



MITR PHOL
GROUP

SUSTAINABILITY
REPORT 2023
MITR PHOL GROUP

MITR Beyond

for Sustainable Future



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of Mitr Phol Group

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MITR Beyond

for Sustainable Future

Mitr Phol Group commits to executing a business with social and environmental responsibilities to continuously create empowerment of economic and community. We also place great importance on Circular Economy Concept with the aim to effectively utilize the natural resources and emphasize the upcycling through the use of innovation and technology in order to enable the most efficient use of natural resources, along with balancing environment.

Our goals are in line with and support 12 goals of the 17 United Nations Sustainable Development Goals (UN SDGs), with the emphasis on 3 dimensions; Economic, Social and Environmental.



We believe that the development way with balancing **economic**, **social** and **environment** enables us to grow our business stably and sustainably.



Message from the Chairman of Mitr Phol Group

The climate change crisis continued to impact our world, posing one of the geopolitical threats to the global community. It is thus crucial for the government, the private sector, and civil society to collaborate and timely adapt to these changes. At Mitr Phol Group, we recognize these challenges and are committed to conducting our business in line with the principles of the circular economy within the sustainable development framework. Our business practices are aligned with the United Nations Sustainable Development Goals (UN SDGs), aiming to balance economic growth with social and environmental sustainability.

Simultaneously, we remain committed to empowering farmers by enhancing their knowledge and skills, transforming them into modern farmers who harness technology to enhance efficiency. We disseminate modern farming techniques through the “Mitr Phol ModernFarm” approach and extend this knowledge to the educational sector to prepare future agricultural professionals in Thailand. In addition, Mitr Phol Group is dedicated to adding value to agricultural products by optimizing renewable resources under the “From Waste to Value Creation” concept. We have expanded sugar production and various forms of renewable energy into a bio-based business that transforms agricultural waste into environmentally friendly industries and products while adhering to principles of good corporate governance.

In our environmental efforts, Mitr Phol Group aims to achieve carbon neutrality by 2030 and reach net zero greenhouse gas emissions by 2050. We support efforts to combat climate change both in Thailand and globally and promote sustainable development initiatives among our customers and suppliers. A significant milestone in our journey is the Mitr Phol Dan Chang Complex in Suphan Buri Province, certified by the Thailand Greenhouse Gas Management Organization (Public Organization) as the country’s first Carbon Neutrality Complex. Furthermore, we plan to expand our operations to create an ecosystem conducive to reducing greenhouse gas emissions, encompassing factory operations across the entire supply chain and investments in environmentally friendly businesses.

On this occasion, I would like to express my gratitude to our employees, farmers, customers, suppliers, and business partners for their unwavering support of Mitr Phol Group’s business operations in accordance with the sustainable development framework. We are committed to advancing Thailand’s agricultural sector as a hub for food production, raw materials for bio-based industrial development, and a reliable source of renewable energy. Together, we will strive to thrive, prosper, and create value for a sustainable future.



Mr. Buntoeng Vongkusolkrit

Chairman of Mitr Phol Group



Value Chain

From Waste to Value Creation



Sugarcane Farming Business

- Sugarcane
- Sugarcane leaf

Sugar Business

- Sugar
- Molasses
- Filter Cake
- Bagasse

Power Business

- Biomass Power
- Solar Power
- Carbon Credit
- RECs
- Ash

Biomaterial

Biochemical

Food and Feeds Additive

- Product
- By-product

Fertilizer Business

- Fertilizer

Ethanol Business

- Ethanol
- Vinasse
- Yeast

Wood Substitute Materials Business

- Wood Substitute Materials
- Furniture
- Bark

Skincare and Cosmetic

Functional Ingredients

Biopharma

VISION

To be the world-class sugar and bio-based leader by combining our fully integrated agribusiness model with innovative technology and management talent to create value for sustainable life for all



PHILOSOPHY



STRIVE FOR LEADERSHIP

At Mitr Phol, we aim to produce and offer high quality products for our consumers with the best of our efforts in every process we do



STAND TALL IN FAIRNESS

At Mitr Phol, we conduct our business with utmost integrity and are fair in dealing with our stakeholders, especially our employees, farmers, partners, suppliers, customer and consumers.

BELIEVE IN THE VALUE OF HUMAN DIGNITY

At Mitr Phol, we have a firm conviction that human resources are the most valuable resources of the organization. We take pride in encouraging every team member to gain knowledge and skills in what they do.

It is our commitment to enhance the performance of Mitr Phol Group by combining the individual talents of our human resources.



RESPONSIBLE FOR SOCIETY

At Mitr Phol, we are committed to operate our business under the respected principle of "Grow Together" that emphasizes on social and environmental development no less than business development.



CULTURE

Mastery



- See the big picture, See Through
- Act attentively, Know thoroughly
- Seek for mastery and opportunity always
- Act relentlessly

Innovation



- Think differently, Think creatively
- Get it done
- Instill hyper-collaboration
- Embrace digital to transform

MITR beyond “มิตร” สู่อสิ่งที่ดีกว่า

Trustworthiness



- Adhere to integrity and ethics
- Dare to speak, Tell the truth
- Be held, Accountable for success
- Be humble
- Have the conscience towards society and environment to attaining sustainable growth

Resilience



- Do it now with speed and agility
- Learn fast, Ready to change
- Never give up, Spring back-Move forward
- Fail forward, Improve fast

Awards and Recognitions

Sustainability Awards



Received the S&P Global Corporate Sustainability Assessment (CSA) Score 2023 from S&P Global, with the highest overall score (Top 1%) in the Food Industry Group

▶ Mitr Phol Sugar Corp., Ltd.

Received a Climate Change Assessment from the Climate Disclosure Project (CDP) in 2023 at B level (Management level)

▶ Mitr Phol Sugar Corp., Ltd.

Environmental Awards



ISO 14001:2015 - Environmental management systems standard

- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Mitr Phol Bio-Power (Kuchinarai) Co., Ltd.
- ▶ Panel Plus Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Decor Co., Ltd.
- ▶ Panel Plus Bio-Power Co., Ltd.
- ▶ Panel Plus Co., Ltd (Samutsakorn Branch)
- ▶ Panel Design Lab Co., Ltd.

Green Industry Awards - Level 4 (Green Culture) by the Ministry of Industry.

- ▶ United Farmer and Industry Co., Ltd. (Phu Viang Branch)
- ▶ Maesod Clean Energy Co., Ltd

Green Industry Awards - Level 3 (Green System) by the Ministry of Industry.

- ▶ Mitr Phol Bio-Power (Kuchinarai) Co., Ltd.
- ▶ Mitr Phol Bio-Power (Amnat Charoen) Co., Ltd.
- ▶ Panel Plus Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Plus Bio-Power Co., Ltd.

The Honorary Award for Enterprises Passing the Environmental Governance Assessment by the Ministry of Industry.

- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Mitr Phol Bio-Power Co., Ltd.
- ▶ MP Apcon Operations Co., Ltd.

Standard Criteria Development for Energy, Safety and Environment Award for Biomass VSP by Department of Industrial Works.

- ▶ Power Prospect Co., Ltd.

International Federation of Organic Agriculture Movements (IFOAM) Award by ACT Organic Co., Ltd.

- ▶ Productivity Plus Co., Ltd.

FSC Forest Management certification (FSC-FM) for Forest Management and Products Containing Wood or Other Products Derived from Plantations.

- ▶ Panel Plus Co., Ltd.

Social Awards



Human Rights Award, Outstanding Level 2023, for Large Business Sector by the Rights and Liberties Protection Department.

- ▶ Mitr Phol Sugar Corp., Ltd.

Outstanding Organization Supporting Disability Work for the Year 2023 (Excellent Level) from the Department of Empowerment of Persons with Disabilities, Ministry of Social Development and Human Security.

- ▶ Mitr Phol Sugar Corp., Ltd.

Top Employer Award 2023 in Thailand by the Top Employers Institute in the Netherlands.

- ▶ Mitr Phol Sugar Corp., Ltd.

Ranked 9th in the Top 50 Companies in Thailand Awards 2023 by WorkVenture.

- ▶ Mitr Phol Sugar Corp., Ltd.

Outstanding Labour Relations and Labour Welfare Award by the Department of Labour Protection and Welfare, Ministry of Labour.

- ▶ United Farmer and Industry Co., Ltd. (Phu Khiao Branch)
- ▶ United Farmer and Industry Co., Ltd. (Phu Luang Branch)
- ▶ United Farmer and Industry Co., Ltd. (Phu Viang Branch)
- ▶ Mitr Phol Sugar Corp., Ltd. (Dan Chang Branch)
- ▶ Mitr Phol Sugar Corp., Ltd. (Amnat Charoen Branch)
- ▶ Singburi Sugar Co.,Ltd.
- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)
- ▶ Mitr Phol BioFuel Co., Ltd. (Dan Chang Branch)
- ▶ Mitr Phol BioFuel Co., Ltd. (Phu Khiao Branch)
- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Mitr Phol Bio-Power Co., Ltd. (Phu Khiao Branch)

The Good Labour Practices (GLP) Award for the Year 2023 from the Department of Labour Protection and Welfare.

- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)

The self-declaration of compliance with the Thai Labour Standard (TLS 8001:2563) at the basic level for the years 2024 – 2025 by the Labour Standards Development Bureau, Ministry of Labour.

- ▶ Singburi Sugar Co.,Ltd.

The Outstanding Workplace for Safety, Occupational Health, and Working Environment Award from the Department of Labour Protection and Welfare.

- ▶ Mitr Phol BioFuel Co., Ltd. (Phu Khiao Branch)
- ▶ MP Apcon Operations Co., Ltd.
- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)
- ▶ Mitr Phol BioFuel (Kuchinarai) Co., Ltd.

The “Zero Accident Campaign Bronze Award for 2023” from Thailand Institute of Occupational Safety and Health (Public Organization).

- ▶ United Farmer and Industry Co., Ltd. (Phu Luang Branch)
- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)
- ▶ Mitr Phol BioFuel (Kuchinarai) Co., Ltd.

The Outstanding Model Establishment in Safety, Occupational Health, and Working Environment (National Level) for the 2nd Year from the Department of Labour Protection and Welfare.

- ▶ United Farmer and Industry Co., Ltd. (Phu Luang Branch)

The Model Organization in Workplace Wellness Award” from the Department of Labour Protection and Welfare in collaboration with the Thai Health Promotion Foundation (ThaiHealth).

- ▶ Panel Plus Co., Ltd.

Award for an Establishment Disease-Free, Safe, and Healthy Workplace, National Level: Gold Shield Category from the Bureau of Occupational and Environmental Diseases, Department of Disease Control, Ministry of Public Health.

- ▶ Mitr Kalasin Sugar Co., Ltd.
- ▶ Mitr Phol Sugar Corp., Ltd. (Amnat Charoen Branch)

Model Organization for Road Safety Award from the Thai Health Promotion Foundation (ThaiHealth) in collaboration with the Road Safety Network and the Provincial Road Accident Prevention Support Program (PARAPP).

- ▶ Mitr Kalasin Sugar Co., Ltd.

Honorary Award for Establishments Committed to Ensuring Road Safety for Employees in 2023 from the Thai Health Promotion Foundation (ThaiHealth).

- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)

The Gold Level Evaluation of Occupational Health and Safety Programs from the Occupational Medicine Unit, Mae Sot Hospital, Ministry of Public Health.

- ▶ Maesod Clean Energy Co., Ltd

Model Establishment Award "Good Labour Project under the Sufficient Economy Approach" 2023 by Ministry of Labour.

- ▶ United Farmer and Industry Co., Ltd. (Phu Viang Branch)

Certificate of Appreciation for Supporting Road Accident Prevention and Reduction Efforts during the New Year Festival 2023 from the Kalasin Provincial Road Safety Operations Center.

- ▶ Mitr Phol BioFuel (Kuchinarai) Co., Ltd.
- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)

ISO 45001:2018 - Occupational health and safety management systems standard.

- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Productivity Plus Co., Ltd.
- ▶ Panel Plus Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Decor Co., Ltd.
- ▶ Panel Plus Bio-Power Co., Ltd.
- ▶ Panel Plus Co., Ltd (Samutsakorn Branch)
- ▶ Panel Design Lab Co., Ltd.

CSR-DIW Award for Promoting Sustainable Corporate Social Responsibility in Industrial Factories from the Department of Industrial Works.

- ▶ Mitr Phol Sugar Corp., Ltd.
- ▶ Mitr Kalasin Sugar Co., Ltd.
- ▶ United Farmer and Industry Co., Ltd. (Phu Luang Branch)

CSR-DIW Continuous Award for Promoting Sustainable Corporate Social Responsibility in Industrial Factories for 2023 from the Department of Industrial Works.

- ▶ Mitrphol Sugar (Amnat Charoen) Co., Ltd.
- ▶ Panel Plus Co., Ltd

Wellness Center Standard Award for Health Promotion in the Workplace from the Department of Thai Traditional and Alternative Medicine, Ministry of Public Health.

- ▶ Ratchasima Green Starch Co., Ltd.

Certificate of Honor for Effective Labor Management System During the COVID-19 Pandemic in 2023.

- ▶ Mitr phol BioFuel Co., Ltd. (Dan Chang Branch)

Outstanding Partner Network Organization Honor Award.

- ▶ MP Apcon Operations Co., Ltd.

Standards for Drug Prevention and Problem Resolution in the Workplace from the Department of Labour Protection and Welfare.

- ▶ Singburi Sugar Co.,Ltd.
- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Mitr Phol Bio-Power Co., Ltd.

Smoke-Free Workplace Award from the Thai Health Promotion Foundation (ThaiHealth).

- ▶ Mitr Phol BioFuel Co., Ltd. (Dan Chang Branch)
- ▶ Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)
- ▶ Maesod Clean Energy Co., Ltd
- ▶ Ratchasima Green Starch Co., Ltd.
- ▶ Mitr Kalasin Sugar Co., Ltd.

To Be Number One Model Establishment Award for 2022, Northeastern Region.

- ▶ Mitr Kalasin Sugar Co., Ltd.
- ▶ Governance and Economic Awards

Governance and Economic Awards



ISO 9001:2015 - Quality management systems standard.

- ▶ Mitr Phol Bio-Power (Dan Chang) Co., Ltd.
- ▶ Ratchasima Green Starch Co., Ltd.
- ▶ Productivity Plus Co., Ltd.
- ▶ Panel Plus Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Plus MDF Co., Ltd.
- ▶ Panel Decor Co., Ltd.
- ▶ Panel Plus Bio-Power Co., Ltd.
- ▶ Panel Plus Co., Ltd (Samutsakorn Branch)
- ▶ Panel Design Lab Co., Ltd.

ISO 9001: 2018 - Quality Management Audit Standard

- ▶ Ratchasima Green Starch Co., Ltd.

ISO 22000 - Food safety management Standard

- ▶ Ratchasima Green Starch Co., Ltd.

KOSHER Certificate 2023

- ▶ Mitr phol BioFuel Co., Ltd. (Dan Chang Branch)

Food Safety System Certification - FSSC 22000 for the year 2022 by SGS United Kingdom Ltd.

- ▶ Ratchasima Green Starch Co., Ltd.

Good Hygiene Practices (GHPs) Standard for 2022

- ▶ Ratchasima Green Starch Co., Ltd.

HALAL Certificate

- ▶ Ratchasima Green Starch Co., Ltd.

TAS 9024-2007 HACCP Codex Alimentarius 2022 by SGS United Kingdom Ltd.

- ▶ Ratchasima Green Starch Co., Ltd.

KOSHER Certificate

- ▶ Ratchasima Green Starch Co., Ltd.

Outstanding Sugar Factory Award from the Office of the Cane and Sugar Board.

- ▶ Mitr Phol Sugar Corp., Ltd.
- ▶ United Farmer and Industry Co., Ltd. (Phu Viang Branch)
- ▶ United Farmer and Industry Co., Ltd. (Phu Khiao Branch)
- ▶ United Farmer and Industry Co., Ltd. (Phu Luang Branch)
- ▶ Mitr Kalasin Sugar Co., Ltd.
- ▶ Mitr Phol Sugar Corp., Ltd. (Amnat Charoen Branch)
- ▶ Singburi Sugar Co.,Ltd.



About Mitr Phol Group

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024 Mitr Phol Sustainable
Development



“Strive for excellence that creates sustainable value for all involved while laying great emphasis on social and environmental development.”



Chapter

1

About Mitr Phol





Mitr Phol Group is committed to conduct business with responsibility to the society and environment under the concept “From Waste to Value Creation” which covers the entire value chain. Our goal is to optimize the resource management to achieve utmost benefits, to lessen the amount of waste while adding value to the waste generated from production process. Mitr Phol Group applies digital innovation and technology to deliver the products of a fine quality that meet international standard, and to minimize the greenhouse gas emission which is the primary cause of the climate changes nowadays.

In 2023, Mitr Phol Group has become the world’s 3rd largest sugar producer and number 1 of Thailand. Such achievement demonstrates our success in becoming a leader in sugarcane and sugar industry in contribution to the trust from customers and consumers in Thailand and overseas. At present, Mitr Phol Group operates 7 business types which are Sugarcane Farming, Sugar, Energy, Wood Substitute Materials Business, Fertilizer, Logistics and Warehouse and other business.

Production Volume in Thailand and Overseas



Thailand

 SUGAR Sugar Business	Raw Sugar	Refined Sugar*	Syrup and Other Sugar Products
	0.34M tons	1.64M tons	1.04M tons
 Energy Business	Biomass Power	Steam	Solar Power
	3.23M MWh	19.51M tons	50.47M MWh
	Ethanol	Animal Feed	
363.87M liters	9,498 tons		

For more information, please visit [“Our Business”](#)



Wood Substitute Materials Business

MDF Wood

0.52M m³

Melamine Faced MDF

55,582 m³

Particleboard

0.28M m³

Melamine Faced Particleboard

0.16M m³

Melamine Faced Paper

27.57M m²



Fertilizer Business

Fertilizer Pellets

0.12M tons

Liquid Fertilizer

64,000 m³

Powder Fertilizer

495 tons

Soil Conditioner

34 tons

Original Equipment Manufacturer (OEM) Fertilizer

25,805 tons



Others Business

Tapioca Flour

81,622 tons

Fructo Oligosaccharide (FOS) and Total Invert Sugar (TIS)

218 tons

Mineral Water

1,966 m³



People's Republic of China



Sugar Business

Raw Sugar

0.40M tons

Refined Sugar

0.56M tons

Biomass Power

0.26M MWh

Steam

1.85M tons



Energy Business

Biomass Power

0.37M MWh

Steam

2.08M tons



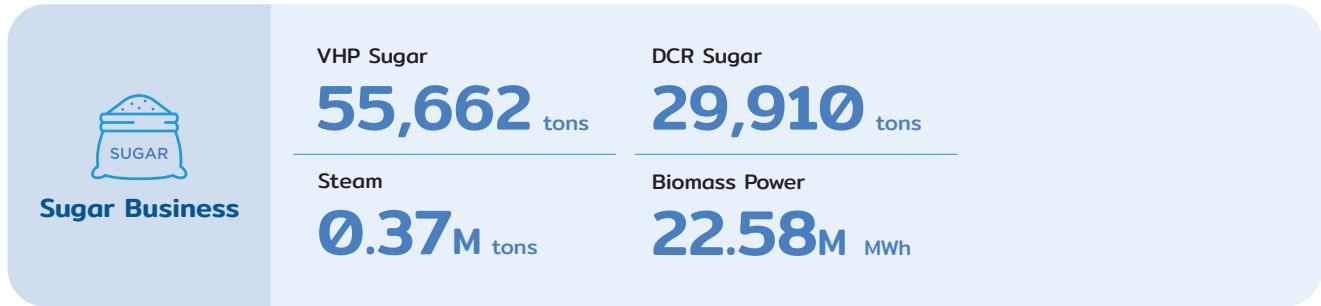
Fertilizer Business

Fertilizer

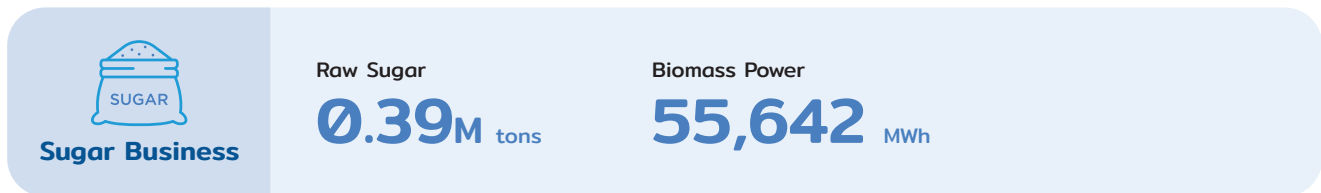
101,644 tons



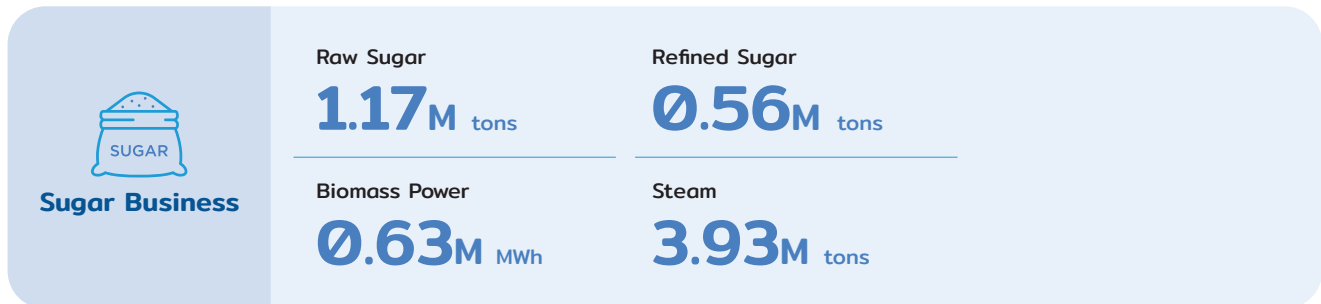
Lao People's Democratic Republic



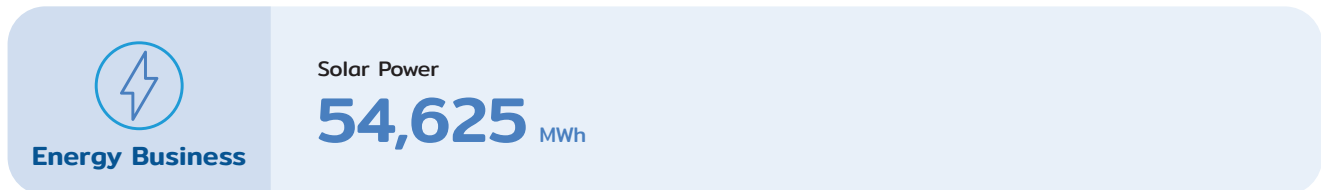

Australia




Indonesia




Taiwan (Republic of China)



Remark :

* Refined sugar is white sugar, refined sugar, and super refined sugar.

VHP Sugar is an abbreviation of Very High Polarized Raw Sugar – the raw sugar with minimum sweetness 99.4%

DCR is an abbreviation of Direct Consumption Raw Sugar – the edible sugar without refining process

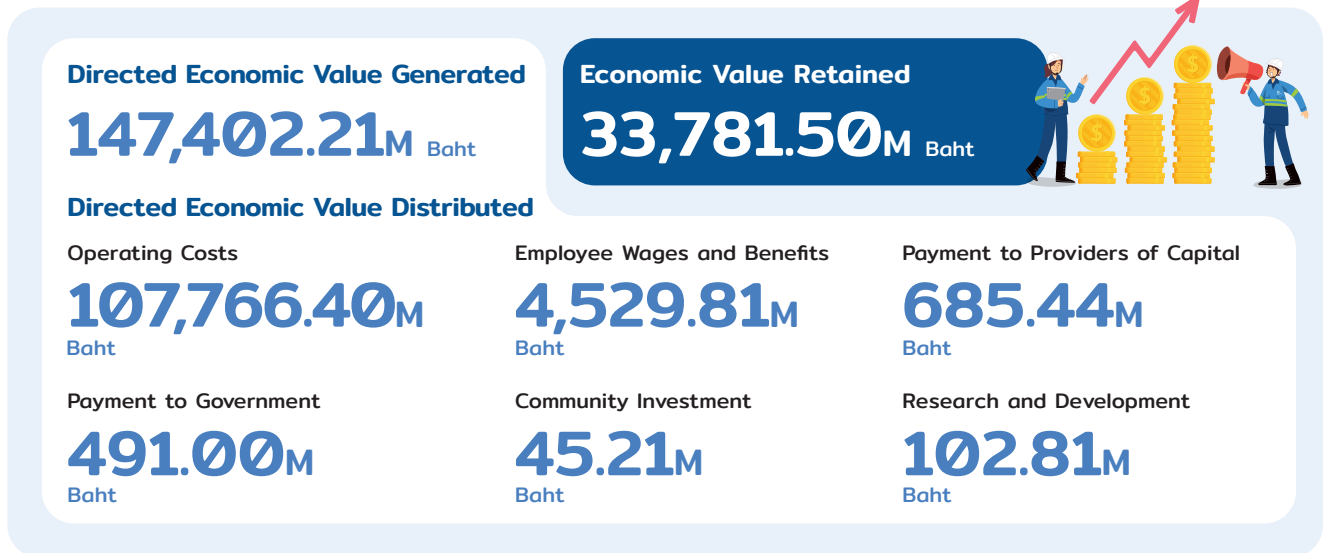
Operation for Logistics and Warehouse Business Classified within Thailand

Services	Details	Company			
		United Standard Terminal	Mitr Phol Warehouse	Aaw Thai Warehouses	Productivity Silo
Goods Receipt and Dispatch Service	Goods receipt capacity–bulk cargo (ton/hour)	350	-	600	-
	Goods receipt capacity–bags (ton/12 hours)	125	-	2000	-
	Goods dispatch capacity–bulk cargo (ton/hour)	330	-	800	-
	Goods dispatch capacity–bags (ton cranes/12 hours)	1,000	-	1,000	-
	Container capacity (minutes/TEUs)	30-40	-	25	-
Port Terminal Services	Number of terminals (ports)	1		1	-
	Port width (meters)	266		350	-
	Port depth (meters)	9		14	-
	Deadweight tonnage (DWT)	25,000		60,000	-
Goods Storage Service	Number of warehouses (warehouse)	13	5	12	1
	Warehouse storage capacity (m ²)	13	5	12	2
	Storage for liquids/fertilizer (tanks)	45,384	17,769	110,214	12,150
	Storage for liquids (metric tons)	3	8	2	-
	Warehouse storage capacity (Outside area) (m ²)	21,618	23,904	24,000	-
Free Space	Free space (m ²)	41,416	17,463	2,500	7,500

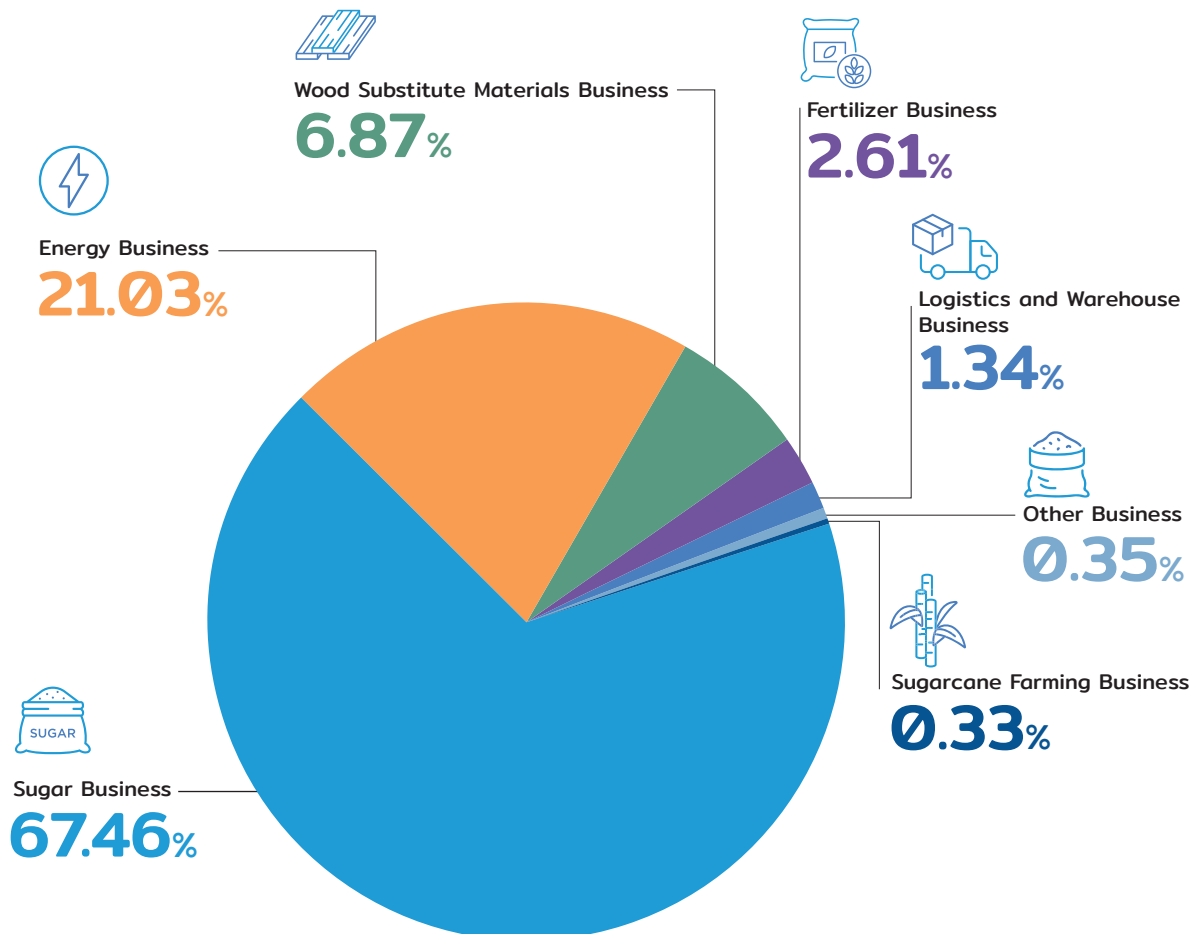


Economic Achievement

Mitr Phol Group's key business performance figures for 2023 are shown in the table below:



Sales Revenue by Business Unit



Mitr Phol's Taxation Management

Mitr Phol believes that operating a business with good governance and transparency helps to bring about sustainable business growth and national progress. As such, the Company ensures appropriate tax management, realizing that having such a policy is socially responsible and integral in promoting sustainable economic growth and national development. Wherever we operate our business, we are fully compliant with local tax laws and regulations, and are committed to being socially responsible and playing our part in bringing about progress. The Company also provides channels for grievances and suggestions regarding tax issues. Full tax disclosures are included in the financial statements of sugar companies and our subsidiaries.

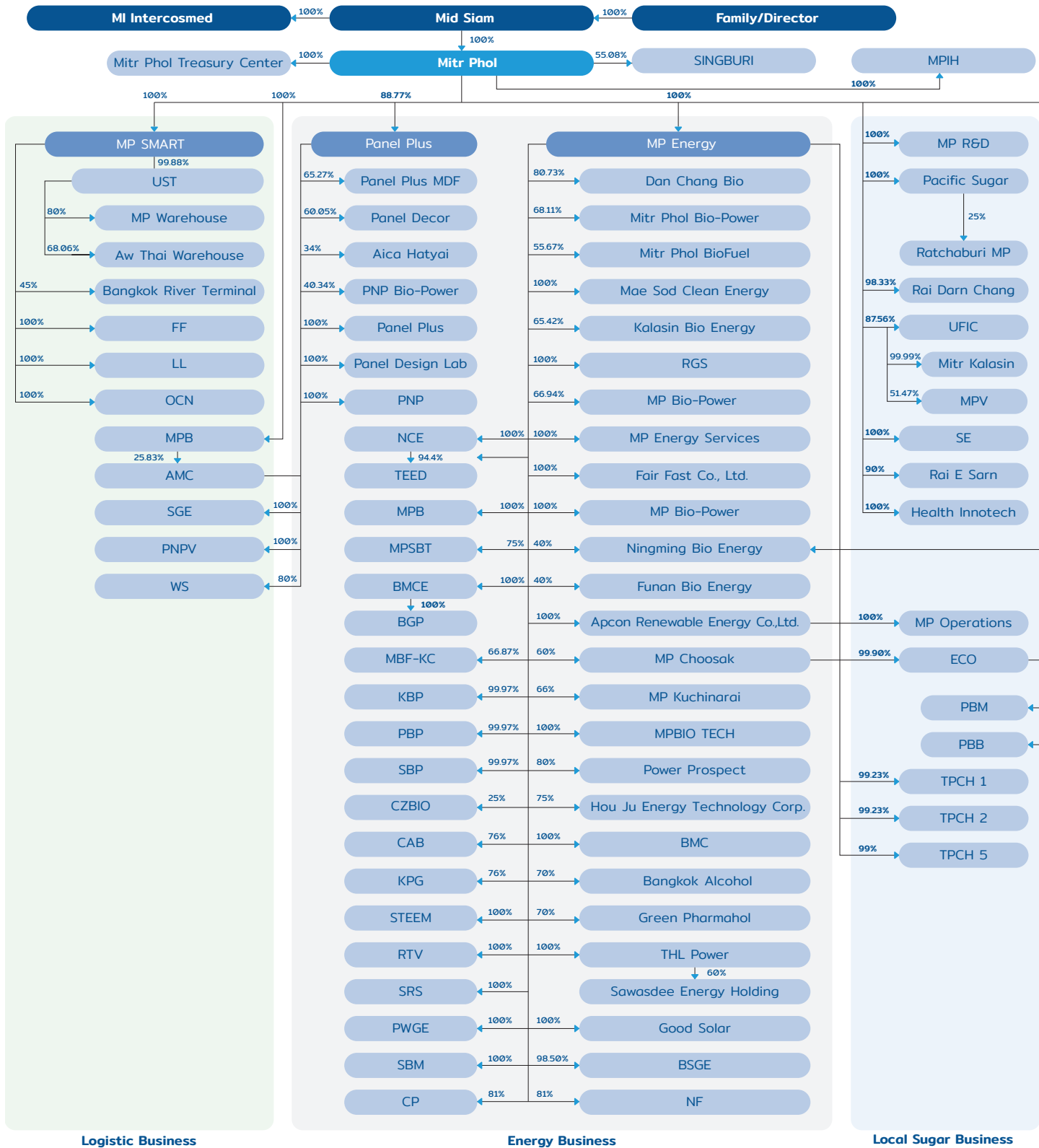
Mitr Phol has a tax planning and accounting department whose responsibilities include ensuring full compliance with government agencies and regulators. Tax advisors and regular training for relevant employees ensure tax competencies, skills, and knowledge so we can manage taxes with the highest level of efficiency.

Additionally, the Company also has processes in place to manage tax risk and internal audits to mitigate any risk relating to taxes that could arise. Regular monitoring against KPIs ensures optimal efficiency. The Senior Executive Vice President Finance and Acting Chief Operations Officer Administrative group is responsible for overseeing Mitr Phol's tax strategy and policy together with external experts to ensure full legal compliance with tax-related laws and regulations.

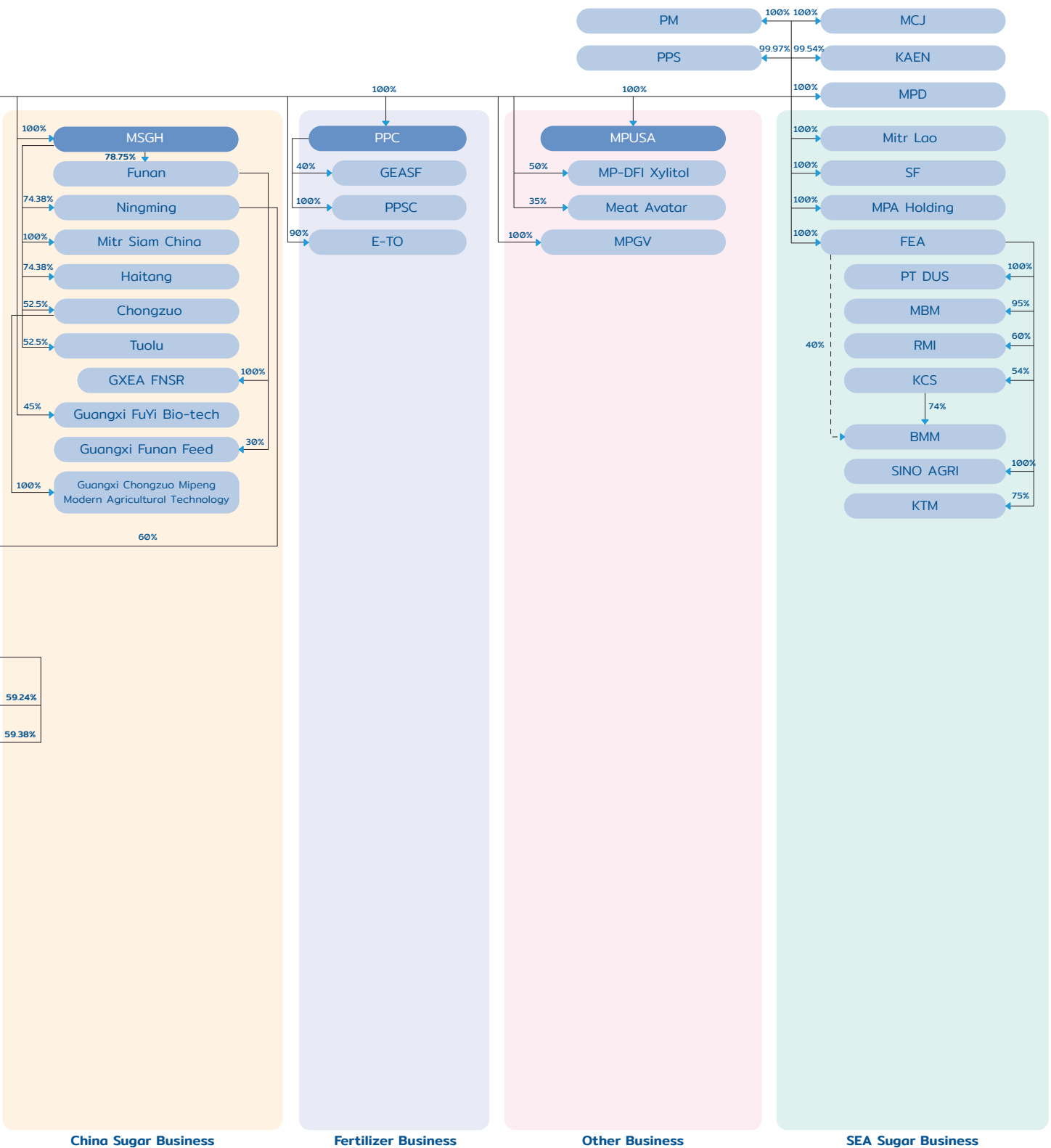
Mitr Phol has good tax management practices and pays all relevant taxes, namely corporate income tax, withholding tax, specific business tax, stamp duties and other taxes including indirect taxes such as excise and value added taxes. Corporate income taxes are disclosed by country of operation and at actual rates through Mitr Phol Tax reporting, that shown on website.



Shareholding Structure



As of October 31st, 2023, Mitr Phol Sugar Corp., Ltd. is registered as a Company limited, with business registration number 0105518011759. The headquarters is located at 2 Ploenchit Center Building, 3rd Floor, Sukhumvit Road, Klong Toei, Bangkok 10110, Tel: +66 2794 1000, Fax: +66 2656 8494, Website: <http://www.mitrphol.com>



Mitr Phol Group has no shareholders who are government, with Mid Siam Sugar Co., Ltd. holds 47,779,994 shares out of 47,780,000 shares which is 99.99 % of Mittr Phol Sugar Corp., Ltd. Mid Siam Sugar Co., Ltd. has total share of major shareholders is 20.65%:

- ▶ Mr. Soonthorn Vongkusolkrit Honorary Chairman of Mittr Phol Group
- ▶ Mr. Isara Vongkusolkrit Honorary Chairman of Mittr Phol Group
- ▶ Mr. Kamol Vongkusolkrit Honorary Advisor of Mittr Phol Group

Chapter

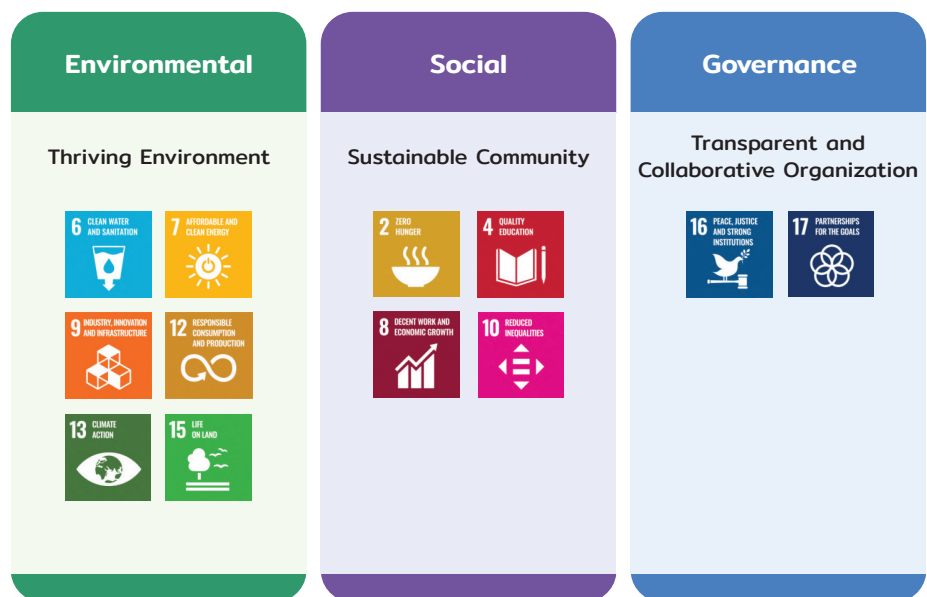
2

Mitr Phol Sustainable Development



Mitr Phol Sustainable Development Policy

Mitr Phol’s business operations adhere to the “Grow Together” sustainability philosophy, encompassing environmental, social, and governance dimensions. The Board of Directors approved and announced the Sustainable Development Policy, which is annually reviewed for its clarity, currentness, and alignment with international sustainability principles and the UN’s Sustainable Development Goals, ensuring all businesses put them into practice.





Sustainable Development Policy

Environmental

- Commit to achieving Net Zero greenhouse gas emissions across the entire Mitr Phol Group value chain by 2050.
- Promote the generation, consumption, and accessibility of renewable energy within the organization to mitigate the impacts of climate change.
- Commit to integrated water resource management to optimize water use in agriculture and manufacturing and prioritize implementing wastewater treatment processes to ensure water is reusable or safe for discharge into natural water sources.
- Focus on environmentally friendly production and consumption management, including efficient use of natural resources through innovative operations under the "From Waste to Value" concept. This includes implementing efficient waste management processes to minimize environmental and biodiversity impacts.
- Commit to promoting and enhancing biodiversity through planting, protecting, reducing, restoring, and conserving forests and modern farming.

Social

- Promote food security for farmers to support sustainable livelihoods.
- Improve the quality of education to promote social equity through various Mitr Phol initiatives.
- Create jobs, opportunities, and valuable income for local people and communities.
- Respect human rights, enhance knowledge and skills, and ensure fair and equal treatment of employees.

Governance

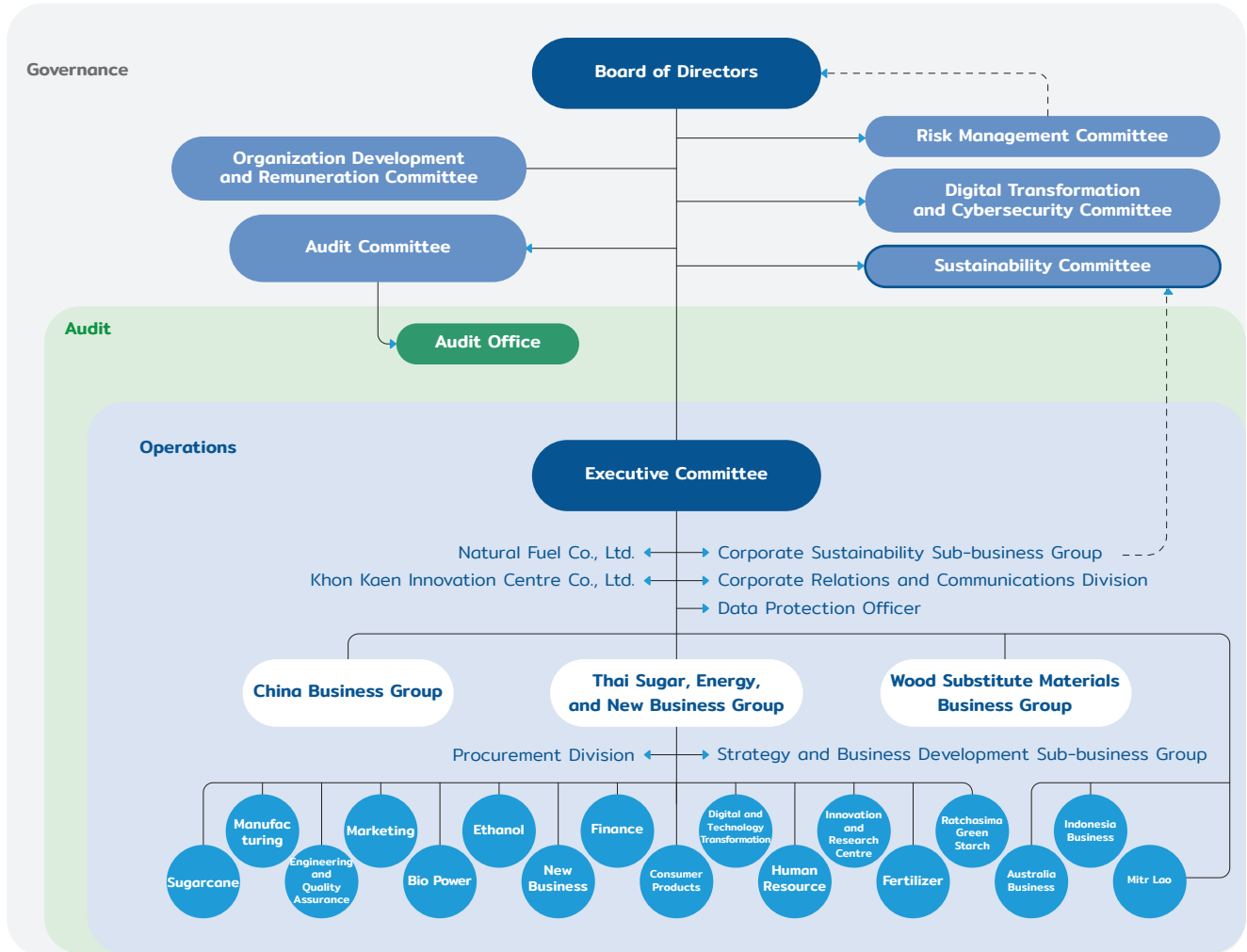
- Emphasize risk management, good corporate governance, and strict legal compliance in all dimensions to ensure transparent business operations.
- Commit to promoting and serving as a key mechanism for driving cooperation among the private sector, government, and civil society to achieve national goals and policies for community, social, and national development, with a focus on social equity.

Sustainability Management Structure

Mitr Phol has established a sustainability management structure, and the Board of Directors has appointed a Sustainability Committee to oversee sustainable development operations. The Sustainability Committee meets quarterly and has the following roles and responsibilities:

1. Establish policies, goals, and strategies and consider risks and opportunities across environmental, social, and governance dimensions to ensure proper alignment with business goals and strategies, laws, international best practices, and national and global sustainability trends.
2. Consider, support, and review operational guidelines, including providing feedback on integrating environmental, social, and governance into business processes and objectives.
3. Promote, advise, and support the implementation of environmental, social, and governance strategies across the organization and ensure continuous development.

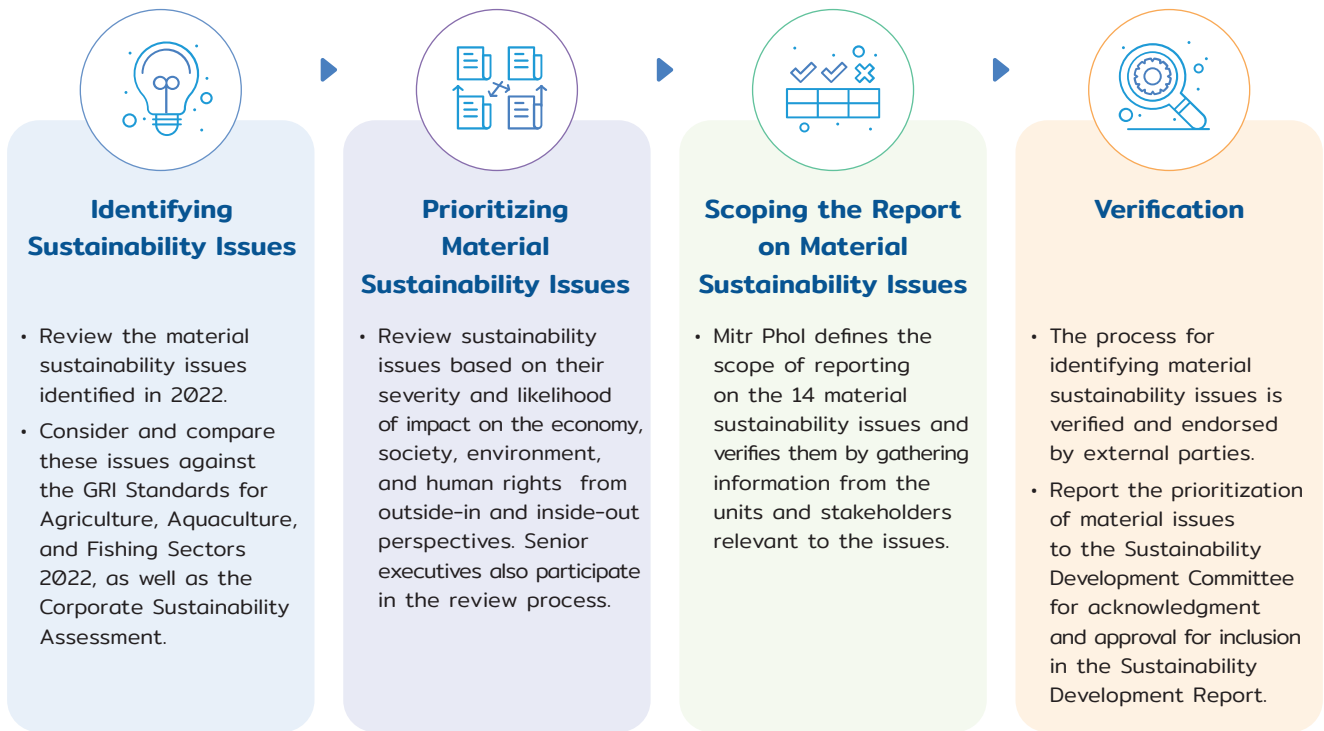
The Corporate Sustainability Department, under the Corporate Sustainability Division, is responsible for promoting, supporting, and collaborating with other departments across Mitr Phol’s businesses. Its aim is to align operations with the guidelines set by the Board of Directors to achieve goals and meet the needs of all stakeholders.



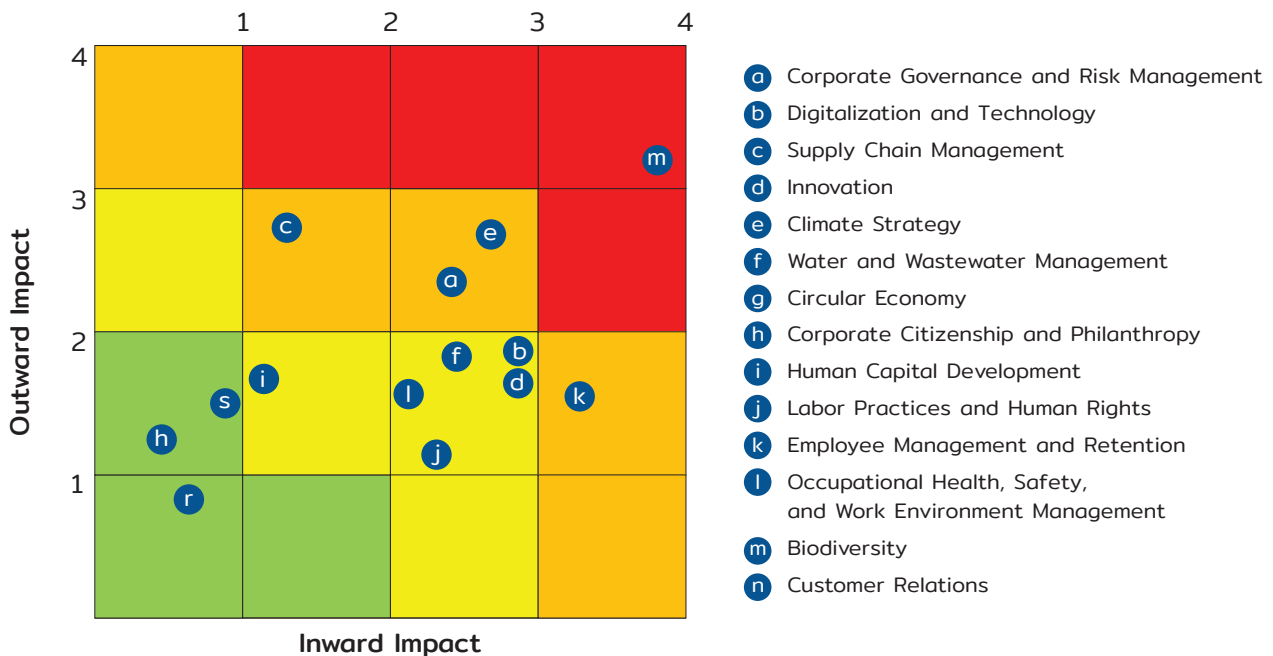
Identifying Material Sustainability Issues

Mitr Phol annually assesses material sustainability issues using the double materiality principle. It considers the likelihood and severity of impacts on the economy, society, the environment, and human rights arising from Mitr Phol’s business activities and relationships, considering current and future impacts. The assessment includes both the outside-in perspective, which considers the impacts on the Company, such as impacts on the image, reputation, market positioning, and value creation, and the inside-out perspective, which focuses on the impact on external stakeholders. Once collected and prioritized, Mitr Phol’s material sustainability issues are




considered and compared against the GRI Standards: Agriculture, Aquaculture, and Fishing Sectors 2022, as well as the Company’s material sustainability issues from 2022. The materiality assessment process engages stakeholders, including shareholders, farmers, communities, suppliers, customers and consumers, employees, and the government and civil society sectors, by seeking input through questionnaires, interviews, and secondary data analysis. Their opinions are then ranked and used to develop operational guidelines that appropriately address stakeholder needs.



Material Sustainability Issues







Disclosure of Material Sustainability Issues



Sustainability Issue and Impact Level	Issues Disclosed in This Report	Sustainable Development Goals
a. Corporate Governance and Risk Management	Corporate Governance and Business Ethics Risk management	 
b. Digitalization and Technology	Information and Data Security	
c. Supply Chain Management	Supply Chain Management	 
d. Innovation	Farm and On-farm Water Management	
e. Climate Strategy	Climate Change Management Energy Management Farm and On-farm Water Management	  
f. Water and Wastewater Management	Industrial Environmental Management Farm and On-farm Water Management	   
h. Circular Economy	Industrial Environmental Management Food Loss and Food Waste Management Packaging	 
i. Corporate Citizenship and Philanthropy	Society and Community	   
j. Human Capital Development	Employee Management	  
k. Labor Practices and Human Rights	Human Rights	  
l. Employee Management and Retention	Employee Management	  
m. Occupational Health, Safety, and Work Environment Management	Management of Security, Safety, Occupational Health and Work Environment	
r. Biodiversity	Biodiversity Management	 
s. Customer Relations	Customers and Consumers	 

Stakeholder Engagement

Mitr Phol assesses and identifies stakeholder groups by analyzing the impact of its business on stakeholders throughout the supply chain, covering environmental, social, and governance dimensions and the influence of stakeholders on Mitr Phol’s operations. The stakeholder groups include shareholders, farmers, communities, suppliers, customers and consumers, employees, and government and civil society sectors. Mitr Phol has established engagement processes through relevant units to understand the stakeholder expectations and concerns in various ways, as follows:

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Shareholders 	1. Organize the Annual General Meeting of Shareholders to communicate information to shareholders and investors.	Annually	<ol style="list-style-type: none"> 1. Establish directions, strategies, and policies for business operations that align with shareholders’ expectations, leading to sustainable and balanced growth with prudent risk management and environmental and social responsibility. 2. Treat shareholders fairly and equitably by sending out invitations to the general meeting in advance and setting the date, time, and location considering shareholders’ convenience. Allow shareholders to express opinions, vote, participate in decision-making, and approve various agendas. 3. Ensure transparent management and good governance. 4. Provide shareholders with sufficient, complete, and highly useful information. 	<ul style="list-style-type: none"> • Please refer to all chapters of the 2023 Sustainability Report.
	2. Performance information is reported through annual reports or sustainability reports.	Annually		
Farmers 	1. Mitr Phol ModernFarm Magazine	Quarterly	<ol style="list-style-type: none"> 1. Receive updates on the Company’s activities with sugarcane farmers, including knowledge and techniques for managing sugarcane farms to improve product quality and increase yield. 2. The Company and the government invest in irrigation infrastructure for sugarcane farms. 3. Access to financing or low-interest loans for farming. 4. High and fair purchase prices for sugarcane produce. 	For further details, please refer to the following chapters: <ul style="list-style-type: none"> • Supply Chain Management • Farm and On-Farm Water Management • Human Rights
	2. Meeting with sugarcane farmers in promotion areas	Monthly		
Communities 	1. Community survey during the sugarcane crushing season	Weekly	<ol style="list-style-type: none"> 1. Accurate and reliable information about factory operations. 2. Receive continuous updates on measures and performance regarding the reduction of environmental impacts. 3. Communication of community concerns regarding the impacts of the factory. 4. Job opportunities in the factory. 5. Support for knowledge, resources, and educational opportunities to improve the quality of life and capacity of communities in various areas. 6. Participation of all sectors in the development, correction, improvement, and management of public benefits, resources, and the environment in the community for mutual growth of the community and factory. 7. Proposal of a quality of life improvement plan, development of farming skills, building a food base, and other professions to enhance household potential and quality of life. 8. Proposal for support from factories or Chai Fah Foundation. 	For further details, please refer to the following chapters: <ul style="list-style-type: none"> • Society and Community • Human Rights • Industrial Environmental Management
	2. Community engagement dialogue	Throughout the crushing season		
	3. Visit to the environmental quality assessment checkpoint	Biannually		
	4. Meeting of the Tripartite Committee on local environmental protection	Biannually		
	5. Coffee table talk	Annually		
	6. Mitr Phol Open House	Annually		
	7. Meeting with the village committee	Monthly		
	8. Meeting with sub-district and district-level government offices	Biannually		
	9. Join the survey of the areas affected by the business.	Immediately		
	10. Meeting of Mitr Phol Community Development Committee	Monthly		
	11. Meeting of sub-district-level network leaders of the Mitr Phol Community Development Committee	Biannually		

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Suppliers 	1. Visit and inspect suppliers' facilities involved in food-contact materials, such as packaging and chemicals used in the production process.	Annually	<ol style="list-style-type: none"> Understand ISO9001, GMP, HACCP, FSSC, and GHP international standards for food-contact suppliers. Be familiar with the food quality and safety policy, including the steps, criteria, and methods for quality control of Mitr Phol Group's products. Understand guidelines for transitioning to sustainable procurement. Know current policies and guidelines, how to use the procurement system, and how to exchange opinions and suggestions. Maintain good relationships to work efficiently and with satisfaction. Reduce Non Conformance Reports and develop mutually sustainable businesses. Receive updates from Mitr Phol Group's procurement. Check purchase orders and order status and immediately change supplier information via Mitr Phol Group's procurement system (MPS on the web) for quicker and more efficient management. Access the MPS system to be instantly notified of NCRs, making the process more convenient and faster. Be a high-potential partner and become a business alliance with Mitr Phol Group to increase sales. Know the Supplier Code of Conduct and guidelines for conducting business with Mitr Phol Group. 	<p>For further details, please refer to the following chapters:</p> <ul style="list-style-type: none"> Supply Chain Management Management of Security, Safety, Occupational Health and Work Environment Human Rights Food Loss and Food Waste Management
	2. Annual supplier seminar	Annually		
	3. The Approved Vendor List (AVL) is managed through the Mitr Phol Procurement System (MPS).	Annually		
	4. Mitr Phol Supplier Code of Conduct	Annually		
	5. Schedule a meeting to discuss plans with potential suppliers to draft annual contracts for the Mitr Phol Group.	Annually		
	6. Mitr Phol Open House	Annually		
Customers and Consumers 	1. Complaint Handling Center	Daily	<ol style="list-style-type: none"> Provide high-quality products and services that are safe for health, reasonably priced, and easily accessible, with sufficient and reliable allocation of sugar. Benefit from a variety of products that meet their needs, including items that align with health trends and Net Zero initiatives. The Company is committed to sustainability regarding climate change and human rights. Comprehensive standard certifications are available on product labels, allowing customers to verify and claim when necessary, including traceability. Have quick access to submit complaints and grievances regarding product issues. Obtain useful information for planning sugar usage and purchases, such as domestic and international sugar price trends, government announcements regarding sugar products, annual forecasts for sugarcane and sugar quantities, promotional activities, and related press releases. 	<ul style="list-style-type: none"> Please refer to all chapters of the 2023 Sustainability Report.
	2. Customer satisfaction survey	Annually		
	3. Online channels such as LINE Official Mitr Phol Sugar and Facebook Official Mitr Phol Sugar	Daily		
	4. Training programs/Seminars	Annually		

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Employees 	1. Employee Engagement Survey Questionnaire	Biannually	<ol style="list-style-type: none"> 1. Effective access to information and updates about the Company. 2. Sufficient and appropriate operational resources. 3. Opportunity to participate in setting work objectives that reflect and align with the Company's goals. 4. Receive advice, consultation, and performance feedback to enhance work and skills development. 5. Receive praise and appreciation for good performance. 6. Fair performance appraisals and opportunities for career advancement. 7. Transparent and accountable work processes. 8. Equal treatment and non-discrimination, along with respect, acceptance, and participation in the workplace. 9. Promoting learning and skills development, and providing space and opportunities to showcase talents. 10. Promoting safety, occupational health, and well-being at work. 11. Allocation of reasonable remuneration according to position and responsibilities, along with good welfare benefits. 	<p>For further details, please refer to the following chapters:</p> <ul style="list-style-type: none"> • Employee Management • Management of Security, Safety, Occupational Health and Work Environment • Human Rights
	2. Town Hall Activity	Biannually		
	3. Communication through various channels and internal online platforms such as Employees News and HR Internal PR	All the time		
	4. Performance Assessment	Biannually		
The Government and Civil Sectors 	1. Meet with and visit relevant government agencies and civil society organizations.	Monthly	<ol style="list-style-type: none"> 1. Attending activities organized by government agencies and civil society organizations. 2. Legal compliance. 3. Maintaining transparency in business operations. 4. Be socially and environmentally responsible in business conduct. 5. Collaboration in addressing various issues to create sustainability in business operations. 6. Ensuring transparency in business operations and human rights performance, and good environmental management. 	<ul style="list-style-type: none"> • Please refer to all chapters of the 2023 Sustainability Report.
	2. Cooperate with the government sector and civil society organizations.	All the time		
	3. Communicate through public forums or seminars organized by international organizations.	All the time		
	4. Communicate through annual sustainability reports on issues of interest to international organizations, such as human rights and the fight against child labor.	Annually		

Supporting the Operations and Being a Member of Organizations

Mitr Phol places great importance on building networks and establishing key partnerships for sustainable development to foster collaboration between organizations in driving national development. The Company ensures that its partners' operations align with Mitr Phol's sustainability policies, aiming to achieve business goals while maximizing benefits for all stakeholders.

The Company has become a member of organizations or agencies related to sustainable development, in alignment with Mitr Phol's business strategy, with 2 important objectives:

1. To develop the sugarcane, sugar, and bio-energy industries in Thailand, the Company collaborates with trade associations, government agencies, sugarcane farmers, and the private sector to regulate these industries, ensuring both supply and price stability. It emphasizes maintaining a fair benefit-sharing system between sugarcane farmers and sugar mills, exploring opportunities in biomass power and ethanol businesses, and ensuring job security for sugarcane farmers. As a result, the Company benefits from a stable supply chain. In 2023, Mitr Phol contributed a total of 11.34 million baht, accounting for 64.99% of the total grant budget.
2. To drive Thailand's sustainable development, Mitr Phol has joined various associations and institutions and appointed representatives to serve as committee members. This involvement aims to promote Thailand's development across economic, social, and environmental dimensions, including respect for human rights and climate action. The Company has also participated in various projects supporting Thailand's GHG reduction targets. This aligns with Mitr Phol's business philosophy of "Grow Together," which emphasizes creating business growth alongside community and environmental development and driving the achievement of the Company's net zero goal. In 2023, Mitr Phol contributed a total of 6.11 million baht, accounting for 35.01% of the total grant budget.

Grant Budget and Membership Fees by Activity

Activity	Amount (Million Baht)			
	2020	2021	2022	2023
Lobbying	0	0	0	0
Political contributions at both local and national levels	0	0	0	0
Membership fees for trade associations or tax-exempt organizations	753	742	793	1745
Others (e.g., expenses related to voting or referendums)	0	0	0	0
Total Grant Budget and Other Expenses	753	742	793	1745

Top 3 Grant Budget and Membership Fee Contributions

Thai Sugar Miller Corporation Limited

Type of Organization	Trade Association
Objective	<p>Thai Sugar Miller Corporation Limited was established by 3 sugar mill associations: the Thai Sugar and Bio-Energy Producers Association, the Thai Sugar Producers Association, and the Sugar Industry Trade Association. The association, of which all sugar mills in Thailand are members, was established as a collaborative center for sugar mills to develop and enhance the competitiveness of the sugarcane and sugar industry in the global market.</p> <p>Mitr Phol has joined the association and collaborates with government agencies, sugarcane farmers, and other private sector entities to strengthen the sugarcane and sugar industry. The association aims to address the issue of sugar field burning and maintain a fair benefit-sharing system among sugarcane farmers, sugar mills, customers, and stakeholders. It has been involved in establishing guidelines for sugarcane harvesting and purchasing, introducing incentives to increase farmers' income through the purchase of cane leaves, and providing sugarcane harvesters to sustainably reduce field burning and enhance the efficiency of the extraction process. This approach helps sugarcane farmers achieve a more stable and reliable income.</p>
Amount (Million Baht)	10.26
Percentage of Grant Budget in 2023	58.80

Royal Forest Department

Type of Organization	Royal Forest Department, Ministry of Natural Resources and Environment
Objective	<p>Mitr Phol has announced its short-term target to become a carbon neutral organization by 2030 and its long-term target to achieve net zero emissions by 2050 in line with the Science-Based Targets initiative (SBTi).</p> <p>Therefore, the Company has implemented the Thailand Voluntary Emission Reduction Program. In collaboration with the Royal Forest Department and the Ministry of Natural Resources and Environment, Mitr Phol has carried out reforestation activities on reserved forest land. This is one of the Company's plans to achieve the net zero target through nature-based carbon offsetting solutions. The program also has the potential to generate revenue from the sale of carbon credits, creating a long-term positive impact on people, nature, and the climate.</p>
Amount (Million Baht)	5.04
Percentage of Grant Budget in 2023	28.88

Thai Sugar and Bio-Energy Producers Association

Type of Organization	Trade Association
Objective	<p>The Thai Sugar and Bio-Energy Producers Association was established to promote and support Thailand's sugar and bio-energy industry. It coordinates with government agencies and other organizations in Thailand and abroad to ensure sustainable and efficient development of the sugar and bio-energy industry. Currently, the association encourages its members to expand and diversify their production into related products beyond sugar, particularly in renewable energy. This includes biomass power generation and ethanol production, aligning with government policy to promote renewable energy to increase energy self-sufficiency and reduce foreign exchange losses from fuel imports. It also helps improve the income of sugarcane farmers.</p> <p>In addition to sugar mills, Mitr Phol engages in biomass power generation and ethanol production from molasses, which is the main component of E10/E20 gasohol. By joining the association, Mitr Phol has contributed to the policy of making E20 the primary petrol, which has opened up new business opportunities and helped stabilize sugarcane prices. As molasses prices rise, sugarcane prices increase as well, benefiting farmers and enhancing their livelihoods. In this way, the Company benefits from the stability of raw materials, which contributes to the sustainability of Mitr Phol's business. The association also supports the Federation of Thai Industries in lobbying the government to increase its purchase of biomass power, which presents further business opportunities.</p>
Amount (Million Baht)	1.08
Percentage of Grant Budget in 2023	6.19

Economic Dimension

Ø36 Corporate Governance and Business Ethics

Ø44 Risk Management

Ø54 Supply Chain Management

Ø62 Information and Data Security



85%



of the employees received ethics training, with the aim of achieving 100% by 2025.

100%



of suppliers comply with the Supplier Code of Conduct regarding environmental, safety, health, governance, and human rights issues.

Strengthened cybersecurity measures and cultivated

3 pillars



of cybersecurity culture: people, process, and technology

73.42%



of the significant Tier-1 Suppliers were assessed for ESG risks.



“Maximize reliability and trust among stakeholders, and sustain business growth that continues to thrive.”

Chapter

3

Corporate Governance and Business Ethics



Corporate Governance

Mitr Phol Group conducts its business with adherence to good corporate governance principles, with an efficient, transparent, and accountable management system in place. This is to build confidence among shareholders and stakeholders and achieve stable and sustainable business growth. The Group follows and adapts these principles to suit its circumstances. It has established guidelines for shareholders to ensure alignment with good governance principles, create business growth, and generate sustainable and equitable value for shareholders. Stakeholders can access and receive comprehensive and necessary information through appropriate channels. This not only minimizes negative impacts on the Company but also enhances growth and shareholder confidence while improving positive impacts on Mitr Phol Group's reputation and image.

Mitr Phol has established a corporate governance policy along with practices that support governance operations, clearly defining the duties and responsibilities that directors, executives, and employees must acknowledge and adhere to. This ensures that its business operations align with good governance principles, maintaining an efficient, transparent, and accountable management system to build stakeholder trust and create stable and sustainable business growth.



Shareholders



Customers and Consumers



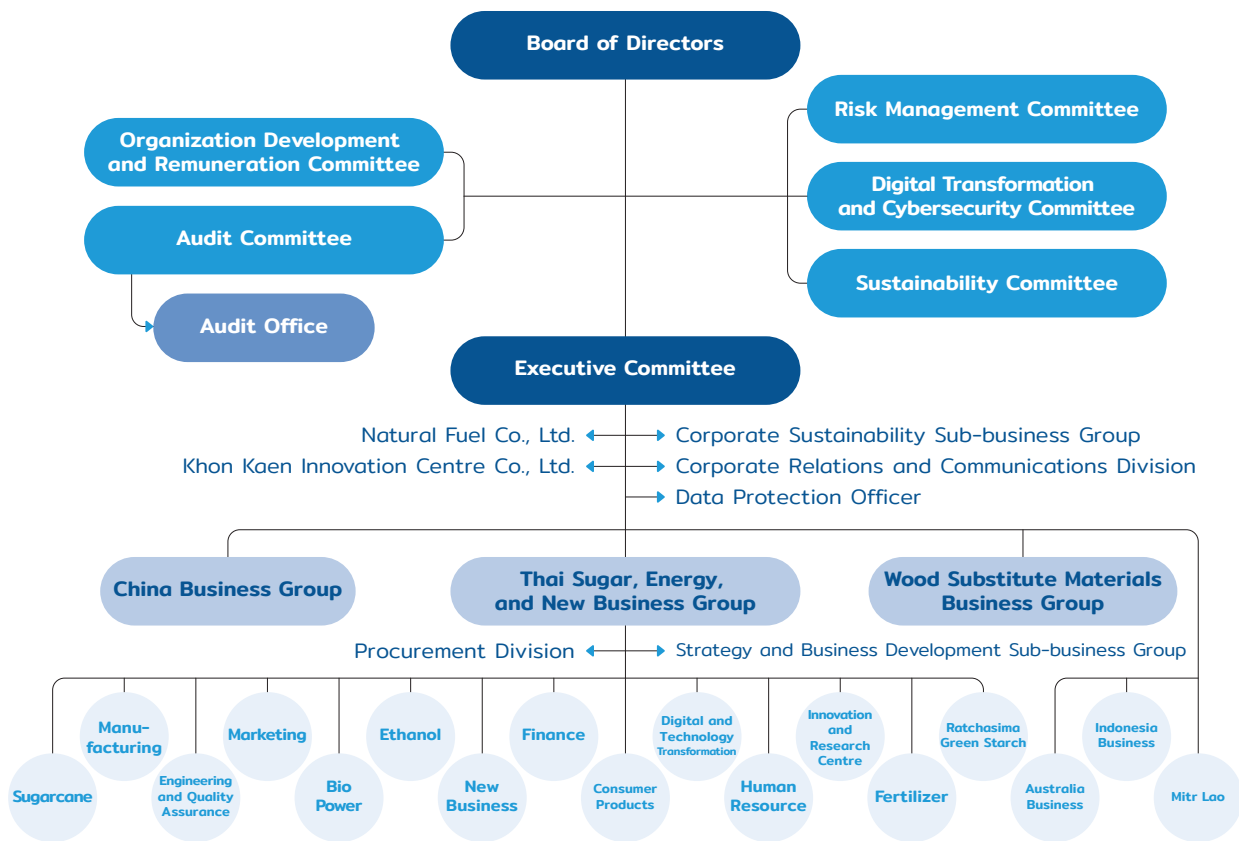
Government and Civil Society Sectors

* For more information, please visit "[Corporate Governance Policy](#)"

Corporate Governance Structure

Mitr Phol Group’s Board of Directors and Executive Committee have clearly defined duties. The Board of Directors, consisting of 9 competent members, is responsible for devising the vision, goals, strategies, policies, guidelines, and the internal control system as well as overseeing and monitoring the operations of the management team to ensure continuous growth. The Board of Directors convenes at least 6 meetings a year to review business performance, consider and approve significant issues, and provide valuable advice. Additionally, the annual shareholder meeting is held to disclose operating results and action plans to shareholders.

Mitr Phol’s Management Structure



Nomination of Directors

Mitr Phol Group realizes the crucial role of the Board of Directors in overseeing the group’s operations and sustainable growth underpinned by the principles of good corporate governance. The Group requires the Board to consist of a minimum of 5 and a maximum of 12 members. Currently, the Company has 9 Directors: 6 executive directors, 1 independent director, and 2 non-executive directors*. The nomination of directors is based on individuals’ expertise, skills, knowledge,

competencies, and relevant business experience to the Group’s operations. A diverse mix of skills is also considered to enhance business operations, strategic planning, and company development, driving growth in alignment with business strategies while maximizing shareholder value. Stakeholders are encouraged to freely express their opinions and exercise discretion on issue affecting the interests of both shareholders and stakeholders.




* The Board of Directors refers to the Board of Directors as of 31st December 2023.

Independent directors are selected according to the Company’s definition of an independent director in line with the requirements of the regulatory organization. This includes considering significant business relationships that might affect their ability to perform their duties or provide opinions independently. Each year, one-third of the board members must retire by rotation (as prescribed by the Company’s regulations). Directors can hold positions in no more than 4 companies and must attend

at least 90% of meetings. For each board meeting, the Company Secretary sends invitations, including the agenda, at least 7 days in advance. Meetings are thoroughly documented in writing, and the minutes, once approved by the board, are kept on record, and made available for review by board members and involved parties. In 2023, the board members attended 98.48% of all meetings.

Knowledge Enhancement for the Highest Governing Body

The Company encourages the board members to attend training to enhance their knowledge and various skills based on the good governance principles, which can be further applied in developing the organization continuously and sustainably. The board members participated in training programs hosted by the Thai Institute of Directors (Thai IOD), a leading organization dedicated to improving director professionalism and corporate governance in Thailand, as follows:

 <p>Director Certification Program</p> <p>emphasizes the roles, duties, and responsibilities of the Board of Directors in overseeing the organization to achieve good performance, assessing operating results, ensuring compliance with relevant laws and regulations, and developing corporate strategies for implementation to achieve desired results.</p>	 <p>Subsidiary Governance Program (SGP)</p> <p>focuses on corporate governance among subsidiaries, the roles of directors serving in subsidiaries, and preventive measures against liabilities of subsidiaries that may affect the parent company.</p>	 <p>Risk Management Program for Corporate Leaders (RCL)</p> <p>stresses a robust risk management framework and the proper management approach to address each risk.</p>	 <p>Other important training programs</p> <p>include Directors Accreditation Program (DAP), Financial Statements for Directors (FSD), Board that Make a Difference (BMD), Successful Formulation and Execution of Strategy (SFE), Role of The Compensation Committee (RCC), Director Leadership Certification Program (DLCP).</p>
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Code of Conduct

Mitr Phol is committed to ethical and responsible business conduct toward all stakeholders in accordance with good corporate governance principles. The Code of Conduct is integral to this commitment, requiring adherence from all personnel, including directors, advisors, executives, and employees, to ensure good corporate behavior. Mitr Phol also emphasizes the importance of ethical conduct and compliance among its suppliers, leading to the formulation of the Supplier Code of Conduct to prevent risks that may pose direct or indirect impacts on Mitr Phol's business operations.

2023 Target and Performance



Remark: Mitr Phol's personnel will be 100% trained in the Code of Conduct by 2025.

Management Approach

Mitr Phol has established a governance unit responsible for communicating corporate governance policies and Mitr Phol Code of Conduct as approved by the Board of Directors. The governance unit takes charge of raising awareness and driving continuous implementation organization-wide. Mitr Phol ensures that policies and relevant practices are regularly reviewed and kept up to date. Furthermore, a mechanism for receiving complaints

has been put in place, allowing all stakeholders to provide useful information for organizational development and promote transparent operations. The complaint-handling process is continually improved to remain current and align with the organizational context. Mitr Phol has also participated in national ethics programs to benchmark its practices against best practices, ensuring ongoing organizational improvement and development.



In 2023, the Company reviewed key policies and practices, including Mitr Phol Code of Conduct, the Supplier Code of Conduct, the Anti-Fraud and Anti-Corruption Policy, the practices for receiving or giving gifts and entertainment, etc. Mitr Phol Sugar Corporation Ltd. received the “Outstanding Ethics Recognition Award” at the TCC BEST Awards 21st organized by the Thai Chamber of Commerce and the Board of Trade of Thailand. The Company has also received an honorary mention of the NACC Integrity Award from the Office of the National Anti-corruption Commission for the third consecutive year. In addition, Mitr Phol has been a certified member of the Thai Private Sector Collective Action Against Corruption (CAC) since 2018 and remains committed to improving transparency and operational efficiency.



▲ Mitr Phol Sugar Corporation Ltd. received the “Outstanding Ethics Recognition Award” at the TCC BEST Awards 21st organized by the Thai Chamber of Commerce and the Board of Trade of Thailand.



▲ Mitr Phol Sugar Corporation Ltd. received the “NACC Integrity Award” at the 11th NACC Integrity Awards ceremony organized by the Office of the National Anti-corruption Commission.

Raising Awareness and Communication

To ensure effective corporate governance, communication of policies, relevant practices, and Mitr Phol Code of Conduct is essential for creating awareness and understanding among Mitr Phol personnel. The policies and practices are also disseminated to external stakeholders through various channels to foster continuous understanding and awareness. Examples of these communication efforts include training sessions for Mitr Phol employees and suppliers, installing promotional signage at factory and office locations, email communications, integrating the information into training courses for new employees, and publishing it on the Company’s website. To regularly remind and ensure awareness among employees, 100% of Mitr Phol personnel are annually required to sign and acknowledge the Code of Conduct.

In 2023, the Company continued the training on “Mitr Phol Code of Conduct and Corporate Discipline” for the 6th consecutive year. The primary aim is to communicate and raise awareness of Mitr Phol Code of Conduct and Corporate Discipline in a detailed and simple manner, with the target of 100% of Mitr Phol personnel being trained by 2025. This year, the training was conducted both online and onsite in meeting rooms, with 85% of Mitr Phol personnel having been trained. Moreover, the Company has adapted the learning materials on Mitr Phol Code of Conduct for new employees into a video format for easier communication. In addition, still images have been created to communicate relevant internal and external topics, such as the revision of policies and practices for LGBTQ+ Pride Month, through various channels, including email and promotional signage.

The number of personnel who have been informed about, have acknowledged, and have been trained on Mitr Phol Code of Conduct, policies, and relevant corporate governance practices.

	Number of Personnel Informed about the Code of Conduct		Number of Personnel Acknowledging the Code of Conduct		Number of Personnel Acknowledging the Code of Conduct	
	Persons	%	Persons	%	Persons	%
Mitr Phol Sugar Corp., Ltd.	1,747	100	1,747	100	1,562	89
Subsidiaries	5,583	100	5,583	100	4,694	84
Total	7,330	100	7,330	100	6,256	85

Personnel* by level						
Board of Directors	9	100	9	100	7	78
Top management	26	100	26	100	13	50
Middle management	245	100	245	100	195	80
First-line managers	930	100	930	100	884	95
Officers	3,809	100	3,809	100	3,503	92
Operational staff	2,311	100	2,311	100	1,654	72

Personnel* by region						
Bangkok	921	100	921	100	783	85
Other provinces	6,409	100	6,409	100	5,473	85

Notes: * Personnel refers to full-time personnel as of 31 October 2023.

Anti-fraud and Corruption

Being committed to ethical business conduct, Mitr Phol places great importance on preventing fraud and corruption. The Anti-fraud and Corruption Policy has been set forth along with relevant practices, such as the practices for receiving or giving gifts and entertainment. These policies and practices are regularly reviewed to ensure alignment with global and the Company’s contexts.



- ◀ Mitr Phol joined Thailand’s Anti-Corruption Day 2023 under the theme “WHAT THE FACT?” on September 6th, 2023, at Bang Sue Grand Station and through online channels.

In 2023, communication to raise awareness and understanding was carried out continuously through various forms and channels to reach all levels of personnel in the organization as previously mentioned. Apart from creating awareness and understanding within the organization, each year Mitr Phol Group participates in national anti-fraud and corruption activities and encourages its employees to engage in these activities both onsite and via live broadcasts to other areas. These activities aim to foster awareness of Mitr Phol Group’s stance against fraud and corruption within Thai society. In addition, the Company publicized these anti-fraud and corruption activities on its website to inform its stakeholders and the general public.

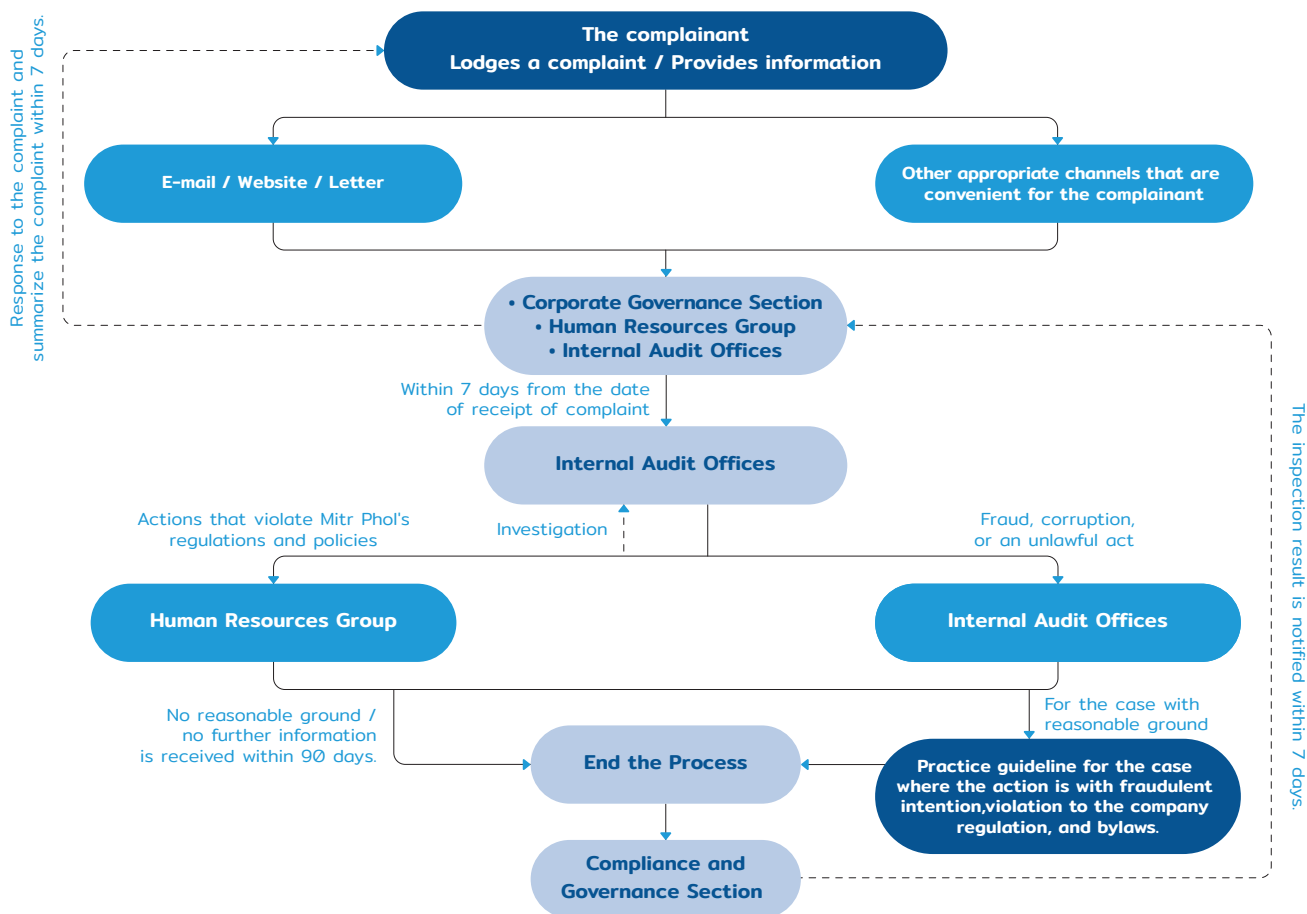
Whistleblowing Mechanism

Mitr Phol Group has established whistleblowing guidelines and provides various channels for receiving complaints or reports of wrongdoing. It also has a complaint handling process and measures to protect the rights of whistleblowers and maintain their confidentiality by limiting access only to those responsible for investigations. This allows both internal and external personnel of Mitr Phol Group to file complaints and report violations or non-compliance with laws, regulations, rules, the Good Corporate Governance Policy, the Anti-fraud and Corruption Policy, and other relevant policies and practices, or actions that violate Mitr Phol Code of Conduct. Complaints can be submitted through various channels, including the Company’s website, email, postal mail, or any other appropriate and convenient means for whistleblowers.



- ▲ Mitr Phol participated in International Anti-Corruption Day (Thailand) 2023 under the theme “BREAK THE CORRUPTION: Don’t Participate. Don’t Tolerate. Don’t Ignore. United Thailand against Corruption.” on December 8th, 2023, through online channels.

In addition, the Company regularly reviews and updates the complaint handling procedure and continuously communicates the policy and whistleblower mechanism through training and various communication channels, such as signs, internal PR, computer screens, and video clips detailing the complaint submission process. This effort aims to support and enable Mitr Phol personnel and all stakeholders to participate in monitoring the organization and developing its personnel to ensure transparency and alignment with the Company’s aspirations.



The number of complaints regarding breaches and corruption within Mitr Phol Group

Number of Complaints (Case)	2020	2021	2022	2023	
	Investigation Completed	Investigation Completed	Investigation Completed	In Process	Investigation Completed
Bribery and corruption	0	0	0	0	0
Unfair trade practice	0	0	0	0	0
Conflict of interest	5	6	3	0	7
Discrimination and harassment	4	3	6	1	9
Other breaches of the Mitr Phol Code of Conduct*	9	5	8	0	6
Total	18	14	17	1	22

Note: * Other breaches of the Mitr Phol Code of Conduct include non-compliance with the rules and regulations.

Mitr Phol has addressed the complaints received by conducting investigations and taking appropriate actions in compliance with the Company's regulations. Moreover, measures were implemented to prevent future recurrence. According to the investigations, the complaints in 2023 were not related to bribery, corruption, or unfair trade practices.

Chapter

4

Risk Management



Risk management and business continuity management are integral to corporate governance, one of the key principles for sustainable growth. Given the rapidly changing business landscape, Mitr Phol has prioritized appropriate risk management and business continuity management. This involves establishing the Risk Management Policy, defining risk appetite, developing a risk management process, and building risk management knowledge. The Company regularly reviews its policy and continuously improves the risk management process and tools to respond to increasing risks and ensure preparedness for effective management.

2023 Target and Performance

Cultivating a risk management culture as part of the corporate culture is an important goal for Mitr Phol. This begins with establishing the Risk Management Policy, which is reviewed annually, and extends to enhancing knowledge to foster understanding and awareness. The aim is to empower Mitr Phol personnel to apply the risk management process as an effective operational tool.

Significant progress in cultivating risk management culture in 2023 includes:



Shareholders



Customers and Consumers



Government and Civil Society Sectors

1

Communicate Risk Management Policy

The updated policy approved by the Board of Directors was communicated to employees through various channels, such as internal emails and risk management representatives of each business unit.

2

Communicate knowledge and understanding of the risk management process and the likelihood of key risks impacting the Company's businesses

The likelihood of key risks and issues impacting the Company's businesses was communicated to directors and executives on a quarterly basis. Training was provided for employees from the officer level up on basic riskmanagement through designated channels.

3

Conduct business continuity plan drills

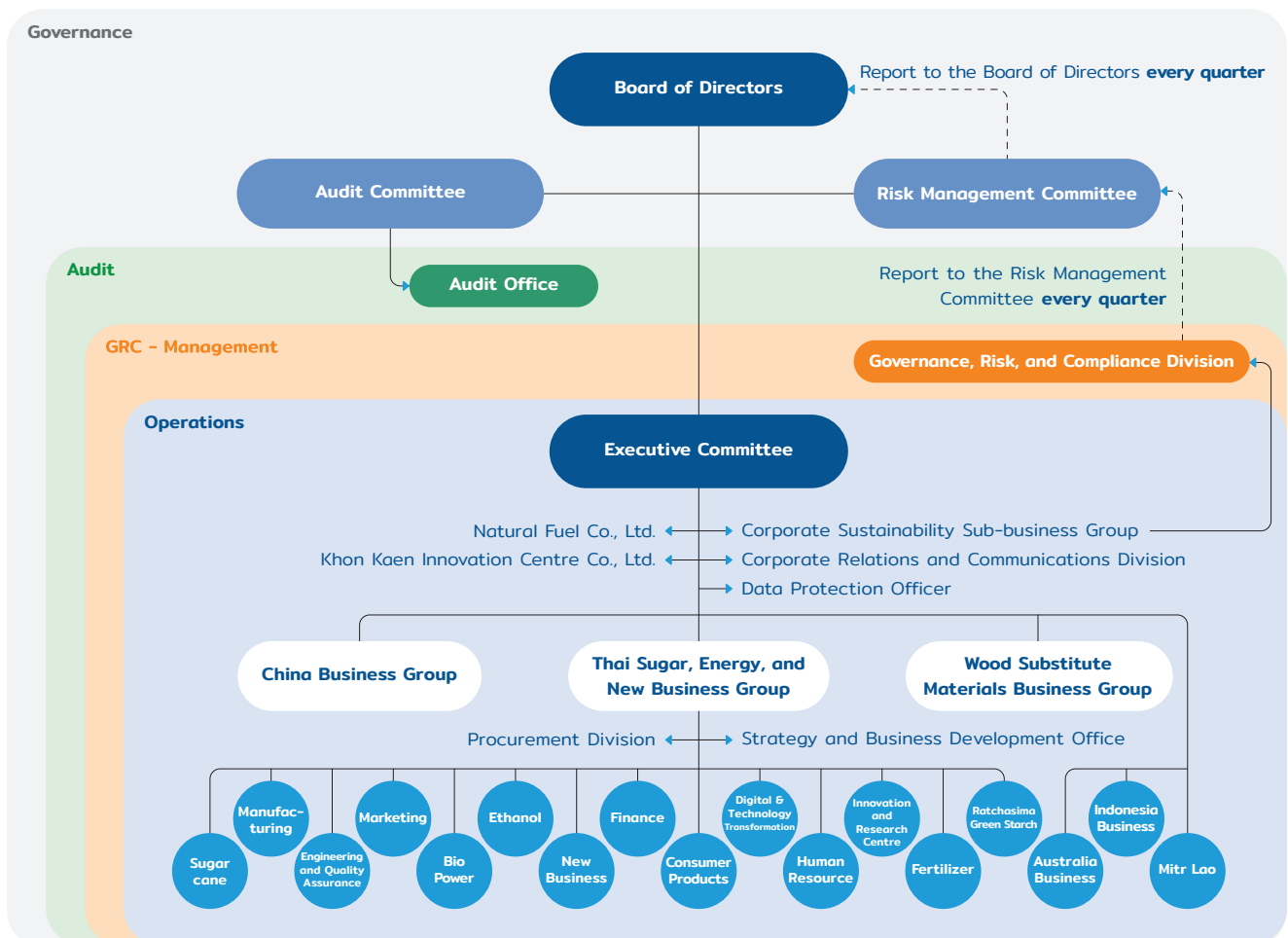
Business continuity plans were drilled in 7 areas to prepare for potential threats.

Management Approach

Risk Management Structure

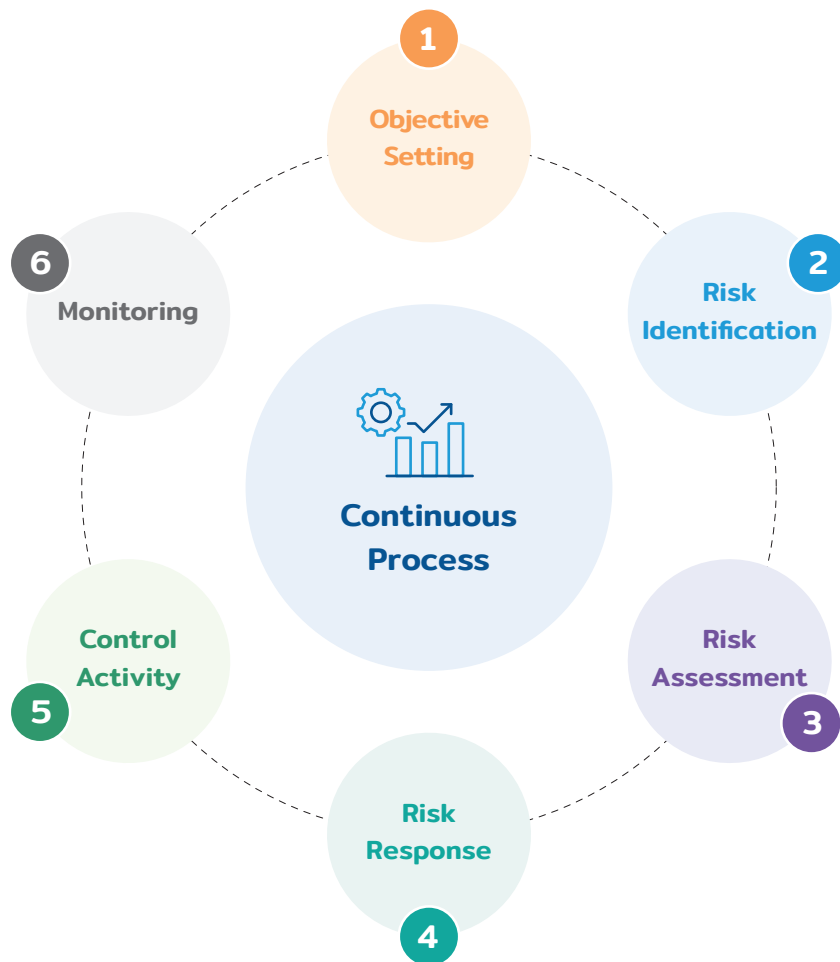
Mitr Phol recognizes the importance of risk management and firmly believes that implementing an effective, integrated risk management process at all levels is crucial for reducing uncertainty and increasing the likelihood of achieving business goals. This approach will help the Company generate sustainable growth and returns for shareholders while enhancing its credibility with stakeholders.

Mitr Phol has adopted the COSO Enterprise Risk Management Integrated Framework as a tool for managing risks across the organization. The Board of Directors has delegated the Risk Management Committee to oversee the implementation of the Risk Management Policy and framework, monitor the risk management process, ensure the adequacy of managing key risks to maintain the risk appetite and report the results to the Board. The Risk Management Department is responsible for communicating the policy and the Board’s recommendations and collaborating with other business units to ensure organization-wide implementation. It also reviews, monitors, and reports key risks to the Risk Management Committee. This department reports directly to the Governance, Risk, and Compliance Division, the Corporate Sustainability Sub-business Group, which operates independently from the core businesses.





Risk Management Process



Mitr Phol prioritizes the continuous monitoring and assessment of risks in a changing business environment to ensure alignment with the organization’s strategy and objectives. Risk assessments are reviewed annually and continuously monitored to evaluate significant situations. This process includes evaluating environmental, social, and governance risks to support sustainability goals. The Risk Management Department is the key unit responsible for coordinating with other business units to review, assess, monitor, and report key risks to the management of each unit and the Risk Management Committee. The department then conducts organizational-level risk assessments and reports the results to the Board of Directors.




Key Risks in 2023

Strategic Risk		
Risk Factors	Key Risks and Impacts	Management
<p>1. Raw Material Security</p> 	<p>The quantity of primary raw materials such as sugarcane, fuel, rubber wood, and fertilizer materials might fall below target. Inadequate sugarcane, in particular, can impact downstream businesses such as power and ethanol, leading to unexpectedly high costs. This is primarily due to the following issues:</p> <ul style="list-style-type: none"> • Impacts of the El Niño phenomenon. • Trend of farmers reducing the use of fertilizer due to drought and high prices driven by the ongoing Russia-Ukraine conflict, which affected sugarcane yield per rai. • Some farmers have switched to growing cassava instead of sugarcane, as cassava requires less water and offers higher market prices, leading to reduced sugarcane plantation areas. • Increased competition among businesses that use the same raw materials. 	<p>The Company focuses on both short and long-term management as follows:</p> <ol style="list-style-type: none"> 1. Purchase sugarcane from farmers under a contract farming system and provide financial support as a factor of production. 2. Promote sugarcane farming near water sources and irrigation systems. 3. Support the development of small and large water sources to ensure an adequate water supply for farming. 4. Provide modern technology and advancements to improve the sustainable management system. 5. Provide farmers with modern agricultural knowledge through ModernFarm Academy. 6. Implement projects such as purchasing sugarcane leaves and the “Tum Tarm Por - Plook Por Sook” initiative to generate additional income for farmers. 7. Expand areas for sourcing wood supply and diversify the portfolio of alternative fuels for power generation, such as sugarcane leaves, rice straw, and rice husks, as well as source alternative materials for ethanol production, like C-Mol, to better manage stocks and costs.


Operational Risk		
Risk Factors	Key Risks and Impacts	Management
<p>2. Waste and Pollution Management</p> 	<p>One of Mitr Phol’s key missions is to manage waste and emissions from business operations and related activities. This includes managing dust from sugarcane burning, emissions from production processes, bagasse piling, sugar mill effluent, ash, and noise from sugarcane transportation for crushing. In today’s age of rapid communication and heightened environmental awareness, these issues could lead to complaints or lawsuits, which will impact costs and approval of permits for new or expanded operations and damage the Company’s reputation.</p>	<p>Establish short-term and long-term measures to manage waste and pollution as follows:</p> <ol style="list-style-type: none"> 1. Implement measures to prevent and control dust levels. 2. Manage water used in the production process to ensure efficient and sufficient water utilization based on the 4Rs principle: Resource Reduce Recycle and Reuse. 3. Implement a standard environmental management process. 4. Monitor water and air quality to meet legal requirements and conduct risk assessments in each area for effective management. 5. Establish a complaint handling process to receive complaints through multiple channels, such as social media platforms, telephone, and the Environmental Impact Assessment (EIA).

Financial Risk		
Risk Factors	Key Risks and Impacts	Management
<p>3. Commodity Price Volatility</p> 	<p>Volatility and the difficulty in forecasting prices of commodities, such as sugar, molasses, fertilizers, and energy, impact revenue and cost forecasts differently across businesses.</p>	<ol style="list-style-type: none"> 1. The Sugar Sales Committee and the Ethanol Sales Committee have established guidelines and policies, and a dedicated department is responsible for monitoring situations, analyzing trends, and assessing direct impacts on selling prices, enabling timely decision-making based on market conditions. 2. Coordinate closely with Thai Cane and Sugar Co., Ltd. (TCSC) to exchange information and policies on sugar sales to support the development of sales strategies and plans. 3. Use various financial instruments to mitigate risks from volatile sugar and ethanol prices. 4. Engage related departments in developing a cost management plan. 5. Collaborate with suppliers and customers to plan deliveries in advance to maximize transportation cost management.
<p>4. Exchange Rate Volatility</p> 	<p>The high volatility of the Thai baht poses a significant risk to the forecasted revenue of the sugar and Wood Substitute Materials Business, as the majority of their income comes from exports. Furthermore, fluctuating prices of imported molasses and fertilizer materials for ethanol and fertilizer production, as well as imported machinery for the manufacturing process, can impact cost forecasting.</p>	<ol style="list-style-type: none"> 1. Establish the Financial Risk Management Committee to set a framework, develop systems, and identify tools for effective financial risk management. 2. Set a clear Exchange Rate Risk Management Policy to maintain the risk at an acceptable level. 3. Designate a dedicated unit responsible for close monitoring of financial situations. 4. Use various financial Instruments. 5. Coordinate closely with Thai Cane and Sugar Co., Ltd. (TCSC) to monitor sugar sales data to support planning forward trading and enable effective cost management.

Legal and Regulatory Compliance Risk

Risk Factors	Key Risks and Impacts	Management
<p>5. Changes in Relevant Laws, Rules, and Regulations</p> 	<p>Failing to keep up with changing laws and policies, as well as strict enforcement, can lead to non-compliance with relevant regulations, potentially resulting in penalties or a reduced ability to compete. Relevant changes include:</p> <ul style="list-style-type: none"> • The Cane and Sugar Act (No. 2) B.E. 2565 defines “bagasse” as a “by-product” that must be calculated and included in the benefit-sharing system and the sugar quota system. • The Notification of the Central Committee for Price of Goods and Services on Additional Controlled Goods declared sugar as controlled goods. • The government policy to promote electric vehicles and remove subsidies for E85 fuel. 	<ol style="list-style-type: none"> 1. Establish the compliance guidelines to monitor Mitr Phol’s compliance. 2. Establish a Compliance Unit responsible for supporting the monitoring and risk assessment of relevant laws, and for tracking new regulations in collaboration with representatives from each unit. 3. Deploy technology for effective monitoring of legal compliance through the compliance system and regularly report compliance with relevant laws, rules, and regulations to the executives and relevant parties. 4. Educate employees to create an understanding of relevant laws. 5. Support and advocate for the Thai Sugar Millers Corporation Limited in using the cane and sugar fund mechanism to stabilize sugarcane prices.

Environmental, Social and Governance (ESG) Risk

Risk Factors	Key Issues and Impacts	Management
<p>6. Climate Change (Drought)</p> 	<p>The El Niño phenomenon and the positive Indian Ocean Dipole are expected to cause drought in Thailand in 2023-2024. The climate will be extremely hot and dry with delayed rainfall. All regions will experience below-average rainfall, leading to depleted water levels in natural sources and dams, resulting in the following effects:</p> <ul style="list-style-type: none"> • Less sugarcane yield and sweetness, subsequently raising the farming costs. • Water reserve may be insufficient for industrial production processes. • Fire risks are increased from hot and dry weather. 	<ol style="list-style-type: none"> 1. Promote sugarcane farming near water sources and irrigation systems. 2. Promote the development of small and large water resources to ensure a sufficient water supply for agriculture, and increase water efficiency through the use of drip irrigation and solar water supply systems. 3. Provide modern technology and advancements to enhance the sustainable management system from sugar plantations to sugar mills under the Mitr Phol Modern Farm Project. 4. Implement measures to manage water used in the production process to ensure efficient and sufficient water utilization based on the 4Rs principle: Resource Reduce Recycle and Reuse. 5. Establish measures for fire prevention and response.

Emerging Risks

Mitr Phol regularly monitors external factors and identifies emerging risks that may arise in the future by assessing and analyzing potential risks to the Company over the next 3-5 years. This allows Mitr Phol to assess uncertainties and identify effective and appropriate mitigation measures to ensure that the Company can review and adjust its strategies to increase the likelihood of achieving its goals. Key emerging risks are as follows:

Climate Change Compliance Risk	
Risk Aspect	Environmental / Economic / Social
Description	<p>Issuing new laws, regulations, and criteria is a mandatory mechanism used by government bodies in various countries to encourage sustainable management. These policies and regulations are also employed as conditions for international trade, such as enforcing carbon pricing in different nations. As a signatory to the Paris Agreement under the United Nations Framework Convention on Climate Change, Thailand requires strict and proactive mechanisms to reduce greenhouse gas emissions and achieve its net zero target by 2065. Currently, significant draft bills under consideration include the Draft Management for Clean Air Act and the Draft Climate Change Act. These draft bills outline important economic instruments, such as the establishment of a carbon tax system. The first phase of carbon tax collection in Thailand will begin with an oil excise tax, with the Excise Department expected to start collecting this tax in the fiscal year 2025. Additionally, a greenhouse gas emissions trading scheme is anticipated to come into effect in 2031 (in reference to the hearing of the Draft Climate Change Act by the Department of Climate Change and Environment). Moreover, there will be additional measures that the private sector must comply with, leading to increased costs for businesses across the supply chain as they transition to a low-carbon society. Thailand has also developed the Thailand Taxonomy for classifying economic activities based on their environmental impact. The use of the Thailand Taxonomy is currently voluntary (though it may become mandatory after 3 years). The Thai banking sector uses this taxonomy as a tool to assist in loan approval decisions. Consequently, businesses with high greenhouse gas emissions may face difficulties accessing finance or encounter higher financial costs. Without government mechanisms to subsidize these increased costs, the burden could fall on service providers and consumers, impacting future investment decisions.</p>
Impacts on the Company	<p>Laws related to climate change may establish new standards of business conduct across all industries and impact 100% operations of Mitr Phol Group, which could result in decreased revenue and increased costs. Material issues are as follows:</p> <ul style="list-style-type: none"> • Preparing for the transition to a low-carbon society could increase management costs for all Mitr Phol businesses, for instance, costs for developing a GHG inventory for the entire organization, educating farmers to ensure that Mitr Phol’s raw materials have lower GHG emissions, improving technology and workflows from sugarcane fields to delivery, developing low-carbon products to meet evolving consumer needs, and covering operational fees. If the law is not fully enforced, it could lead to a compliance gap, which will impact the Company’s medium-term and long-term competitiveness. • Delays in the legislation of major laws and the announcement of relevant future notifications, along with unclear details, could impact Mitr Phol’s plans to reduce GHG emissions. If these plans need to be revised, it could lead to redundant investments. The timing of legal enforcement, coupled with inadequate government support mechanisms, could hinder the achievement of net zero targets, and impede the transfer of sustainability from the agricultural sector to society and the environment. Moreover, sugarcane, cassava, and rubber farmers may lack understanding of the law and may not be ready to comply with it. As a result, Mitr Phol could face increased operating costs, including direct costs such as taxes and fees, and indirect costs such as management expenses across the entire supply chain and investments in improving production processes. The Company may also encounter other difficulties and complexities, potentially forcing farmers to quit farming, leading to a shortage of raw materials and disruptions in the manufacturing of sugar, ethanol, power, cassava flour, and wood substitutes. • Overlapping laws, such as the Factory Act and the Promotion and Preservation of Environmental Quality Act, could cause difficulties for Mitr Phol’s internal management and increase compliance costs.

Climate Change Compliance Risk

Mitigation Measures

To prepare for regulatory changes, Mitr Phol has planned and implemented the following measures:

1. Take part in acknowledging, providing comments, and advocating for the Draft Climate Change Act through the Chamber of Commerce, the Council of Chamber of Commerce of Thailand, the Thai Industries Association, the Thai Sugar and Bioenergy Producers Association, the Private Sector Joint Committee (PRO), a legislative committee, the Thailand Carbon Neutral Network, and the UN Global Compact Network Thailand.
2. Establish a Compliance Unit to collaborate with representatives from other departments in monitoring and assessing risks from relevant laws and staying updated with new regulations.
3. Continuously educate employees about legal and related issues by providing a legal library, communicating new laws to relevant units on the 15th of each month, and promoting climate change awareness through reskilling and upskilling programs.
4. Enhance farmers' skills and knowledge to help them adapt to changing environmental conditions by introducing modern farming techniques through the "Mitr Phol ModernFarm" program and providing funding, equipment, irrigation systems, advance payments for sugarcane purchases, and fertilizers, etc.
5. Set a target to achieve Net Zero emissions by 2050 and clearly define a decarbonization strategy to drive this target. The strategy covers 5 major areas: 1) Decarbonizing Own Operations, 2) Decarbonizing the Supply Chain, 3) Neutralizing Residual Emissions, 4) New Investments/Businesses, and 5) Economic Value. The strategy is implemented through a research and development project on sugarcane farming processes that reduce GHG emissions.
6. Create Mitr Phol's GHG inventory across the entire value chain, from sugarcane farming management, production processes, and storage, to sales and delivery, to understand the current situation and develop a plan to achieve the Net Zero target.

Cyber Insecurity from Generated AI Risk

Risk Aspect

Technological

Description

In the digital economy era, artificial intelligence (AI) technology plays a pivotal role in enhancing business operations across various dimensions, driving growth, and improving operational efficiency. However, advancements in AI also introduce more sophisticated cyber threats, while legal frameworks struggle to keep pace with technological progress. Leveraging AI to support corporate operations exposes companies and their employees to cyber attacks, thefts, ransomware attacks, scams, and the risk of receiving false information, etc.

Impacts on the Company

Mitr Phol recognizes the benefits of Generative AI and has begun using it to analyze data and perform certain tasks on behalf of employees, which helps increase work efficiency and expand business opportunities within the supply chain. For example, the Company has started utilizing Generative AI in sugarcane farming management and data analysis to enhance efficiency in production processes and sales and delivery operations. However, Mitr Phol may face the following significant risks and impacts:

- Becoming a target for online exploitation due to system vulnerabilities or weaknesses can lead to the destruction, theft, or ransom of the organization's data, including trade secrets and personal information. Increased use of technology heightens the risk of such threats, potentially causing financial losses from system recovery, damage compensation, and reputation restoration. Moreover, it may result in a loss of competitiveness and business credibility.

Cyber Insecurity from Generated AI Risk

Impacts on the Company

- Nowadays, business operations and supply chain collaboration are closely intertwined with technology. As advancements in technology and artificial intelligence become increasingly vital in driving future business processes, they also present greater opportunities for cybercriminals to exploit these developments in more sophisticated and harmful ways. For instance, AI-powered social engineering attacks can create false information, and deepfake technology can be used to impersonate senior executives, sending phishing emails to employees to trick them into revealing the Company's sensitive data. These methods can also deceive external parties, such as using deepfake images and voices of executives to lure people into fraudulent investments. The use of inaccurate or false information generated by technology and AI in decision-making can severely impact business credibility, and investment opportunities, and result in the loss of valuable information and financial resources.
- A lack of knowledge and understanding, insufficient monitoring of evolving threats, and inadequate preventive and security measures, coupled with improper response and management when cyber threats occur, can cause financial losses, and damage the organization's reputation and credibility.

Mitigation Measures

Mitr Phol recognizes the importance and benefits of driving business growth through technology and AI despite the associated risks. To mitigate these risks, the Company has established cybersecurity standards to address short-term threats and laid the groundwork for long-term prevention with the following measures:

1. Strengthen cybersecurity measures to align with the framework of the National Institute of Standards and Technology (NIST), targeting NIST Level 4.
2. The Cybersecurity Committee is responsible for overseeing cybersecurity operations and setting policies. The Chief Information Security Officer (CISO) has been appointed to manage cybersecurity and data privacy, with a dedicated unit entrusted with developing related measures.
3. Provide continuous cybersecurity training and awareness programs for all employees, including basic cybersecurity knowledge, phishing simulation tests to assess employees' cybersecurity awareness, and training for focus groups to enhance their understanding and adaptability to minimize risks to the organization.
4. Improve and develop security measures to protect work systems and critical information, such as using Data Labeling to classify confidentiality levels of documents, installing Control Systems (ICS) Firewalls to enhance internal network security, implementing systems to detect and filter phishing emails and malicious messages, using Multi-Factor Authentication (MFA) for access to critical systems, and developing AI-driven Threat Detection to identify and monitor patterns of AI-generated attacks.
5. Conduct annual drills on operational procedures to respond to cyber threats and ensure personal data security. Lessons learned from these drills are used to enhance the effectiveness of procedures.

Business Continuity Management

Business continuity management (BCM) is vital to Mitr Phol's operations. To ensure that operations can run smoothly even in critical situations, the Company conducts drills of the business continuity plan (BCP) at least once a year, while the BCP is reviewed and updated annually. This review includes enhancing key activities, communication processes, and resources. The practice, which is based on the Business Continuity Management System (BCMS) under the ISO 22301:2012 standard, serves as a framework for action at both headquarters and plant locations. The Risk Management Department collaborates with the Safety, Occupational Health, and Environment Department to hold the annual drill, which is participated in by executives, employees, and stakeholders. The drill covers the Emergency Response

Plan (ERP), Business Continuity Plan (BCP), and the Crisis Communication Plan, as appropriate, aiming to raise awareness of the roles and communication protocols outlined in the BCP.

In 2023, another 2 BCPs were conducted at Mitr Amnat Charoen Sugar Mill and Maesod Clean Energy Co., Ltd., resulting in a more comprehensive plan across all operational sites. This expansion enables Mitr Phol to better mitigate significant risks. The BCPs now encompass the head office and all plants, with drills conducted in 7 areas. These drills facilitate the review of management processes, roles and responsibilities, and customization of the BCP for each area to ensure constant readiness to address threats.



▲ Business Continuity Plan drills in factory areas in 2023

Chapter

5

Supply Chain Management



Mitr Phol stresses the importance of sustainable supply chain management, encompassing the environmental, social, and governance aspects. The Company adheres to the Code of Conduct to prevent risks that can directly and indirectly impact its image and operations. Hence, effective supplier relation management is vital. The Company holds an annual supplier conference and communicates the Supplier Code of Conduct to its suppliers and ensure that suppliers understand the Procurement Policy, procedures, updates, and supplier management approach. Mitr Phol Supplier Code of Conduct has been formulated to ensure transparent, fair, and equitable treatment and build supplier trust in the selection process. This approach helps suppliers to maintain business operating standards and compliance with environmental laws, human rights, fair treatment of workers, safety and occupational health standards, and good governance while also preventing exploitation. Additionally, it promotes collaboration with suppliers in developing potential and creating innovation toward achieving sustainability.

2023 Target and Performance

	Target	Performance
 <p>The significant Tier-1 Suppliers are assessed for environmental, social and governance risks.</p>	100%	73.42%



Shareholders



Farmers



Suppliers



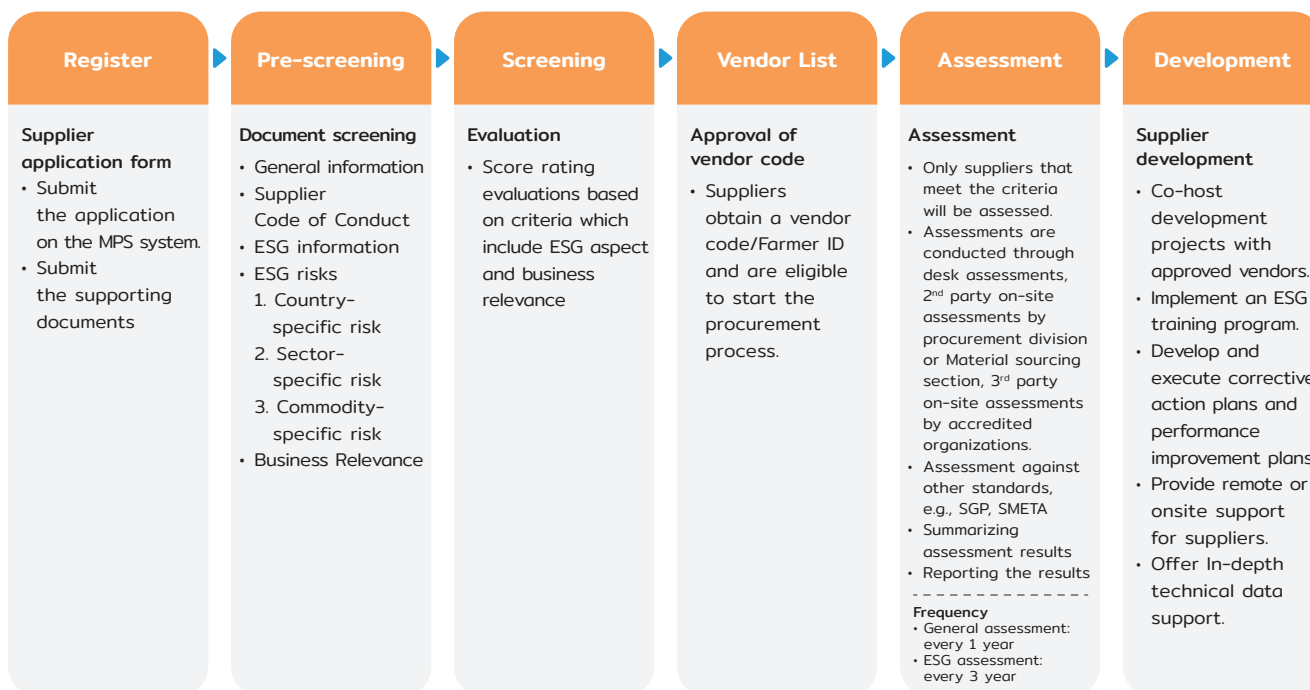
Customers and Consumers



Government and Civil Society Sectors

Management Approach

Sustainable Procurement Process



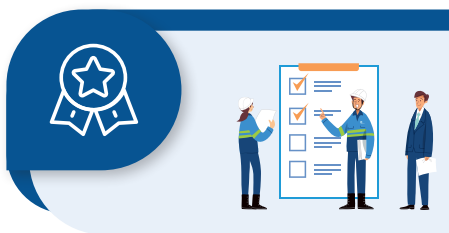
Mitr Phol Group has a Sustainable Procurement Policy* and a Supplier Code of Conduct** that covers environmental issues, human rights, fair treatment of workers, safety, occupational health, good governance, and prevention of exploitation. These standards are communicated to suppliers to ensure strict compliance, and all suppliers must acknowledge and agree to the Supplier Code of Conduct before becoming a Mitr Phol supplier. The Company employs a supplier risk management system based on sectors of products and services according to the Supplier Position Model. It has strict procedures to verify the qualifications of all suppliers seeking to register as new suppliers with the Company, including an assessment of environmental, social, and governance (ESG) risks at the country, industry, and product levels.

The Company also requires an annual audit and evaluation of supplier performance, either through self-assessments using questionnaires which are re-evaluates by the Quality Management Department, or through 2nd party on-site assessments conducted by procurement division/ material sourcing section together with the sustainability department. Additionally, 3rd party on-site assessments based on standards such as Bonsucro, Supplier Guiding Principles, and Sedex Members Ethical Trade Audit. The Company communicates the results of these evaluations to suppliers via email or 2Way2Grow Application. Suppliers have access to the evaluation results from benchmarking against other suppliers to promote improved environmental, social, and governance performance. The comprehensive evaluation criteria cover issues like production control, product quality, and standards to help suppliers improve continuously. Moreover, the Company supports and monitors suppliers in the development program, providing technical training through joint projects with interested suppliers.

* For more information, please visit "[Sustainable Procurement Policy](#)"

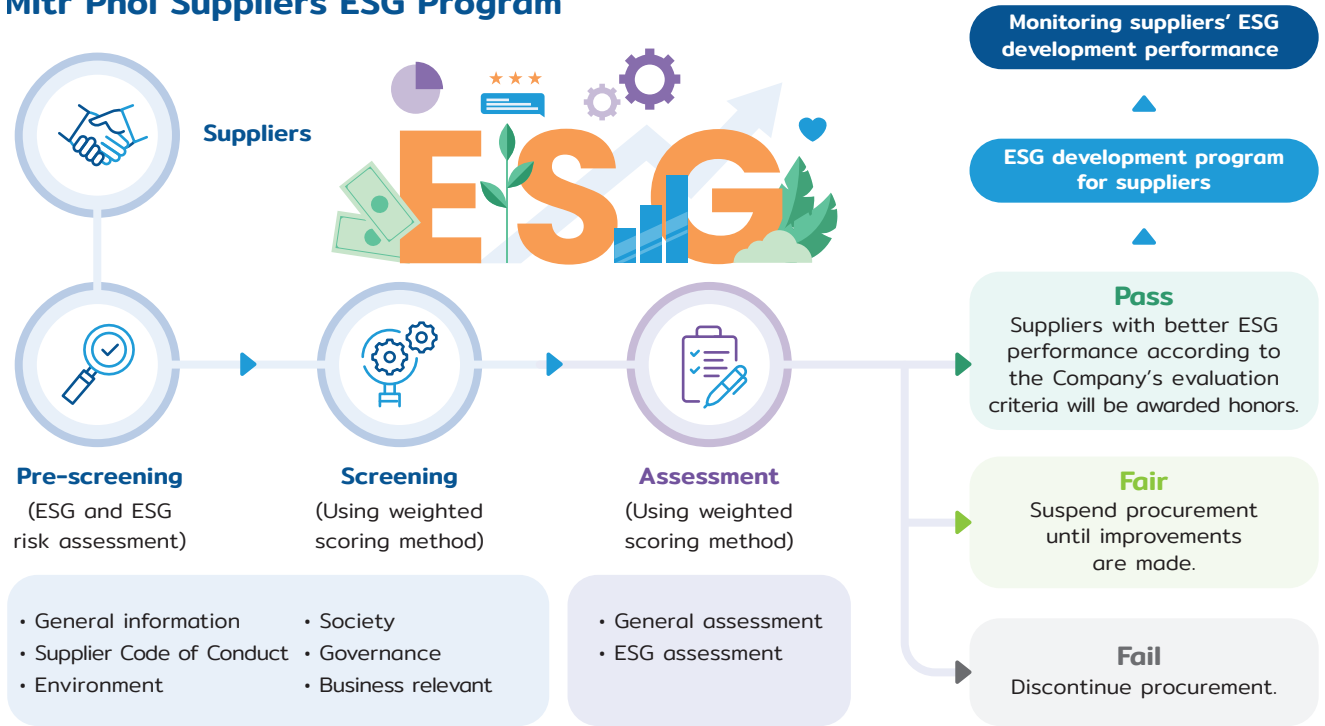
** For more information, please visit "[Supplier Code of Conduct](#)"

In addition, the Company requires monitoring and evaluation of environmental, social, and corporate governance performance every 3 years for central and raw material suppliers. This ensures that suppliers strictly adhere to the Supplier Code of Conduct. If a supplier violates human rights or fails to comply with the Code, the Company will issue a notice and set an improvement plan with a timeframe and monitor the improvements. Non-compliance may result in sanctions, contract termination, and removal from the Company’s registered supplier list. For example, if it is found that suppliers cannot meet the minimum ESG requirements (e.g., encroachment on reserved forests, forest areas, or conservation zones), the supplier will be excluded, and the contract terminated. Suppliers with better ESG performance according to the Company’s evaluation criteria will be awarded honors such as special awards, certificates of recognition, or being named a “Model Farmer”. Currently, the Company has assessed the environmental, social, and governance risks of the Significant Tier-1 Suppliers, including the use of chemicals, packaging, contract workers, and all new central suppliers. The assessment results in 2023 are as follows:



In 2023, a total of **5,592** new suppliers were evaluated on environmental, social, and governance (ESG) criteria, accounting for **89.89%** of all new suppliers. For significant Tier-1 suppliers and significant non Tier-1 suppliers, a total of **1,234** were assessed for ESG Assessment. This evaluation was conducted through desk assessments, and/or on-site assessments by the Procurement Division/Material Sourcing Section.

Mitr Phol Suppliers ESG Program



Suppliers should operate their businesses in alignment with the Mitr Phol Supplier Code of Conduct and be aware of ESG principles. Suppliers with better ESG performance, according to the Company’s evaluation criteria, will be awarded honors such as special awards, certificates of recognition, or being named a “Model Farmer.” Additionally, suppliers who participate in co-projects with the Company will receive extra points. Suppliers who do not meet the minimum evaluation score must improve their performance and submit evidence of improvement to the Company. The Company will then consider and unlock their status.

Farmers who deliver burned cane will have their cane price deducted. However, they will receive extra payment if they deliver fresh cane, with the price determined according to the government announcement. If it is found that suppliers cannot meet the minimum ESG requirements (e.g., encroachment on reserved forests, forest areas, or conservation zones), the supplier will be excluded and the contract terminated.

All suppliers and farmers, especially significant suppliers, are invited to join the training programs, which include ESG components, at least once a year. These programs are: the Annual Seminar for Suppliers, the Farmer Association and Sugar Mill Annual Meeting.

Supplier Classification

Mitr Phol classifies suppliers into 2 groups: central suppliers and raw materials suppliers, as detailed below.

Central Suppliers

are providers of products and services or domestic and foreign contractors. They consist of 4 subgroups as follows:

Routine, Non-Critical, or Low Value-Low Risk Suppliers

These suppliers offer general products available from various vendors and involve low order values. Annual contracts are managed by vendors using the MPS (E-catalogue) system for automated procurement.

Products in this category include mechanical equipment, consumables, and office supplies.

Leverage Suppliers or High Value-Low Risk Suppliers

These suppliers provide general products sourced from numerous vendors, with large order values leading to intensified competition in price and quality. Thus, procurement officers must analyze market trends and emerging technologies to adjust sourcing locations for cost-effectiveness.

Products in this category include diesel fuel, lubricants, service and repair work, machine cleaning services, etc.

Bottleneck Suppliers or Low Value-High Risk Suppliers

These suppliers provide products with limited vendors. A shortage of suppliers in this group can cause work slowdowns or stoppages, leading to bottlenecks.

Despite the low order values, this group of suppliers carries a considerable risk of causing severe impacts.

Products in this category include specific models of machine spare parts that cannot be replaced by other models.

Critical Suppliers or High Value-High Risk Suppliers

These suppliers exclusively source products from 1-3 vendors due to the specific specifications determined by Mitr Phol Group, requiring them to possess advanced technological capabilities. They handle a significant annual order values exceeding 5 million baht.

This category primarily focuses on food contact materials that affect food safety, such as chemicals for manufacturing processes and packaging materials.

Raw Materials Suppliers

include



Sugarcane farmers

supplying sugarcane as the main raw material to sugar mills



Rubber farmers

providing old rubber trees that complete the latex producing cycle to a wood substitute factories



Cassava farmers

delivering cassava as raw material to cassava flour production factories



Local vendors and traders

offering biomass power plant fuels such as sugarcane leaves, wood chips, and rice husks



Sugar mills and traders supplying molasses

for ethanol distillation plants

The Company classifies its suppliers based on procurement spend and the significance of their products in order to develop efficient plans and strategies for supplier management. The criteria for identifying significant suppliers are as follows:

- Suppliers offering special products, including chemicals for manufacturing and packaging, which meet Mitr Phol Group standards.
- Rare vendors with the necessary expertise and technology to manufacture products according to Mitr Phol Group's specifications.
- Vendors with high order volumes as per Mitr Phol Group's criteria.
- Contractors seeking approval for manpower to work in various departments.
- Suppliers conducting business with adherence to Environmental, Social, and Governance (ESG) principles.

38,363

suppliers in total



Significant Tier 1 suppliers

3.26%

of all Tier-1 Suppliers

The spending on
Significant Tier-1 Suppliers

43.26%

of the total spending on all Tier-1 Suppliers



Significant
Non Tier-1 Suppliers

2.44%

of all Non Tier-1 Suppliers



In 2023, the Company had a total of 38,363 suppliers, consisting of 94.13% Tier-1 Suppliers and 5.87% Non Tier-1 Suppliers. Among these, there were 1,179 Significant Tier-1 Suppliers, accounting for 3.26% of all Tier-1 Suppliers, and 55 Significant Non Tier-1 Suppliers, accounting for 2.44% of all Non Tier-1 Suppliers. The spending on Significant Tier-1 Suppliers accounted for 43.26% of the total spending on all Tier-1 Suppliers.

Mitr Phol Procurement System

The Mitr Phol Purchasing System (MPS) is a web-based platform designed to streamline order placement for customers and order tracking for suppliers. It also functions as a real-time news portal for suppliers and facilitates supplier ratings based on product or service delivery. Integrating MPS data with the SAP system facilitates audits and ensures end-to-end transparency and traceability throughout the procurement process.

After suppliers deliver food contact materials that can affect food safety, such as chemicals used in manufacturing and packaging, via the MPS system, these materials will be tracked for product quality, manufacturing origin, and safe transportation. If delivered products fail to meet specifications or pose food safety concerns, suppliers must promptly correct any issues within the given timeframe.

Annual Supplier Conference and Award Presentation

Mitr Phol holds an annual supplier conference to communicate the Supplier Code of Conduct, procurement regulations, quality standards for purchases and sales. Additionally, the Mitr Phol Supplier ESG Program was communicated to suppliers to inform them about the organization's sustainable practices. This included training to raise awareness of the importance of sustainable business development throughout the supply chain (ESG Awareness Training), focusing on environmentally friendly business operations (Environmental), respect for human rights and communities (Social), and conducting business with good governance (Governance). This annual conference allows the Company to listen to suppliers' opinions and expectations, enhancing collaboration in developing work processes. It also strengthens relationships, minimizes business operation risks, and improves efficiency for both the Company and suppliers to mutually achieve sustainable business growth.

The Company also presents awards to suppliers with outstanding performance annually. In 2023, 74 suppliers, who demonstrated excellent performance for 2 consecutive years, received certificates and special awards from Mitr Phol Group. These award winners account for 3.08% of the total suppliers.

Mitr Phol Collaborative Projects with Customers for Sustainable Development

Green Procurement Project

Mitr Phol has implemented the international standard ISO 20400:2017 as a framework for sustainable procurement and established a Sustainable Procurement Policy to promote green procurement. In 2023, the Company increased its procurement of environmentally friendly products and services by 37% compared to the purchase of such products and services in 2022*, representing 20% of the total procurement value in 2023. These items include electric appliances, cleaning and construction equipment, office supplies, paper products, as well as vehicles and accessories. Mitr Phol also plans to expand green procurement to other categories of products and services.

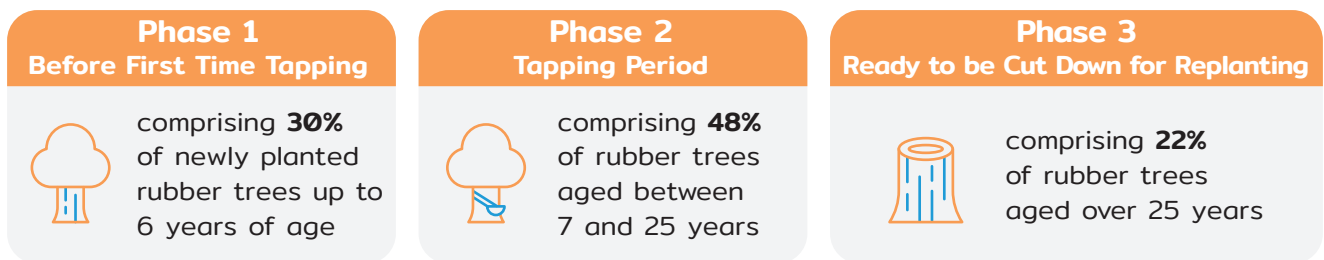
Sustainable Sugarcane and Sugar Production Management under Bonsucro Standards

Mitr Phol encourages farmers to obtain Bonsucro certification, a global standard for sustainable sugarcane and sugar production, aiming to reduce environmental and social impacts of sugarcane and sugar production processes while promoting enhancing production efficiency and competitiveness. For Further details about sustainable sugarcane and sugar production Management under Bonsucro Standards, please visit the Farm and On-Farm Management section.

* The goal is to increase green procurement by 2% from the previous year's purchase value.

Sustainable Rubber Plantation Management According to Forest Stewardship Council Standards

Since 2014, Panel Plus Company Limited has managed rubber plantations sustainably according to Forest Stewardship Council (FSC) standards, aiming to help farmers care for and manage their plantations sustainably. The Company invites interested small farmers who agree to the project conditions to join. Eligible rubber plantation areas must have legal documentation, such as land title deeds, Nor Sor 3, or Sor Por Kor, and must not encroach on reserve forests, protected areas, or high-value resources. Farmers joining the project must attend training on rubber plantation operations, and the Company regularly monitors their performance. If their operations do not meet the criteria, they will be requested to make corrections; otherwise, their membership will be terminated. As of 2023, the project had 3,456 members with plantation areas totaling 68,378 rais. The project purchased 49,035 tons of rubber wood raw material from members, amounting to 49.29 million baht. The total rubber volume of all age groups was approximately 1,309,783.20 cubic meters, with an average annual growth rate of 1.56 cubic meters per rai. The rubber plantations in the project are divided into 3 phases based on the age of the rubber trees as follows:



In addition, the Company has organized various social and environmental activities for members of this project as follows:

1 Training Program

This initiative educates members and contractors on various topics, such as occupational safety, labor and social welfare, human rights, waste sorting and management, conservation of rare species, and Trichoderma production for disease and pest control to reduce chemical use.



2 Biodiversity Survey

This project surveys flora and fauna species within community forest areas that have committed to becoming nature reserves. The project covers a total of 4,586 rai across 5 community forest areas:

- Ban Thung Hua Mueang Community Forest: 965 rai
- Ban Ton Sai Community Forest: 1,033 rai
- Ban Chong Khao Community Forest: 395 rai
- Ban Pa Phong Community Forest: 1,993 rai
- Khao Kho Hong Protected Area: 200 rai

Project officers and the communities will consistently collaborate to monitor, care for, and conserve resources and the environment in these areas.



3 Establishment of Learning Centers

In collaboration with Prince of Songkla University, the project aims to transfer knowledge and enhance the quality of life for its members and their communities. As part of this project, 2 learning centers were established in Khlong Hoi Khong district, Songkhla province: the Organic Fertilizer Production Learning Center and the Household Waste Management Learning Center, which engage about 50 households.



4 Promoting and Adding Value to Latex with FSC Standards

This project aims to increase revenue and ensure the sustainability of members' rubber-planting career. It has benefited 1,520 members, who sold 3,662 tons of FSC-certified dry rubber, adding 3,662,000 baht in value. The project helps raise awareness about the significance of rubber planting in accordance with international standards and enhances the sustainability of the Company's system and raw materials.



Chapter





6

Information and Data Security



Mitr Phol has deployed technology organization-wide to increase work efficiency, facilitate decision-making, create added value, and drive sustainable growth as part of its Digital Transformation Policy. Robotic Process Automation (RPA), Machine Learning, and Artificial Intelligence are deployed to improve operations in such areas as Smart Management, Smart Factory, Smart Distribution, and Smart Marketing. However, caution is necessary when using technology, as it carries risks and can harm the business unless prudent cybersecurity measures are in place.

2023 Target and Performance

	Target	Performance
 <p>Timeframe for responding to a security breach</p>	<p>Within 4 hours</p>	<p>Within 4 hours</p>
 <p>Timeframe for isolating the related server from the Company's network</p>	<p>Within 1 hours after notification</p>	<p>Within 1 hours after notification</p>
 <p>Evaluate cybersecurity awareness using the Phishing Simulation Test</p>	<p>2 times per year</p>	<p>2 times</p>
 <p>Organize a Cyber Drill to prepare executives for cybersecurity incidents</p>	<p>1 time per year</p>	<p>1 time</p>



Shareholders



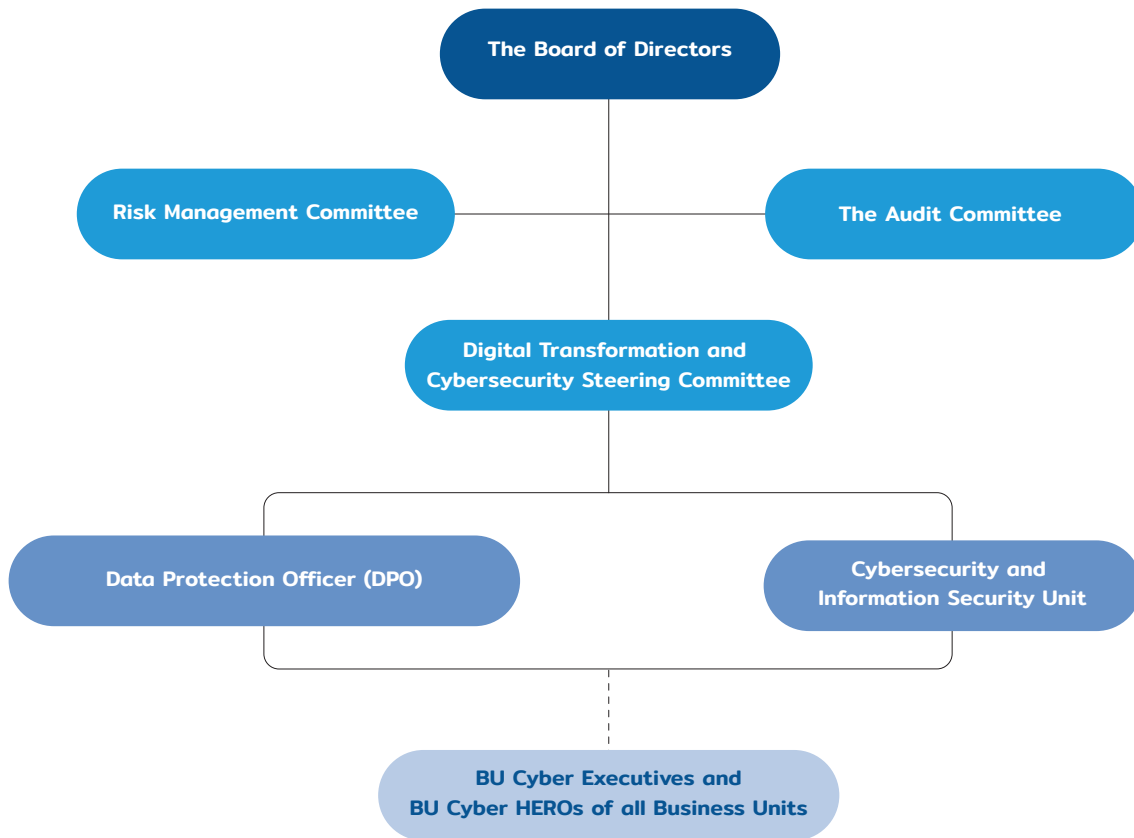
Customers and Consumers



Government and Civil Society Sectors

Management Approach

Cybersecurity Management Structure



Mitr Phol's Board of Directors places great significance on cybersecurity and information security and has thus delegated the Digital Transformation and Cybersecurity Steering Committee to work with the Risk Management Committee and the Audit Committee. The Company has appointed data protection officers (DPO) and established a dedicated cybersecurity unit within the Digital and Technology Transformation Group to manage cybersecurity and information security. The Executive Vice President of Digital and Technology Transformation is responsible for overseeing overall security management. The relevant committees on security management are as follows:

1. The Risk Management Committee

plays a significant role in defining policies, overseeing and supporting risk management, monitoring and evaluating performance, and providing recommendations for risk mitigation. This helps Mitr Phol Group to achieve its business goals and maximize benefits for its stakeholders. Key risks related to IT, cyber, and information security are closely monitored by the Risk Management Committee.

2. The Digital Transformation and Cybersecurity Committee

has duties to define policies on IT, cyber, and information security as well as oversee and support policy implementation across all business units in Mitr Phol Group.

3. The Audit Committee

independently reviews the Company's operations, ensuring that risk management and internal controls align with best practices and comply with relevant laws, rules, and regulations. The committee closely monitors and oversees risk management and controls related to IT, cyber, and information security as part of its audit cycle.

4. The Chief Information Security Officer (CISO)

a role held by the Executive Vice President of Digital and Technology Transformation, is responsible for setting technology strategies and managing digital and technology transformation operations across all units. The operations, encompassing digital transformation, systems and business solutions development, IT infrastructures, IT security, cybersecurity, and information security, ensure that business units receive the necessary support according to their needs and operations to achieve the Company's goals.

5. The Data Protection Officer (DPO)

is responsible for providing advice, reviewing operations, and supporting all business units within Mitr Phol Group. The DPO ensures compliance with personal data protection laws, including establishing security measures to protect personal data within Mitr Phol Group as required by law and to align with international standards.

6. The Cybersecurity and Information Security Unit

takes charge of planning, developing, and managing technology systems, information systems, and information (including personal data) within Mitr Phol Group to ensure security and maintain confidentiality, integrity, and availability. The unit conducts risk assessments, implements IT, cyber, and information security controls, and manages risks to maintain an acceptable level for the Company. It also monitors anomalous situations and promptly addresses them to minimize damage and restore normal operations. Moreover, the unit raises awareness among Mitr Phol Group employees, external service providers, and involved agencies.



Risk Management Framework for Cyber Threats and Information Security

Mitr Phol has established and announced the Information Technology Policy, the Cybersecurity Policy*, and the Personal Data Protection Policy**, which are to be adhered to across Mitr Phol Group. The Company also established a risk management framework for digital technology and information security to achieve the following key objectives.

Vision

Business Continuity

Business operations must be able to continue smoothly.

Responsive Cybersecurity

Prepare measures to respond effectively and promptly to potential cyber threats.

Global Benchmark

Cybersecurity and privacy management must comply with international standards.

Management Framework

NIST Compliance



Identify



Protect



Detect



Respond



Recover

Strategy

Strengthening cybersecurity measures and fostering a cybersecurity culture and knowledge

3 Lines of Defense

1

People

- Education
- Raising awareness
- Building corporate culture

2

Process

- Compliance
- Work instruction
- Monitoring

3

Technology

- Standardization
- Prevention
- Trust and Up-to-Date

Effective Risk Management

Mitr Phol aligns its organizational structure with the 3 Lines of Defense model to ensure proper checks and balances. The 3 Lines of Defense comprises:

First Line of Defense

consists of operational units, namely the management, business units, and the Digital and Technology Transformation Unit.

Second Line of Defense

consists of units that oversee risk management, and assess and control risks, namely the Cyber Risk Management Unit, the Risk Management and Business Continuity Unit, and the Governance and Compliance Unit.

Third Line of Defense

includes independent units providing audits for the operations of the first-line and second-line units, namely the Internal/IT Audit Office.

* For more information, please visit "[Cybersecurity Policy](#)"

** For more information, please visit "[Personal Data Protection Policy](#)"

Strengthening Cybersecurity Measures and Fostering a Cybersecurity Corporate Culture

Mitr Phol places importance on developing all 3 domains of People, Processes, and Technology, to mitigate cybersecurity risks, safeguard personal data, and effectively address cyber threats in every aspect.

1. In the People domain

the following key activities were carried out:

- All employees at every level attended training through the E-learning platform to acquire new skills related to cyber threats, monitoring techniques, defense strategies, and appropriate responses.
- Focus-group meetings were held to exchange experiences of real-life cyber threats with relevant departments to heighten awareness of potential threats in frontline operations.
- Employees regularly receive Cyber Alert! notifications for cyber emergencies and essential Cybersecurity Need to Know information through emails.
- A cyber incident response plan was rehearsed, and lessons learned from these rehearsals were used to improve the effectiveness of the incident response process.
- Phishing Simulation Tests are conducted regularly, with the results reported to the top management of each unit. High-risk groups are required to attend focus group training and review lessons to mitigate potential risks posed to the organization.
- A cybersecurity awareness-raising program has been conducted continuously through special talks on lessons learned from real cybersecurity incidents in the country.

2. In the Process domain

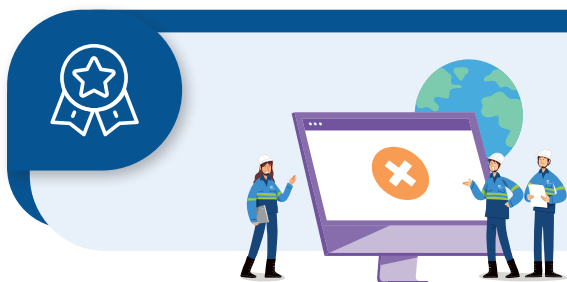
the following key activities were carried out:

- Policies, practices, and operational procedures were developed and announced. Training was provided to employees, executives, and stakeholders to ensure accurate and comprehensive implementation of the policies and related documents.
- Policies, practices, and operational procedures are reviewed annually.
- The Chief Information Security Officer (CISO) was appointed to oversee compliance with cybersecurity policies, standards, and practices, and ensure effective management of cybersecurity risks.
- Cyber Hotline was established as a channel for incident reporting, and Cyber Alert!! for threat notifications. The Cyber Incident Response Procedure and responsible persons were also designated to facilitate efficient collaboration among relevant departments.
- Cyber Drills are conducted annually.
- The Cyber Incident Ticket Management system was implemented to collect statistical data for risk analysis, devise plans and measures to prevent recurrence, and share insights gained for continuous learning and improvement.
- Cyber operations were monitored and evaluated by internal units and external agencies to ensure alignment with the standards of the federal agency, the National Institute of Standards and Technology (NIST).

3. In the Technology domain

the following key activities were carried out:

- Multi-factor authentication was utilized to enhance security when accessing critical systems.
- A Cloud Management Gateway and System Center Configuration Manager are employed to centrally oversee software installations and updates, ensuring that the software on computers and critical systems remains up to date.
- Employees are allowed to bring their own devices for work according to the BYOD Policy while they must maintain data security and block any unauthorized system access.
- Data Labeling was implemented to classify document confidentiality levels and regulate access control permissions.
- Data Loss Prevention is deployed to safeguard data from loss or leaks through emails and file-sharing systems.
- Network access control is applied to allow only authorized devices to connect to the Mitr Phol network.
- The Managed Security Service Provider and SOC are employed to gather and analyze network traffic to promptly identify unusual activities.
- Database encryption was implemented to secure sensitive data in the key database.
- Firewalls were installed for Industrial Control Systems to protect plant networks from external threats.
- USB Blocking Software was installed to prevent unauthorized data transfers to external storage.
- Vulnerability Assessments and Penetration Tests were regularly performed to detect and assess system vulnerabilities, particularly through simulated external attacks and testing the system's security readiness.



In 2023, the Company did not experience any data security breaches, and no customers or employees were affected by personal data breaches.

Social Dimension

- 070 Customers and Consumers
- 074 Employee Management
- 086 Management of Security, Safety,
Occupational Health and Work Environment
- 092 Society and Community
- 102 Human Rights



The level of employee engagement:

4.38

Equivalent to 87.6%



100%

of human rights complaints were resolved.



Communities earned a total of **0.87 million baht** from the sales of hygienic vegetables and

1.15 million baht from the sales of community products.



100%

of Mitr Phol's business groups conducted a human rights due diligence.



87 persons with disabilities

were employed, and

7 associations of persons with disabilities were established.



Mitr Phol established the "China-Thailand Institute of Modern Craftsmanship of Sugar Industry" in collaboration with the Guangxi Vocational and Technical Institute of Industry to elevate the quality of the sugar industry.



"Recognize and accept diversity while respecting human rights across the value chain."



Chapter

7

Customers and Consumers



Mitr Phol prioritizes product quality to ensure consumer confidence in using products under the Mitr Phol brand. The Company oversees the entire production process, from upstream to downstream, with great care, and consistently creates products to meet market demands and satisfy diverse, specific needs. Mitr Phol has also conducted research and development of new products to capitalize on opportunities arising from diverse consumer preferences.

2023 Target and Performance

	Target	Performance
 The sugar business's customer Net Promoter Score (NPS)	82%	80%



Shareholders



Customers and Consumers



Government and Civil Society Sectors

Management Approach

Product Safety Management

Product safety can impact consumer health and potentially lead to customer dissatisfaction, complaints, product recalls, or legal actions. These issues can also affect the Company’s credibility, reputation, and image, and may result in consumer backlash, leading to loss of revenue and market share. Therefore, the Mitr Phol Group is dedicated to upholding standards and continuously improving the manufacturing process across the supply chain. Clear guidelines are established throughout the entire process. For instance, sugarcane farmers are encouraged to minimize the use of harmful chemicals and avoid GMO sugarcane while the Company also adheres to explicit food safety policy.

Mitr Phol has a food quality and safety policy* in place to ensure operational efficiency across all its businesses. A dedicated department is responsible for quality

control, inspecting product quality, ensuring compliance with international standards, conducting analyses, and devising plans to improve quality as agreed with customers. Furthermore, Mitr Phol Group has obtained international certifications in product safety and quality, covering the development and enhancement of quality management systems and food safety management from raw materials to production processes and delivery. These certifications include the Bonsucro Production Standard, Forest Stewardship Council™ Chain of Custody (FSC™ CoC), ISO 22000 Standard for Food Safety Management, Good Management Practice (GMP), Hazard Analysis Critical Control Point (HACCP), Food Safety System 22000 Certificate (FSSC 22000), and HALAL. In 2023, 100% of the Company’s production output was certified by independent agencies based on internationally recognized food safety management system standards.



* Data was collected from November 1st of the previous year - October 31st of that year.

** Data was collected from January 1st - December 31st of that year.

* For more information, please visit [“Quality and Food Safety Policy”](#)

Health Product Development

Increasing consumer awareness about health and new scientific discoveries are key factors driving Mitr Phol’s health and nutrition product development. Consequently, the Company has adapted to evolving customer needs and harnesses opportunities for the growth of healthy food, while contributing to the health improvement of the wider public.

Mitr Phol Sugarcane Research Center Co., Ltd., a subsidiary of Mitr Phol, has been conducting research and development on promoting sugarcane farming, developing sugar-related products and services, and creating high value added products from byproducts of the sugarcane and sugar industry to support sustainable development in the sugarcane and sugar industry. Health product development also falls within the company’s research scope, as follows:

1. **Crop Production** focusing on applying interdisciplinary research and development to promote sugarcane farming and protection
2. **Sugar Technology and Specialty** focusing on improving manufacturing processes, sugar-related products, and customer services for the Company’s better product utilization and consumption
3. **Bio-based Chemicals and Energy** focusing on utilizing resources derived from the sugarcane and sugar industry to produce high value added products

In addition, the Company has established the Research and Development Advisory Committee to oversee research plans for sugarcane, sugar, derivatives, and related products, as well as to seek new business opportunities. The committee also supervises the transfer of technology and knowledge acquired from research to employees and involved personnel, including cooperation with national and international organizations, research institutes, and academic institutions. Mitr Phol’s health products include:

Mitr Phol’s light sugar products offer the combined benefits of granulated sugar and sweeteners. With a special dry blending process, these products deliver the same level of sweetness with 50% fewer calories.



The Fructo-oligosaccharide (FOS) product under the Vallex brand is for industrial use and the Priva brand for general consumers. These products offer health benefits beyond dietary fiber, acting as prebiotics that aid in balancing the digestive system. They can be consumed directly or used as ingredients in food, beverages, dietary supplements, and animal feed. The products contain glycaemic index (GI), calorie content, and total dietary fiber levels that support the optimal functioning of the gut microbiome.

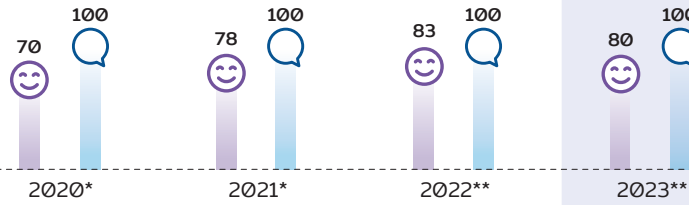
Customer and Consumer Satisfaction Survey Results

Performance

Net Promoter Score

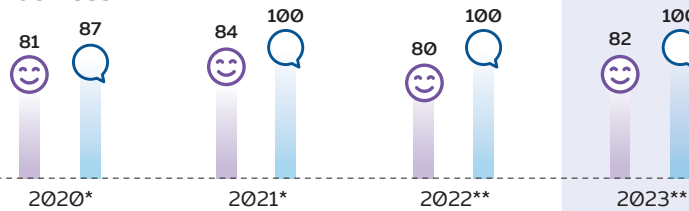
Data Coverage (Percentage of Customers)

Sugar Business



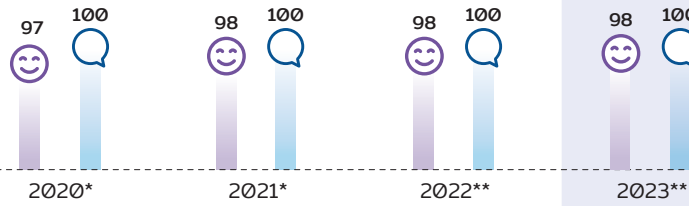
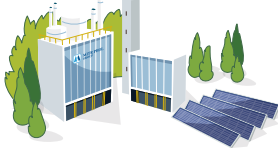
Target
Net Promoter Score
2023***
82%

Wood Substitute Materials Business



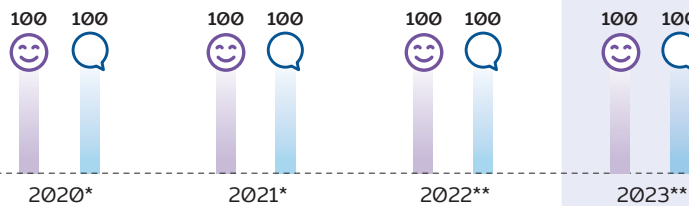
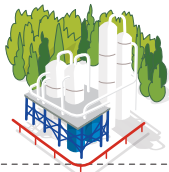
Target
Net Promoter Score
2023***
80%

Power Business



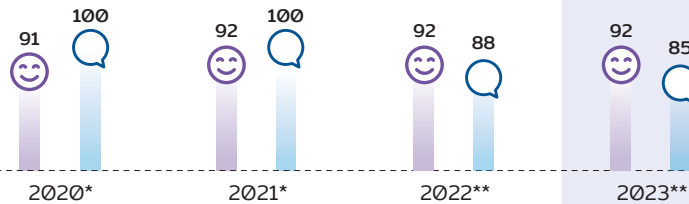
Target
Net Promoter Score
2023***
95%

Ethanol Business



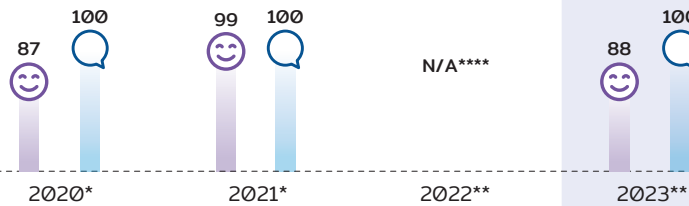
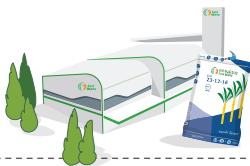
Target
Net Promoter Score
2023***
100%

Logistics and Warehouse Business



Target
Net Promoter Score
2023***
90%

Fertilizer Business



Target
Net Promoter Score
2023***
80%

* Data was collected from November 1st of the previous year to October 31st of that year.

** Data was collected from January 1st to December 31st of that year.

*** The 2023 target is based on the average Net Promoter Score of comparable industries.

**** In 2022, the sales and service strategies of the fertilizer business were adjusted. Therefore, data was not collected that year.

Chapter

8



Employee Management



Mitr Phol regards its employees as valuable assets and key drivers of the organization’s objectives. Therefore, the Company prioritizes preparing the employees to respond promptly and effectively to various situations. In light of rapid and continuous social change, Mitr Phol has adopted an Agile Organization approach to adapt to these changes. It is crucial that employees possess the knowledge, skills, and alignment with MITR beyond’s working style to foster sustainable growth for the organization (Cultivating for All).

In addition, maintaining a focus on social and environmental aspects within the workplace is a major factor in the organization’s growth and progress. Embracing diversity and fostering mutual respect among employees encourage the contribution of creative ideas, enabling them to deliver results and create value for all stakeholders.

2023 Target and Performance

	Target	Performance
 Level of employee engagement	4/5 Equivalent to 80%	4.38/5 Equivalent to 87.6%
 The percentage of labor costs to total costs	decreases or is equivalent to that in 2022 6.01%	5.82%



Shareholders



Customers and Consumers



Employees



Government and Civil Society Sectors

Management Approach

Employee Management Strategy

Mitr Phol has developed employee management strategies aimed at enhancing work efficiency and adaptability to drive the organization’s success in line with predefined goals. The Company has adopted an Agile Organization approach to ensure timely responses at work and has implemented this approach through various activities. Additionally, it educates employees to understand and embrace an Agile Mindset, enabling them to apply it in their work according to 4 main principles:



**Encouraging collaboration
in the workplace**



**Prioritizing
practical outcomes**



**Striving to meet
customer needs**



**Recognizing and
adapting to changes**

An Agile team has been set up in each business unit to develop insights and create understanding about Agile working through practical applications and experience shared among project members. They also use Objective and Key Results (OKRs) tools to link business objectives to project outcomes to achieve the following outcomes:

1. Improve working methods and processes to streamline steps and improve production efficiency for better outcomes
2. Develop new products and services to create opportunities and increase competitiveness for Mitr Phol Group
3. Reduce production loss and waste to lower overall costs
4. Seek new business opportunities for Mitr Phol Group



In 2023, Agile projects across all business groups **totalled 73**, resulting in **a cost reduction of 149 million baht and an increase in revenue by 2,072 million baht.**

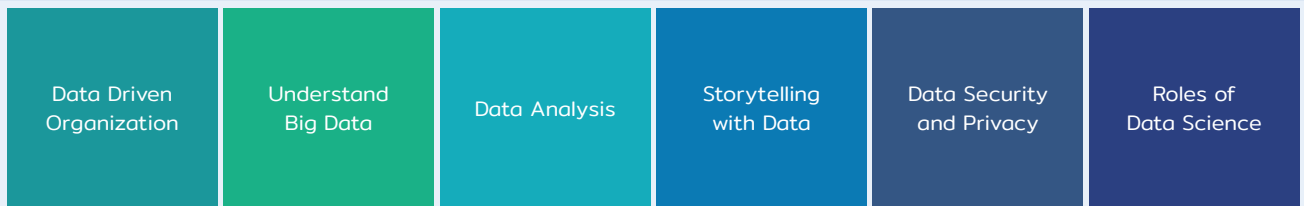


Employee Capacity Development Plan

MITR beyond Reskill-Upskill-Future Skill Program

The Company provides a variety of skill development programs, focusing on leadership skills, digital technology proficiency, personal data protection laws, and sustainability. The programs are tailored to employees and executives at all levels within Mitr Phol. Accessible via the Mitr Phol Learning Digital Platform, these courses are assessed through examinations, lesson summaries, practical application of acquired knowledge in work operations, and knowledge sharing within the Learning Community.

Data Driven Organization Program



Leadership Program



Reskill - Upskill - Future Skill 2023



Mitr Phol Transformational Leadership Program (MTLP) 2023

The MTLP programs offer real-life experiences through practical applications, aiming to unleash the potential of future leaders according to Mitr Phol’s Leadership Competency framework and to cultivate a growth mindset for effective change management. The programs also develop leaders’ mindsets and approaches to drive sustainable change, supporting economic, social, and environmental collaborations with stakeholders in alignment with Mitr Phol’s strategy. They are delivered through a Blended Learning approach, featuring 3 learning styles that enable employees to gain deep insights and hands-on experience, empowering them to become true leaders.



Virtual Learning



Online Learning



Projects base Learning

MTLP Programs by Target Group

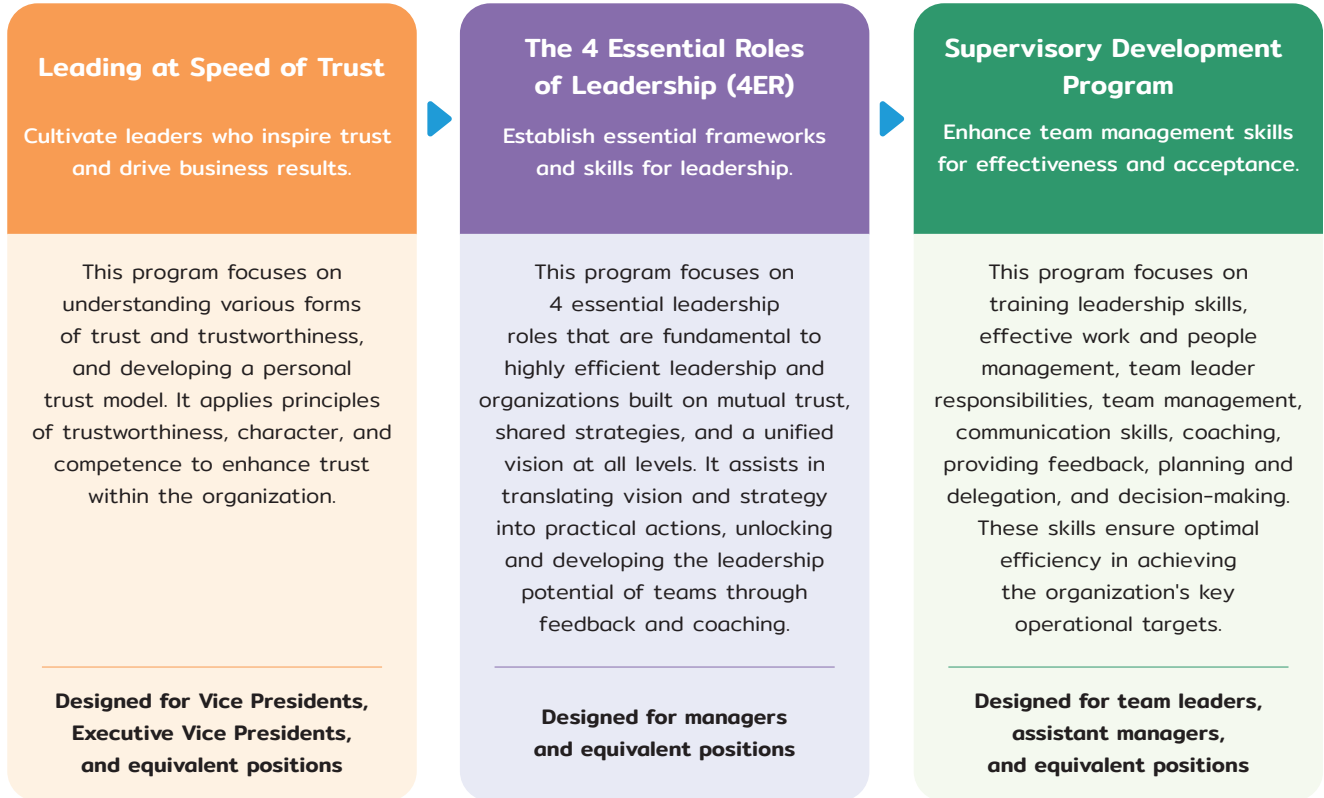
Program	MTLP 1	MTLP 2	MTLP 3	MTLP 4
Target Group	Employees level 4-6, e.g., officers, engineers, shift heads	Employees level 7-9, e.g., supervisors, assistant managers, or equivalent	Employees levels 10-11, e.g., managers or equivalent	Employees level 12-UC, e.g., Vice Presidents, Executive Vice Presidents, or equivalent
Roles and Responsibilities of Employees	Accomplish the team’s target independently.	Devise a management plan, set the team’s goals, control performance, and develop staff capacity.	Set a direction, a plan, and goals, supervise department performance, and develop staff capacity.	Set a direction and goals to lead the organization toward sustainable change, facilitate economic, social, and environmental cooperation with stakeholders in line with Mitr Phol’s strategy to ensure competitiveness at the international level and sustainable growth, and develop staff capacity.



In 2023, a total of 187 employees participated in the MTLP programs, and 21 ideas were submitted by employees. If successful, these ideas have the potential to generate additional income or reduce expenses.

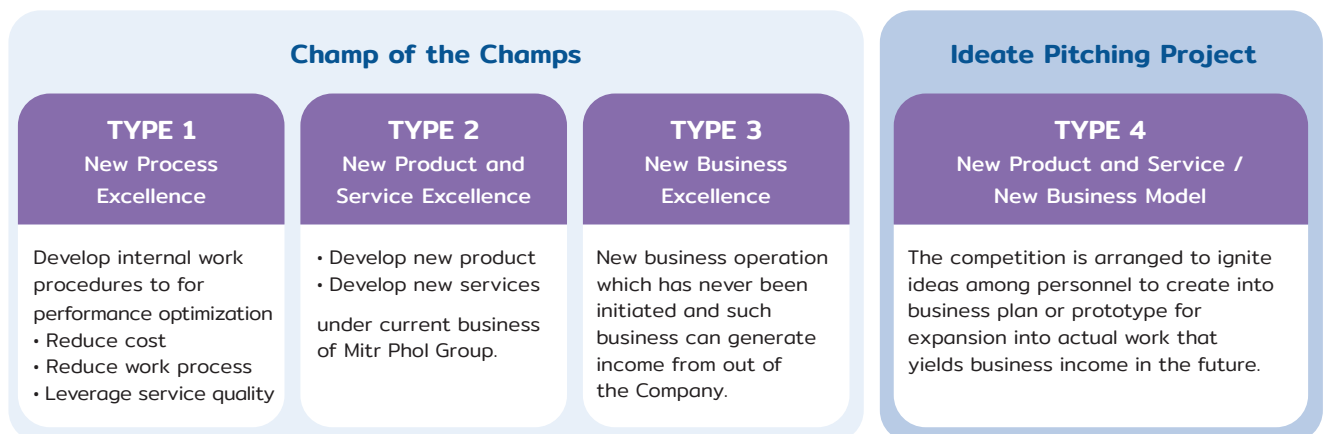
People Capability Development Program 2023

The leadership skills development program caters to leaders at each level, aiming to provide required competencies and promote collaboration and a positive work environment to improve individual and organizational performance, leading to efficient resource and team management. The programs offered are as follows:



MITR beyond Innovation Awards 2023

Mitr Phol organizes the Mitr Beyond Innovation Awards to foster the development of innovation, a core value of MITR Beyond Culture. This contest encourages employees to dare to develop, innovate, and put their ideas into action. In 2023, Mitr Phol's employees submitted a total of 478 innovations from all business groups. The contest consisted of 2 rounds: Transformation Idea and Champ of the Champs. Awards are given to innovations that significantly improve work processes, create new products and services, and develop new business ventures within Mitr Phol to create value and sustainable growth for the organization.



Management of Diversity, Equity, and Inclusion

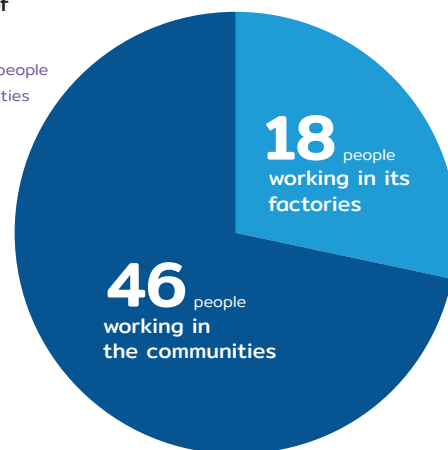
Mitr Phol prioritizes diversity, equity, and inclusion in its treatment of employees. This commitment is outlined in the Code of Conduct*, which stipulates equal treatment of employees, and the Diversity, Equity, Inclusion, and Belonging (DEI&B) Policy**, which applies to the Board of Directors, executives, and employees. Mitr Phol’s employees are entitled to equal treatment and respect for their human rights and dignity, regardless of ethnicity, religion, beliefs, gender, age, background, status, disability, education, or any other status unrelated to their ability to perform their duties. The Company will not tolerate any form of physical or emotional violation or harassment, ensuring that all employees are happy at work and proud to be part of Mitr Phol.

Support for Persons with Disabilities

Mitr Phol places a high value on the well-being of persons with disabilities living in the communities surrounding its factories. The Company hires local people to work in its factories at a fair wage in accordance with labor laws, thereby creating jobs and careers, improving the quality of life for local residents, and building positive relationships with the communities. Through the “Strengthening Communities: Empowering Persons with Disabilities” program, Mitr Phol employs people with disabilities, enabling them to work close to home and earn an income to support themselves. Additionally, Mitr Phol supports the establishment of disability clubs to promote career development for people with disabilities in sub-districts. In 2023, Mitr Phol employed a total of 64 people with disabilities, with 18 working within its factories and 46 in the communities.

Mitr Phol employed a total of

64 people with disabilities



In 2023, Mitr Phol received the “Excellence” award in the category of **Organizations that Support Persons with Disabilities** from the Department of Empowerment of Persons with Disabilities, the Ministry of Social Development and Human Security. The award recognizes organizations that consistently support the well-being of persons with disabilities.



* For more information, please visit [“Code of Conduct”](#)

** For more information, please visit [“Diversity, Equity, Inclusion, and Belonging \(DEI&B\) Policy”](#)

Welfare Arrangement

Mitr Phol is committed to improve the quality of life of its employees to ensure work-life balance. Hence, the Company has established the Labor Welfare Committee comprising elected employee representatives who serve as intermediaries to communicate the welfare needs of employees to the Company. These representatives also propose, monitor, and oversee the Company's welfare programs, which provide welfare and benefits beyond the basic requirements mandated by law, ensuring all employees receive these benefits without discrimination. The programs include:

Financial Support

1. Allowances, such as scholarships for children of employees, housing allowances, wedding aid and funeral allowances.
2. Funds including the social security fund, the compensation fund, the provident fund, and the loan fund.
3. Employee card benefits, such as discounts on accommodations at hotels specified by the Company.



Family Benefits

1. Pregnant employees can take 98 days of maternity leave, with full pay for 45 days, and access to a lactation room.
2. Reimbursement of outpatient care expenses for employees' family members.
3. Transportation service for employees' children between school and home.
4. Subsidies for the tuition fees of employees' children at the primary, secondary, vocational, higher vocational/undergraduate diploma, and university levels.



Healthcare Support

1. Annual health check-ups and provision of medical care in the workplace.
2. Reimbursement of medical expenses for outpatient and inpatient care, with additional support for the treatment of serious illnesses.
3. Reimbursement for dental care and essential vaccinations, such as hepatitis B and seasonal flu vaccinations.
4. Support for various forms of physical activity, including a fitness center at the head office and a sports field at the factory for employees.
5. Employee card benefits: discounts for outpatient and inpatient care and dental care at designated hospitals to reduce employee healthcare costs.



Other Benefits

1. Flexible working hours allowing workers to start work between 7:30 and 9:30 am., helping them to manage their time effectively.
2. Retirement benefits include:
 - Training on financial planning for retirement to ensure a happy retirement.
 - Mental and social care, with meetings and social events organized at appropriate times.
 - 2 years of continuous health care support from the retirement date.
 - Life insurance and accident insurance coverage for 2 more years from the retirement date.
3. Review and adjustment of the salary structure and starting rate, and provision of a cost-of-living allowance, to ensure that workers have a sufficient living wage to cover necessary expenses.



11 subsidiaries of Mitr Phol have received the Thailand Labour Management Excellence Awards 2023, organized by the Department of Labour Protection and Welfare, the Ministry of Labour. This award is granted to organizations that have an excellent system of labor relations and welfare to motivate the improvement of labor relations in the workplace.

Health Promotion Activities for Employees



- The “ZUMBA CLASS” promotes dance cardio workouts led by instructors from the Live in Motion Group. The class is not only fun but also helps employees relax and relieve work-related stress.

- Providing information about dental care through electronic channels.



- The “Understanding Depression Before It Hits” activity trained employees on how to deal with Burnout Syndrome and lead a happy life, guided by an experienced psychiatrist.

- The “Mitr Phol People’s 3 Health-Promotion Stations: Awareness and Prevention of NCDs” activity provided training on non-communicable chronic diseases, with expert doctors sharing their healthcare experiences. This activity supported employees in taking better care of their health.



- Collaborating with hospitals to offer employees flu and hepatitis B vaccinations at a special price.



Compensation Management

Remuneration for Executives

The Company has established clear and effective frameworks, criteria, methods, and processes to ensure transparent performance appraisal and compensation determination for executives linked to short-term and long-term objectives as well as individual performance. The Corporate Development and Remuneration Committee oversees the determination of remuneration for Senior Executive Vice Presidents and above.

Remuneration for Employees

The Company fairly compensates employees based on their performance. The HR Department and the Corporate Development and Remuneration Committee oversee compensation policies to ensure they are incentive-driven and competitive within the industry. The Company regularly adjusts salaries and benefits, taking into account business results, the economy, the living wage, and

individual performance. This ensures that employees are reasonably compensated, motivated, and that talented personnel are retained. In 2023, the Company reviewed and revised its salary structure and starting salaries to remain competitive in the labor market, keep pace with the rising cost of living, and alleviate employees’ financial burdens.

Employee Engagement Activities

Mitr Phol regards its employees as valuable assets, thus placing a strong emphasis on creating a positive workplace experience and fostering engagement. The Company regularly conducts an annual employee engagement survey to analyze, develop, and improve methods for taking care of employees in line with today’s working conditions. Employee engagement questions consist of 4 categories:



The employee engagement activities carried out in 2023 are as follows:



- Communicating the Company’s strategy and direction through the CEO Town Hall activity to ensure that employees clearly understand and align with the Company’s goals.

- Encouraging employees to learn about different perspectives, approaches to work, self-improvement, goal-setting through the Productivity Hacks Sharing session: “How to Live a Happy and Successful Life”.

LIVE EVENT

Productivity Hacks Sharing

“ทำงานและใช้ชีวิตให้มีประสิทธิภาพและมีความสุข”

กำหนดการ : 25 กรกฎาคม 2023 | เวลา 10:00-11:30 น.
กลุ่มเป้าหมาย : พนักงานทุกระดับ
ช่องทาง : Microsoft Teams Live Event

สรุปสาระ
เริ่มด้วยเพลง 55 ปี มิตร ฟอส ฟรอนต์ ลีเดนชิพ ของ วนะพรหม ซึ่งมีความหมายและแรงบันดาลใจ “ประสบความสำเร็จด้วยความสุข”

หัวข้อ Sharing

- 55 ปี มิตร ฟอส ฟรอนต์ ลีเดนชิพ “ประสบความสำเร็จด้วยความสุข”
- ทำงานอย่างไร ให้มีความสุขและประสบความสำเร็จ ทำเพื่อความสุขและทำสิ่งดีให้คนอื่นและทำดีให้สังคม
- การวัดความสำเร็จของการทำงานให้มีประสิทธิภาพและมีความสุข
- การพัฒนางานและ 55 ปี มิตร ฟอส ฟรอนต์ ลีเดนชิพ “โตมา”

Feedback is a GIFT

Given with permission
สร้างพื้นที่ปลอดภัยเพื่อ “ให้โอกาส” ปรึกษาหารือในมุมมองของตัวเองอย่างเต็มที่ โดยไม่ต้องกลัว และเพื่อที่เราจะได้รับฟังความคิดเห็นจากเขา “อย่างเปิดเผย”

Intent is for growth
ชื่นชมและให้คำแนะนําโดยมุ่งเน้นที่เป้าหมาย เพื่อให้กับได้พัฒนาตนเองให้ทำงานได้ดียิ่งขึ้น

For the person, NOT about the person
เริ่มต้นด้วยการ “ปรารถนา” กับการปรึกษาร่วมกันเพื่อหา feedback สื่อกิจกรรมที่ **กำลังพูดคุย** ด้วยโดยตรง

Targeted for success
การพัฒนาที่เห็นผล เกิดจากการ feedback อย่างสม่ำเสมอและทำอย่างต่อเนื่อง **กับต้องโฟกัสความสำเร็จ** ด้วยกัน จะส่งผลให้ทีมเข้าใกล้เป้าหมายได้มากยิ่งขึ้น

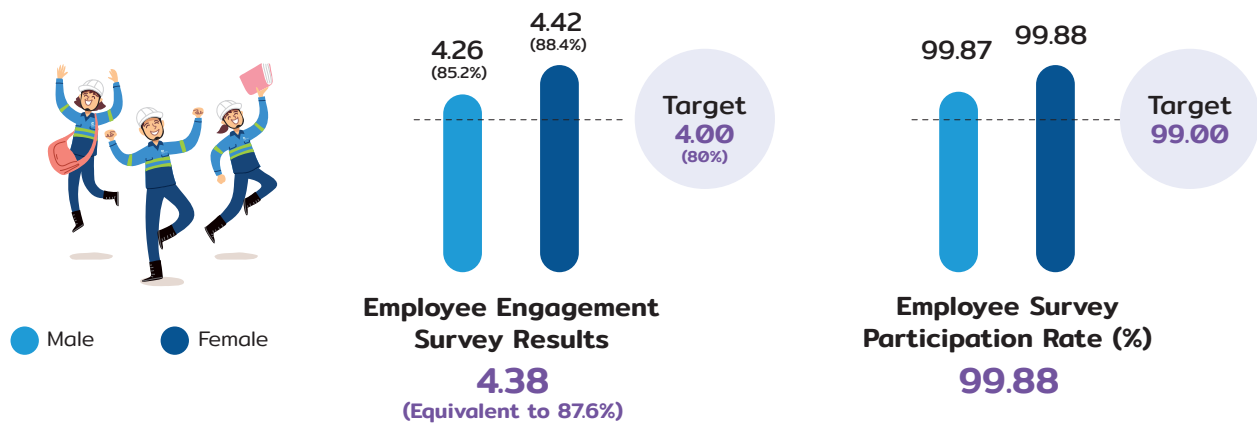
- Promoting Performance Feedback and Recognition to improve performance and cultivate good team spirit.

5 รากฐานสำคัญที่องค์กรควรเตรียมความพร้อม ในการทำ OKRs & CFR

- 1 การสร้างพื้นที่ปลอดภัย**
เพื่อเป็นพื้นที่รองรับความผิดพลาด ความไม่พร้อม และเน้นพื้นที่ ประสบความสำเร็จร่วมกัน
- 2 ความเชื่อมั่น ความเชื่อถือ ความไว้วางใจ**
ซึ่งได้มาจากงานที่ได้ทำอย่าง ทุ่มเทสุด ก้าวที่ก้าวไป
- 3 โครงสร้างและความชัดเจน**
องค์กรควรมีโครงสร้าง บทบาทหน้าที่ และเป้าหมายที่ชัดเจน
- 4 ความหมาย ความสำคัญของงาน**
งานที่มีความสำคัญ และมีความหมายต่อทีม องค์กร
- 5 Impact ของงาน**
งานที่สร้างผลกระทบ Impact ต่อผู้มีส่วนได้ส่วนเสีย

- Enhancing knowledge and understanding and promoting performance feedback through **Conversation Feedback and Recognition (CFR)**. Employees were encouraged to use CFR to enhance performance and ensure the achievement of objectives and key results (OKRs).

The Results of the 2023 Employee Engagement Survey



Employee Performance Management

Performance management is a crucial process that enables individuals, departments, and the organization to achieve shared goals. This process includes setting goals, monitoring performance, as well as reviewing and evaluating and performance. Mitr Phol has implemented the Digital & Technology System to facilitate performance management, evaluate performance, develop skills, and plan career development for employees through collaboration between managers and employees. The goal is to align each employee’s performance achievements with the objectives of the department and the Company in accordance with these guidelines.

Goal Setting

Goal setting begins with corporate goals, which cascade into departmental strategies and goals, and ultimately into employee goals and key performance indicators (KPIs). At the beginning of the year, managers at all levels are responsible for communicating the organization’s goals, vision, and strategy, as well as those of their specific departments, to employees. Together, they establish work objectives that align with the department’s and organization’s goals. In addition, they define work plans, employee responsibilities, expected performance, and explicit work behaviors.

Performance Monitoring

To ensure that performance is consistent and aligned with corporate and departmental goals, managers should continuously and regularly monitor employee performance. This includes discussions, follow-ups, guidance or feedback, and plan reviews to ensure activities remain aligned with the goals. Managers should also set up regular weekly check-in meetings where employees provide updates on work progress and seek support as needed. The aim is to ensure that employees feel confident in performing their jobs.

Performance Review and Evaluation

Management by Objectives

The Management by Objectives appraisal is conducted twice annually against mutually agreed-upon key performance indicators (KPIs) with the team leader, who measures individual success in alignment with the team’s strategic plans. Additionally, in the first half of the year, the Company assesses employees’ competencies against the behaviors that align with the corporate culture “MITR Beyond,” which stands for Mastery, Innovation, Trustworthiness, and Resilience. These behaviors, adhered to by Mitr Phol, lead to operational efficiency and goal achievement.

Team-based Performance Appraisal

The team-based performance appraisal evaluates each employee as part of the team rather than individually. This approach is implemented twice annually against predefined key performance indicators (KPIs) that measure the team’s success, aligning with the team’s and organization’s strategic plans. Thus, team-based performance appraisals help team members understand expectations and mark progress toward individual, team, and organization-level goals.

360-degree Feedback

The 360-degree feedback is conducted annually to collect input from multiple sources regarding performance and areas for improvement. This method enables individuals to receive feedback from team members, colleagues, direct reports, supervisors, and managers. It helps employees gain insight into their strengths and weaknesses from diverse perspectives.

Agile Conversations between a Team Leader and Team Members

This assessment involves various forms of continuous evaluation, such as 1-to-1 discussions, team meetings, etc., which helps team members continuously learn and improve. The team leader provides feedback on the performance and behavior of employees over the past year and compares these results against the goals. This appraisal prioritizes precise and constructive communication, mutual respect, and the opportunity for employees to express their opinions and exchange positive views with each other to enhance performance.





Mitr Phol was accredited as a Top Employer 2023 in Thailand by the Top Employers Institute in the Netherlands, reflecting excellence in human resource management and employee care comparable to that of global companies.



Mitr Phol was ranked 9th among the top 50 companies in Thailand that young people most want to join. This ranking reflects young people's preference for leading companies and highlights Mitr Phol's commitment to effective human resource management and development.



Chapter

9

Management of Security, Safety, Occupational Health and Work Environment



Mitr Phol is concerned and cares for the safety, occupational health, and work environment of its employees, farmers, contractors, and individuals working in its operating areas. Hence, the Company oversees the implementation of policies and related measures to ensure their safety. Mitr Phol is well aware that good occupational health and a safe environment enable employees, farmers, and stakeholders to operate effectively, enhancing workplace efficiency while reducing accidents, lost time injuries, serious incidents, complaints, and medical expenses for both the Company and its stakeholders.

Therefore, Mitr Phol prioritizes the management of security, safety, occupational health, and work environment, with the goal of achieving zero accidents by 2023. This challenging goal prompts the entire Mitr Phol Group to develop a corporate strategy that involves employees, farmers, contractors, and stakeholders in preventing loss of life and property damage.

2023 Target and Performance

	Target	Performance
<p>Number of sugar mills and biomass power plants that are certified ISO 45001</p>	12 plants	12 plants
<p>Lost Time Injury Frequency Rate (LTIFR) for employees and contractors</p>	<0.25 person / 1 million hours worked	0.95 person / 1 million hours worked



Shareholders



Suppliers



Customers and Consumers



Employees



Government and Civil Society Sectors

Management Approach

Mitr Phol prioritizes cultivating an occupational health and safety culture. Certified with the ISO 45001:2018 standards, Mitr Phol's operations align with the requirements to implement policies on security, safety, occupational health, and work environment, along with risk management practices related to occupational health and safety. These policies and practices are communicated to employees and relevant stakeholders. Mitr Phol has established a clearly defined and proper governance and management structure, with dedicated occupational health, safety, and environmental units at both the corporate and factory levels. These units are responsible for driving safety promotion operations for employees and related parties.

The Company has also established a process to identify hazards, assess risks, and investigate incidents in order to identify risks and opportunities across work processes, activities, and work-related areas, products and services, as well as significant contractors' operations, including normal and abnormal situations and emergencies. Based on these results, the Company formulates a risk management and mitigation plan to keep all significant risks within acceptable levels, including potential changes. In addition, the Company appoints responsible persons to periodically drive and monitor the plan, and the results will be used to further improve its occupational health, safety, and environmental management system.

To ensure current results, hazard identification and risk assessment are reviewed and updated annually, or whenever there are significant changes in raw materials, production processes, activities, machinery and equipment, or personnel. This must comply with Mitr Phol's Hazard Identification and Risk Assessment Standard (MP-QP-8002-017). If employees or supervisors find that the assigned activities or tasks pose a risk or may cause harm, injury, or death, they are entitled to refuse to perform the work and/or immediately halt the action. They must also notify relevant parties to take corrective action immediately based on Mitr Phol's Safety, Occupational Health, and Work Environment Roles and Regulations Standard (MP-QP-8002-025). In case of incidents or non-compliance, there is a process for reporting, identifying causes, analyzing corrective and preventive measures, and monitoring the results to prevent recurrence as outlined in Mitr Phol's Incident Management Standard (MP-QP-8002-019).

* For more information, please visit "[Security, Safety, Occupational Health, and Environment Policy](#)"

Cultivation of Health and Safety Culture

Mitr Phol places great importance on cultivating a safety culture and raising risk awareness within the organization. To this end, the Company has launched a wide range of projects, including communication, training, and setting indicators. In 2023, it carried out the following security, occupational health, safety, and environmental projects.

Establishment of Mitr Phol Training Center for Safety, Occupational Health, and Environment

In 2023, Mitr Phol established a training center for safety, occupational health, and environment. Qualified trainers were selected for the center based on the requirements of each course. The trainers were properly registered according to the regulations, allowing them to issue certificates upon completion of training. The establishment of this training center has equipped employees with the knowledge and understanding necessary to comply with occupational safety laws, which helps reduce the risk of workplace incidents and accidents. In addition, Mitr Phol indirectly benefits from cost savings in organizing training as the center offers over 15 programs, including Safety Training for First-line Managers, the Occupational Safety, Health, and Environment Commission program, Safe Forklift Driving, Chemical-Related Operations Safety Training, and Safety Training for Permit Issuers, Supervisors, Assistants, and Confined Space Workers.

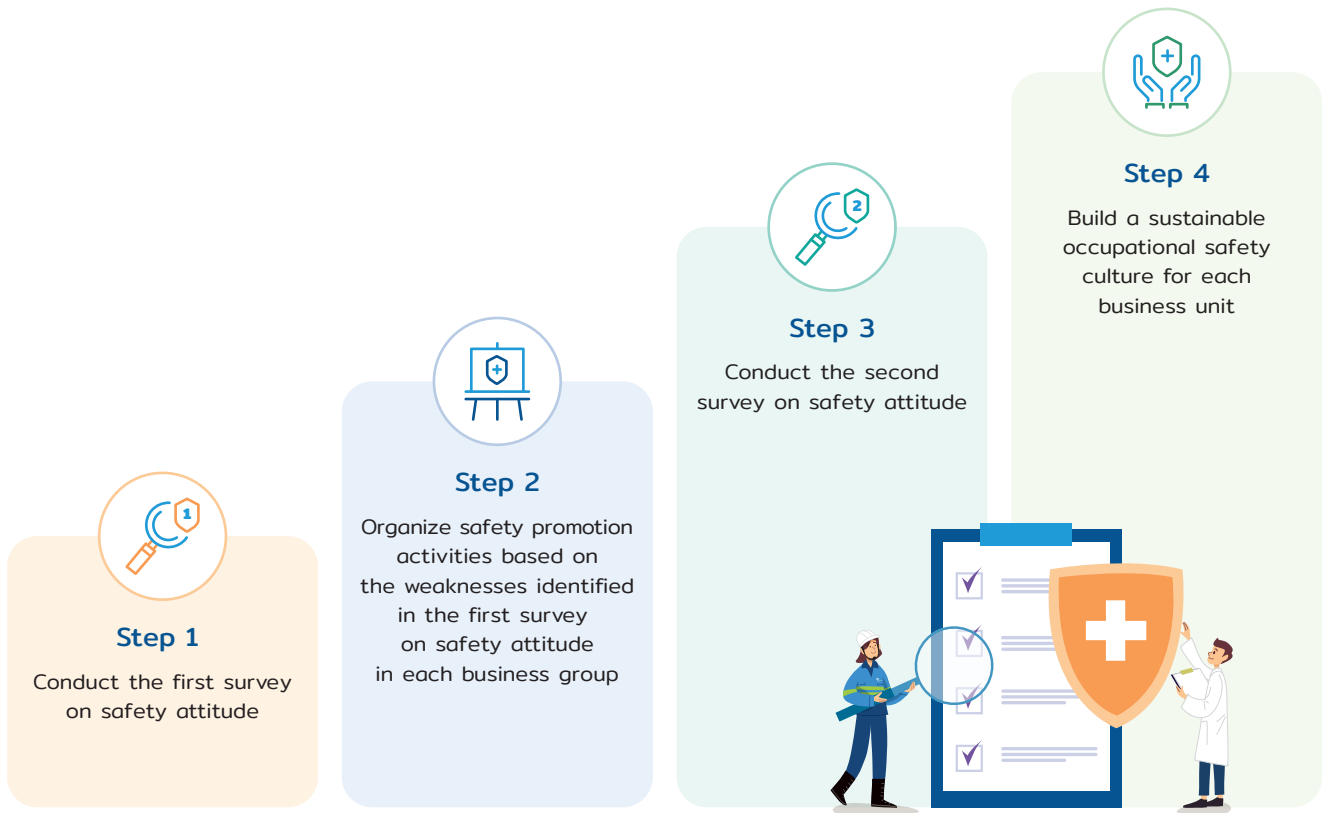


Safety Culture Survey

Mitr Phol realizes that building sustainable safety is like building a house: a strong foundation is essential to support the house structure. Similarly, cultivating a sustainable safety culture across all business units provides the solid foundation necessary for safety. Hence, the Company conducted its first Safety Culture Survey in 2023 to assess behaviors and attitudes toward workplace safety, as well as employee perceptions of safety culture promotion within each business unit.

The Company conducted a survey in 2023 to assess the safety fundamentals of employees and executives at all levels, beginning with the ethanol and Wood Substitute Materials Business. In 2024, this survey will be extended to the sugar and energy businesses. One of the challenges in conducting these surveys is maintaining anonymity to obtain the most accurate data possible. This process requires the cooperation and trust of all staff members to gather complete and reliable data. Mitr Phol will use the survey results to enhance the safety culture across all business units, aiming to reduce workplace accidents, injuries, and work-related illnesses, and to foster a robust safety culture throughout the Mitr Phol Group.

Conducting a Safety Culture Survey

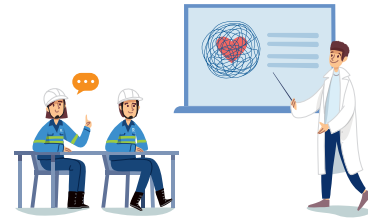


Activities Promoting Inclusive Healthy Living in the Workplace

Mitr Phol recognizes that employees' health is vital to the productivity and advancement of both the organization and society. Therefore, the Company supports and promotes inclusive healthy living in the workplace through holistic health tools, aiming to develop the workplace into a happy workplace model. The Company also builds and promotes networks to enhance well-being in the workplace and encourages policy proposals for inclusive healthy living. In 2023, the Company organized the following activities:



- **The 3 Stations for Good Health** activity by Mitr Phol in collaboration with CGS Hospital aimed to raise awareness and suggest prevention of non-communicable diseases (NCDs) through games, exercise, and health record-keeping, etc.



- **Lecture on Health Care**, such as a lecture on “Understanding Depression Before It Strikes” by Sittikorn Preechawuttidej, M.D.



- **The Caring Tai Phu Khiao, Keeping Depression at Bay** activity involved creating materials about depression and encouraging employees to take depression screening tests. Additionally, private counseling services with specialist doctors were provided for employees who are likely to have depression.



- **The Lose Belly, Get Fit, Gain Health** activity invited employees with a BMI above the standard to participate in a competition to achieve a healthy BMI. The program included health education, recording health data before starting, daily exercise tracking, and monthly submissions of waist circumference, weight, blood pressure, and BMI records.

Healthy Body, Happy Heart with Healthy and Safe Workplace Activity

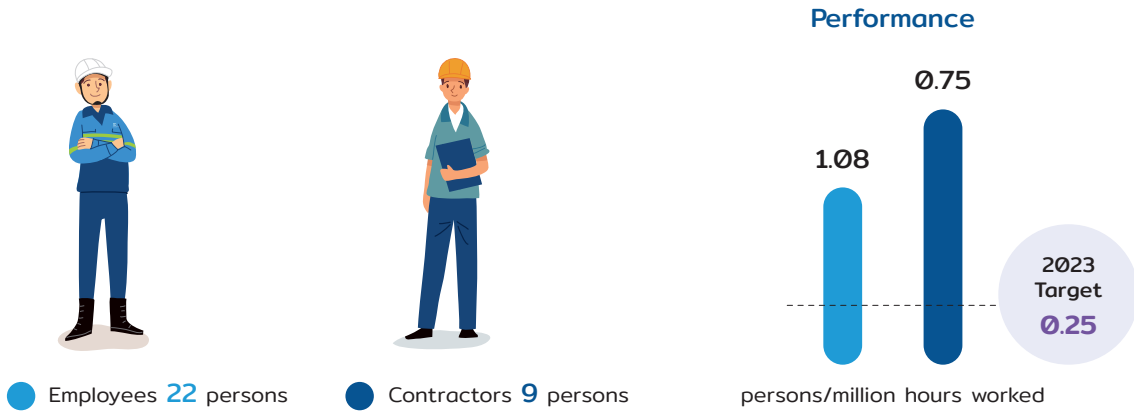
Mitr Phol has adopted the approach of the “Healthy Body, Happy Heart with Healthy and Safe Workplace” initiative, and the management has established health, safety, and environmental promotion policies, including the prevention of illnesses and injuries, and maintaining a healthy environment. These policies are communicated to all employees, and a working committee has been established to encourage engagement and collaboration between employees and the organization.

In addition, the Company conducted the assessment of situations and survey of workers' needs and desired activities. The results are prioritized and developed into action plans with activities designed to engage employees. The Company also monitors and evaluates the outcomes of these activities to make improvements or expand their impact in the future.

Key Performance

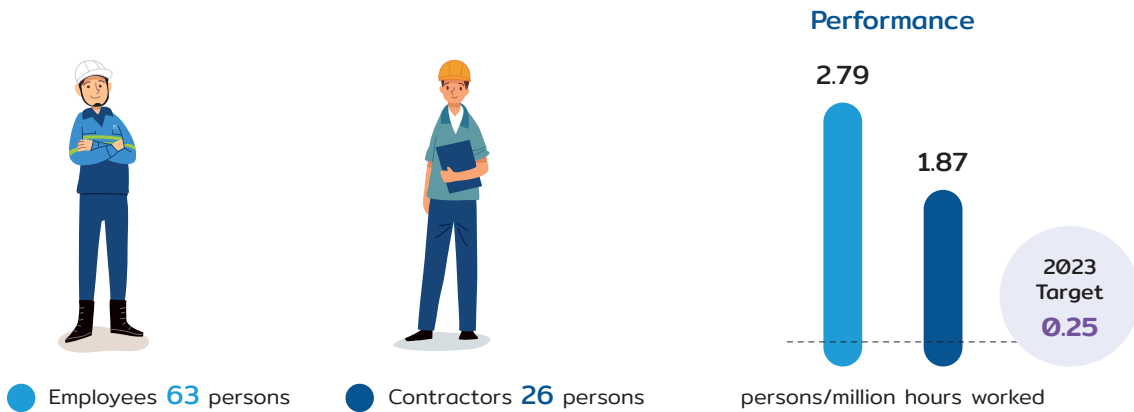
Lost Time Injury Frequency Rate (LTIFR)

Lost Time Injuries (persons)



Total Recordable Work-related Injuries (TRIR)

Total Recordable Work-related Injuries (persons)



Chapter

10

Society and Community



Guided by the “Grow Together” concept, Mitr Phol aims to collaborate with government sectors, communities, farmers, schools, and parents to sustainably enhance the environment and quality of life for farmers and communities. Our efforts include developing and sharing comprehensive knowledge on produce management and distribution, empowering teachers and schools to achieve global standards, and equipping the younger generation with essential skills.

Mitr Phol has established the Sustainable Community Development, Community Relations, and Education Administration Departments as key drivers for social and community development. Each factory is also required to have a Sustainable Community Development Unit and a Community Engagement Unit. The Education Management Unit operates centrally and collaborates with regional units at each factory, facilitating convenient and precise operations tailored to local needs for effective community engagement. The Company aims to improve the quality of life and protect the environment in surrounding communities by creating jobs for sugarcane farmers and their communities, promoting stable and sustainable livelihoods. This initiative is expected to enhance the image of farmers among younger generations, encouraging them to return to their hometowns and help stabilize the cane and sugar industry as well as related sectors.



Shareholders



Communities







Customers and Consumers



Government and Civil Society Sectors

Driving Community Development

Mitr Phol engages in community development to improve the quality of life for farmers, helping them to become self-sufficient and live happily in a healthy environment. This is achieved by effectively addressing challenges to ensure sustainable results. The process begins with field visits to understand the community context, lifestyle, resources, and existing potential, followed by collaborative planning between the communities and the Company.

	Target	Performance
 Reduce household expenses on food	5%	7%
 Increase household income from agricultural sector	5%	5%
 Develop community enterprises in collaboration with Plook Por Suk Co., Ltd.	15 community enterprises	17 community enterprises
 Establish model sub-districts	12 model sub-districts	13 model sub-districts

Operational Framework

Target

To improve the quality of life for farmers, helping them to become self-sufficient and live happily in a healthy environment.

Target Areas

Communities in 8 provinces: Suphan Buri, Sing Buri, Khon Kaen, Kalasin, Chaiyaphum, Loei, Roi Et, and Amnat Charoen, totaling 23 sub-districts, 320 villages, and 60,053 households.

Operational Framework

Sustainable Community Management	The operating principles are as follows: <ul style="list-style-type: none"> • Emphasize mutual responsibility in study, analysis, planning, and implementation. • Leverage the local community's existing capital and potential through the Mitr Phol Joint Development Sub-District Committee, which collaborates with local government agencies and organizations to identify problems and develop the sub-district development plan.
Development of Community Farming System and Food Safety	The operating principles are as follows: <ul style="list-style-type: none"> • Encourage communities to establish safe food banks by zoning areas for mixed agriculture, livestock, and fisheries. • Enhance knowledge of various agricultural to promote community self-sufficiency and reduce dependency on external resources, which will help reduce household expenses in the long run.
Development of Community Economy	The operating principles are as follows: <ul style="list-style-type: none"> • Leverage community skills and resources to develop community products, such as handicrafts, processed foods, and various safe food products. • Develop agricultural knowledge and promote the application of IoT technology to improve production processes in compliance with PGS, Plook Por Suk, and GAP standards, while also enhancing marketing knowledge.

2023 Performance

The Sustainable Community Development Department has established a social enterprise, “Plook Por Suk Co., Ltd.,” to promote hygienic vegetable cultivation and produce management among sugarcane farmers. Its major duties include:



Acting as a mediator

between “suppliers” and “farmers”.



Providing advice to farmers

on the planting phase, marketing plans, and pricing to help them sell their produce at optimal prices.



Seeking distribution channels





for farmers' produce.

Plook Por Suk Co., Ltd. employs persons with disabilities in the communities as community sustainable development assistants. It facilitates knowledge transfer in organic farming and produce management to raise awareness and foster an understanding of the importance of supporting people with disabilities. This helps build an inclusive and sustainable society.



In 2023, the Company earned an income of over 900,000 baht, underscoring its success in creating food security, providing learning opportunities, enhancing potential for sustainable economic growth, and reducing social inequalities.

Sustainable Community Management

- 1  **2,123 households participated in the project.**
- 2  **Mitr Phol Joint Development Sub-District Committees with 340 members**
- 3  **Established 10 Mitr Phol Joint Development Sub-District Training Centers.**
- 4  **Implemented the Strong Community project by employing persons with disabilities as follows:**

1. **Employed 87 persons with disabilities as defined in Section 33** with 50 persons working within the sustainable community development project area in collaboration with Sub-District Administration Organizations, Sub-District Hospitals, community schools, and the Mitr Phol Sub-District Learning Center.
2. **Established 7 disability clubs** to facilitate organization, skill and knowledge development, and welfare for persons with disabilities in the community by collaborating with partner agencies focused on their development.

Development of Community Farming System and Food Safety



Established **15** hygienic vegetables cultivation groups.

Involved a total of **209** members in the hygienic vegetable cultivation groups.

Generated a total income of **867,787** baht from hygienic vegetable cultivation.

Development of Community Economy



Established **16** occupational groups.

◆ Promotion and Development of Community Occupational Groups

Generated a total income of **1,151,785** baht from the sale of community products.

◆ Promotion of Hygienic Vegetable Cultivation



Driving Community Relations

Mitr Phol drives community relations with the aim of building positive relationships with the surrounding communities and cultivating trust between the Company and the community. Currently, the Company has carried out community relations operations in 9 provinces: Suphan Buri, Sing Buri, Khon Kaen, Kalasin, Chaiyaphum, Loei, Roi Et, Yasothon, and Amnat Charoen, alongside community development initiatives.

Operational Framework

Target

To maintain positive relationships with communities and build mutual trust.

Target Areas

Communities in 9 provinces: Suphan Buri, Sing Buri, Khon Kaen, Kalasin, Chaiyaphum, Loei, Roi Et, Yasothon, and Amnat Charoen.

Operational Framework

Listening to and Understanding Community Needs	Mitr Phol conducts surveys and analyzes the needs of surrounding communities to identify suitable projects that truly address their needs.
Building a Collaborative Network	Mitr Phol works with communities, local organizations, the government sector, and partners to build strong and sustainable collaborations.
Promoting the UN's Sustainable Development Goals	Implemented projects must align with sustainable development principles, taking into consideration both social and environmental impacts.
Monitoring and Evaluation	Project performance will be regularly monitored and evaluated to ensure effectiveness and the delivery of expected results.
Communication and Reporting	Mitr Phol will continuously communicate and report its community relations performance to all stakeholders in a transparent manner.

2023 Performance

Activity	Performance
Maintaining positive relationships between the Company and communities	<ul style="list-style-type: none"> Communicate and engage with communities in the Company's operating areas to ensure that they understand and support the Company's operations through such activities as seminars and site visits by external agencies. As a result, at least 30% of these communities have been informed about the factory's work processes. Engage surrounding communities through various activities such as community surveys, complaint investigations and evaluations, visits to environmental monitoring checkpoints, tripartite activities, and the Mitr Phol Neighborhood Network. As a result, at least 30% of the target communities have been aware of the sugar mill's management.
Fostering community development projects	<ul style="list-style-type: none"> Develop communities surrounding sugar mills through various activities, including community potential development projects, community economic development projects, sports and well-being promotion projects, environmental protection projects, and cultural preservation projects. At least 40% of the communities participate in these activities to foster development and achieve mutual benefits.
Implementation of the Ministry of Industry's MIND Concept to create new value for industries	<ul style="list-style-type: none"> Visit environmental monitoring checkpoints twice a year to build communities' confidence in the factory's environmental monitoring processes. Conduct community dialogues twice a year to communicate and report the mill's environmental quality and safety measurement results, monitor environmental quality, and identify community concerns. Organize a community waste project at Khok Sa-at Witthaya School once a month. Organize surveillance activities, spot checks, and implement accident prevention measures throughout the sugarcane crushing season. Promote health and well-being by conducting annual health check-ups for the community.

Activity	Performance
<p>Supporting activities under the Eco-Industrial Town Project in the areas of</p> <ul style="list-style-type: none"> • Mitr Phol Dan Chang Complex, Suphan Buri • Mitr Phol Phu Khiao Complex, Chaiyaphum 	<ul style="list-style-type: none"> • Participate in developing a five-year action plan (2023–2027) for eco-industrial estate development by gathering input from government, private and public sectors, and local stakeholders. This approach will set a clear development direction and produce a high-quality action plan that is comprehensive, precise, and effective, promoting project operations to elevate the industry in Mitr Phol Dan Chang Complex. • Facilitate the operations of the project to elevate the industry in Mitr Phol Dan Chang Complex as follows: <ul style="list-style-type: none"> - Project to replace the oxidation treatment system with an activated sludge system - Floating solar panel installation project - Project to convert forklift fuel from diesel to electricity • To facilitate the implementation of social development projects at Mitr Phol Phu Khiao Complex as follows: <ul style="list-style-type: none"> - Annual health check - Community dialogue project (home visits to build relationships with surrounding communities) - Mitr Volunteer Project (create a livable community) - Project to preserve local cultural traditions - Project to visit and learn about the community environmental health assessment - Ban Phu Din Partnership School Project (Mitr Phol Uppatham)

Driving Educational Administration

Mitr Phol is committed to improving educational administration in communities surrounding its sugar mills. The Company collaborates with government agencies and private organizations to elevate the quality of education by designing engaging curricula for both classroom and extracurricular learning and providing teacher training and resources. The goal is to transform schools into centers for lifelong learning that empower students, teachers, and all community members to create, access, and explore knowledge and information for learning and career development. This will help promote interaction among all parties in the communities, leading to a robust “Learning Ecosystem”.

Operational Framework

Target

Elevate the quality of education in communities surrounding sugar mills

Operational Framework



Building a Learning Ecosystem

- Improve the learning environment both inside and outside the classroom.
- Provide essential educational technology, including hardware, software, and digital literacy support.



Vocational Skills Development

- Support extracurricular activities that develop learners' professional skills tailored to the local context.
- Develop vocational competencies for vocational education students in line with international standards through collaboration with leading national and international organizations.



Academic Skills Development

- Train and develop teachers on quality education administration skills to improve student achievement and facilitate career advancement.

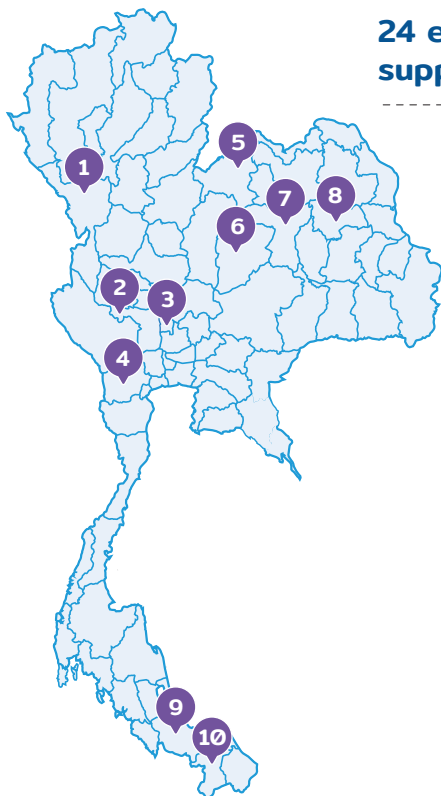


Life Skills Development

- Provide essential resources to improve learners' livelihoods and quality of life.
- Support extracurricular activities that cultivate learners' morals, ethics, and desirable qualities.

Performance in 2023

To drive educational administration efforts, Mitr Phol has joined the CONNEXT ED Project and the Partnership School Project to develop partner educational institutions, including schools and vocational colleges as detailed below:



24 educational institutions supported by the Mitr Phol Group



1. Tak Province: 1 school

- Ban Pha Deh School

2. Suphanburi Province: 5 schools

- Wat Thabphungnoy School
- Ban La-wa Wungkwai School
- Thai Rath Wittaya 20 (Ban Nong Makha Mong) School
- Ban Thung Makok School
- Ban Sra Toey School

3. Singburi Province: 4 schools

- Wat Pra Chot Karam School
- Wat Chak Sih School
- Wat Klang Tha Kham Community School
- Wat Ban Cha School

4. Ratchaburi Province: 2 schools

- Krab-Yai Vongkusolkrit Phitthayakhom School*
- Krab-Yai Kindergarten School**

5. Loei Province: 2 schools

- Khok Khamin School
- Ban Na Moontun School

6. Chaiyaphum Province: 3 schools

- Chomchon Ban Nong Siang-Sa School
- Ban Phudin (Mitr Phol Uppatham) School*
- Ban Na Nongthum School

7. Khon Kaen Province: 2 schools

- Baan Nong Phai Dusit Prachasan School*
- Khon Kaen Advanced Agriculture Industry Technology College**

8. Kalasin Province: 3 schools

- Kud-Khoa Teppittaya School
- Som Sa-ard Pittayasan School
- Ban Kui School

9. Songkhla Province: 1 school

- Watthunglung Mittrapap 198 School**

10. Yala Province: 1 school

- Ban I Yerwen School**

* Join the Partnership School Project and Connex ED

** Join only the Partnership School Project

CONNEXT ED Project

Target: Model of High-Quality Community Schools

Building a Learning Ecosystem

- Supported 3 ICT Talent staff in assisting 9 schools in the northeastern region.
- Encouraged teachers and students to apply information technology in data management and design teaching and learning activities in digital formats by organizing a project to promote expertise in using Google technology, resulting in 60 teachers becoming Google Certified Educators.
- Created a technology-focused learning ecosystem through the Digital Classroom: Google for Edutainment project, providing 266 used computers to participating schools in the central and northeastern regions.

Academic Skills Development

- Organized student-centered learning and improved teaching and learning quality according to the guidelines of the Chulalongkorn University Demonstration Elementary School.
- Organized training for teachers on developing teaching skills and creating instructional materials to promote the active learning approach, which emphasizes student engagement and interaction through hands-on activities.
- Provided a total of 950,000 baht in support for educational equipment, technological media, school supplies, supplementary library textbooks, and teaching manuals, following the guidelines of Chulalongkorn University Demonstration Elementary School.
- Offered training on coaching skills for teachers to foster a positive classroom environment and enhance students' critical thinking, conducted by coaches from BE Management Coach Institute, with 16 teachers completing the training and practice.

Target: Model of High-Quality Community Schools

Vocational Skill Development	<ul style="list-style-type: none"> Supported extracurricular activities to equip students with professional skills in agriculture, product processing, production and distribution, etc.
Life Skills Development	<ul style="list-style-type: none"> Supported the “SP Field Challenge” activity to encourage schools and communities to engage in education through reflection, creation, and reinforcement. Supported extracurricular activities that cultivate learners’ morals, ethics, and desirable qualities while preserving local arts and culture. Promoted environmental awareness through “Let’s Create and Tell Your Stories”, a story-writing and storytelling competition for upper primary school students from 20 schools.

Partnership School Project

Mitr Phol aims to create an innovative model for educational institution management and elevate the Khon Kaen Higher College of Agricultural Technology to become a leading agricultural vocational institution in ASEAN. The focus is on building a learning ecosystem that includes:



Emphasizing learner-centered education through active learning approaches.



Cultivating vocational skills that are relevant to the local context

to provide students with a strong foundation for their future careers.



Developing essential teaching skills

for 21st-century education, such as

- critical thinking
- creativity
- collaboration
- communication
- future skills like English and technology literacy



Improving classroom environments and creating learning resources

to help schools deliver quality education tailored to their specific contexts.



Promoting the school as a community learning center

by fostering community engagement in administration and facilitating knowledge sharing between the school and the community.

Target: An innovative model for quality community school administration

Building a Learning Ecosystem

Quality classroom development	<ul style="list-style-type: none"> Supplied instructional materials, desks and chairs, classroom decorations, and tools for developing active learning resources.
Technological equipment	<ul style="list-style-type: none"> Provided the computer lab, robotics classroom, projectors, televisions, audio kits, etc.
School learning resources	<ul style="list-style-type: none"> Provided science laboratories, playgrounds, indoor and outdoor learning activity areas, libraries, etc.
Teaching and learning support materials	<ul style="list-style-type: none"> Developed technology skills by supplying 450 Clicker toolkits and providing robotics and coding tools to 5 schools.

Target: An innovative model for quality community school administration

Academic Skills Development

Digital skills	<ul style="list-style-type: none"> • Developed teachers' skills in using Google tools for teaching and learning and support them in obtaining Google for Education (being Google Certified Educator) Level 1 and 2 certifications, resulting in 99 teachers becoming certified. • Krab Yai Vongkusolkrit Phitthayakhom School has been selected to establish Google Educator Groups (GEG Ratchaburi) as the 25th group in Thailand. This group consists of teachers who organize various activities, including training sessions to promote the use of Google Apps for Education.
English language skills	<ul style="list-style-type: none"> • Elevated the quality of English language and class teachers in schools in the northeast and central regions to achieve English proficiency according to the CEFR (Common European Framework of Reference for Languages), as required by the Ministry of Education. A total of 33 teachers have participated in the program through online learning. • Developed students' English proficiency to the A1 level by incorporating 3 hours of integrated English lessons per week, taught by both foreign and subject teachers. This initiative has been piloted in 3 schools in the northeastern region.
Soft Skills	<ul style="list-style-type: none"> • "7 Habits for Highly Effective Trainers" program to develop 40 administrators and teachers
Others	<ul style="list-style-type: none"> • Active Learning Approach <ul style="list-style-type: none"> - Conducted reskilling training on creating teaching materials and upskilling training on developing digital media platforms for active learning, following the guidelines of Chulalongkorn University Demonstration School, for 4 schools and 60 master teachers. - Developed resources of innovative instructional materials for active learning in 4 model schools in the Northeastern and Central regions. - Extended the training on creating teaching materials for active learning to 32 other schools in their educational service area and developed 151 master teachers. • Clicker: Educational Innovation for Active Learning <ul style="list-style-type: none"> - Used Clicker for integrated teaching and learning management in all subjects in 3 primary schools in the Northeastern region and expanded to 2 additional schools in the Southern region participating as the third cohort. - Using Clickers in various school activities, such as student union president elections and academic skills competitions. • Robotics and Coding <ul style="list-style-type: none"> - Supported the establishment of robotic classrooms in schools and promoted learning activities both inside and outside the classroom. - Collaborated with the Robotics Club of Thailand to establish the Krab Yai Sub-District Municipality Kindergarten in Ratchaburi Province as a learning center for robotics in the central region of Thailand and organize the MITR PHOL KRABYAI RATCHABURI GRAND ROBOTICS CHAMPIONSHIP 2023 as an extension of computational science education and promotion of extracurricular activities in robotics and coding.

Vocational Skills Development

Discovering excellence for career development	<ul style="list-style-type: none"> • Promoted vocational skills development based on student's interests and the school's context in 7 schools in the Central, Northeastern, and Southern regions. • Engaged local enterprises, local sages, and parents in exchanging professional knowledge. • Promoted extracurricular activities related to vocational skills, such as vocational skills competitions and setting up booths to sell products at various festivals.
Career-based Academy	<ul style="list-style-type: none"> • Created short courses for lower secondary school students to prepare them for further study in vocational education programs by working with experts from enterprises, college instructors, and teachers from schools within the network.

Target: An innovative model for quality community school administration

Life Skills Development

Mitr Volunteers for Education Initiative

Promoted the development of the corporate culture and provide opportunities for workers to serve society as volunteers through various activities as follows:

- Raising funds of 72,000 baht in total to publish 700 volumes of “Tales of (Saving) Earth” for 16 schools to increase learning and environmental awareness.
- Organizing the Mitr Sharing activity to brainstorm and share knowledge and expertise through the co-creation of 5 short courses that prepare students for further study in vocational education programs.
- Conducting 7 sessions of the Mitr Phol Knowledge Sharing activity to share knowledge, exchange experiences, and inspire teachers and students.
- Hosting Mitr Volunteers for Education activities, such as Mitr Sharing Uniforms for Younger Students, raising a total of 202,000 baht to purchase new uniforms and prizes for National Children’s Day activities.
- Implementing the MITR Love You activity to sell school products from a professional skills development initiative that promotes learning outside the classroom, through various channels, generating a total of 33,560 baht.

Scholarships

- Supported scholarships of 1,526,000 baht in total to improve the livelihoods and quality of life of students from kindergarten to high school.

Partnership School Project: Khon Kaen College of Agriculture and Technology

Mitr Phol has partnered with Khon Kaen College of Agriculture and Technology to develop the college into a leading vocational institution in ASEAN. This partnership aims to create a highly skilled workforce in the agro-industry, equipped with the competency and expertise to meet business demands and enhance the country’s competitiveness. The Company’s operations in 2023 are as follows:

Target: To develop Khon Kaen College of Agriculture and Technology into a leading vocational institution in ASEAN

Academic Skills Development

Establishment of the Center of Vocational Manpower Networking Management (CVM)

To create and develop a workforce that aligns with the spatial context and meets the country’s needs in the S-Curve industry while supporting entry into Industry 4.0, Mitr Phol focuses on 4 key programs:

- Modern Farming and Harvesting Program
- Aviation for Agriculture Program
- Agriculture Processing Technology Program
- Agriculture Warehousing and Distribution Program

Collaboration with Leading Vocational Colleges in China

- Established the “China-Thailand Institute of Modern Craftsmanship of Sugar Industry” in collaboration with Guangxi Industrial Vocational and Technical College.
- Established the “Guangxi College of Modern Electrical Engineering” with Guangxi Electrical Polytechnic College to develop curricula, teaching and learning, and enhance the skills of teachers, staff, and students, including Mitr Phol employees.

Collaboration with Leading Enterprises in Thailand

- Mitr Phol has partnered with its network enterprises that have specialized expertise, such as Real Soluplus Co., Ltd., CNH Industrial (Thailand) Co., Ltd, and Power Agrotech (Thailand) Co., Ltd, to provide vocational training for students.

Target: To develop Khon Kaen College of Agriculture and Technology into a leading vocational institution in ASEAN

Vocational Skills Development

Vocational Competency Development	<ul style="list-style-type: none"> Students were trained according to German professional standards, with a focus on developing skills to meet the needs of enterprises. Following the training, their competency was tested with support from Rajamangala University of Technology Isan – Khon Kaen Campus.
English Language Proficiency Development	<ul style="list-style-type: none"> Students received training to enhance their English language skills, focusing on improving listening and reading abilities to achieve proficiency equivalent to the TOEIC standard.
Digital Skills Development	<ul style="list-style-type: none"> Students received training in hardware skills and office suite applications. Those who passed the assessments and who met the standards and those who have worked with the Mitr Phol team will receive higher pay.

Life Skills Development

Scholarships	<ul style="list-style-type: none"> From 2021 to 2023, the Company supported 93 Higher Vocational Certificate scholarships, totaling 2,790,000 baht. Provided support for 26 vocational certificate scholarships over 3 years of study, with a total value of 780,000 baht.
Budget support for the improvement of utility systems and college infrastructure	<ul style="list-style-type: none"> Provided a total budget of 389,165 baht for the construction of the college’s sports field, the installation of a drinking water supply system and water filtration plant, and the improvement of the college meeting hall.
Support for extracurricular activities integrated with community activities	<ul style="list-style-type: none"> Supported extracurricular activities to build morals and ethics and preserve local arts, culture, and traditions through collaboration with various agencies and integration with community activities.

Chapter

11

Human Rights



Mitr Phol Group recognizes that business operations inevitably involve many stakeholders; hence, respect for human rights throughout the entire value chain is its top priority. The business sector has a vital duty to respect and promote human rights through operations that help improve the quality of life and the development of products and services. Consequently, the Company has fostered understanding and awareness of human rights among its personnel to ensure that human rights practices are implemented across the supply chain.

2023 Target and Performance

	Target	Performance
 Handling of human rights complaints	100%	100%

Management Approach

Mitr Phol’s operations adhere to the UN’s guiding principles on business and human rights and align with international standards such as the Universal Declaration of Human Rights (UDHR), the United Nations Global Compact (UNGC), and the International Labor Organization’s Declaration on Fundamental Principles and Rights at Work.

Accordingly, the Board of Directors has established the Human Rights Policy*, which is reviewed annually, and established a Human Rights Due Diligence process in cooperation with the relevant departments. The Sustainability Development Section under the Corporate Sustainability Department, the Corporate Sustainability Division, is responsible for operation and coordination with other departments across Mitr Phol’s businesses. They review current risk trends from business activities, suppliers, and partners throughout the value chain to ensure compliance with laws and international human rights principles.

* For more information, please visit [“Human Rights Policy”](#)



Shareholders



Farmers



Communities



Suppliers



Customers and Consumers

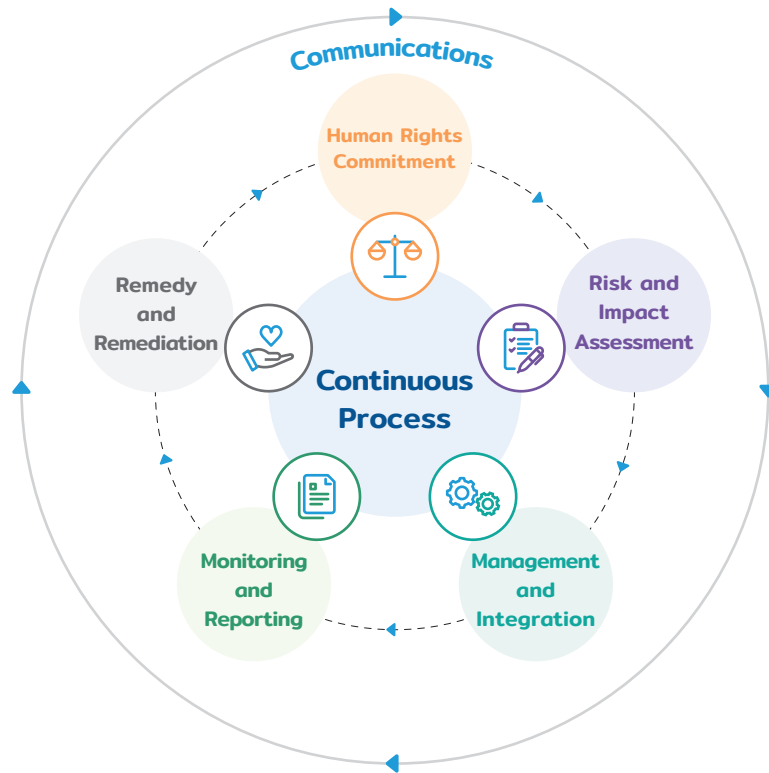


Employees



Government and Civil Society Sectors

Human Rights Due Diligence



Human Rights Due Diligence

Mitr Phol has conducted Human Rights Due Diligence in accordance with the UN Guiding Principles on Business and Human Rights as follows:

1

The Board of Directors has reviewed the Human Rights Policy and mandated its enforcement across the business activities of Mitr Phol Sugar Company Limited and its subsidiaries, including investments in related businesses, such as mergers, acquisitions, and joint ventures. The policy is aligned with the Company's practices and ensures compliance with relevant laws, regulations, and international human rights principles.

2

Mitr Phol's human rights risks in 2022 were reviewed to analyze risks and assess impacts. This includes issues such as forced labor, human trafficking, child labor, freedom of association, rights to collective bargaining, equal remuneration, discrimination, and harassment. The review also includes relevant issues that may affect the Company's stakeholders and vulnerable populations, such as children, women, people with disabilities, migrant workers, and local communities.

3

Mitr Phol has conducted a risk assessment and developed a human rights risk register to identify potential risks affecting its stakeholders, including farmers, suppliers, employees, migrant workers, and local communities. This enables the Company to identify significant risk issues and mitigation measures to minimize their impacts and likelihood both presently and in the future. Workshops have been organized for departments across Mitr Phol's 7 business groups, covering all activities within the value chain. This comprehensive approach represents 100% of operational areas, from raw material sourcing, production, maintenance, and construction to the storage and delivery of products and services. The assessment encompasses both core and support activities.

Scope of Human Rights Due Diligence



Whistleblowing Channels

Mitr Phol has established channels for receiving complaints regarding human rights violations, ensuring respect for the rights of complainants and whistleblowers. The Company will handle these complaints by conducting transparent investigations and resolving them within a specified timeframe. It will provide regular progress updates to complainants and affected parties on the handling process and will determine appropriate remedies for each case.

Mitr Phol has designated directors, executives, supervisors, the Corporate Governance Department, the Human Resources Division, and the Audit Office to be responsible for receiving, gathering, and reporting complaints to the Corporate Governance Unit. Internal and external stakeholders of the Company and its subsidiaries can file their complaints through the following channels:

Email	CG@mitrphol.com
Mitr Phol's Website	www.mitrphol.com/whistleblowing
Post	Corporate Governance Department, Mitr Phol Sugar Corp., Ltd. (Head Office), 2 Ploenchit Center Building, 3 rd Floor, Sukhumvit Road, Klong Toei, Bangkok 10110
Other Channels	Other channels that complainants find suitable and convenient for them

Remedy and Reparation

After receiving complaints about human rights violations, the Company will conduct a thorough and transparent investigation. If it is determined that the Company's operations have violated human rights, the Company will provide remedies to the affected parties based on the specific circumstances of each incident. These violations will be reported to the Risk Management Committee, which will develop more appropriate control measures. Employees found to have violated human rights are considered to have breached the Code of Conduct and will face disciplinary actions. These may include suspension, deduction of wages, dismissal from service, and potential legal penalties if their actions are deemed unlawful.



Mitr Phol Sugar Corp., Ltd. received the Outstanding Role Model Organization Human Rights Award 2023 in the Large Enterprise category for the 4th consecutive year from the Rights and Liberties Protection Department, Ministry of Justice.

Environmental Dimension

108	Climate Change Management
114	Farm and On-Farm Water Management
122	Energy Management
128	Industrial Environment Management
136	Biodiversity Management
140	Packaging
142	Food Loss and Food Waste Management



"Suphan Buri Carbon Neutrality Model"



achieved the target of becoming **Thailand's first Carbon Neutrality Complex.**

80%

of the Company's power consumption is **sourced from solar and biomass energy.**



Having planted

657,763

 trees,

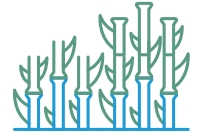
aiming to achieve the target of 2.2 million trees by 2032

The fresh sugarcane delivered to the sugar mills amounted to

69.62%

higher than

the **national** average of 67.2%



Being **Thailand's first** producer of sustainable ethanol certified against the

Bonsucro EU-RED Standard



95%

of sugar packaging

is made from **recyclable**

and compostable plastic materials.



"Enhance energy efficiency in manufacturing and promote stronger cooperation in greenhouse gas mitigation from upstream to downstream in the value chain."



Chapter

12

Climate Change Management



Mitr Phol recognizes its crucial role in driving sustainable business growth while balancing economic growth with environmental responsibility. The Company has implemented a climate change management strategy with targets to achieve carbon neutrality by 2030 and net zero emissions by 2050. These goals align with global efforts to reduce carbon emissions and mitigate the impacts of climate change. Mitr Phol’s sustainable development plan encompasses the entire value chain, from upstream to downstream operations. Additionally, the Company promotes innovation and technology development, ensuring its employees are equipped with the necessary knowledge and skills to effectively implement these tools and achieve true sustainability.



Shareholders



Customers and Consumers

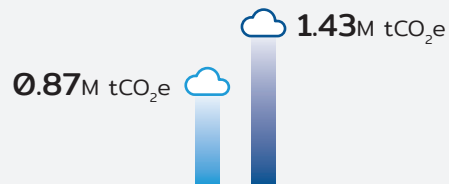


Government and Civil Society Sectors

Net Zero Pathway

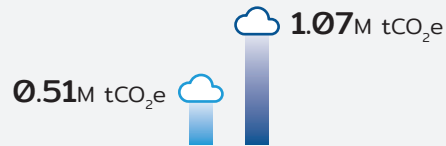
 Total Scope 1 and 2 Emissions  Total Scope 3 Emissions

2022 (Baseline)



Create database for scope 1, 2, and 3 emissions

2030



Reduce scope 1 and 2 emissions by 42% from the baseline year

Reduce scope 3 emissions by 25% from the baseline year

2050



Reduce scope 1, 2, and 3 emissions by 90% from the baseline year

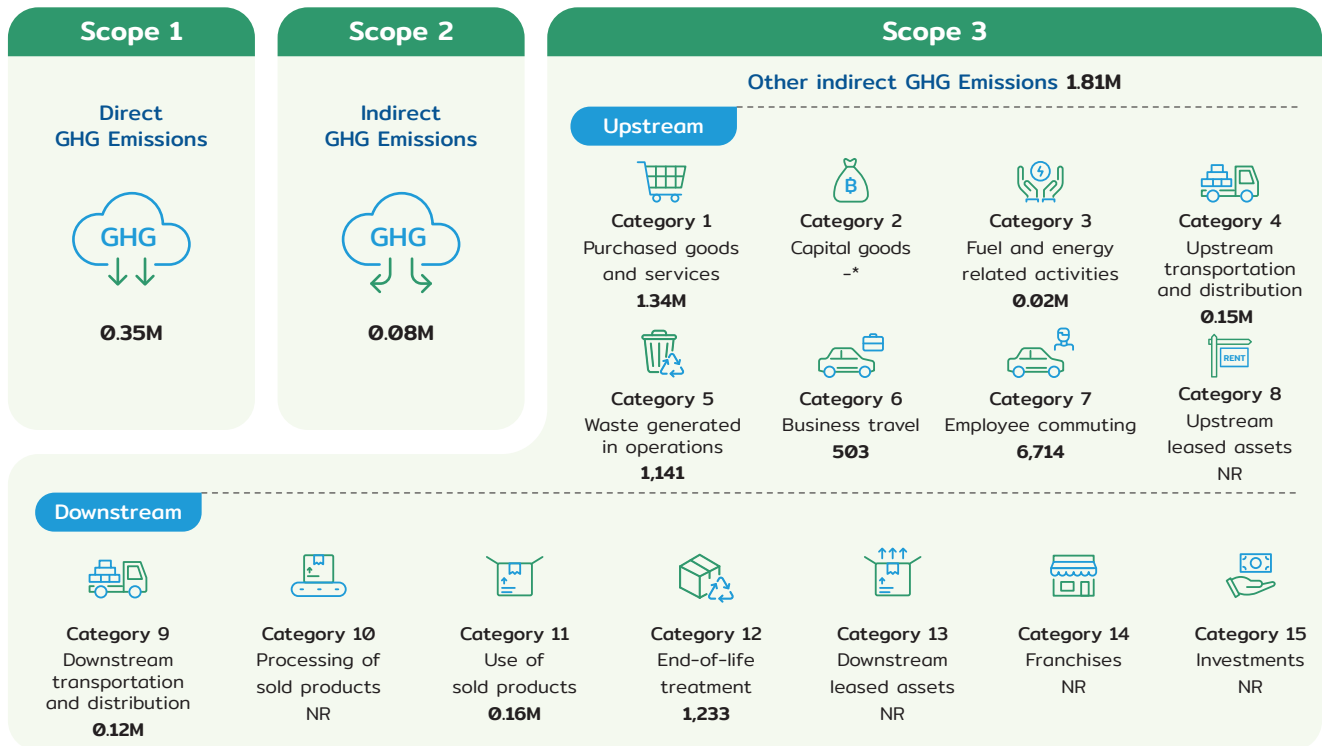
Management Approach

Mitr Phol has carried out climate actions in line with the direction and goals set by the Committee as follows:

Developing an organizational GHG emissions inventory

In 2023, Mitr Phol conducted a comprehensive assessment of GHG emissions across its entire value chain to establish baseline data for the Company’s GHG management, with the goal of achieving carbon neutrality by 2030 and net zero emissions by 2050. The Company prepared a GHG emissions inventory based on the assessment of the carbon footprint for the organization (CFO) (the year 2050), covering Scope 1, 2, and 3 emissions across all 7 business groups, which was verified by a third party. The GHG emissions for each scope in 2023 are as follows:

unit: ton of carbon dioxide equivalent (tCO₂e)



* Remark: Scope 3, Category 2 (Capital Goods) GHG emissions cannot be calculated due to the unavailability of the emission factor from the supplier.

Developing a platform for GHG emissions data collection and calculation

The Corporate Sustainability and Digital Transformation teams have collaboratively designed and developed a platform for collecting and calculating the Company’s GHG emissions data, as well as a system for quantifying GHG emissions and removals. This platform serves as a tool for business units to evaluate corporate footprints, identify energy-saving opportunities, and reduce emissions. The data collection and calculation processes comply with the Thailand Greenhouse Gas Management Organization’s (TGO) corporate carbon footprint calculation and reporting standards and the globally recognized GHG Protocol. Additionally, the platform extends to GHG emissions data collection according to the Forest, Land, and Agriculture Guidance (FLAG).

In the future, Mitr Phol plans to develop a comprehensive database system for all its subsidiaries. This system will integrate connected transactions into the Company’s overall GHG emissions assessment, including electricity trading between the sugar and power plant businesses.

Organizing workshops on corporate carbon footprint assessment

The Corporate Sustainability team has developed training programs and organized workshops focused on the assessment of corporate carbon footprint. These sessions are designed for executives and employees involved in plantation, sugar, energy, fertilizer, and Wood Substitute Materials Business as well as other businesses. The objective is to equip employees with the necessary knowledge and understanding of corporate carbon footprint calculation principles. This training will enable them to collect data and assess the corporate carbon footprint, aligning with the organization's goal of achieving net zero emissions. The programs cover methods for data collection, identification of emission sources, and hands-on workshops on corporate carbon footprint calculation.

Disclosing climate change management data in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Mitr Phol has prepared a TCFD report based on the TCFD framework, enabling the analysis of its business and the formulation of strategies to address climate change challenges, manage significant risks, and capitalize on business opportunities arising from climate change. Additionally, the climate disclosure provides stakeholders with essential information for decision-making in investments and related transactions, assuring them that the company acknowledges climate risks and engages in prudent management.

Low-carbon Product and Service Development

Products certified for GHG management



Carbon Footprint of Products

A label that indicates the total greenhouse gas emissions produced throughout a product's life cycle, from material acquisition, production process, distribution, usage, and waste management at its end of life.

38 products are certified.

The certified products are in the groups of white sugar, super refined sugar, refined sugar, raw sugar, natural cane sugar, syrup, Inversweet syrup, sucrose sweet syrup, rock sugar, crystalline sugar, and caramel granulated sugar. These products come from a total of 6 sugar factories.



Carbon Footprint Reduction

A label indicating that the product has passed a carbon footprint assessment and meets the criteria for reducing GHG emissions.

8 products are certified.

The certified products are in the groups of white sugar, pure refined sugar, raw sugar, and natural cane sugar from 3 sugar factories.



Thailand Voluntary Emission Reduction Program: T-VER

The T-VER Program is a voluntary initiative that encourages organizations to reduce greenhouse gases in Thailand and facilitates the trading of carbon removal credits. Mitr Phol has participated in the program since 2015.

9 projects are certified.

The certified projects are under the category of renewable energy or alternatives to fossil fuels, and they have received carbon credits of approximately **900,000 tCO₂e/year**.



Renewable Energy Certificates (RECs)

Renewable Energy Certificate (REC) for renewable power generation, certified by the Electricity Generating Authority of Thailand.

**Total RECs:
1.3 million RECs/year**

Controlled release fertilizer

Nitrogen is essential for sugarcane; therefore, the crop requires high amounts of this nutrient. However, nitrogen levels in the soil are often insufficient to meet these demands, prompting farmers to add more nitrogen or urea fertilizer. Unfortunately, these fertilizers are typically washed away in the environment before the plants can fully utilize them, resulting in suboptimal nutrient absorption by the plants and nitrogen leaching, which is a major contributor to GHG emissions from sugarcane cultivation.

To reduce these losses, the Mitr Phol Research and Innovation Center has innovated a technology called “Controlled Release Fertilizer (CRF)”. CRF granules will gradually release nitrogen according to the plant’s needs, ensuring that sugarcane receives consistent nutrients throughout the 270-day (9-month) growing period. A single application of CRF (50 kilograms) is equivalent to applying 2 bags (100 kilograms) of regular fertilizer. This technology reduces the need for excessive chemical fertilizer, minimizes nitrogen leaching, and reduces GHG emissions.



Ethanol for sustainability with the global Bonsucro EU-RED Standard

Mitr Phol leverages the globally recognized Bonsucro standards for sustainable sugarcane and sugar production by scaling up environmentally friendly ethanol production. The Phu Khiao Ethanol Plant in Chaiyaphum Province is the first in Thailand to be certified as a sustainable ethanol producer under the Bonsucro EU-RED standards. This success has been expanded to other plants, including the Kuchinarai Ethanol Plant in Kalasin Province and the Dan Chang Ethanol Plant in Suphan Buri Province. This demonstrates Mitr Phol’s commitment to producing high-quality ethanol through the sustainable management of sugarcane plantations, production processes, labor practices, and logistics

systems throughout the entire value chain from upstream to downstream. Additionally, Mitr Phol monitors greenhouse gas emissions to mitigate the impact of climate change.

Ethanol produced according to sustainability standards is a sought-after raw material in the market and is crucial for the development of environmentally friendly industries, such as the Bio-PE or bioplastic industry and the sustainable aviation fuel (SAF) business, which are experiencing growing global demand. This will enhance the economic competitiveness of the country’s agricultural industrial sector and promote the sustainability and potential of Thai farmers.

PlaneX – CaneX: Eco-friendly bio-packaging products

Mitr Phol is a producer of bio-compounds using raw materials from agricultural produce or bio-based materials, supplying them to manufacturers of injection and thermoforming bio-packaging products. PlaneX is made from tapioca starch and bioplastic derived from sugarcane, making it compostable. CaneX offers compostable food packaging products, including utensils made from tapioca starch and bagasse straws.



▲ PlaneX: Compostable compound



▲ CaneX: Compostable packaging

Eco-friendly Wood Substitute Material Products

Felled rubber trees after the expiry of latex in are used as a raw material in producing wood substitutes. These rubber trees are sustainably managed in accordance with the Forest Stewardship Council (FSC) standards, which ensures control over the entire process, from planting rubber trees to manufacturing and delivering the final products to customers. The rubber trees are planted in areas designated for commercial tree plantations, ensuring that the production of wood substitutes does not harm natural forests or disrupt ecosystems. Furthermore, melamine-coated wood products have received the Singapore Green Label certification, indicating that their manufacturing, utilization, and disposal processes have a lower environmental impact compared to non-certified products in the same category. The product has also earned Greenguard Gold Certification, which recognizes low chemical emissions for construction materials and furniture, aligning with green building standards such as LEED Certification.

Promoting the use of electric power in logistics and supply chain operations



▲ Electric tractor units are used to replace those powered by fossil fuels.

Fair and Fast Co., Ltd., a subsidiary of Mitr Phol, which provides logistics and supply chain services, is committed to increasing its fleet of electric trucks each year. In 2023, the Company tested electric tractor units to replace those powered by fossil fuels, specifically for transporting and loading sugar bags at Laem Chabang Seaport in Chonburi Province. The testing evaluated the efficiency and capacity of large electric trucks. This testing received strong support from Banpu Next Co., Ltd., a leading Smart Energy Solutions provider in the Asia-Pacific region, and Thai EV Co., Ltd., a major commercial electric vehicle supplier. They provided electric tractor units with a maximum range of over 350 km on a single charge for the tests.

The testing began with large trucks for short-distance transportation and will expand to include all truck sizes and longer distances, such as inter-provincial and inter-regional transportation.

Chapter



13

Farm and On-farm Water Management



Sugarcane is a crucial raw material for Mitr Phol’s sugarcane and sugar industry, as well as its related businesses. Ensuring the security of this raw material is a top priority for Mitr Phol. To address this, Mitr Phol ModernFarm was established aiming to promote sustainability for sugarcane farmers and the broader sugarcane industry in Thailand. This initiative provides opportunities, equality, funding, knowledge, and technology through the proper development of land, sugarcane varieties, cultivation methods, harvesting, and transportation. Moreover, it helps reduce costs for farmers and addresses issues associated with traditional sugarcane farming, which can impact the quality and yield of the crop.

2023 Target and Performance

	Target	Performance
 <p>Green sugarcane delivered to sugar mills</p>	<p>92% by 2026/2027</p>	<p>69.6%</p>
 <p>Develop the irrigation infrastructure in the promoted sugarcane plantations</p>	<p>accumulated irrigated area of 1.13M rai by 2024/2025</p>	<p>accumulated irrigated area 0.92M rai</p>



Shareholders



Farmers

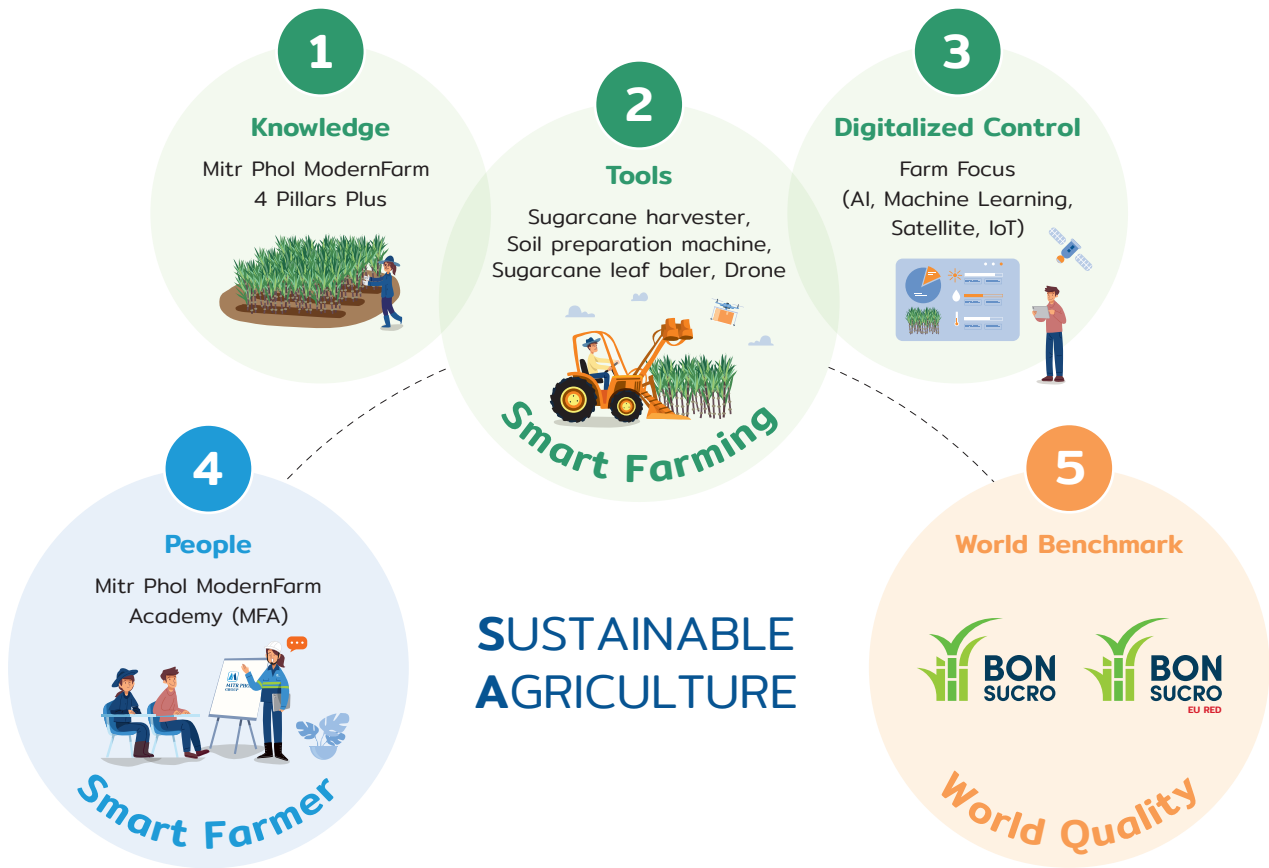


Customers and Consumers



Government and Civil Society Sectors

Management Approach



Aligned with Mitr Phol Group’s corporate philosophy, “Grow Together,” Mitr Phol ModernFarm was initiated with the aim of creating sustainability for sugarcane farmers and the broader cane and sugar industry in Thailand through the following operations.

Encourage Farmers to Adopt the Mitr Phol ModernFarm Approach

Crop rotation with legumes

Continuous sugarcane planting without following leads to the accumulation of pests. Therefore, it is important to include a fallowing period and crop rotation, especially with legumes. Legumes host rhizobium bacteria in their root nodules, which capture nitrogen from the air and convert it into fertilizer for future sugarcane crops. This natural method enhances soil quality, breaks the cycle of diseases and pests, reduces the need for chemicals, and provides additional income from the sale of legume crops.

Controlled traffic

Forming beds with bed renovators facilitates the use of agricultural machinery at every stage, from land preparation and cultivation to nourishment and harvesting. By specifying gaps between furrows and raising beds above the surface, agricultural machinery can move along the furrows without trampling on the raised beds. This helps reduce soil compaction and damage during harvest and increases ratooning ability.

Minimum tillage

In traditional sugarcane farming, farmers plow entire fields before planting new sugarcane. However, with the new approach of Mitr Phol ModernFarm, farmers plow only the raised beds, which helps maintain soil structure and reduces land preparation by about half. This method saves fuel and soil preparation time, allowing farmers to plant new sugarcane in time before soil moisture depletes.

Green cane trash blanketing

Cutting sugarcane and leaving a trash blanket on the soil surface helps retain soil moisture and control weeds, thus reducing the need for herbicides and increasing yield per rai. The decomposing sugarcane leaves turn into organic fertilizer for the next sugarcane crop. In addition, refraining from burning sugarcane leaves preserves the soil surface and maintains beneficial soil microorganisms.

On-farm irrigation system

Typically, sugarcane requires about 1,500-1,700 millimeters of water per year. However, climate change has led to insufficient and unevenly distributed rainfall, causing sugarcane to suffer from drought almost every year. This is one of the reasons for the decline in sugarcane yield. Therefore, proper irrigation planning is essential to improve the efficiency of water management and sugarcane cultivation.



Mitr Phol encourages sugarcane farmers to adopt the practices of “Mitr Phol ModernFarm” in all factory areas by supporting farmers who own sugarcane harvesters as local prototypes. **In 2022/2023, the accumulated area was 657,860 rai.***

* an increase of 28,580 rai from 2020/2021



Currently, Mitr Phol works with 36,387 families of contract farmers and over 100,000 agricultural workers, **generating income of more than 22 billion baht for farmers and communities per year.**

Deployment of Advanced Technology and Information Technology

Deployment of sensor technology to measure soil moisture to improve water use efficiency

The Company began using the technology on its sugarcane plantations and has extended its application to demonstration plots at each sugar mill.

Promotion of Smart Farming by replacing traditional farm tractors with drones and helicopters

This helps reduce costs, increase daily capacity and working speed, and reduce fuel consumption. Moreover, the Company has engaged contractors with drones and helicopters to survey sugarcane fields and spray pesticides and ripening chemicals.

Deployment of the GPS Guidance system in sugarcane planting and transportation processes



Soil preparation process

The GPS Guidance system is used to control and navigate tractor routes to minimize treading on sugarcane plots, which can cause soil compaction and limit the ability of roots to acquire nutrients.



Planting process

The GPS Guidance system is integrated with the GPS Handheld devices to collect data and identify farming activities to ensure efficient management of farm and farming data such as data on planting and tending, fertilization, chemical use, and the right timing and quantity of irrigation water. The system can also record real-time farm management data.



Harvesting process

The GPS Guidance system is integrated into tractors and sugarcane harvesters to ensure precise harvesting along the controlled, preset direction. This has improved the performance of harvesters, enabling them to operate 24 hours a day.



Transportation Process

The GPS Tracking system is used to enhance the sugarcane logistics system. The Company uses semi-trailers for sugarcane transportation along with GPS-integrated tractor units to track truck locations. This helps manage transportation routes for both short and long distances and minimizes semi-trailers' wait times. Farmers benefit from reduced costs and faster delivery to sugar mills, which shortens the cut-to-crush duration and increases transportation capacity, ensuring that sugar mills receive high-quality raw materials.

Application of artificial intelligence/machine learning (AI/ML) for sugarcane farm management in the Farm Focus Project

This project aims to increase sugarcane production efficiency to 20 tons per rai by developing 4 AI/ML models and a digital channel for managing sugarcane farms, as follows:

- **Land Use and Land Cover Model:**
This model analyzes satellite imagery with geographic and environmental data to identify land use and land cover at the time the images were taken. This information helps extension officers promote new farmers or purchase sugarcane in target areas.
- **Crop Health Monitoring Model:**
This model uses satellite imagery and field data to analyze sugarcane health throughout the growing season. It detects abnormalities in sugarcane fields, distinguishing between planted and ratoon cane, to provide timely recommendations for sugarcane farm management.
- **Yield Estimation Model:**
This model forecasts sugarcane yield on the harvesting date during the harvesting season using Sentinel-2 satellite imagery, field data, and historical yield data from the past 3 years. It estimates yield for each sugarcane plot, aiding in farm management decisions to increase productivity.
- **Harvest Monitoring Model:**
This model monitors the harvesting progress of Mitr Phol's registered sugarcane plots using Sentinel-1 and Sentinel-2 satellite imagery. It can monitor harvesting activities every 3-5 days and can penetrate cloud cover to provide consistent data.
- **Farm Advisor System:**
This system integrates the 4 AI/ML models to provide comprehensive farm management advice. It covers new land acquisition, crop growth monitoring, yield estimation, and harvest tracking. The advice generated by the system is delivered through the GGIS by OneAgri tool, which is a productivity tool, to extension officers.

Developing a cane management information system (Cane MIS)

The Cane MIS System is designed to facilitate smooth and efficient sugarcane trading between Mitr Phol and farmers. This system connects related data into a cohesive platform as follows:

- Spatial data from geographic information systems for managing payments, promotions, and sugarcane purchases from farmers based on specific criteria.
- Contract information or sale and purchase terms, including the quality of sugarcane grown by farmers under contract farming.
- Sales information for other services, such as the purchase of agricultural and logistics services (e.g., equipment rental).
- Farmer financial information, including deductions, loans, and advance cash withdrawals through payments and financial processes to generate statements for farmers.

Cultivation planning with the Farm Pro 360 application

The Farm Pro 360 application is a tool for cultivation planning and management of resources, such as chemicals, labor costs, and machinery. The application collects and processes relevant information to plan sugarcane cultivation throughout its life cycle. For example, crop assignments help determine necessary agricultural activities and calculate costs based on the activities performed on farms. The application also considers the availability of machinery, labor, and consumable supplies. The collected information can also be used to track compliance with Bonsucro standards and serve as a database for analyzing greenhouse gas emissions. This functionality is crucial for monitoring operations to achieve Mitr Phol's goal of net zero emissions.

Digital Cane Contracting

Digital cane contracting involves using technology to manage sugarcane sales contracts between companies and sugarcane farmers. This method increases convenience, speed, and transparency in business transactions, and enhances data management through digital systems. Contracts can be created, and sugarcane trading information tracked via online platforms, boosting efficiency, and reducing errors associated with paper-based processes. Additional services include agricultural loans, academic advice on precision farming, and efficient data collection systems, helping farmers manage their sugarcane farms more efficiently and accurately.

Analyzing satellite imagery with the Normalized Difference Vegetation Index (NDVI) data

Satellite imagery and normalized difference vegetation index data from the survey were analyzed to quantify the health and density of sugarcane fields. This method allows the Company to distinguish healthy sugarcane areas from unhealthy ones. Mitr Phol's experts can then provide advice on the proper management of sugarcane plantations, ensuring that the crops receive adequate water and nutrients for growth.

Drip Fertigation

Drip fertigation is the application of water-soluble fertilizer through the existing on-farm irrigation system. This method addresses the issue of insoluble granular fertilizer, especially in areas with limited rainfall or irrigation. Drip fertigation can increase fertilization efficiency to 80%-90%, compared to the 20%-50% efficiency of granular fertilizers. The method ensures that sugarcane plants receive nutrients thoroughly and grow evenly across the entire plot, while also reducing nutrient loss due to leaching.

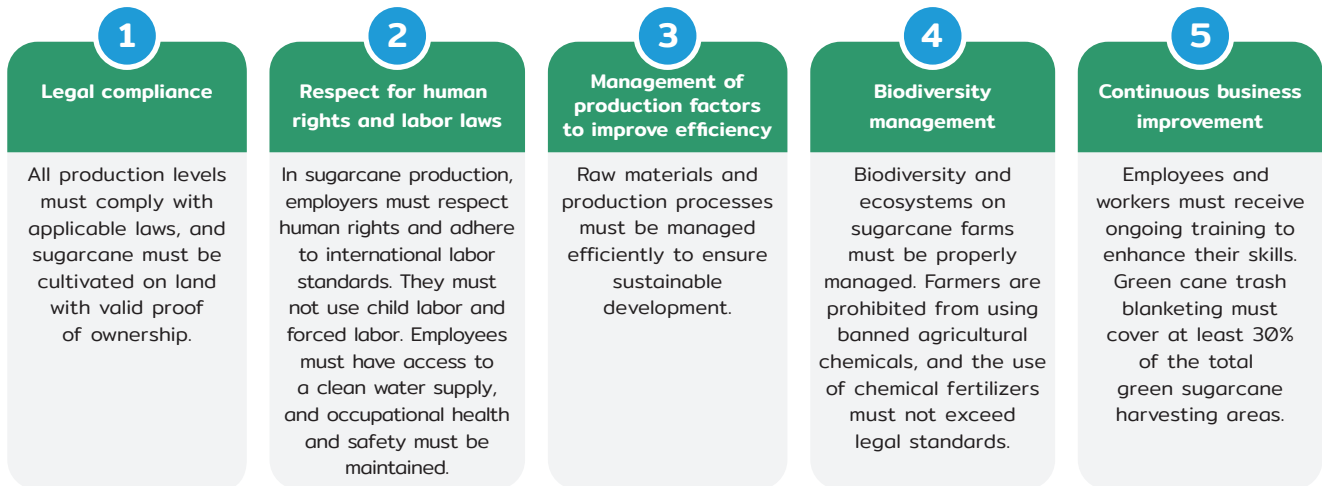
Building Employee Knowledge through Mitr Phol ModernFarm Academy

This initiative aims to enhance employee knowledge and transform them into professional farmers with both academic and practical expertise in growing sugarcane and other crops using modern farming systems. It also aims to disseminate this knowledge to farmers, promoting efficient production, competitive costs, and environmentally

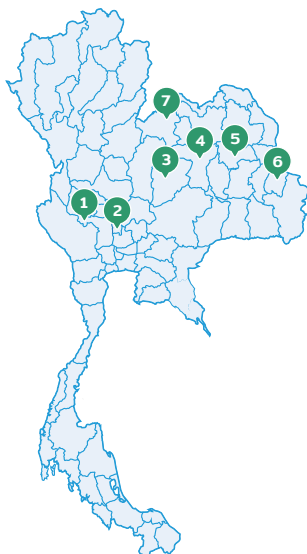
friendly practices. Furthermore, it cultivates a sense of responsibility among employees toward the community and society. In 2023, the ModernFarm Academy provided training to 40 smart farmers and 90 extension workers and units supporting sugarcane operations, with a target of reaching 100 employees and 100 smart farmers by 2024.

Sustainable Sugarcane and Sugar Production in Accordance with Bonsucro Production Standard

Mitr Phol encourages farmers to obtain Bonsucro certification, a global standard for sustainable sugarcane and sugar production, aiming to reduce the social and environmental impacts of sugarcane and sugar production processes and demonstrate a commitment to improving production efficiency, which helps enhance competitiveness. The Bonsucro Production Standard comprises 5 principles as follows:



These 5 principles encompass the entire chain of sugarcane and sugar production. All processes can be inspected and traced from beginning to end. Mitr Phol Group is the first sugar producer in Thailand and the second in Asia that has been certified against the Bonsucro standard since 2016.



Currently, Mitr Phol's factory areas of 282,164 rai have been certified by Bonsucro, including

- | | | |
|---|--|---|
| 1. Mitr Phol Dan Chang Sugar Mill,
Suphan Buri Province:
50,030 rai | 4. Mitr Phu Wiang Sugar Mill,
Khon Kaen Province:
49,426 rai | 7. Mitr Phu Luang Sugar Mill,
Loei Province:
36,909 rai |
| 2. Mitr Sing Buri Sugar Mill,
Sing Buri Province:
11,113 rai | 5. Mitr Kalasin Sugar Mill,
Kalasin Province:
60,652 rai | |
| 3. Mitr Phol Phu Khiao Sugar Mill,
Chaiyaphum Province:
63,760 rai | 6. Mitr Amnat Charoen Sugar Mill,
Amnat Charoen Province:
10,274 rai | |




Mitr Phol has also set a target to extend the Bonsucro standard certification to 10,000 rai at the Mitr Kaset Sombun Sugar Mill in Chaiyaphum Province aiming to cover a total of 510,000 rai across all 8 sugar mills by 2026.



Green Sugarcane Harvesting Operations

The government has a policy to encourage sugar mills to accept green sugarcane and reduce the burning of sugarcane leaves before harvesting. There has been a campaign encouraging farmers not to burn sugarcane to help solve air pollution caused by smoke and ash from burning sugarcane leaves, which troubles nearby residents. Sugar mills are also affected by the lower quality of burnt sugarcane. Therefore, measures have been put in place to promote and support green sugarcane harvesting for sugar mills as follows:

- Support and develop farmers from the land preparation process by preparing the land for the use of agricultural machinery to replace human labor.
- Encourage farmers to form groups of farmers with large cultivation areas and use sugarcane harvesters for green cane harvesting as follows:
 - Offer harvesting services for farmers who are short of labor through the agricultural equipment unit. Currently, there are 120 sugarcane harvesters available for this service.
 - Support potential medium and large-scale farmers, helping them form sugarcane harvesting groups, by providing 363 cutting machines to local farmers.
 - Provide guarantees for farmers applying to join the interest compensation scheme for sugarcane farmers, which supports the management of water resources and the purchase of agricultural machinery from 2022 to 2024. This support will help farmers access low-interest government loans while increasing sugarcane production efficiency and addressing the issue of particulate matter.
- Encourage farmers to use a sugarcane leaf removing machine before cutting sugarcane by providing 606 sugarcane leaf removing machines.
- Establish a policy of purchasing green sugarcane leaves to be used as fuel for biomass power plants at 900 baht per ton.



In 2022/2023, Mitr Phol purchased more than 594,544 tons of sugarcane leaves to be used as biomass fuel and over 12,932,420 tons of green sugarcane, or 69.6% of the total sugarcane delivered to sugar mills. The Company has set a goal to increase the proportion of green sugarcane delivered to their mills to 92% by 2026/27.

On-farm Water Management

Seeking Additional Water Sources

Water and irrigation on sugarcane farms are a major contributing factor to the effectiveness of Mitr Phol ModernFarm's 4 pillars. Typically, sugarcane requires 1,500-1,700 millimeters of water annually. However, climate change has led to insufficient and unevenly distributed rainfall. Sugarcane is threatened by drought almost every year, resulting in decreased sugarcane yield. Therefore, good preparation for irrigation is essential to improve water management and sugarcane productivity. Mitr Phol has sought additional water resources by digging farm ponds and securing underground water for farmers. In 2022/2023, the accumulated irrigation areas covered 943,800 rai, comprising:



Artesian wells
499,000 rai



Natural water sources
209,000 rai



Large-scale irrigation projects
88,000 rai



Farm ponds
142,000 rai



Oasis projects
5,600 rai

In addition, the Company plans to dig an additional 1,620 farm ponds, benefiting 142,125 rai of farmland, and to drill an additional 12,900 artesian wells, benefiting 129,000 rai of farmland.

Development of a Drip Irrigation System

A drip irrigation system on sugarcane farms is the most efficient method because it requires very little water and can use water from various sources such as farm ponds, artesian wells, natural water sources, and electric water pumping stations. The system can control weeds and prevent harm to sugarcane as water is dripped directly onto the sugarcane stools. Despite its high

efficiency, the investment cost is also high. Many companies offer the system for sale and provide promotions in collaboration with sugar mills, allowing farmers to purchase the system in installments through the mills. Currently, the Company has implemented the drip irrigation system over the areas of 130,000 rai, or 8% of total sugarcane farm areas.

Collaboration with External Agencies

Collaborative irrigation projects with government agencies

Mitr Phol has requested support for irrigation projects from the Royal Irrigation Department, the Land Development Department, the Department of Water Resources, the Department of Groundwater Resources, and the Ministry of Energy covering over 20,000 rai each year. The Company collects local farmers' needs, organizes meetings, establishes water user groups, and submits project requests via local administrative organizations. These requests are then reviewed by the Provincial Water Resources Subcommittee and included in the National Irrigation Development Plan. In 2023, Mitr Phol requested support for the following projects:

- Royal Irrigation Department: 3 projects covering 19,000 rai, supporting 8,700 rai of sugarcane promotion areas
- Land Development Department: 210 ponds covering 1,050 rai, supporting 1,050 rai of sugarcane promotion areas
- Department of Groundwater Resources: 75 projects covering 2,250 rai, supporting 750 rai of sugarcane promotion areas

Grassroots economy promotion projects

Mitr Phol has responded to the policies of the Office of Policy and Criteria Promotion Commission through collaboration with local organizations to develop projects aimed at enhancing competitiveness and improving the quality of life for grassroots communities so that they become stronger and more self-reliant. In 2023, Mitr Phol sought support for the following projects:

- Development of Solar-Powered Agricultural Groundwater Distribution Systems: 176 projects supporting 10,400 rai of sugarcane promotion areas
- Expansion of Government Water Distribution Systems: 2 projects supporting 2,400 rai of sugarcane promotion areas
- Shallow Groundwater Recharge Ponds: 174 projects supporting groundwater recharge of 500,000 cubic meters per year

Chapter



14

Energy Management

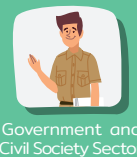


Mitr Phol prioritizes efficient energy utilization, recognizing its importance for a robust energy management system that enhances overall productivity, reduces costs, and lowers greenhouse gas emissions. Consequently, the Company annually reviews its Energy Conservation Policy to establish guidelines for the entire organization, ensuring systematic energy management and implementing measures to promote energy efficiency and productivity. In addition, Mitr Phol provides training for employees involved in energy management to equip them with knowledge, understanding, and skills and engage them in efficient energy utilization.

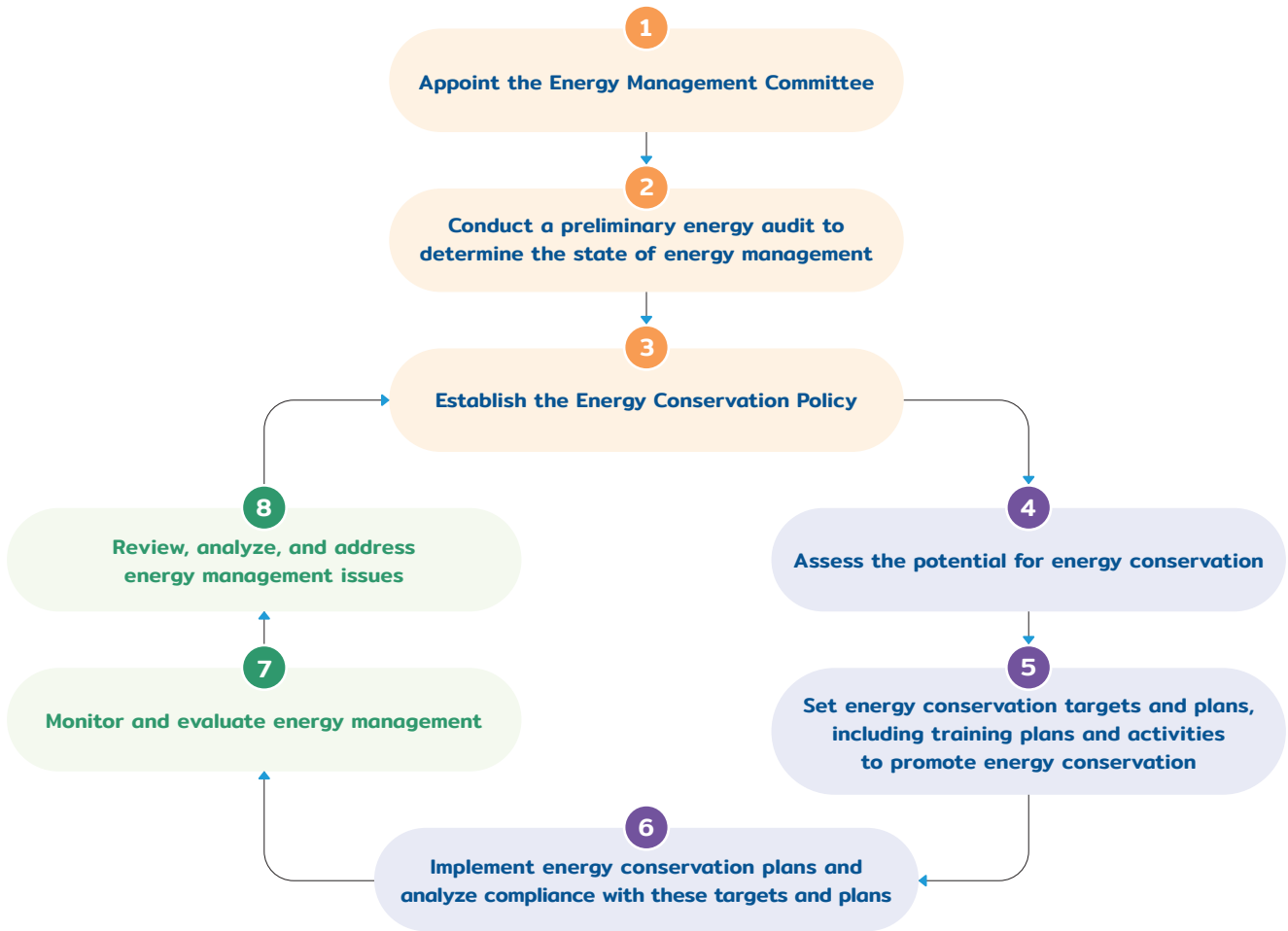
2023 Target and Performance

	Target	Performance
 <p>Total energy consumption (absolute) compared to the base year 2022</p>	Decreased by 4%	Increased by 12%
 <p>Proportion of total energy consumption to total revenue (intensity) compared to the base year 2022</p>	Decreased by 4%	Decreased by 21%

* Energy consumption has increased due to business expansion. However, comparing as a proportion of total energy consumption to total revenue, it was found that the values were 0.65 and 0.52 million megajoules per million baht in 2022 and 2023, respectively.



Management Approach



Mitr Phol adheres to the key principles set forth in the Energy Conservation Promotion Act B.E. 2550, ensuring that its personnel understand the energy management system in accordance with the Act. This promotes economical and efficient energy use in the production process. Each factory has established an energy management working group with the following duties:

- | | | |
|---|--|---|
| <p>1</p> <p>Perform energy management
according to Thailand’s energy conservation policy.</p> | <p>2</p> <p>Collaborate with all relevant units
to ensure compliance with the Energy Conservation Policy and practices and organize appropriate training/ activities on energy conservation.</p> | <p>3</p> <p>Supervise and monitor factories’ energy management
practices to improve efficiency.</p> |
| <p>4</p> <p>Report the performance results
to the executives.</p> | <p>5</p> <p>Regularly review the Energy Conservation
Policy and collect suggestions on the policy and energy management practices for factory owners.</p> | <p>6</p> <p>Support executives in complying
with the Energy Conservation Promotion Act.</p> |

Energy Conservation Projects

Sugar Business

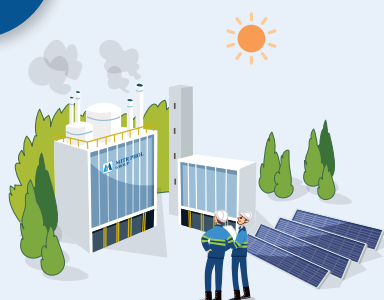


Sugar Mill	Target	Energy Conservation Project	Performance
Mitr Phu Luang Sugar Mill	Reduce energy intensity by 0.79%	<p>Installing a sprinkler pump inverter to control water sprinkling, resulting in a reduction of power consumption by 5,544 kWh/year</p> <hr/> <p>Ceasing the use of the 160-kW kicker, resulting in a reduction of power consumption by 3,360 kWh/year</p>	Energy intensity was reduced by 0.79%
Mitr Phu Khiao Sugar Mill	Reduce energy intensity by 0.08%	<p>Improving the motor that pumps syrup into the vacuum pan, resulting in a reduction of power consumption by 66,703 kWh/year</p> <hr/> <p>Installing rotary screen insulation, resulting in a reduction of steam consumption by 1,940 tons/year</p>	Energy intensity was reduced by 0.08%
Mitr Phu Wiang Sugar Mill	Reduce energy intensity by 0.49%	<p>Reducing the operation of the aerators in the wastewater treatment system at nighttime from 5 to 3 aerators, resulting in a reduction of power consumption by 115,500 kWh/year</p> <hr/> <p>Installing a system to control syrup feed based on the syrup level in the vacuum pan, resulting in a reduction of power consumption by 76,800 kWh/year</p> <hr/> <p>Replacing the cooling tower gearbox to adjust the cycle to suit the required water volume, resulting in a reduction of power consumption by 187,062 kWh/year</p> <hr/> <p>Improving the process to increase the remelt Brix level to reduce steam consumption in the evaporation process, resulting in a reduction of heat consumption by 26 MMJ per year</p>	Energy intensity was reduced by 0.52%

Power Business



Plant	Target	Energy Conservation Project	Performance
Mitr Phol Bio-Power (Kalasin) Co., Ltd.	Reduce energy intensity by 0.24%	Insulating heater tanks, resulting in a reduction of heat loss by ~15 MMJ/year and a reduction of fuel consumption (bagasse) by ~2,015 tons/year	Energy intensity was reduced by 0.26%
Mitr Phol Bio-Power (Phu Khiao) Co., Ltd.	Reduce energy intensity by 0.95%	Controlling bagasse humidity to below 47% before feeding it into the boiler, resulting in a reduction of heat loss by 24 MMJ/year and a reduction of fuel consumption (bagasse) by ~2,897 tons/year Upgrading machinery to support the use of sugarcane leaves as a substitute for wood chips and other fuels, resulting in a reduction of energy loss by 95MMJ/year	Energy intensity was reduced by 1.07%
Power Prospect Co., Ltd.	Reduce energy intensity by 1%	Adjusting the blade angle and reducing the frequency (Hz.) of the cooling fan, resulting in a reduction of the motor's power consumption by 49,565.38 kWh/year Adjusting the flow rate of the boiler feed pump, resulting in a reduction of power consumption by 267,519.31 kWh/year Using the Steam Flash Tank to lower heat loss from the blowdown of the boiler drum, resulting in a reduction of heat loss by 5.6 MMJ/year Improving the fuel depot to lower fuel humidity (wood chips), resulting in a reduction of heat consumption by 18 MMJ/year, an increase in the fuel's low heating value (LHV) by 0.43 MMJ/kg, and a reduction of fuel consumption by ~2,047 tons/year	Energy intensity was reduced by 1.96%



Mitr Phol promotes the use of renewable energy among its subsidiary companies, including biomass and solar power generation, to supply all factories, with the aim of reducing dependence on fossil fuels and the power grid.

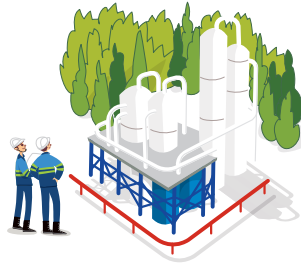


Biomass power consumption was **76.74%** of the total power consumption (accounting for 625M GWh)



Solar power consumption was **2.94%** of the total power generation (accounting for 24M kWh)

Ethanol Business



Plant	Target	Energy Conservation Project	Performance
Mitr Phol Dan Chang Ethanol Plant	Reduce energy intensity by 0.0032%	Installing inverter controls for the propellers in the water system, resulting in a reduction of power consumption by 45,788.40 kWh/year	Energy intensity was reduced by 0.0032%
Mitr Phol Bio Fuel Plant (Kalasin)	Reduce energy intensity by 0.0032%	Installing a raw water bypass pipe to reduce power consumption for pumps and mixers in PAC and polymer tanks, resulting in a reduction of power consumption by 3,681.60 kWh/year	Energy intensity was reduced by 0.0032%
Mitr Phol Bio Fuel (Kuchinarai) Plant	Reduce energy intensity by 0.02%	Lowering the pressure of the cooling tower pump, resulting in a reduction of power consumption by 737,088 kWh/year Reducing water usage in the vinasse loading area and minimizing contamination in the water entering the vinasse-dispensing pond, resulting in a reduction of power consumption by 2,791 kWh/year	Energy intensity was reduced by 0.0443%
Mae Sod Clean Energy Ethanol Plant	Reduce energy intensity by 0.02%	Installing inverter control for the HTM-to-Pond pump, resulting in a reduction of power consumption by 12,848.40 kWh/year Installing inverter control for the roller of Mix Juice 1, resulting in a reduction of power consumption by 54,180 kWh/year	Energy intensity was reduced by 0.02%

Wood Substitute Materials Business



Factory	Target	Energy Conservation Project	Performance
Panel Plus Co., Ltd.	Reduce energy intensity by 0.5%	Replacing light bulbs in the storage depot with LED bulbs, resulting in a reduction of power consumption by 136,800 kWh/year Replacing light bulbs in the factory with LED bulbs, resulting in a reduction of power consumption by 50,760 kWh/year Improving the efficiency of air conditioner usage by scheduling on/off times, performing regular cleaning, and setting optimal temperatures, resulting in a reduction of power consumption by 694,574 kWh/year.	Energy intensity was reduced by 0.17%

Logistics and Warehouse Business



- ▼ Electric semi-trucks that will replace fossil-fuel trucks in the future



Fair and Fast Co., Ltd., Mitr Phol’s logistics and supply company, has set a target to increase the number of electric trucks annually. In 2023, the Company conducted a trial to replace fossil-fuel trucks with electric semi-trucks for transporting sugar bags at Laem Chabang Port in Chonburi province. The trial evaluated the power and performance of heavy-duty full-electric semi-trucks in collaboration with Banpu NEXT Co. Ltd., a leading Smart Energy Solutions provider in Asia Pacific, and Thai EV Co. Ltd., a major provider of commercial electric vehicles with maintenance services. The electric semi-trucks participating in the trial can travel over 350 kilometers on a single charge.

This trial started with heavy-duty short-haul trucks and will expand to include all sizes of trucks and greater distances, such as inter-provincial and inter-regional transportation.

Energy Conservation Training

Mitr Phol organized energy conservation training for employees to cultivate the corporate culture of energy conservation. The training emphasized collaboration among employees to address energy consumption challenges, raise awareness about energy efficiency, and encourage employees to apply the knowledge gained to their daily responsibilities.



- ▲ Mitr Kalasin Sugar Mill organized an in-house training on the ISO 50001:2018 Requirements and Implementation for energy management system.

Mitr Phol Dan Chang Sugar Mill in Suphan Buri province organized an in-house training for employees to raise

- ▼ their awareness on energy conservation.



Chapter

15

Industrial Environmental Management

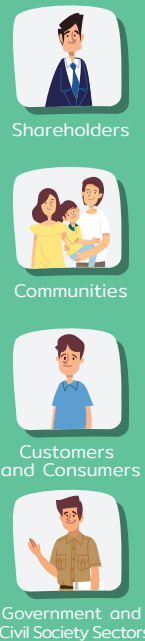


As a leading company in the agro-industrial sector, Mitr Phol places great importance on environmental stewardship. The Company recognizes that its operations not only impact local communities and the environment but also rely on nature and social acceptance. In its pursuit of business growth, Mitr Phol is committed to prevent pollution and to uphold social responsibility. These practices boost the immune system of both the business operator and the community, ensuring sustainable business development.

2023 Target and Performance

	Target	Performance
Sugar mills and biomass power plants achieve ISO14001 certification	12 sites	12 sites
Serious environmental complaints are received.*	No serious environmental complaints are received.*	No serious environmental complaints are received.*

* Serious environmental complaint means significant social opposition involving a large group of people, which prompts the activation of a business continuity plan or an order to cease operations under Section 39 of the Factory Act B.E. 2535.



Management Approach

The Board of Directors has established a clear Security, Safety, Occupational Health, and Environmental Policy* and supported necessary resources for the development of preventive, monitoring, and mitigation measures as well as inspection of environmental systems. Each factory has a dedicated environmental unit to implement these measures, raise awareness, and disseminate information to workers, farmers, communities, and stakeholders. Joint meetings with senior management from the sugar and affiliated power sectors are conducted at least once a month to monitor environmental issues, solicit feedback, and exchange information. Internal and external stakeholders are provided with multiple channels to report information, offer recommendations, or file complaints about environmental impacts. In other business groups, the Occupational Safety, Health and Environment Committee (COM) meetings are held at least once a month with the presence of management of the factory, focusing on safety and environmental issues. The Company has established a trilateral committee for large factories in accordance with the Environmental Impact Assessment (EIA) requirements, and a Community Committee for power plants under 9.9 MW. These committees, comprising representatives from factories/plants, the government sector, and communities, serve as a platform for sharing opinions and offering recommendations aimed at improving the sustainability of the environmental management system and the effectiveness of environmental development.

The Company’s environmental management complies with the international ISO 14001 standard, which includes setting an environmental policy, formulating a plan to address the policy, understanding the organization as well as its context and stakeholders, assessing environmental risks and issues, supporting implementation and operations, monitoring and corrective actions, and continuous review and improvement. The Company has set the following guidelines for identifying issues and assessing environmental impacts.

<p>The Management</p>	<p>Setting a policy, allocating resources, delegating authority to Environmental Management Representatives (EMRs), and establishing an Environmental Management Committee, with the EMRs serving as the key drivers of the system.</p>
<p>Engineers / Section Managers / Responsible Persons</p>	<p>Identify problems and assess environmental impacts to determine levels of severity and mitigations to reduce problems and impacts. Environmental problems are listed below.</p> <ul style="list-style-type: none"> • Utilization of raw materials and natural resources • Energy consumption • Air pollution emissions • Effluent discharge • Land disposal • Energy release • Waste generation • Land use • Other environmental impacts
<p>EMRs and Engineers / Section Managers / Responsible Persons</p>	<p>Identify key issues for environmental protection, and establish environmental goals, objectives, and a plan. This includes preventive and mitigative measures implemented by the Environment Committee, which is responsible for reviewing, approving, monitoring, and reporting on performance to management for continual improvement.</p>
<p>Section Managers / Department Managers / Working Committee / Responsible Persons</p>	<p>Monitor and evaluate the effectiveness of measures, review and address environmental issues, and present the outcome to the management at least once a year.</p>

* For more information, please visit [“Security, Safety, Occupational Health, and Environmental Policy”](#)

By implementing these guidelines, the Company is able to identify stakeholders, analyze and assess risks and opportunities related to pollution prevention and environmental protection, improve environmental management, ensure compliance with legal and other relevant requirements, and achieve environmental targets, leading to greater transparency and building trust among stakeholders.

In addition, Mitr Phol aims to achieve Multi-site Certification by 2024, which encompasses certifications of the Environmental Management System (ISO14001) and the Occupational Health and Safety Management System (ISO45001) under a single system for 12 sugarcane mills and biomass power plants. This is expected to enhance and broaden the scope of the Environmental Management System (EMS) and ensure compliance with international standards.

Industrial Water Management

Raw Water and Utility Water

Mitr Phol has estimated water availability from upstream to downstream and assessed the potential impacts of water stress for the years 2030, 2040, and 2050 using the Standardized Precipitation Evapotranspiration Index and the Aqueduct Water Tool. The Company has collected weather forecast data across all sugarcane plantation areas to assess access to various water sources, such as natural water bodies, artesian wells, and farm ponds, focusing on farmers dependent on rainfall. Based on the analysis, Mitr Phol has developed a comprehensive water resource management plan, which includes forecasts of irrigation water demands, a sensitivity analysis, a sugarcane cultivation plan, and water management for business operations. Throughout 2023, the Company has monitored water availability in terms of both quantity and quality, including the readiness of water sources, reservoir levels, water quality, and related water conditions. Mitr Phol has also collaborated with water management stakeholders, a key driver of sustainable water management. This includes jointly developing solutions to water management challenges and mitigating the potential impacts of local communities' finding access to water.

Furthermore, the Company has set the objectives to manage raw water consumption and monitor sugar content in sugar mills to minimize undetermined losses primarily caused by the contamination of sugar cane syrup and sugar at various stages of the production process. By effectively reducing these sugar losses, the Company can also significantly reduce water consumption and wastewater discharge. The Company aims to limit food losses and waste to 0.17 tons per ton of sugar sold. To achieve this target, a working committee has been established to identify measurement points, report results, and follow up on the issues.

Waste Water

The Company has adopted the 4Rs principle (Resource, Reduce, Reuse, and Recycle) by securing surface and groundwater sources as a backup source of water supply, reducing water consumption in the production process, reusing water within the production process, and recycling treated water to mitigate the impacts of water consumption in Mitr Phol's business operations.

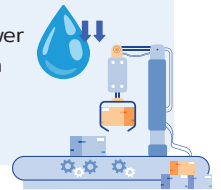
Resource: Securing surface water and groundwater as backup sources

- Secure backup water sources by dredging shallow ponds, digging more reservoirs, and storing rainwater collected from factory areas in reservoirs.



Reduce: Reduce water consumption in the production process

- Use steam from the sugarcane juice evaporation process in rollers, boilers, and vacuum pans to substitute high-pressure and extra clean steam from power plants.
- Reduce raw water consumption by using clarified sugarcane juice to dilute flocculants.
- Reduce drainage from the cooling tower by optimizing the sugar crystallization process to minimize contamination of evaporated sugar and cooling water.



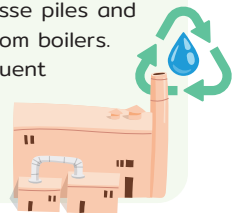
Reuse: Water from the production process can be reused

- Use condensed water from sugarcane juice evaporation to spray sugarcane during the rolling process.
- Reuse machinery coolant and shaft collar lubricated water after being cooled down in the rolling process
- Treat condensed water from sugarcane juice evaporation in a hot water pond for 8 months to let it be treated naturally until its COD value is between 100-200 mg/l. Then, pumped treated water back into the raw water reservoir for reuse.
- Utilize condensed water from sugarcane juice evaporation when cooled to the right temperature to wash equipment and dissolve polymer for sugarcane juice flocculation.
- Direct the water from the backwash process through a connecting tube, a sand sieve, and into a settling pond for subsequent reuse.



Recycle: Treated water is recycled at sugar mills

- Sort wastewater by Total Dissolved Solids (TDS) level and treat low TDS wastewater before recycling.
- Modify the plumbing system to extract hot water from the syrup tank truck cleaning and use reverse osmosis to improve water quality and remove sugar syrup. Then recycle the water for the production process.
- Collect good-quality water from the production process of syrup and specialty products using a reverse osmosis system and store it in the mill's raw water reservoir.
- Use treated water to spray on bagasse piles and conveyor belts that transport ash from boilers.
- Use treated water from the final effluent treatment system to control dust in open areas and sugarcane truck parking lots, and to irrigate crops.



The Company has implemented a variety of wastewater treatment systems tailored to the quality of the wastewater and the plant location. These include oxidation ponds, which consist of anaerobic ponds, aerated ponds, and activated sludge systems. The treated effluent must meet the standards set forth in the Ministry of Industry's regulation on the standards for the discharge of industrial effluents, B.E. 2560, and the Notification of the Ministry of Science, Technology, and the Environment, No. 3 (B.E. 2539), Re: Effluent standard for factories in industrial estates. In 2022, the aerated section of the oxidation pond at Mitr Phol Dan Chang Complex in Suphan Buri Province was upgraded to an activated sludge system. This new system now treats all wastewater from the Complex's business operations, including the sugar mill, power plant, and ethanol plant. This change offers several benefits, as follows:



3M m³

Increased raw water reservoir capacity by converting a treatment pond area into a raw water pond.



1M m³ per year

(20% of total raw water extraction)

Reduced water extraction from natural sources.



3,000 m³ per day

Recycled water for reuse

The Company also has a plan to extend the construction of the activated sludge system to Mitr Phol Phu Khiao Sugar Mill.

Air Quality Management

The Company has taken several measures to prevent and manage air pollution as follows:

Air quality monitoring

- The Company has launched an advanced air quality management initiative titled “Know Before the Community, Act Before Impact” to mitigate the impacts on communities and reduce complaints in the provinces of Suphan Buri, Sing Buri, Chaiyaphum, and Kalasin. This program features the development of the AIRMODEL system and the deployment of IoT sensors to monitor wind direction, wind strength, and air quality, including of 2.5 micrometers or less in diameter (PM_{2.5}) and coarse dust particles less than 0.1 micrometers in diameter (PM₁₀₀). An alert system via a LINE official account sends notifications every 12 and 24 hours, providing recommendations based on the weather forecast. Immediate warnings are issued if particulate matter levels rise rapidly or if changes in wind direction pose a threat to the community, enabling a prompt response at pollution sources.

In addition, forecast data is used to plan activities tailored to both daily and forecasted conditions related to air pollution sources. Statistical analysis of weather data will be employed to predict wind direction changes in different months, aiding in the long-term planning of activities related to air pollution sources. This system will replace the previous dust measurement system in factories and communities, addressing limitations in accuracy, historical data retention, and predictive analysis.

Prevention and Control of Pollution at Its Source

- Control of the production process aims to reduce air pollution by controlling fuel use and combustion factors to optimize steam boilers’ efficiency. This measure will help achieve optimum combustion, reducing carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and total suspended particulate matter (TSP) during the combustion of biomass plant fuel.
- Control dust from bagasse and sugarcane leaf piles.
- Control dust in the woodchip stockyard by sprinkling water around the woodchip piles and constructing earth walls and tree windbreaks to contain dust.
- Install an air pollution control system to capture ash from biomass power plants using wet scrubbers and electrostatic precipitators.
- Enhance the efficiency of air pollution control systems for coarse dust by installing a multi-cyclone system and improving electrostatic precipitators at Mitr Phol Bio-Power (Kalasin), which is expected to be completed in 2024.
- Install an air pollution control system to control dust in wood substitute production by installing the multi-cyclone system and wet electrostatic precipitators. A dust suction system will collect dust generated during the production process within the plant, and vacuum trucks will gather dust in the woodchip stockyard for use as fuel in the production process.
- Control dust from sugarcane transport during the sugarcane milling season. Use water trucks to sprinkle water on roads in the mills and surrounding communities.
- Reduce dust accumulation by regularly cleaning the roofs, buildings, and fuel conveyor systems.

Air Quality Index Standard

- Monitor stack emissions at the emission points to ensure compliance with legal standards and adherence to the Environmental Impact Assessment (EIA) report. Emissions are also evaluated using the Ringelmann Smoke Chart.
- There is a plan to install a continuous emission monitoring system (CEMS) at biomass power plant stacks to continuously monitor the concentration of emitted pollutants. This system will help indicate the efficiency of the combustion furnace, ensuring complete combustion. The installation is expected to be completed by 2025.

Industrial Waste Management

With the concept of “From Waste to Value Creation,” Mitr Phol aims to develop businesses from recycled materials. Waste from one business can be used to create value for another related one. For instance, agricultural waste, such as bagasse, is converted into biomass-fueled electricity. Molasses is converted into ethanol for use in gasohol and jet biofuel. Filter sludge and distillation effluent are used to make fertilizer and develop bio-based products to replace petroleum-based products. This approach helps reduce waste, minimize negative impacts on the value chain, and create new business opportunities for the organization.

Mitr Phol has developed its waste management strategy based on the waste hierarchy concept, which includes avoidance/reduction of waste generation, reuse, recycling, and recovery. For example, converting waste into energy reduces the amount of waste that goes to landfills or incineration. The Company also develops waste management standards that align with international practices and regulations, to ensure the highest efficiency.



Mitr Phol is currently conducting a systematic study of waste, or waste auditing, in Mitr Phol Dan Chang Complex. The profiling includes the type, quantity, location of waste generation, and management of each waste type generated during the production process, all in compliance with environmental management standards. This dataset will be helpful in the future development of Mitr Phol's waste management activities. The Company plans to transform Mitr Phol Dan Chang Complex into a closed-loop recycling model, collaborating with other organizations to include partners in its value chain and maximize waste recovery to reduce waste sent to landfills. Mitr Phol hopes to expand this model to other factories in the future.

In 2023, Mitr Phol implemented the following projects to add value to the waste generated in its production process:

- The project “Elephant Super Soil” soil aims to improve soil made from filter cake, sugarcane leaves, sugarcane mulch, bagasse ash, and old sugarcane leaves. Department of Agriculture has already approved the product for agricultural use. There is a plan to develop this product for use in larger areas.
- Research and development projects to add value to bagasse ash from the biomass power plants under Mitr Phol Innovation and Research Center:
 - A research and development project on using bagasse ash in the cement manufacturing industry and developing an ash compound separator for efficient ash handling. Separated bagasse ash can be used in other industries, such as the cement manufacturing industry, or as raw materials for companies in Mitr Phol.
 - A project to produce briquettes or sticks from bagasse to be used as supplementary fuel in power plants and fertilizer factories.
 - A study on bagasse ash and lime sludge blends for decorative brick production employing geopolymer technology, in collaboration with the National Metals and Materials Technology Center (MTEC). The project aims to develop 5 formulas based on ash from Mitr Phol power plants to increase brick quality and strength, with completion targeted in 2024.



Designing Training Program on Environmental Management, Occupational Health, and Safety

Mitr Phol's Department of Safety, Occupational Health, and Environment and HR departments of all factories jointly designed training programs to educate employees working in the safety, occupational health, and environment departments of all factories. In 2023, the Company designed and administered a test for operators, officers, and supervisors for the first time. The test is structured around 2 areas:

1. Environmental management, covering environmental laws, environmental management systems, environmental responsibility to the community, and environmental engineering and technology.
2. Safety and occupational health, covering safety and occupational health laws, safety and occupational health management systems, occupational health, safety engineering and technology, and fire protection engineering and technology.

The Department of Safety, Occupational Health, and Environment at Mitr Phol, along with the HR departments of all factories, will use the test results as a guide to design training programs for 2024 tailored to employees' proficiency levels. Factory managers will use this data to facilitate skill development among their staff as they carry out their job responsibilities. The aim is for employees to apply their work experience and knowledge gained from training to solve problems and improve operational procedures, which will benefit both the employees and the organization.

Chapter

16



Biodiversity Management



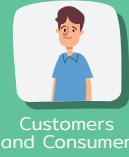
Mitr Phol recognizes the crucial role of preserving biodiversity in delivering comprehensive ecosystem services. Biodiversity enhances soil fertility, ensures adequate water resources, and mitigates the severity of natural disasters. These factors are vital to Mitr Phol’s business operations across the entire value chain and maintaining a healthy environment.

Therefore, the Company has systematically implemented proactive management strategies, committed to achieving no net loss (NNL) of biodiversity, and promoted new projects to deliver a net positive impact (NPI) on biodiversity. The Company conducts its business with a commitment to no net deforestation (NND). It assesses biodiversity risks throughout the value chain and identifies appropriate measures for prevention, avoidance, and mitigation of impacts.

2023 Target and Performance

	Target	Performance
 <p>No net loss (NNL) of biodiversity within the Company’s operational scope</p>	<p>Achieve no net loss (NNL) of biodiversity within the Company’s operational scope by 2030</p>	<p>Achieved no net loss (NNL) of biodiversity within the Company’s operational scope</p>
 <p>Ratio of green space inside the factory area</p>	<p>≥5% of the factory area</p>	<p>14% of the factory area</p>

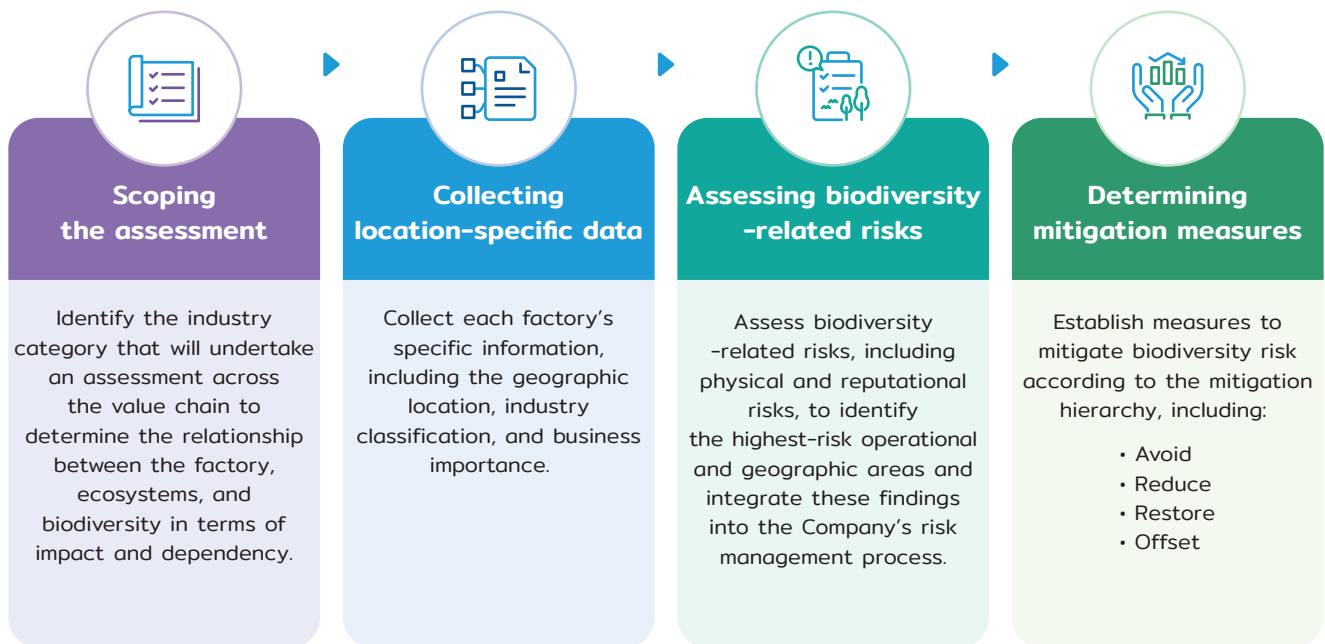
* For more information, please visit [“Biodiversity Management Statement”](#)



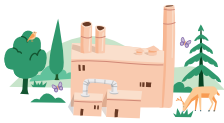
Management Approach

Biodiversity Risk Management

Mitr Phol has adopted the World Wildlife Fund’s biodiversity risk assessment guidelines to identify and assess biodiversity risks associated with its operations across the value chain. This approach allows the Company to identify high-risk industries and areas and implement appropriate mitigation measures.



Application of the Mitigation Hierarchy



Avoid

Plan and manage factory and operational areas to ensure responsible processes, particularly in biodiversity-sensitive areas. This includes the issuance of safety, security, occupational health, and environmental protection policies, which establish oversight and control of business activities to preserve biodiversity and ecosystem richness.



Reduce

Improve business operations under the 'From Waste to Value Creation' concept, which focuses on adding value to waste by transforming residues from the sugar production process into materials for various industries, alternative energy sources, and new business opportunities. For example, bagasse is used as a fuel for biomass power generation, producing power for internal business operations and for sale to external parties. Molasse is fermented with yeast to produce ethanol. Vinasse, a byproduct of ethanol production, is combined with filter cake, a byproduct of sugar production, to create biofertilizer for use in sugarcane plantations. This helps reduce the impact on the ecosystem by capitalizing on waste recycling.



Restore

Continuous ecosystem development and maintenance through the forest restoration project in cooperation with various stakeholders. The aim is to plant 2.2 million trees over a 10-year period (2022-2032). This includes biodiversity conservation projects in community forests and FSC-certified (Forest Stewardship Council) rubber plantations under Mitr Phol's wood substitute material business.



Regenerate and Transform

Promote the 'Mitr Phol ModernFarm,' a sustainable modern farming method for sugarcane farmers. This involves the utilization of modern agricultural machinery and technology, soil conservation with various methods such as crop rotation with legumes, green cane trash blanketing, and efficient water management. These methods help increase farm management efficiency and reduce the use of resources, such as raw materials, equipment, and labor, leading to lower costs per rai and promoting eco-friendly farming practices.

Biodiversity Conservation Activities

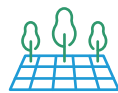
Mitr Phol Reforestation Project

Mitr Phol Group's reforestation project is one of the approaches to achieving its goal of becoming a Carbon-Neutral organization by 2030 and reaching Net Zero emissions by 2050. Over a 10-year period (2022-2032), the Company plans to plant 2.2 million trees, supported by a dedicated budget of 100 million baht. From 2022 to 2023, Mitr Phol has carried out the following activities:



Number of trees planted

657,763 trees (comprising 403,563 trees planted by the Company and 254,200 trees planted by third parties)



Reforestation area

2,116 rai



Number of farmers joining the project

6,055 farmers






Operating budget

17.24 million baht

The Company truly hopes that Mitr Phol Group's reforestation project will create long-term positive changes for society and the environment, enabling farmers to apply for carbon credit certification to generate additional income. It is also expected to foster positive attitudes and motivation among farmers, encouraging them to change their behaviors to sustainably care for society and the environment in the future.

Biodiversity Conservation Projects in Collaboration with Suppliers

Panel Plus Co., Ltd. has carried out biodiversity conservation projects in community forest areas, including Ban Thung Hua Mueang Community Forest, Ban Ton Sai Community Forest, and Ban Chong Khao Community Forest, as well as in FSC-certified (Forest Stewardship Council) rubber plantations. The total protected area covers 2,497 rai, and the project monitors community forests every 5 years and FSC-certified rubber plantations every 3 years.

Community Forest	Area	2023 Performance
<p>Thung Hua Mueang Community Forest, Tha Pradu, Na Thawi, Songkhla</p> 	1,065 rai	<ol style="list-style-type: none"> 1. Collectively manage forests, focusing on community engagement by installing signboards to identify community forests, display common practices, and mark forest boundaries; conducting flora and fauna surveys; patrolling forest areas; and studying methods to eliminate invasive plants. 2. Develop forest trails by installing tree tags and building toilets in the areas. 3. Develop forests as eco-tourist attractions by opening spaces for young people to learn and involving them in cleaning the areas and installing lighting. 4. Develop the forest as a food source for the community through forest management training, fish stocking, and installing signboards with guidelines on the responsible collection of forest products.
<p>Ban Ton Sai Community Forest, Tha Plak Nu, Na Thawi, Songkhla</p> 	1,033 rai	<ol style="list-style-type: none"> 1. Collectively manage forests focusing on community engagement by installing signboards to identify community forests, display common practices, and mark forest boundaries; conducting flora and fauna surveys; holding a tree ordination ceremony; and patrolling forest areas. 2. Develop forest trails and viewpoints. 3. Manage forests to increase natural yields and reduce expenses through training on the sustainable use of community forests and creating signboards to recommend attractions in the areas.
<p>Ban Chong Khao Community Forest, Rattaphum, Songkhla</p> 	399 rai	<ol style="list-style-type: none"> 1. Collectively manage forests, focusing on community engagement by installing signboards to identify community forests, display common practices, and mark forest boundaries; conducting flora and fauna surveys; and providing training on community forest management. 2. Develop forests and strengthen communities according to the sufficiency economy principle by holding a tree ordination ceremony, installing lighting, and improving the landscape around the spirit house. 3. Manage forests to increase natural yields, reduce expenses, and increase household income through community forest management/utilization and bat guano management.

Chapter

17

Packaging



Mitr Phol is well aware of its responsibility for its products throughout their life cycle, including their packaging. The Company is responsible for managing its food packaging from design and manufacturing to delivery and customer and consumer use. Therefore, Mitr Phol continuously develops and introduces new packaging solutions to meet the needs of customers and consumers to ensure convenient use and efficient packaging waste sorting and management.

2023 Target and Performance

	Target	Performance
 <p>The percentage of recyclable and compostable plastic packaging</p>	<p>95% of total plastic packaging</p>	<p>95% of total plastic packaging</p>

Management Approach

Mitr Phol is committed to reduce the negative environmental impact of its packaging throughout the product’s life cycle while satisfying the diverse needs of consumers. Therefore, the Company has established a strict packaging policy* focusing on 4 areas:

- 1** Developing recyclable product technologies that align with the circular economy.
- 2** Reducing single-use plastic packaging and increasing the use of reusable packaging.
- 3** Promoting compostable and recyclable materials in packaging development.
- 4** Promoting recycled packaging to reduce the consumption of new materials.

* For more information, please visit [“Packaging Policy”](#)



Reducing the Use of Single-use Plastic Packaging and Increasing the Use of Reusable Packaging

Mitr Phol has designed new packaging for convenient reuse applications to reduce the need for new purchases. Reusing bottles decreases the amount of plastic required for new production, and these bottles are recyclable when discarded. The eco-friendly sugar bottles are designed for consumer convenience, with a cap that opens on both ends and features holes for precise sugar dispensing, making it easier to add sweetness to food. Made from HDPE and PP, these plastic bottles are heat and moisture resistant, impact-resistant, and offer various reuse possibilities.



- ▲ Bottles are designed to offer various reuse possibilities.

Furthermore, the Company promotes the use of tank cars to transport cane syrup and granulated sugar to customers to reduce the use of plastic packaging.



- ▲ Tank cars for delivering cane syrup to customers



- ▲ Tank cars for delivering granulated sugar to customers

Promoting the use of recyclable packaging

Mitr Phol has designed its sugar packaging to be monomaterial, avoiding the use of different materials to make discarded packaging easier to recycle and reuse.



- ▲ Sugar bags are made of mono-material plastic for easy recycling and reuse.

Promoting the use of compostable packaging

Mitr Phol has developed naturally compostable packaging, initially introduced for its natural cane sugar products. The outer layer is made of kraft paper while the inner layer is made from plant-based bioplastics. These bioplastics protect the product from moisture and naturally degrade after disposal.



- ▲ The outer layer of the packaging is made of kraft paper while the inner layer is made from plant-based bioplastics.

Chapter

18

Food Loss and Food Waste Management







Food loss and waste can occur at all stages of manufacturing, from agricultural production to food consumption. Food loss refers to the decrease in edible food mass intended for human consumption and occurs throughout the supply chain, from cultivation and harvesting to processing and transportation to the final destination. Food waste, on the other hand, takes place at the final stages of the supply chain, including retail and final consumption.

As a world-leading food producer, Mitr Phol places great importance on addressing food loss and waste. The Company is well aware that these issues represent a waste of investment and lead to the loss of valuable resources such as water, agricultural lands, and labor. Additionally, food loss and waste contribute to greenhouse gas emissions, which cause global warming. Reducing food loss will positively impact the global climate, preserve agricultural lands, and ensure efficient use of resources.

2023 Target and Performance

	Target	Performance
 <p>The ratio of total food loss and waste to the total amount of sugar sold</p>	<p>0.17 tons/ton of sugar sold</p>	<p>0.18 tons/ton of sugar sold</p>

-  Shareholders
-  Suppliers
-  Customers and Consumers
-  Government and Civil Society Sectors

Management Approach

Committed to becoming a world-class sugar producer with high efficiency, Mitr Phol has issued the Food Loss and Waste Policy* and formulated practices for employees, to ensure that food loss and waste management aligns with the sustainable production and consumption principles throughout the value chain as follows:

Reduction of Sugar Loss Before Crushing

The cane logistics system at Mitr Phol oversees the transportation of chopped sugarcane from farm to mill, with a goal of achieving a cut-to-crush time of 4-6 hours, and not exceeding 8 hours after harvesting. To facilitate this, Mitr Phol has implemented GPS tracking to monitor the locations of sugarcane trucks, allowing for efficient route management, including the shortest routes, and minimizing unnecessary stops. This system ensures the delivery of high-quality sugarcane for sugar production by preserving its freshness, weight, and commercial cane sugar (CCS) content, which helps reduce sugar loss and increases selling prices for farmers.

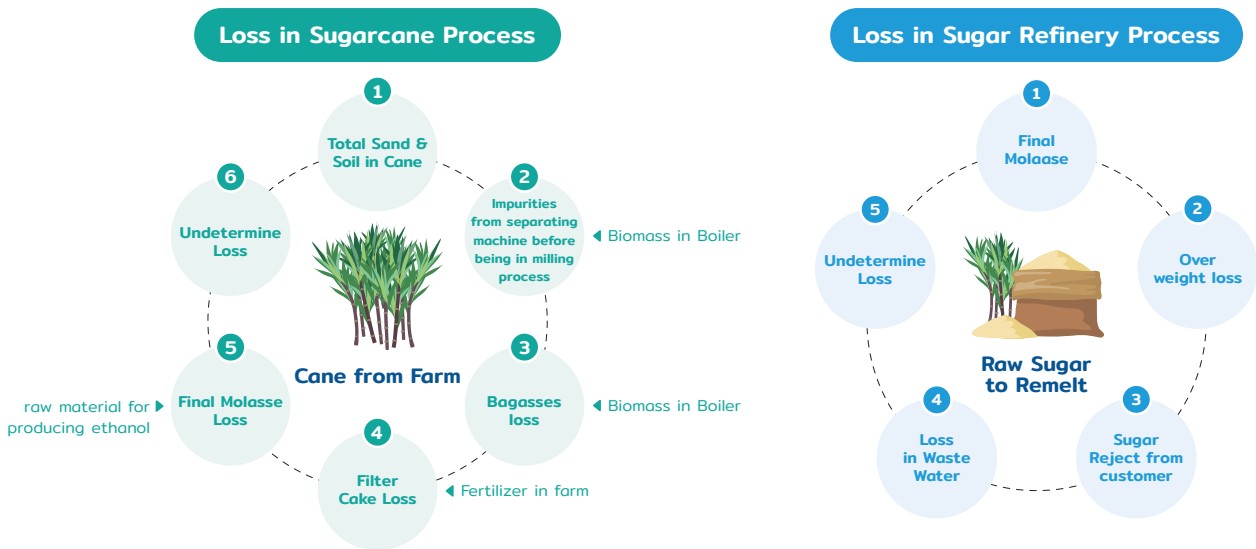


* For more information, please visit [“Food Loss and Food Waste Policy”](#)

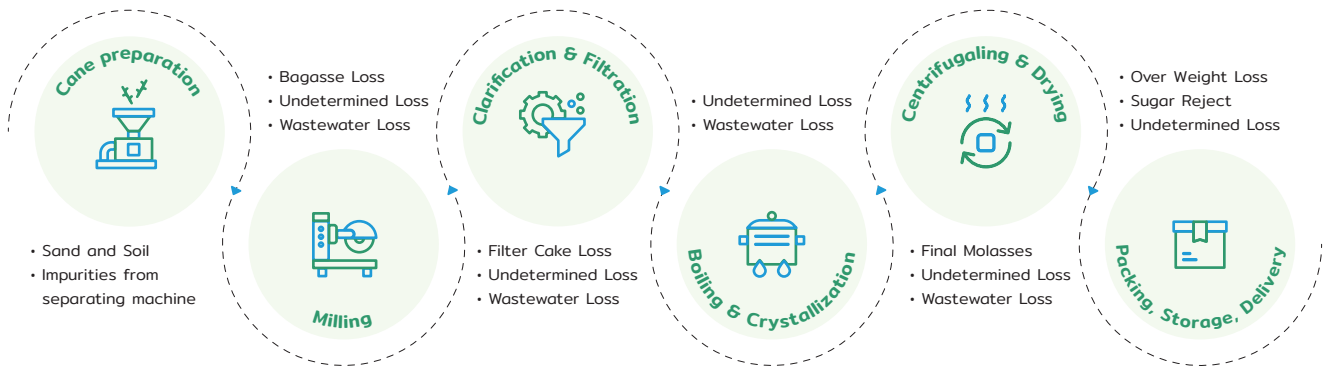
Reduction of Sugar Loss During Production

Mitr Phol has created a database of sugar losses as required by the Cane and Sugar Board. The Company collects and tracks data on sugar losses from various causes, including bagasse, filter cakes, molasses, leakage, and unknown causes such as sucrose losses due to microorganisms and heat and losses to effluent. These data are reported in real-time on a dashboard, which facilitates analysis and the development of production plans to improve efficiency. The sugar loss is illustrated in the diagram below.

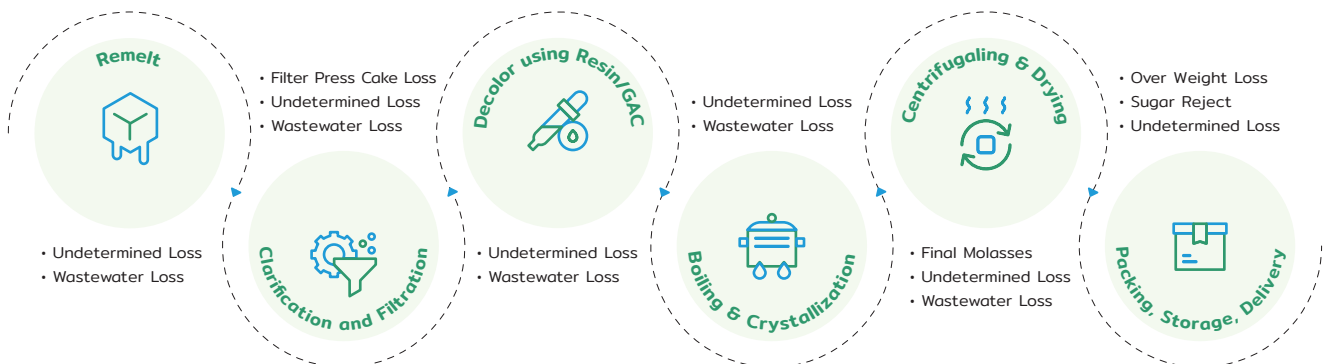
Food Loss and Waste During Sugar Production



Raw Sugarcane Process



Refinery Sugar Process



Reduction of Sugar Loss During Transportation

1

The Company selects high-quality packaging materials that are durable for transport and storage. It utilizes technology to seal the packages tightly during transportation and storage, preventing leakage or damage to the sugar.

All suppliers are encouraged to obtain quality assurance certifications or implement quality assurance systems such as ISO 9001, GHP, and HACCP. Moreover, the Company regularly checks and tests the quality of the packaging to ensure it effectively protects the products.

2

Provide training on appropriate and safe transportation practices for truck operators to prevent loss during transportation.

3

Utilize a modern logistics management system and efficient route planning, such as GPS tracking, to enable quick detection and response to potential problems.



Food Loss and Waste

Unit : tons/ton of sugar sold



The ratio of total food loss and waste to the total amount of sugar sold

0.263



2020

0.222



2021

0.196



2022

0.18



2023

**2023
Target
0.17**

Chapter

19

About This Report



Since 2013, Mitr Phol has annually published a sustainability report to disclose its sustainability performance across economic, social, and environmental dimensions. Information disclosed in this report is in accordance with the GRI 2021 standard, covering the operating period of Mitr Phol and its subsidiaries in Thailand from January 1st, 2023, to December 31st, 2023. The report includes the performance of 7 business groups, covering 2 companies in the farming business, 11 sugar mills in the sugar business, 56 companies in the energy business, 8 companies in the Wood Substitute Materials Business, 4 fertilizer factories in the fertilizer business, 7 companies in the logistics and warehouse business, and 12 companies in other businesses, which account for 100% of Mitr Phol's revenue.



Companies Listed in the Report

Business/Company	Economic Performance	Environmental Performance	Social Performance	
			Occupational	Human Resources
Farming Business				
Rai Dan Chang Co., Ltd.	/	/	/	/
Rai E-Sarn Co., Ltd.	/	/	/	/
Sugar Business				
Mitr Phol Sugar Corp., Ltd.	/	/	/	/
Singburi Sugar Co., Ltd.	/	/	/	/
United Farmer and Industry Co., Ltd.	/	/	/	/
United Farmer and Industry Co., Ltd. (Phu Viang Branch)	/	/	/	/
United Farmer and Industry Co., Ltd. (Phu Luang Branch)	/	/	/	/
Mitr Kalasin Sugar Co., Ltd.	/	/	/	/
Mitr Phol Sugar Corp., Ltd. (Amnat Charoen Branch)	/	/	/	/
Pacific Sugar Corporation Co., Ltd.	/	/	/	/
Mid Siam Sugar Co., Ltd.	/	NR	NR	NR
Sugar Excellence Co., Ltd.	/	NR	NR	NR
Mitr Phol Sugar (Kaset Sombun) Co., Ltd.	/	NR	NR	NR
Renewable Energy Business				
Bio-Power Business				
Mitr Phol Bio-Power (Dan Chang) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Phu Viang) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Kalasin) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Phu Luang) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Kuchinarai) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Amnat Charoen) Co., Ltd.	/	/	/	/
Natural Fuel Co., Ltd.	/	NR	NR	NR
MP Choosak Bio-Power Co., Ltd.	/	NR	NR	NR
Nara Clean Energy Co., Ltd.	/	NR	NR	NR
Biomass Clean Energy Co., Ltd.	/	NR	NR	NR
Kasetsoomboon Bio-Power Co., Ltd.	/	NR	NR	NR
Phetchabun Bio-Power Co., Ltd.	/	NR	NR	NR
Selaphum Bio-Power Co., Ltd.	/	NR	NR	NR
Mitr Phol Biotech Co., Ltd.	/	NR	NR	NR
Mitr Phol Specialty Biotech Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power (Songkhla) Co., Ltd.	/	NR	NR	NR
Chaiyaphum Community Power Plant (Project 2) Co., Ltd.	/	NR	NR	NR

Business/Company	Economic Performance	Environmental Performance	Social Performance	
			Occupational	Human Resources
Kalasin Community Power Plant (Project 1) Co., Ltd.	/	NR	NR	NR
Kalasin Community Power Plant (Project 2) Co., Ltd.	/	NR	NR	NR
Songkhla Community Power Plant (Project 1) Co., Ltd.	/	NR	NR	NR
Songkhla Village Energy Co., Ltd.	/	NR	NR	NR
Suphan Buri Community Power Plant Co., Ltd.	/	NR	NR	NR
Yala Community Power Plant (Project 1) Co., Ltd.	/	NR	NR	NR
Yala Valley Community Co., Ltd.	/	NR	NR	NR
Prize of Wood Green Energy Co., Ltd.	/	/	NR	/
Safe Biomass Co., Ltd.	/	/	NR	/
Ethanol Business				
Mitr Phol BioFuel Co., Ltd.	/	/	/	/
Mitr Phol BioFuel Co., Ltd. (Phu Khiao Branch)	/	/	/	/
Mitr Phol BioFuel Co., Ltd. (Kalasin Branch)	/	/	/	/
Mitr Phol BioFuel Co., Ltd. (Kuchinarai Branch)	/	/	/	/
Maesod Clean Energy Co., Ltd.	/	/	/	/
Alternative Business				
Mitr Phol Energy Services Co., Ltd.	/	/	/	/
Power Prospect Co., Ltd.	/	/	/	/
MP Energy Co., Ltd.	/	NR	NR	NR
Betong Green Power Co., Ltd.	/	/	/	/
BMC Energy Co., Ltd.	/	NR	NR	NR
Green Pharmahol Co., Ltd.	/	/	NR	/
THL Power Co.,Ltd.	/	NR	NR	NR
Sawasdee Energy Holding Co., Ltd.	/	/	NR	/
Bangkok Alcohol Industrial Co., Ltd.	/	/	/	/
Steem Inc Co., Ltd.	/	/	NR	/
Kampaengpetch Green Energy Co., Ltd.	/	/	/	/
C A B Woodchip Co., Ltd.	/	/	/	NR
APCON Renewable Energy Co., Ltd.	/	/	/	/
MP Apcon Operations Co., Ltd.	/	/	/	/
Rungtiva Biomass Co., Ltd.	/	/	/	/
Saraburi Solar Co., Ltd.	/	/	NR	/
Good Solar Co., Ltd.	/	NR	NR	/
BS Green Energy Co., Ltd.	/	NR	NR	NR
ECO Energy Group Corporation Co., Ltd.	/	NR	NR	NR
TPCH Power 1 Co., Ltd.	/	NR	NR	NR
TPCH Power 2 Co., Ltd.	/	NR	NR	NR
TPCH Power 5 Co., Ltd.	/	NR	NR	NR
Pracharat Biomass Mae Lan Co., Ltd.	/	NR	NR	NR
Pracharat Biomass Bannangsata Co., Ltd.	/	NR	NR	NR

Business/Company	Economic Performance	Environmental Performance	Social Performance	
			Occupational	Human Resources
Wood Substitute Materials Business				
Panel Plus Co., Ltd.	/	/	/	/
Panel Decor Co., Ltd.	/	/	/	/
Panel Plus MDF Co., Ltd.	/	/	/	/
Panel Plus Bio-Power Co., Ltd.	/	/	/	/
MP Particle board Co., Ltd.	/	NR	NR	NR
Panel Design Lab Co., Ltd.	/	/	/	/
Songkhla Green Energy Co., Ltd.	/	NR	NR	NR
Wood Solution Co., Ltd.	/	/	/	/
Fertilizer Business				
Productivity Plus Co., Ltd. (Dan Chang Branch)	/	/	/	/
Productivity Plus Co., Ltd. (Phu Khiao Branch)	/	/	/	/
Productivity Plus Co., Ltd. (Saraburi Branch)	/	/	/	/
Productivity Silo Co., Ltd.	/	/	/	/
Logistics and Warehouse Business				
United Standard Terminal Public Co., Ltd.	/	/	/	/
Mitr Phol Warehouse Co., Ltd.	/	/	/	/
Aawthai Warehouse Co., Ltd.	/	/	/	/
MP Smart Logistics Co., Ltd.	/	NR	NR	NR
Fair Fast Co., Ltd.	/	/	/	/
Logis Link Co., Ltd.	/	NR	NR	NR
Ocean Connex Co., Ltd.	/	NR	NR	NR
Other Business				
Ratchasima Green Starch Co., Ltd.	/	/	/	/
Mitr Phol Sugarcane Research Center Co., Ltd.	/	/	/	/
Mitr Phol Development Co., Ltd.	/	/	/	/
Mitr Phol Treasury Center Co., Ltd.	/	/	/	/
Khon Kaen Innovation Center Co., Ltd.	/	/	NR	NR
Mitr Phol International Holding Co., Ltd.	/	NR	NR	NR
Mitr Chuenjai Co., Ltd.	/	/	/	/
Plook Mitr Corporation Limited	/	/	/	/
Thai Environmental And Energy Development Co., Ltd.	/	/	/	/
Health Innotech Co., Ltd.	/	/	/	/
Plook Por Suk Co., Ltd.	/	/	/	/
Eto-Huay Kasain Valley Co., Ltd.	/	NR	NR	NR

Remarks:

NR (Not Relevant) – the issue is irrelevant

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Chapter

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GRI Content Index



Statement of use	Mitr Phol Group has reported in accordance with the GRI Standards for the period 1 st January - 31 st December 2023 reporting period start and end dates.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	GRI 13: Agriculture, Aquaculture, and Fishing Sectors 2022

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	16-19, 22-23	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.			
	2-2 Entities included in the organization's sustainability reporting	147-149				
	2-3 Reporting period, frequency and contact point	146, 149				
	2-4 Restatements of information	146				
	2-5 External assurance	link				
	2-6 Activities, value chain and other business relationships	16-19, 22-23, 54-61				
	2-7 Employees	link				
	2-8 Workers who are not employees	link				
	2-9 Governance structure and composition	36-37				
	2-10 Nomination and selection of the highest governance body	36-38				
	2-11 Chair of the highest governance body	37-38				
	2-12 Role of the highest governance body in overseeing the management of impacts	36-38				
	2-13 Delegation of responsibility for managing impacts	36-38				
	2-14 Role of the highest governance body in sustainability reporting	36-38				
	2-15 Conflicts of interest	36-38				
	2-16 Communication of critical concerns	36-38				
	2-17 Collective knowledge of the highest governance body	38				
	2-18 Evaluation of the performance of the highest governance body	38				
	2-19 Remuneration policies	81				
	2-20 Process to determine remuneration	81				
	2-21 Annual total compensation ratio				Confidentiality constraints	
	2-22 Statement on sustainable development strategy	5				
	2-23 Policy commitments	24-25, 102-105				
	2-24 Embedding policy commitments	8-9				
	2-25 Processes to remediate negative impacts	42-43, 102-105				
	2-26 Mechanisms for seeking advice and raising concerns	42-43, 104				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	link				
	2-28 Membership associations	32-33				
	2-29 Approach to stakeholder engagement	29-31				
	2-30 Collective bargaining agreements	link				
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	26-27	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.			
	3-2 List of material topics	28				
Economic performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	8				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	20				
	201-2 Financial implications and other risks and opportunities due to climate change	111				
	201-3 Defined benefit plan obligations and other retirement plans	20, 80				
	201-4 Financial assistance received from government	link				
Market presence						
Indirect economic impacts						
GRI 3: Material Topics 2021	3-3 Management of material topics	8				13.22.2
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	20				13.22.3
	203-2 Significant indirect economic impacts	20				13.22.4
Procurement practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	54-57				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	58				
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	36-39				13.26.1
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption			Information unavailable/incomplete		13.26.2
	205-2 Communication and training about anti-corruption policies and procedures	41				13.26.3
	205-3 Confirmed incidents of corruption and actions taken	43				13.26.4
Anti-competitive behavior						
GRI 3: Material Topics 2021	3-3 Management of material topics	36-39				13.25.1
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices			Information unavailable/incomplete		13.25.2
Tax						
GRI 3: Material Topics 2021	3-3 Management of material topics	21, Link				
GRI 207: Tax 2019	207-1 Approach to tax	21, Link				
	207-2 Tax governance, control, and risk management	21, Link				
	207-3 Stakeholder engagement and management of concerns related to tax	21, Link				
	207-4 Country-by-country reporting	21, Link				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Materials						
GRI 3: Material Topics 2021	3-3 Management of material topics	6-7, 133-134				
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Link				
	301-2 Recycled input materials used	Link				
	301-3 Reclaimed products and their packaging materials			Information unavailable/incomplete		
Energy						
GRI 3: Material Topics 2021	3-3 Management of material topics	122				
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Link				
	302-2 Energy consumption outside of the organization	Link				
	302-3 Energy intensity	Link				
	302-4 Reduction of energy consumption	124-127				
	302-5 Reductions in energy requirements of products and services	124-128				
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	130-131				13.7.1
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	130-131				13.7.2
	303-2 Management of water discharge-related impacts	120,130-131				13.7.3
	303-3 Water withdrawal	130-131, Link				13.7.4
	303-4 Water discharge	130-131, Link				13.7.5
	303-5 Water consumption	Link				13.7.6
Biodiversity						
GRI 3: Material Topics 2021	3-3 Management of material topics	136-138				13.3.1
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Link				13.3.2
	304-2 Significant impacts of activities, products and services on biodiversity	Link				13.3.3
	304-3 Habitats protected or restored	Link				13.3.4
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Link				13.3.5
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	108-111				13.1.1
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Link				13.1.2
	305-2 Energy indirect (Scope 2) GHG emissions	Link				13.1.3
	305-3 Other indirect (Scope 3) GHG emissions	Link				13.1.4
	305-4 GHG emissions intensity	Link				13.1.5
	305-5 Reduction of GHG emissions	111-113				13.1.6
	305-6 Emissions of ozone-depleting substances (ODS)	Link				13.1.7
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Link				13.1.8
Waste						
GRI 3: Material Topics 2021	3-3 Management of material topics	16, 133-134				13.8.1

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	6-7, 133-134				13.8.2
	306-2 Management of significant waste-related impacts	6-7, 133-134				13.8.3
	306-3 Waste generated	Link				13.8.4
	306-4 Waste diverted from disposal	Link				13.8.5
	306-5 Waste directed to disposal	Link				13.8.6
Supplier environmental assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	54-56				
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	56				
	308-2 Negative environmental impacts in the supply chain and actions taken	56				
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	74-75				
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Link				
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Link				
	401-3 Parental leave	Link				
Labor/management relations						
GRI 3: Material Topics 2021	3-3 Management of material topics	74-75				
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes			Information unavailable/incomplete		
Occupational health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	86-87				13.19.1
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	86-87				13.19.2
	403-2 Hazard identification, risk assessment, and incident investigation	86-87				13.19.3
	403-3 Occupational health services	86-88				13.19.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	88-91				13.19.5
	403-5 Worker training on occupational health and safety	88-91				13.19.6
	403-6 Promotion of worker health	88-91				13.19.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	88-91				13.19.8
	403-8 Workers covered by an occupational health and safety management system	Link				13.19.9
	403-9 Work-related injuries	91				13.19.10
	403-10 Work-related ill health	Link				13.19.11
Training and education						
GRI 3: Material Topics 2021	3-3 Management of material topics	74				
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Link				
	404-2 Programs for upgrading employee skills and transition assistance programs	75-78				
	404-3 Percentage of employees receiving regular performance and career development reviews	Link				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	74				13.15.1
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Link				13.15.2
	405-2 Ratio of basic salary and remuneration of women to men			Confidentiality constraints		13.15.3
Additional Sector Disclosures	13.15.5			Information unavailable/incomplete		13.15.5
Non-discrimination						
GRI 3: Material Topics 2021	3-3 Management of material topics	102-105				
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	43				13.15.4
Freedom of association and collective bargaining						
GRI 3: Material Topics 2021	3-3 Management of material topics	74				13.18.1
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Link		Information unavailable/incomplete		13.18.2
Child labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	102-105				13.17.1
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Link				13.17.2
Forced or compulsory labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	54-56, 102-105				13.16.1
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	54-56, Link				13.16.2
Security practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	102-105				
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Link				
Rights of indigenous peoples						
GRI 3: Material Topics 2021	3-3 Management of material topics	102-105				13.14.1
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	41				13.14.2
Additional Sector Disclosures	13.14.3	Link				13.14.3
	13.14.4			Information unavailable/incomplete		13.14.4

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Local communities						
GRI 3: Material Topics 2021	3-3 Management of material topics	92				13.12.1
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	92-101				13.12.2
	413-2 Operations with significant actual and potential negative impacts on local communities	92-102, Link				13.12.3
Supplier social assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	54-56				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	56				
	414-2 Negative social impacts in the supply chain and actions taken	56				
Public policy						
GRI 3: Material Topics 2021	3-3 Management of material topics	32-33				13.24.1
GRI 415: Public Policy 2016	415-1 Political contributions	32-33				13.24.2
Customer health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	70-72				13.10.1
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	71-72				13.10.2
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services			Information unavailable/incomplete		13.10.3
Additional Sector Disclosures	13.10.4	10-13				13.10.4
	13.10.5			Information unavailable/incomplete		13.10.5
Natural Ecosystem Conversion						
GRI 3 : Material Topics 2021	3-3 Management of material topics	136-139				13.4.1
Additional Sector Disclosures	13.4.2	136-139				13.4.2
	13.4.3	136-139				13.4.3
	13.4.4	136-139				13.4.4
	13.4.5	136-139				13.4.5
Soil Health						
GRI 3 : Material Topics 2021	3-3 Management of material topics	114-121				13.5.1
Pesticides Use						
GRI 3 : Material Topics 2021	3-3 Management of material topics	114-121				13.6.1
Additional Sector Disclosures	13.6.2	114-121				13.6.2
Food Security						
GRI 3 : Material Topics 2021	3-3 Management of material topics	142-145				13.9.1
Additional Sector Disclosures	13.9.2	145				13.9.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Land and Resource Rights						
GRI 3 : Material Topics 2021	3-3 Management of material topics	114-121				13.13.1
Additional Sector Disclosures	13.13.2	114-121				13.13.2
	13.13.3	114-121				13.13.3
Employee Practices						
GRI 3 : Material Topics 2021	3-3 Management of material topics	74-85				13.20.1
Living Income and Living Wage						
GRI 3 : Material Topics 2021	3-3 Management of material topics	81				13.21.1
Additional Sector Disclosures	13.21.2			Information unavailable/incomplete		13.21.2
	13.21.3			Information unavailable/incomplete		13.21.3
Supply Chain Traceability						
GRI 3 : Material Topics 2021	3-3 Management of material topics	54-61				13.23.1
Additional Sector Disclosures	13.23.2	54-61				13.23.2
	13.23.3	54-61				13.23.3
	13.23.4	54-61				13.23.4

Topics in the applicable GRI Sector Standards determined as not material

TOPIC	EXPLANATION
Animal Health and Welfare	
13.11.1	Mitr Phol Group has not operation about the animal health and welfare.
13.11.2	Mitr Phol Group has not operation about the animal health and welfare.
13.11.3	Mitr Phol Group has not operation about the animal health and welfare.



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