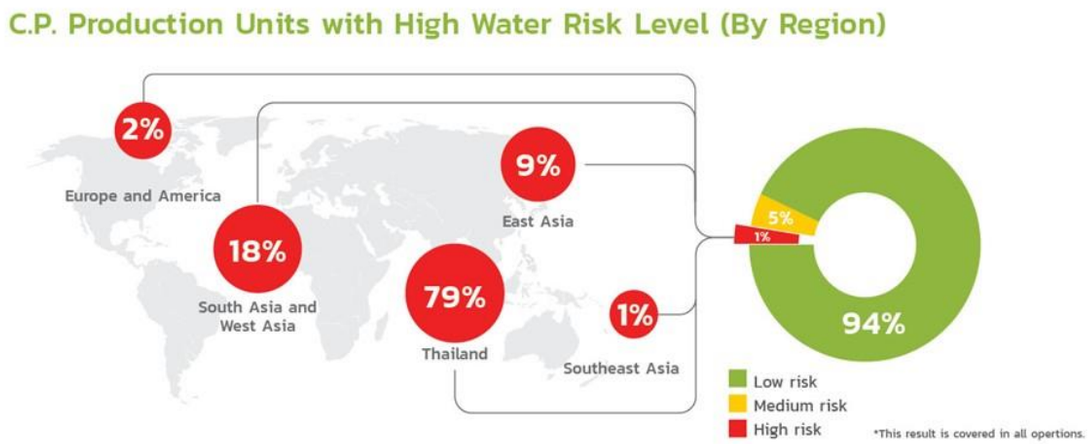
In addition to the scenario assessment of physical risks using IPCC RCP scenarios, several tools have been applied to support the climate-related risks assessment both national and international levels such as Water Stress Analysis. The Group assesses water scarcity risk using publicly available and rigorous tools for assessing areas with water stress, including Aqueduct Water Risk Atlas from the World Resource Institute (WRI), and Water Risk Filter from WWF, covering domestic and international operations. For business units that operate in areas with a high risk of water stress, the Group uses the Local Water Tool from the Global Environmental Management Initiative (GEMI) to help assess local level risk involving various aspects.
The tool also aids in planning efficient water use, addressing both internal and external operations with suppliers, communities, and stakeholders.

We conducted a water sensitivity analysis using the WRI AQUEDUCT Water Risk to identify water stress locations since 2016. This tool helped us to assess changes in water demand, water supply, water stress, water scarcity, stakeholder risk, and regulations based on current and future conditions, assisted us to foresee changes to water risk forecasting in the future, and identify the necessary mitigation and adaptation measures for the sites that located in water stress areas. The results of the assessment are ranked according to three levels of water risk, and are then used to develop appropriate management plans.

AQUEDUCT Water Risk Atlas



The risk assessment conducted reveals that 34% of all business units under C.P. Group operate in areas with water stress, however, only 1% of all business units involves high water risk.



POTENTIAL FINANCIAL IMPACTS:

Physical Risks

Physical Risks are always included while C.P. Group conducting climate risk assessment and chronic risk has been identified as one of the physical risk that can have significant impact to the group. Chronic risks include long-term shifts in climate patterns, more frequent and severe extremes of climate such as rising mean temperatures, changes in precipitation patterns, sea level rise or chronic heat waves. According to the IPCC 5th Assessment Report (AR5), the global temperature is likely to increase and exceed 1.5°C by the end of the 21st century. Increased frequency of extreme weather events such as storms, droughts and floods is consistent with IPCC studies, therefore, it is likely that the temperature rising could affect human-life, production and operation around the world. Moreover, those events may have financial implications to C.P. Group such as direct damage to assets, increased business interruption, damage across operations, and also indirect impacts from supply chain disruption with consequences for input costs, revenues, asset values, and insurance claims.

The changes in precipitation patterns and extreme variability in weather patterns can also impact to water scarcity and droughts which impact our group through increased raw materials cost due to low crop yields availability and quality, decreased revenues due to reduced production capacity, affected to supply chain of raw materials including agricultural commodities from upstream supply chain and logistics.

It is likely that the temperature will continue to rise and if we cannot limit the global temperature to well-below 2°C or not exceed 1.5°C if possible, then we can see the changes in precipitation patterns and extreme variability in weather patterns. From this assumption, C.P. Group has performed the assessment of the impact of increasing 2°C of global temperature which is not only affect the operations, but also our supply chain both upstream and downstream, especially on agricultural commodities, raw materials disruption and logistics on upstream value chain. The change in precipitation pattern, extreme weather events, sea level rise, floods, drought and water scarcity are considered as main risks that can have significant impact to the upstream value chain, including decreased in agriculture productivity, increased raw materials cost due to low crop yields availability and quality, or increased logistics cost. From the review, a study showed that 2°C rise in global warming can cause a 3% loss to the agricultural production. Moreover, the change in precipitation pattern can also cause water stress, water shortage in some areas with the assumption to be around 30% shortage.

In order to minimize the impact arises from chronic risks, C.P. Group has conduct climate risk assessment, identify financial impact, use water risk assessment (Aqueduct), develop water management plan, raise awareness and teach farmers and supply chain on climate adaptation and mitigation actions, as well as, others activities. The management costs will be from the cost of risk assessment such as employee, experts and consultant who worked on climate-related risk assessment and provided information, as well as, the one who contacts with out upstream supply chain. Since 2017, more than 530,000 farmers have been directly and indirectly supported and trained from the group. We want to support them and help them to build a sustainable production and prepare for the global warming events. The cost for upstream capacity building is estimated from the number of supplier and farmer that we provided training and capacity building.

In addition, the scenario analysis presents an opportunity for C.P. Group to develop understanding of potential risks and opportunities in the future including the challenge for C.P. Group to understand the potential effects of climate change on businesses, strategies, and financial performance.

4. METRICS AND TARGETS

Given the challenge of the climate crisis today, C.P. Group recognizes the opportunity to inspire change, and encourage and contribute to reducing GHG emissions across all of our Business Groups in 21 countries. The Group is firmly committed to reducing both direct and indirect GHG emissions, promoting renewable energy use instead of fossil fuel-based energy, and enhancing the capacity for renewable energy use. In addition, the Group supports public sector GHG reduction mechanisms, and prioritizes products that have received carbon footprint certifications. C.P. Group is determined to contribute to climate change reduction and join in the effort of reducing environmental impacts. Accordingly, we have established a climate change management goal to lower greenhouse gas intensity per unit of revenue by 10% in 2020, compared to the 2015 baseline, and offset emissions by purchasing carbon credits from 2 organizations, namely the Electricity Generating Authority of Thailand (EGAT) and Mitr Phol Group 46,700 tCO_2e of carbon credits.

Furthermore, C.P. Group also supports the Paris Agreement and UN "Race to Zero" campaign, commits to set Science Based Targets and recently just announced to become Carbon Neutral Organization by setting ‚Net Zero' goal by 2030 in the organization. Charoen Pokphand Group requires all business units in all countries to set a common goal to achieve carbon neutral from its operations owned or controlled by the company by the year 2030.

The sustainability ambitions of C.P. Group are shown below:

1) Achieving zero carbon emission (from Scope 1 and Scope 2) by 2030 compared with base-year 2020 by reducing greenhouse gases emissions, promoting renewable energy programs, encouraging all employees, stakeholders and business partners to join for carbon emission reduction programs, in order to continuously minimize the carbon emission from the organization.
2) Aiming to achieve Net Zero emission by 2050, C.P. Group joined United Nation "Race to Zero" campaign and signed "Business Ambition for 1.5 ◦C Commitment Letter", the global movement of leading companies aligning their business with the most ambitious aim of the Paris Agreement, to limit global temperature rise to 1.5°C above preindustrial levels and reach net-zero by 2050 for the best chance of avoiding the worst impacts of climate change.
3) Targeting to plant over 20 million trees to adsorb carbon and lead to carbon reduction by 2025.
4) Achieving Zero Waste to Landfill in 2030
5) Achieving Zero Food Waste from organization's operations by 2030
6) Using 100% Sustainable Packaging (Reusable, Recyclable, Compostable) by 2025.
7) Reducing 20% Water Withdrawal by 2030 by reuse and recycle water.
8) Participating in Ecosystem and Biodiversity Protection projects and activities both national and international programs.
9) Training 100% employees to acknowledge and comply with environmental and climate-related policies. .

BUSINESS AMBITION FOR 1.5°C

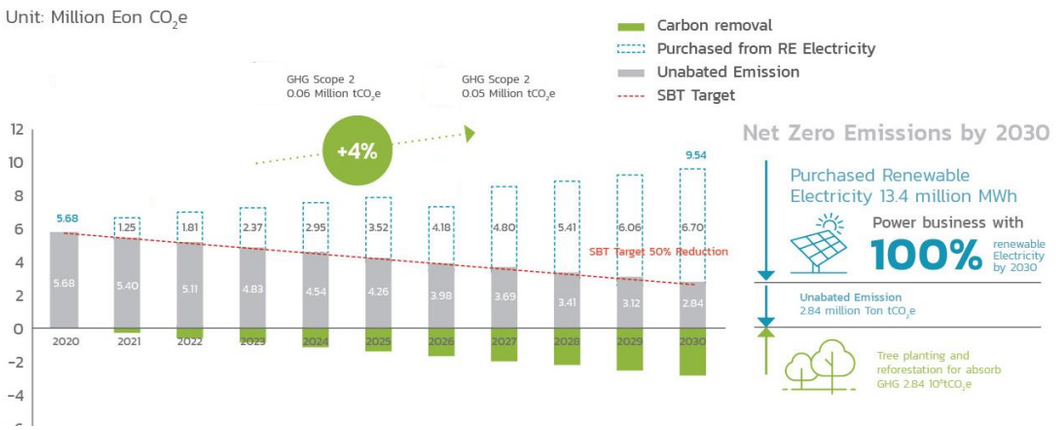
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CDP SUPPORTER 2021

Based on our commitment to become a Carbon Neutral Organization by 2030, additionally, the Group remains resolute to reduce greenhouse gas by 50% in accordance with the Science Based Targets Initiative (SBTi) by 2030, using 2020 as the baseline year to manage greenhouse gas emissions reduction from the Group's operations.

This is in line with the ultimate goal of the Paris Agreement in limiting global temperature rise to below 1.5 degrees Celsius.

C.P. GROUP
PATHWAYS TO NET ZERO



C.P. Group's Energy efficiency and Carbon reduction Initiatives to mitigate and adapt to Climate Resilience

C.P. Group has adopted technologies to improve production and services processes, enhance energy efficiency by increasing use of eco-friendly alternative energy, and develop low carbon products that contribute to reducing greenhouse gas emissions in order to optimize energy management sustainably.

C.P. GROUP
CLIMATE MITIGATION AND ADAPTATION INITIATIVES

RENEWABLE ENERGY
- Solar Energy
- Wind Energy
- Biomass Energy
- Biodiesel, Biomethane

FORESTATION
- Sustainable Forestation
- REDD+ (Reducing Emission from Deforestation and Forest Degradation and Enhancing Carbon Sequestration in Forest Area)

ENERGY EFFICIENCY
- Cogeneration System
- High Efficiency Chiller
- Waste Heat Recovery and Utilization
- High Efficiency Lighting

AGRICULTURE
- Reducing Emissions from Livestock
- Good Fertilization Practice
- Carbon Sequestration

WASTE MANAGEMENT
- GHG Capture and Utilization
- Production of Compost from Organic Waste
- Recycling

TRANSPORTATION
- High Speed Rails Systems
- Mass Rapid Transit Project
- Electric Vehicle Charging Systems
- Lightweight Pallets
- Fuel Switch

INITIATIVES

1) Solar-powered Electricity Generation

C.P. Group and our subsidiaries place importance on conducting our business in conjunction with continuous management of the environment and climate change to reduce relevant problems and impacts. We encourage all business groups to become committed to employing diverse clean energies in electricity generation, adopting advanced technologies and a stable and eco friendly production process. This is done by increasing the ratio of alternative energy powered electricity generation from combining resources available in each country, such as China, Poland, and Thailand, to investment in energy and technology infrastructure in order to focus on investment in clean energy that emit minimal or zero carbon. The benefits from the initiatives with total of 2,814 locations that using solar rooftop electricity generation system can reduce 56,148 tCO_2e of GHG emission.

2) Carbon Footprint of Products and Organization

C.P. Group carefully considers the potential environmental impacts of our products and services on greenhouse gas emissions. In doing so, we evaluate the impact of each product throughout its entire life cycle, starting from raw material sourcing through to transport, production, use, and disposal, by calculating the carbon emissions of the product. Since 2009, there are more than thousand products and services from C.P. Group's subsidiaries that certified Carbon Footprint for Product's label and about 200 products in 2020, over 50 products can reduce their own carbon footprint and certified with Carbon Footprint Reduction Label, and at least 30 organizations were certified with Carbon Footprint for Organization Label from Thailand Greenhouse Gas Management Organization (TGO).

3) Biogas Projects

For over ten years, CPF's one of the Group subsidiaries has been a leader in biogas production technology using swine manure. Apart from helping to reduce the impacts of unpleasant smells on surrounding communities, the technology enables the production of alternative energy for use on farms. It works by collecting waste water, or animal manure, into a waste pool and releasing it into an Anaerobic Covered Lagoon to produce biogas, which is then used as fuel to replace up to 40% of the electricity production on the farm. The success from the Biogas projects has given us valuable knowledge and experience which we have transferred to other farms not only our own operations, but we also expanded the biogas projects to our supply chain and contract farms. Moreover, the biogas project was awarded and certified under the Low Emission Support Scheme (LESS) by the Thailand Greenhouse Gas Management Organization.

4) "We Grow…Growing for Sustainability"

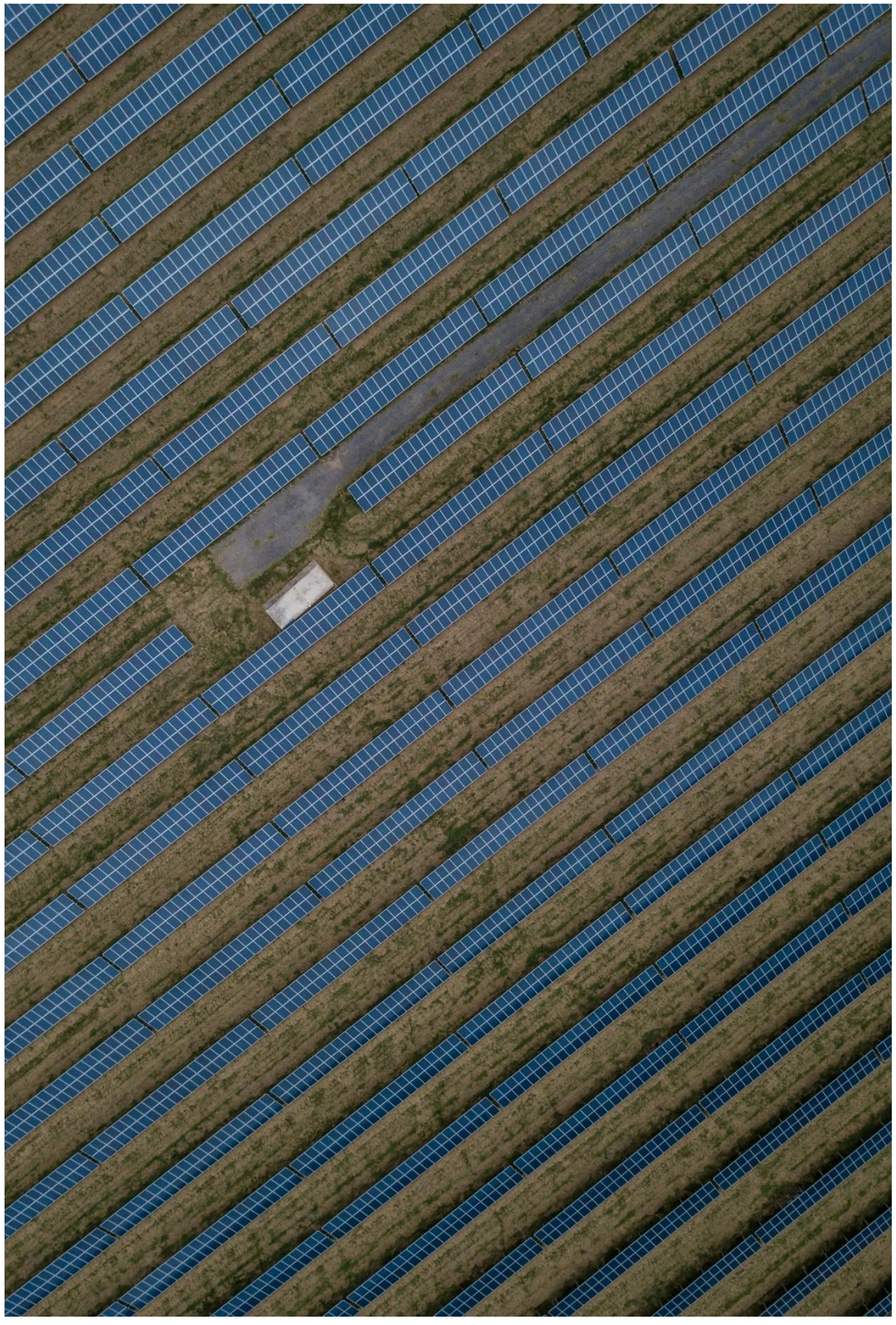
C.P. Group is aware that we must take part in creating sustainability and mitigating impacts from global climate change. Therefore, the Group has promoted perennial planting in Thailand and other countries where we have made investments. The project "We Grow…Growing for Sustainability' established by C.P. Group" all businesses of the organization will aim to grow numerous perennials, increasing green areas throughout Thailand to help absorb greenhouse gases (GHGs). Moreover, the Group will continue to support communities. We also encourage our partners and support community networks in sustainable forest planting, setting the goal to plant over 20,000,000 trees by 2025.

All perennial growth data will be recorded via the innovative "We Grow" mobile application developed by True Corporation Group, to utilize it as a tool to provide a network of support in planting trees for the "We Grow…Growing for Sustainability" project. The mobile application will help record data from planting trees, calculate the amount of carbon dioxide reduction from tree planting as well as enable knowledge exchange on how to plant trees.

In addition, C.P. Group has provided financial support to the Faculty of Forestry at Kasetsart University to be used in the study of establishing a standardized calculation for the value of timber in Thailand based on criteria and indicators. As of 2020, total numbers of trees planted and preserved by the Group are approximately 3,516,055 trees which came from all business units around the world.

More information about C.P. Group's Climate-related Performance Data and GHG data are available in our Sustainability Report and on the Group's website:
https://www.cpgroupglobal.com/homes/SD_Climate-Change-Management.

We Grow Application



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