



**MITR PHOL
GROUP**

**SUSTAINABILITY
REPORT 2024**

MITR PHOL GROUP

Inclusive Business



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Social Dimension

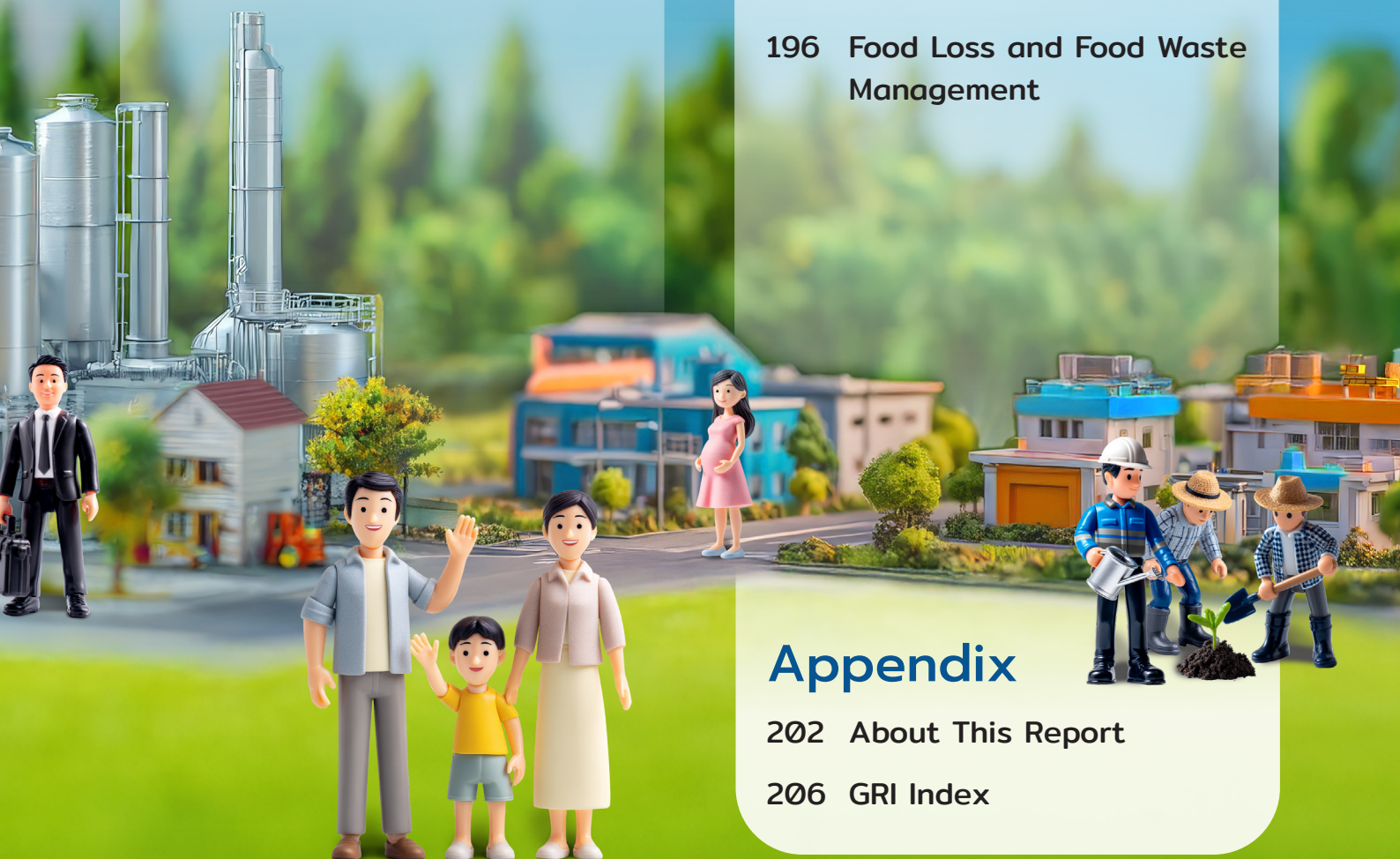
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VISION

**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” สู่งานที่ดีกว่า



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

Message from the Chairman of Mitr Phol Group

“Grow Together” has consistently guided Mitr Phol Group’s approach to business operations. For over seven decades, we have remained committed to advancing Thailand’s agricultural sector. This commitment is driven by the conviction that a sustainable future for both Thailand and the global community must be built upon collaboration across all sectors of the supply chain, including government, private enterprises, farmers, and civil society. Mitr Phol Group recognizes its responsibility to all stakeholders in fostering inclusive and high-quality growth across economic, social, and environmental dimensions. This commitment is particularly critical in today’s rapidly evolving global landscape, shaped by the intensifying impacts of climate change, widening inequality, geopolitical tensions, and economic volatility.

We remain steadfast in our commitment to sustainable development, adopting a comprehensive approach aligned with the United Nations Sustainable Development Goals. Our efforts focus on generating positive impact at both national and international levels. We continue to improve our operations in tangible and measurable ways by integrating sustainability principles across the organization. This includes empowering farmers through modern farming practices that prioritize environmental stewardship, and promoting the efficient use of limited resources, especially water, which is a key resource for agro-industrial resilience. We also leverage innovation to enhance performance across the supply chain while supporting communities and broader society. Today, Mitr Phol Group is recognized not only as a leader in the sugarcane, sugar, renewable energy, and related industries in Thailand and abroad, but also as a global leader in sustainability. This recognition reflects our enduring commitment to purposeful growth and to delivering meaningful outcomes for both society and the environment.

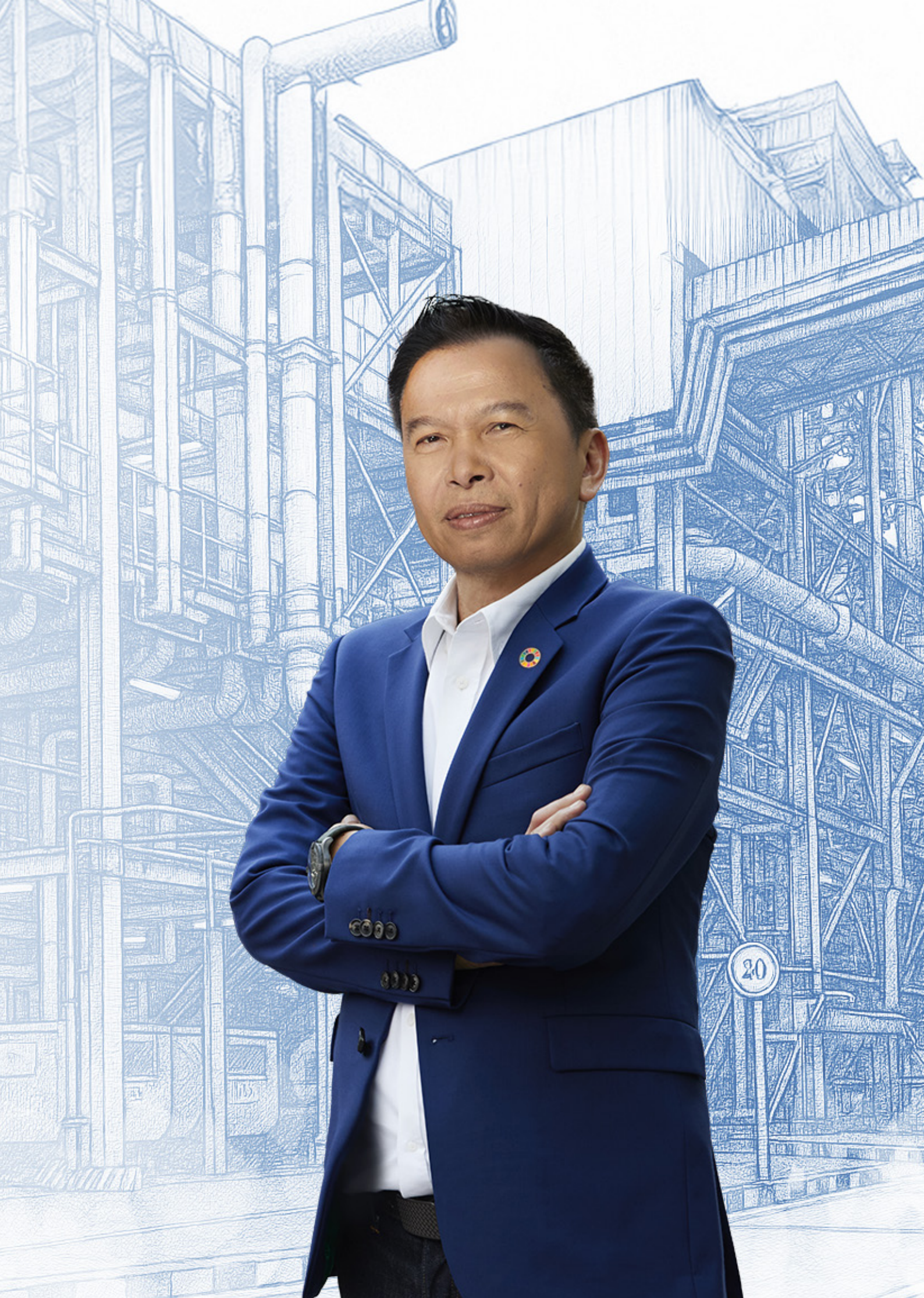
On behalf of Mitr Phol Group, I would like to express our sincere appreciation to our business partners, suppliers, farmers, employees, and all valued stakeholders for their continued trust and confidence throughout our journey.

I reaffirm our unwavering commitment to conducting our business with responsibility, transparency, and integrity, creating long-term value for a sustainable future.

We will continue to lead Thailand’s sugarcane, sugar, and related industries, as well as the agricultural sector, toward a future that is resilient, secure, and truly sustainable.



Mr. Buntoeng Vongkusolkrit
Chairman of Mitr Phol Group



Key Sustainability Performance



Environment: To Support a Thriving Environment



98.14%

of total electricity consumption within the organization is sourced from biomass electricity and solar energy.



Having planted

666,516 trees

aiming to achieve the target of 1 million trees by 2032.



95%

of packaging is made from recyclable and compostable plastic materials.



47,461 hectares

of sugarcane cultivation area has been certified for sustainable sugarcane production



Social: Sustainable Communities



The sugar business's customers Net Promoter Score (NPS) was



88.44%

The level of employee engagement was 4.5/5, equivalent to

90%



100%



of employees at the operational level and above received training on basic human rights.

87 persons with disabilities were employed



7 associations of persons with disabilities were established.



Communities generated a total income of

4,479,004 baht

from the sales of hygienic vegetables and community products.



Governance: Transparent and Collaborative Corporate



93.08%



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

64.6%



of the significant suppliers were assessed for ESG risks.

No cybersecurity breaches



100%

of employees comply with the Mitr Phol Code of Conduct



100%

of suppliers comply with Supplier Code of Conduct.

Two rounds

of cybersecurity awareness assessments were conducted via phishing simulations.





Awards and Recognitions





Sustainability Awards



- Top 5% in the S&P Global Corporate Sustainability Assessment (CSA) Score 2024 in the Food Products Industry by S&P Global
- Received a Climate Change Management and Water Security Management from the Climate Disclosure Project (CDP) in 2024 at B and B- level (Management level) respectively.

- The Asia Corporate Excellence & Sustainability Awards 2024 or ACES Awards 2024 in the category of Top Sustainability Advocates in Asia
- Bonsucro Certification for Sustainable Sugarcane Production and Processing
- VIVE Programme – Sustainability Programme for Continuous Improvement in Agricultural Supply Chains
- FSC Forest Management certification (FSC-FM) for Forest Management and Products Containing Wood or Other Products Derived from Plantations
- Forest Stewardship Council™ Chain of Custody Certificate or FSC™ CoC Certificate
- SX TSCN Sustainability Award 2024

Environmental Awards



- Green Industry Awards – Level 3 (Green System) by the Ministry of Industry
- The Honorary Award for Enterprises Passing the Environmental Governance Assessment by the Ministry of Industry
- Award for Promote Water Management Technologies to Reduce Water Consumption and Pollution Project in Industrial Factories by the Department of Industrial Works
- Plaque of Honor for “BEST BCG ECONOMY MODEL” awarded by the Thailand Greenhouse Gas Management Organization (Public Organization)



- Environmental Impact Assessment (EIA) Monitoring Awards by the Office of Natural Resources and Environmental Policy and Planning
- Plaque of Honor for “Climate Action Leading Organization (CALO)” 2024 – Excellence Level in the Agriculture and Industrial Products Sector
- ISO 14001:2015 – Environmental Management Systems Standard
- ISO 14001:2015 – Energy Management Systems Standard
- The certification of Panel Plus Melamine Faced Board of Panel Plus Co., Ltd. under the Singapore Green Label Scheme (SGLS)





Social Awards

HUMAN RIGHTS AWARDS 2024



- Human Rights Award, Outstanding Level 2024, for Large Business Sector by the Rights and Liberties Protection Department, Ministry of Justice
- Corporate Social Responsibility (CSR) Award 2024 from the Department of Older Persons, Ministry of Social Development and Human Security
- 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
- Top Employer Award 2024 in Thailand by the Top Employers Institute in the Netherlands
- Ranked 19th in the Top 50 Companies in Thailand Awards 2024 by WorkVenture.
- Outstanding Labour Relations and Labour Welfare Award by Ministry of Labour
- The Good Labour Practices (GLP) from the Department of Labour Protection and Welfare
- The self-declaration of compliance with the Thai Labour Standard (TLS 8001:2563) by the Labour Standards Development Bureau, Ministry of Labour
- The Outstanding Workplace for Safety, Occupational Health, and Working Environment Award from the Department of Labour Protection and Welfare
- The “Zero Accident Campaign Basic Level for 2024” from Thailand Institute of Occupational Safety and Health (Public Organization)
- The “Zero Accident Campaign Bronze Award for 2024” from Thailand Institute of Occupational Safety and Health (Public Organization)
- The Outstanding Model Establishment in Safety, Occupational Health, and Working Environment (National Level) for the 5th Year from the Department of Labour Protection and Welfare
- The Outstanding Model Establishment in Safety, Occupational Health, and Working Environment (District Level) from the Department of Labour Protection and Welfare
- Award for an Establishment Disease-Free, Safe, and Healthy Workplace from the Department of Disease Control, Ministry of Public Health
- CSR-DIW Continuous Award for Promoting Sustainable Corporate Social Responsibility in Industrial Factories for 2024 from the Department of Industrial Works
- White Factory Certification (Level 1) by the Department of Labour Protection and Welfare
- ISO 45001:2018 – Occupational Health and Safety Management Systems Standard
- The Model Organization in Workplace Wellness Award from the Department of Labour Protection and Welfare in collaboration with the Thai Health Promotion Foundation (ThaiHealth)

Corporate Governance and Economic Awards



- CAC Change Agent Award 2024
- Second-term CAC certification at the CAC Certification Ceremony hosted by the Thai Private Sector Collective Action Against Corruption (CAC)
- Outstanding Sugar Factory Award from the Office of the Cane and Sugar Board
- The sugar mill awarded the 'Eco-Friendly Cane Award' by the Office of the Cane and Sugar Board.
- TPQI AWARDS 2024 – Honorary Award for Outstanding Implementation of the Professional Qualifications System Recognized by Society (Category: Outstanding Enterprise or Organization – Large Scale) by Thailand Professional Qualification Institute (Public Organization)
- Outstanding Model Establishment for Social Security Fund Contributions by Social Security Office
- Good People Organization Award by the Senate Committee on Religion, Morality, Ethics, Arts and Culture
- 2024 IDC Future Enterprise Awards – Best in Future of Operations (Asia-Pacific)
- 2024 IDC Future Enterprise Awards – Best in Future of Operations (Thailand)
- CIO100 ASEAN Awards
- CSO30 ASEAN Awards
- ISO 9001 – Quality Management Systems Standard
- Food Safety System Certification (FSSC 22000)
- Good Hygiene Practices (GHPs) Certification
- Thai Agricultural Standard TAS 9024-2007: Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for Its Application, Based on the Principles of the Codex Alimentarius Commission
- ISO/IEC 17025:2017 – Testing and Calibration Laboratories Standard
- HALAL Standard Certification
- Kosher Standard Certification



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



Value Chain

From Waste to Value Creation

Sugarcane Farming Business

- Sugarcane
- Sugarcane leaf

Sugar Business

- Sugar
- Molasses
- Filter Cake
- Bagasse

Wood Substitute Materials Business

- Wood Substitute Materials
- Furniture
- Bark



Biomaterial



Biochemical



Food Ingredient/Additive
Feed Ingredient/Additive

SS
s
ake
e

- Product
- By-product

Ethanol Business

- Ethanol
- Vinasse
- Yeast

Power Business

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

Fertilizer Business

- Fertilizer

Skincare
and Cosmetics

Supplements

Pharmaceuticals

Chapter

01

Our Business



About Mitr Phol

Mitr Phol Group is committed to conducting business with responsibility to society and the environment under the concept “From Waste to Value Creation”. Our goal is to optimize resource management to achieve the greatest benefits, minimize waste, and add value to the waste generated during the production process. Mitr Phol Group leverages digital innovation and technology to deliver high-quality products that meet international standards while reducing greenhouse gas emissions, a major driver of climate change.

In 2024, Mitr Phol Group became the world’s 4th largest sugar producer and the number 1 in Thailand. This achievement underscores our success in becoming a leader in the sugarcane and sugar industry, earning the trust of customers and consumers both in Thailand and overseas. Currently, Mitr Phol Group operates in 7 business types: Sugarcane Farming, Sugar, Energy, Wood Substitute Materials, Fertilizer, Logistics and Warehousing, and Other Businesses.

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



Production Volume in Thailand and Overseas

Thailand

Sugar Business



Raw Sugar

0.31M tons

Refined Sugar*

1.63M tons

Syrup and
Other Sugar Products

0.54M tons

Energy Business



Biomass Power

3.31M MWh

Steam

20.12M tons

Solar Power

0.05M MWh

Ethanol

299.08M liters

Animal Feed

6,796.95 tons

Wood Substitute Materials Business



MDF Wood

0.56M m³

Melamine Faced MDF

51,875 m³

Particleboard

0.29M m³

Melamine Faced
Particleboard

0.18M m³

Melamine Faced Paper

30.4M m²

Fertilizer Business



Fertilizer Pellets

0.14M tons

Liquid Fertilizer

284 m³

Powder Fertilizer

193.2 tons

Soil Conditioner

25.45 tons

Original Equipment Manufacturer (OEM) Fertilizer

52,653.75 tons

Other Businesses



Tapioca Flour

54,666 tons

Fructooligosaccharide (FOS)
and Total Invert Sugar (TIS)

2,036.58 tons

Mineral Water

3,929 m³

*Refined sugar includes white sugar, refined sugar, and super-refined sugar.

People's Republic of China

Sugar Business



Raw Sugar

0.16M tons

Refined Sugar

1.09M tons

Biomass Power

0.7M MWh

Steam

4.78M tons

Fertilizer Business



Fertilizer

68,841.58 tons

Lao People's Democratic Republic

Sugar Business



VHP Sugar*

35,477.03 tons

DCR Sugar**

24,257.82 tons

Organic Sugar

3,074.12 tons

Biomass Power

18,663 MWh

Steam

0.29M tons

Fertilizer Business



Fertilizer pellets

33,558.97 tons

*VHP Sugar stands for Very High Polarized Raw Sugar — raw sugar with a minimum sweetness of 99.4%.

**DCR stands for Direct Consumption Raw Sugar — edible raw sugar that does not require further refining.

Australia

Sugar Business



Raw Sugar

0.35M tons

Biomass Power

139,229 MWh

Indonesia

Sugar Business



Raw Sugar

1.18M tons

Refined Sugar

1.06M tons

Biomass Power

0.2M MWh

Steam

2.74M tons

Taiwan (Republic of China)

Energy Business



Solar Power

51,817.2 MWh

Domestic Logistics and Warehouse Business Operations

2024 Service Type and Service Volume

Warehouse and Port Terminal Services



Cargo volume handled

2.63

Million Metric Tons

Logistics Services



Cargo volume
transported

1.55

Million Metric Tons

Registered transport
vehicles

5,000 Units

Number of customers

341 Persons

Economic Achievement

In 2024, Mitr Phol economic performance highlights are shown below:

Economic Achievement

Directed Economic Value Generated

Revenue

155,256.67 Million Baht

Directed Economic Value Distributed

126,796.01 Million Baht



Operating Costs

118,955.25 Million Baht

Employee Wages and Benefits

5,209.67 Million Baht

Payment to Providers of Capital

1,543.99 Million Baht

Payment to Government

730.87 Million Baht

Community Investment

80.93 Million Baht

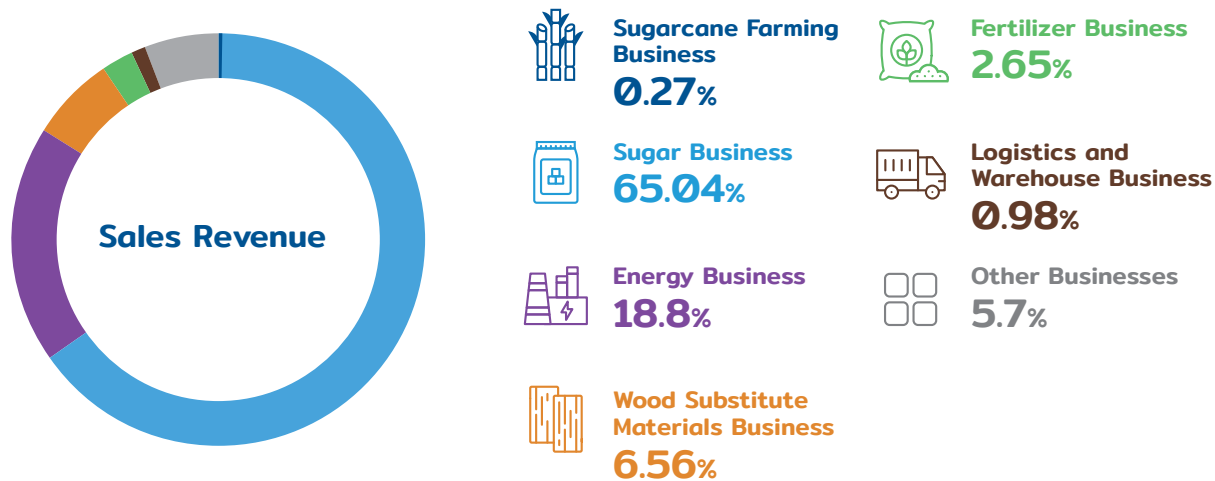
Research and Development

275.31 Million Baht

Economic Value Retained

28,460.66 Million Baht

Domestic Sales Revenue by Business Unit



Mitr Phol’s Taxation Management

Mitr Phol Group firmly believes that conducting business in accordance with the principles of good corporate governance is essential to fostering sustainable business growth and driving national development. As such, the Company places a strong emphasis on effective tax management, recognizing that a sound tax policy is not only a part of social responsibility but also a key contributor to economic stability and sustainable national progress. Regardless of where we operate, we are fully committed to complying with all applicable tax laws and regulations and to playing an active role in supporting the overall development of the countries in which we do business. Additionally, the Company has established channels for submitting suggestions, whistleblowing, or filing complaints regarding tax issues.

Mitr Phol Group has a dedicated unit for tax planning and accounting standards to ensure full compliance with relevant government agencies and tax authorities. We engage professional tax advisors and provide regular training to employees responsible for tax matters to ensure they possess the necessary skills, expertise, and knowledge to manage tax operations with the highest level of efficiency.

Additionally, Mitr Phol has established robust processes for tax risk management and internal audits to mitigate potential tax-related risks to the business. Regular monitoring and evaluation through KPIs ensure maximum operational efficiency. The Senior Executive Vice President of Finance and Acting Chief Operations Officer for the Administrative Group is responsible for developing and overseeing the Group’s tax policies. The Company also engages external tax experts to provide advisory support, ensuring full compliance with all relevant tax laws and regulations. Tax disclosures are presented in the consolidated financial statements of Mitr Phol Sugar Corp., Ltd., and its subsidiaries. The Company complies with all applicable tax obligations, including corporate income tax, value-added tax (VAT), excise tax, and other business-related taxes. Corporate income tax payments are disclosed on a country-by-country basis, along with the corresponding effective tax rates, and are reported annually in the Company’s tax report.

Shareholding Structure

As of December 31st, 2024, 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, Klongtoey, Bangkok 10110, Tel: +66 2794 1000, Website: <https://www.mitrphol.com>

Mitr Phol Group has no shareholders who are government agencies. Mid Siam Sugar Co., Ltd. holds 47,779,994 out of 47,780,000 shares in Mitr Phol Sugar Corp., Ltd., representing 99.99% ownership. As for Mid Siam Sugar Co., Ltd., its major shareholders collectively hold 20.65% of the Company, comprising:

- 1. Mr. Soonthorn Vongkusolkit
- 2. Mr. Isara Vongkusolkit
- 3. Mr. Kamol Vongkusolkit

Chapter

02

Mitr Phol Sustainable Development



Mitr Phol Sustainable Development Policy

Mitr Phol recognizes the importance of sustainable business practices built on the three pillars of environmental, social, and governance (ESG). To ensure a unified direction across the organization and alignment with the United Nations Sustainable Development Goals (UN SDGs), the Board of Directors has approved and announced the Sustainable Development Policy. The policy is reviewed and updated annually to stay relevant to evolving circumstances and global trends, and to ensure alignment with international sustainability practices, reflecting Mitr Phol's philosophy of "Grow Together."

Sustainable Development Framework and Alignment with the Sustainable Development Goals (SDGs)

Environment



Thriving Environment

Society



Sustainable Community

Governance



Transparent and Collaborative Organization

Sustainable Development Policy

Environment

- 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.
- Commit to promoting and enhancing biodiversity through planting, protecting, reducing, restoring, and conserving forests and modern farming.

Society

- 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

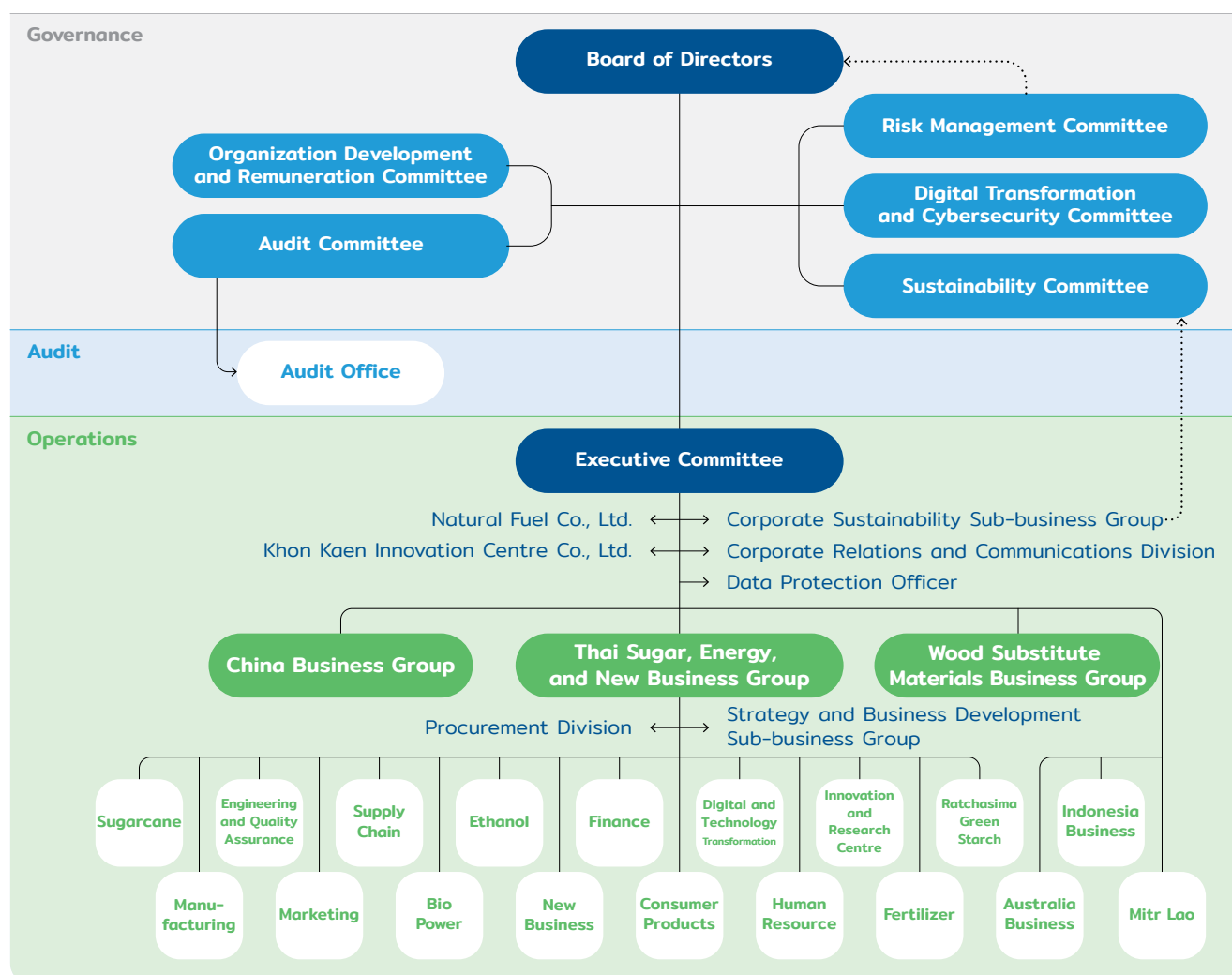
- Emphasize risk management, good corporate governance, and strict legal compliance in all dimensions to ensure transparent business operations.
- Commit to promoting and serving as a key mechanism for driving cooperation among the private sector, government, and civil society to achieve national goals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

Sustainable Development Management Structure

Mitr Phol has established a sustainability management structure to drive tangible sustainability efforts. The Board of Directors has appointed the Sustainability Committee to oversee the Company's sustainable development operations. The Committee meets quarterly and is assigned 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 and review operational guidelines, including providing recommendations for integrating the environmental, social, and governance practices of business units** 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 led by Mr. Komkrish Nagalakshana (Executive Vice President - Corporate Sustainability Management), is responsible for promoting, supporting, and collaborating with other departments across Mitr Phol's business units. Its role is to ensure organization-wide alignment with the guidelines set by the Sustainability Committee, helping to achieve defined goals and address the needs of all stakeholders.



Assessment of Material Sustainability Issues

1



Identifying Material Sustainability Issues

- Review the material sustainability issues in 2024, along with national and global sustainability trends and changes.
- Consider and compare these issues against the GRI Standards for Agriculture, Aquaculture, and Fishing Sectors 2022, as well as the Corporate Sustainability Assessment.

2



Prioritizing Material Sustainability Issues

- Review sustainability issues based on their severity and likelihood of impact on the economy, society, environment, and human rights from outside-in and inside-out perspectives. Senior executives also participate in the review process.

3



Scoping the Report on Material Sustainability Issues

- Mitr Phol defines the scope of reporting on the 14 material sustainability issues and verifies them by gathering information from the units and stakeholders relevant to the issues.

4



Verifying

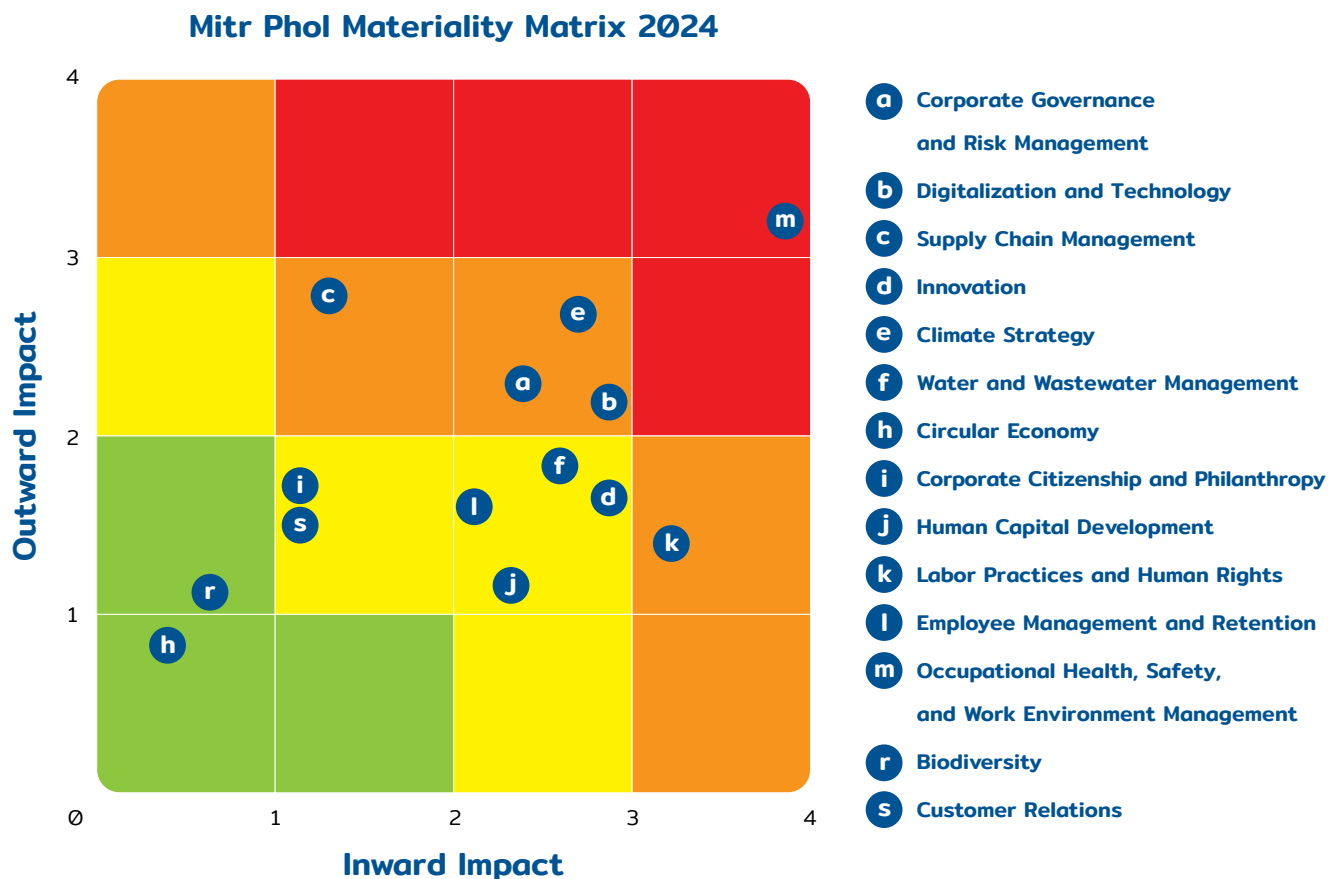
- The process for identifying material sustainability issues is verified and endorsed by external parties.
- Report the prioritization of material issues to the Sustainability Development Committee for acknowledgment and approval for inclusion in the Sustainability Development Report.

Mitr Phol conducts an annual review and assessment of material sustainability issues using the double materiality principle. The 2024 assessment began with a review of Mitr Phol's material sustainability topics in comparison with the GRI Standards: Agriculture, Aquaculture, and Fishing Sectors 2022, as well as national and international sustainability trends and developments. All material issues were assessed using the Enterprise Risk Management (ERM) framework to determine the severity and likelihood of impacts arising from Mitr Phol's business activities and relationships. These include impacts on corporate governance, society, the environment, and human rights, covering both current and anticipated future effects. The double materiality approach comprises two perspectives:







1. The outside-in perspective, which evaluates how sustainability issues affect the Company, such as their impact on image, reputation, financial performance, market competitiveness, and value creation; and
2. The inside-out perspective, which considers the Company's impact on external stakeholders. This is carried out through a materiality assessment process that engages stakeholders, including shareholders, farmers, communities, suppliers, customers, employees, and the government sector and civil society organizations, using methods such as questionnaires, interviews, and secondary data analysis.

















The assessment results are then prioritized and used to develop operational guidelines that effectively address stakeholder needs and align with the Company's business context, ensuring a comprehensive and well-rounded approach to business management.

Material Sustainability Issues





Disclosure of Material Sustainability Issues


Sustainability Issue	Severity of Impact	Approach and Performance on Sustainability Issues Disclosed in This Report	Sustainable Development Goals
a. Corporate Governance and Risk Management	Orange	<ul style="list-style-type: none"> Corporate Governance and Business Ethics Risk management 	 
b. Digitalization and Technology	Orange	<ul style="list-style-type: none"> Information and Data Security 	
c. Supply Chain Management	Orange	<ul style="list-style-type: none"> Supply Chain Management 	 
d. Innovation	Yellow	<ul style="list-style-type: none"> Farm and On-farm Water Management Climate Change Management Energy Management Information and Data Security 	


Sustainability Issue	Severity of Impact	Approach and Performance on Sustainability Issues Disclosed in This Report	Sustainable Development Goals
e. Climate Strategy		<ul style="list-style-type: none"> Climate Change Management Energy Management Farm and On-farm Water Management 	  
f. Water and Wastewater Management		<ul style="list-style-type: none"> Industrial Environmental and Water Management Farm and On-farm Water Management 	   
h. Circular Economy		<ul style="list-style-type: none"> Industrial Environmental and Water Management Food Loss and Food Waste Management Packaging 	 
i. Corporate Citizenship and Philanthropy		<ul style="list-style-type: none"> Society and Community 	   
j. Human Capital Development		<ul style="list-style-type: none"> Employee Management 	  
k. Labor and Human Rights Practice		<ul style="list-style-type: none"> Human Rights Employee Management 	  
l. Employee Care		<ul style="list-style-type: none"> Employee Management 	  
m. Management of Security, Safety, Occupational Health, and Work Environment		<ul style="list-style-type: none"> Management of Security, Safety, Occupational Health, and Work Environment 	
r. Biodiversity		<ul style="list-style-type: none"> Biodiversity Management 	 
s. Customer Relations		<ul style="list-style-type: none"> Customers and Consumers 	 


Stakeholder Engagement



Mitr Phol places strong emphasis on sustainable stakeholder engagement and building positive relationships with all stakeholder groups. The Company identifies these groups by analyzing the impact of its business activities across the supply chain in terms of environmental, social, and governance (ESG) dimensions, as well as assessing the influence of stakeholders on its operations. Engagement is established through a variety of communication channels, and the Company addresses stakeholder expectations and concerns through various approaches, as shown in the table below.

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. 2. Performance information is reported through annual reports or sustainability reports. 3. Mitr Phol Group's operations wrap-up meeting 4. Complaints via letter, website, or other channels	Annually Annually 3 times a year Upon occurrence	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 2024 Sustainability Report.
Farmers 	1. Mitr Phol ModernFarm Magazine 2. Sugarcane Farmers Meeting 3. Line OA: Mitr Phol ModernFarm 4. Complaints via letter, website, or other channels	Quarterly Daily/ Monthly/ Annually Daily Upon occurrence	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.	Please refer to the following chapters: <ul style="list-style-type: none"> Supply Chain Management Farm and On-farm Water Management Human Rights

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Communities 	1. Community survey during the sugarcane crushing season	Weekly	1. Accurate and reliable information about factory operations	Please refer to the following chapters: <ul style="list-style-type: none"> • Society and Community • Human Rights • Industrial Environmental and Water Management
	2. Community engagement dialogue	Throughout the crushing season	2. Receive continuous updates on measures and performance regarding the reduction of environmental impacts.	
	3. Visit to environmental quality assessment checkpoint	Quarterly	3. Communication of community concerns regarding the impacts of the factory	
	4. Meeting of the Tripartite Committee on local environmental protection	Biannually	4. Job opportunities in the factory.	
	5. Coffee table talk	Annually	5. Support for knowledge, resources, and educational opportunities to improve the quality of life and the skills of communities in various areas.	
	6. Mitr Phol Open House	Annually	6. Participation of all sectors in the development, correction, improvement, and management of public benefits, resources, and the environment in the community for the mutual growth of the community and factory.	
	7. Meeting with the village committee	Monthly	7. Proposal of the quality of life improvement plan, development of farming skills, a food base, and other professions, to enhance household potential and quality of life.	
	8. Meeting with sub-district and district-level government offices	Biannually	8. Proposal for support from factories or Chai Fah Vongkusolkrit Foundation.	
	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		
	12. Complaints via letter, website, or other channels	Upon occurrence		

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	1. Understand ISO9001, GMP, HACCP, FSSC, and GHP international standards for food-contact suppliers.	Please refer to the following chapters: <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	2. Understand the food quality and safety policy, including the steps, criteria, and methods for quality control of Mitr Phol Group's products.	
	3. Mitr Phol Procurement System (MPS)	All year round	3. Understand guidelines for transitioning to sustainable procurement.	
	4. Mitr Phol Supplier Code of Conduct	Annually or upon any changes	4. Understand current policies and guidelines, how to use the procurement system, and how to exchange opinions and suggestions.	
	5. Schedule a meeting to discuss plans with potential suppliers to draft annual contracts for the Mitr Phol Group.	Annually	5. Maintain good relationships to work efficiently and with satisfaction.	
	6. Complaints via letter, website, or other channels	Upon occurrence	6. Reduce Non-Conformance Reports and develop mutually sustainable businesses.	
			7. Receive updates from Mitr Phol Group's procurement.	
			8. 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.	
			9. Access the MPS system to be instantly notified of NCRs, making the process more convenient and faster.	
			10. Receive Approved Vendor List (AVL) results via the MPS.	
			11. Become a high-potential partner that can develop into a strategic partnership with Mitr Phol Group, leading to increased sales.	
			12. Understand the Supplier Code of Conduct and guidelines for conducting business with Mitr Phol Group.	

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Customers and Consumers 	1. Complaint Handling Center	Daily	1. Receive high-quality products and services that are safe for health, reasonably priced, and easily accessible, with sufficient and reliable allocation of sugar. 2. Provide a wide product range tailored to diverse needs, including products aligned with health and sustainability trends. 3. The Company is committed to sustainability regarding climate change and human rights. 4. Comprehensive standard certifications are available on the product's labels, allowing customers to verify and claim when necessary, including traceability. 5. Have quick access to submit complaints and grievances regarding product issues. 6. 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.	• Please refer to all chapters of the 2024 Sustainability Report.
	2. Customer satisfaction survey	Annually		
	3. Online channels such as website, Facebook Official, and LINE Official	Daily		
	4. Training programs/Seminars	Annually		
	5. Complaints via letter, website, or other channels	Upon occurrence		

Stakeholder Group	Form and Channel of Communication	Frequency	Stakeholder Expectations	Details of Operations to Address Stakeholder Expectations
Employees 	1. Employee Engagement Survey Questionnaire	Biannually	1. Effective access to information and updates about the Company.	Please refer to the following chapters: • Employee Management • Management of Security, Safety, Occupational Health, and Work Environment • Human Rights
	2. Town Hall Activity	Biannually	2. Sufficient and appropriate operational resources.	
	3. Communication through various channels and internal online platforms such as Employees News and HR Internal PR	All the time	3. Opportunity to participate in setting work objectives that reflect and align with the Company's goals.	
	4. Performance Assessment	Biannually	4. Advice, consultation, and performance feedback to enhance work and skills development.	
	5. Complaints via letter, website, or other channels	Upon occurrence	5. Praise and commendation 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. Promote learning and skills development, providing space and opportunities to showcase talents. 10. Promote safety, occupational health, and well-being at work. 11. Allocate reasonable remuneration according to the employee's position and responsibilities and good welfare. 12. Acknowledge the code of conduct and best practices	
Government Sector and Civil Society Organizations 	1. Meet with and visit relevant government agencies and civil society organizations.	All year round	1. Attending activities organized by government agencies and civil society organizations.	• Please refer to all chapters of the 2024 Sustainability Report.
	2. Cooperate with the government sector and civil society organizations.	All year round	2. Legal compliance	
	3. Communicate through public forums or seminars organized by international organizations.	All year round	3. Maintaining transparency in business operations.	
	4. Communicate through annual sustainability reports on issues of interest to international organizations, such as human rights and labor rights.	Annually	4. Being socially and environmentally responsible in business conduct. 5. Collaboration in addressing various issues to create sustainability in business operations.	
	5. Complaints via letter, website, or other channels.	Upon occurrence	6. Ensuring transparency in business operations and human rights performance, and good environmental management.	

Supporting Operations and Being a Member of Organizations

Mitr Phol promotes and drives the development of both national and international networks to strengthen collaboration and create an environment that supports dialogue and knowledge exchange. These efforts aim to improve operational efficiency and drive the development of products and services that respond to market and societal needs. The Company also plays an active role in supporting the development of policies and regulations that encourage sustainable business practices. To this end, Mitr Phol partners with organizations and institutions dedicated to advancing sustainable development in areas aligned with the Company's business strategy, with two primary objectives:

- 1. To promote the development of the sugarcane, sugar, and bio-energy industries in Thailand,** Mitr Phol joined various trade associations to support good governance across these sectors. This collaboration helps strengthen the sugar industry by ensuring both supply and pricing stability while also advancing the bioenergy business and creating opportunities in the renewable energy market. The Company also works to promote fair benefit-sharing between sugarcane farmers and sugar mills, aiming to secure stable livelihoods for farmers and ensure a steady, sustainable supply of raw materials. This approach enables Mitr Phol to produce environmentally and socially responsible products. In 2024, Mitr Phol contributed a total of 5.39 million baht, representing 84% of the grant budget, to these trade associations.
- 2. To support Thailand's sustainable development efforts,** Mitr Phol has joined various associations and institutions as a member and has appointed representatives to serve on their committees. These organizations are dedicated to advancing national development across governance, societal, and environmental dimensions, including initiatives that promote human rights and climate change management. The Company also contributes to the advancement of the United Nations Sustainable Development Goals (UN SDGs) and joins efforts to help Thailand achieve its greenhouse gas (GHG) reduction targets, in line with the national goal of achieving net-zero emissions. In 2024, Mitr Phol provided financial support totaling 1.03 million baht, accounting for 16% of the total grant budget.

Grant Budget and Membership Fees by Activity

Activity	Amount (Million Baht)			
	2021	2022	2023	2024
Lobbying	0	0	0	0
Political contributions at both the local and national levels	0	0	0	0
Membership fees for trade associations or tax-exempt organizations	7.42	7.93	17.45	6.41
Others (e.g., expenses related to voting or referendums)	0	0	0	0
Total Grant Budget and Other Expenses	7.42	7.93	17.45	6.41

Top 3 Grant Budget and Membership Fee Contributions

1. Thai Sugar Miller Co., Ltd.

Type of Organization	Trade Association
Trade Association	<p>Thai Sugar Miller Co., Ltd. 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. It serves as a central platform for collaboration among all sugar mills in Thailand, representing the country's sugar producers in coordination with both public and private agencies domestically and internationally. The Company also promotes cross-sector cooperation across economic, environmental, and social dimensions, focusing on addressing both short-term and long-term challenges in a timely and appropriate manner. Mitr Phol has joined the association as a member and serves as a representative of sugar mills, working collaboratively with multiple sectors to strengthen the sugarcane and sugar industries. A key initiative in 2024 focused on addressing the environmental impact of sugarcane burning while maintaining fair benefit-sharing among all stakeholders through joint planning for sugarcane collection and procurement, incentive schemes to increase farmers' income by purchasing fresh sugarcane leaves, and support for mechanized harvesters. These integrated and sustainable efforts helped reduce sugarcane burning, lower PM2.5 air pollution, and improve mill extraction efficiency. The initiative has strengthened farmers' financial stability and contributed to broader social and economic progress.</p>
Amount (Million Baht)	3.88
Percentage of Grant Budget in 2024	60.59%

2. Thai Sugar and Bio-energy Producers Association

Type of Organization	Trade Association
Trade Association	<p>The Thai Sugar and Bioenergy Producers Association was established to promote and support the development of Thailand's sugar and bioenergy industries. It also acts as a representative in negotiations and coordination with government agencies and various organizations, both domestically and internationally. At present, the association focuses on enhancing the value of sugar industry products by integrating environmental and social considerations, particularly through the promotion of renewable energy derived from biomass and ethanol. This direction aligns with national policy aimed at reducing energy imports and fostering both economic and environmental sustainability. This objective is also in line with Mitr Phol Group's operations, which generate biomass electricity and ethanol as byproducts of its sugar production business. As a member of the association, Mitr Phol takes part in promoting policies that support the use of renewable energy, for example, advocating for E20 to become the standard gasoline blend. Such initiatives create business opportunities, help stabilize sugarcane and molasses prices, ensure more secure income for sugarcane farmers, and contribute to the long-term sustainability of Mitr Phol's business.</p>
Amount (Million Baht)	1.27
Percentage of Grant Budget in 2024	19.85%

3. UN Global Compact (UNGC)

Type of Organization	Non-Profit Foundation
Trade Association	The UN Global Compact is a global sustainability initiative officially launched in 2000 with the aim of fostering partnerships and advancing international goals, such as the United Nations Sustainable Development Goals (UN SDGs). It promotes responsible business practices based on ten universally accepted principles in the areas of human rights, labor, environment, and anti-corruption. Since 2017, Mitr Phol has been a founding member of the UN Global Compact Network Thailand (UN GCNT), the local chapter of the UN Global Compact. The Company also serves as a board member, which enables broader engagement and knowledge exchange with other companies globally. This participation allows Mitr Phol to adopt international best practices into its operations, beginning with human rights and expanding to broader sustainability issues, such as the circular economy. These efforts enhance stakeholder confidence and reaffirm the Company's commitment to sustainable and responsible business practices.
Amount (Million Baht)	0.53
Percentage of Grant Budget in 2024	8.19%

4. Thailand Development Research Institute (TDRI)

Type of Organization	Non-Profit Foundation
Trade Association	Founded in 1984, the Thailand Development Research Institute (TDRI) is a leading independent research organization specializing in public policy studies in Thailand. Its objective is to support national development through high-quality, impartial research across a wide range of fields, particularly economics and sustainability. The Institute collaborates with government agencies, the private sector, and international organizations to provide policy recommendations that support the country's economic and social development. TDRI plays a vital role in supporting the formulation of high-quality economic and social development policies that contribute to long-term sustainable growth. This aligns with Mitr Phol's 'Grow Together' philosophy, which promotes business development in parallel with community and environmental progress. Mitr Phol is a member of TDRI, with the Group's Honorary Chairman serving on its Board. This involvement reflects the Company's commitment to national problem-solving and policy dialogue, while also providing access to high-quality academic research and networks with leading scholars, which help advance its business operations and support sustainable growth.
Amount (Million Baht)	0.50
Percentage of Grant Budget in 2024	7.81%



Corporate Governance Dimension

040 Corporate Governance and Business Ethics

050 Risk Management

064 Supply Chain Management

074 Information and Data Security



93.08%



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

64.6%



of the significant suppliers were assessed for ESG risks.



No cybersecurity breaches

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



100%

of employees comply
with the Mitr Phol Code of Conduct



100%

of suppliers comply
with Supplier Code of Conduct.

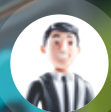
Two rounds

of cybersecurity awareness
assessments were conducted
via phishing simulations.



Chapter

03 Corporate Governance and Business Ethics



Shareholders



Customers and Consumers



Government and Civil Society Sectors

Corporate Governance

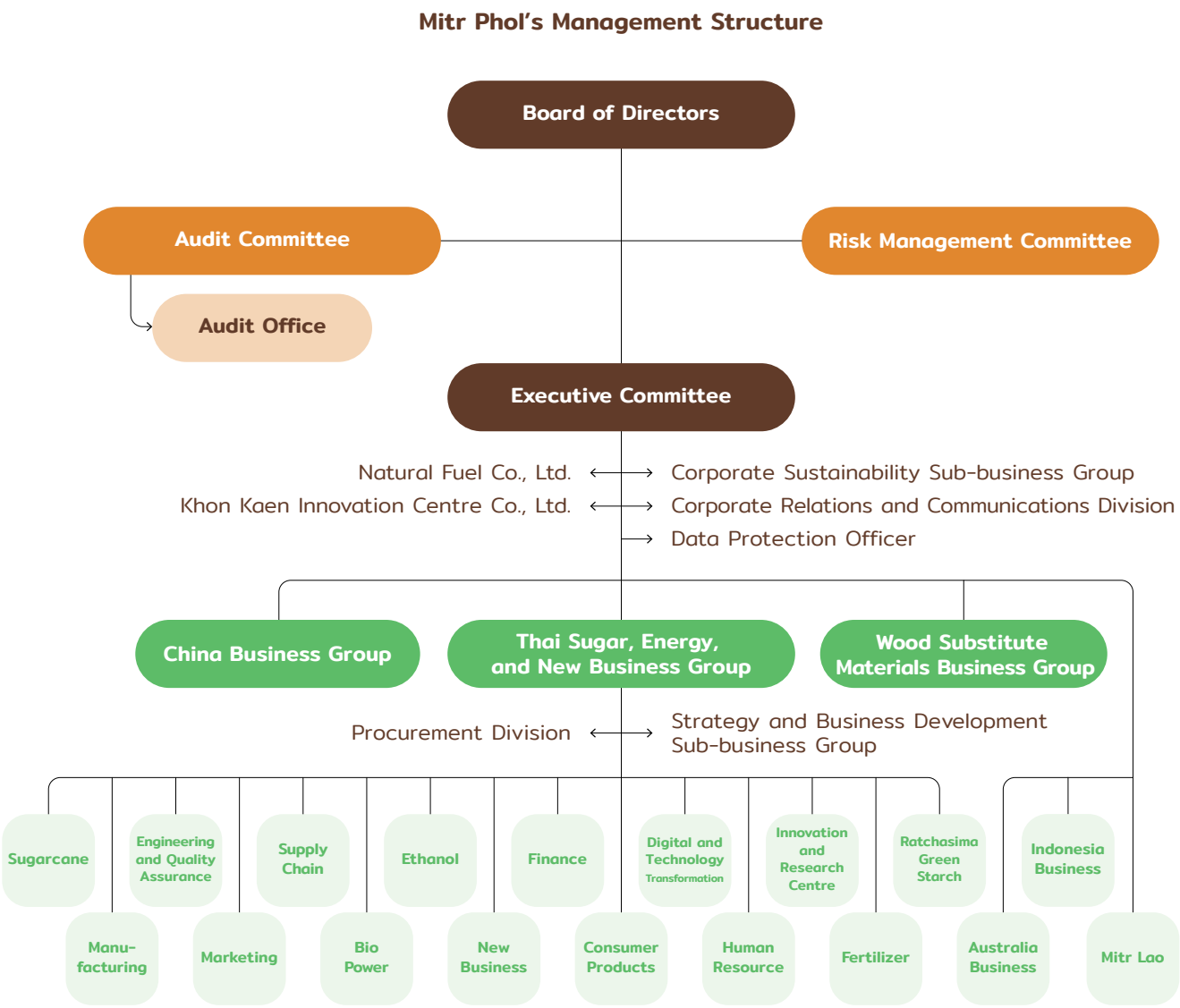
Conducting business in accordance with good corporate governance principles and ethics lays a solid foundation for an organization to achieve an efficient, transparent, and accountable management system. This helps foster stakeholder confidence and support stable and sustainable business growth. To ensure a consistent approach across the organization and compliance with relevant laws, international standards, and best practices, Mitr Phol has established a Corporate Governance Policy* along with supporting guidelines. These include clearly defined roles and responsibilities for directors, executives, and employees to ensure that all business activities are conducted in line with good governance principles, creating long-term value and a sustainable future for all stakeholders.

* For more information, please visit [the 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 12 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.



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 12 Directors*: 7 executive directors, 3 independent directors, and 2 non-executive directors. The nomination of directors is based on individuals’ expertise,

* The Board of Directors refers to the Board of Directors as of 31st December 2024.

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 issues affecting the interests of both shareholders and stakeholders.

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 2024, the board members attended 94.05% 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 promoting good corporate governance in Thailand, as follows:



Director Certification Program (DCP)

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.



Subsidiary Governance Program (SGP)

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.



Subsidiary Governance Program (SGP) (In-house Training)

provides training for the Company's directors and executives, focusing on subsidiary governance, the roles and responsibilities of directors serving on subsidiary boards, and preventive measures to mitigate subsidiary-related liabilities that could impact Mitr Phol.



Risk Management Program for Corporate Leaders (RCL)

stresses a robust risk management framework and the proper management approach to address each risk.



Other important training programs

include Directors Accreditation Program (DAP), Financial Statements for Directors (FSD, Successful Formulation & Execution of Strategy (SFE), ESG In the Boardroom: A Practical Guide for Board (ESG), Board's Roles In Purpose-driven Transition (PDT), and Board Nomination and Compensation Program (BNCP).

Evaluation of Board Performance

Mitr Phol conducts regular performance evaluations of the Board and its committees in line with the good corporate governance practices of the Stock Exchange of Thailand. This process is part of the Company's corporate governance framework and aims to assess the efficiency and effectiveness of operations for continuous improvement.

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. Adhering to these standards helps ensure responsible corporate behavior and builds trust and confidence among customers, business partners, and the broader society. This commitment also promotes sustainable business operations and strengthens Mitr Phol's dedication to social responsibility, both of which are key organizational priorities.

2024 Target and Performance



Percentage of Mitr Phol personnel trained on the Code of Conduct

Target

90 %

Performance

93.08 %

Remark: Mitr Phol has set a target for 100% of its personnel to complete Code of Conduct training by 2025.

Management Approach

Mitr Phol has established a governance unit responsible for communicating corporate governance policies and the 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 established, enabling all stakeholders to provide valuable 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 and promote continuous organizational improvement and development.

In 2024, the Company reviewed key policies and practices, including the Mitr Phol Code of Conduct and Whistleblowing Policy. Since 2018, Mitr Phol Sugar Corporation Ltd. has been a certified member of the Thai Private Sector Collective Action Against Corruption (CAC), and this year, the Company was recertified for a second term. To further promote good corporate governance across the supply chain, Mitr Phol actively encourages its suppliers to declare their intention to join the CAC. The Company was honored with the CAC Change Agent Award, recognizing large organizations that play a leading role in expanding networks of transparent and ethical business practices. In addition, Mitr Phol was the sole private-sector organization selected to receive the “Good People Organization 2024” honor plaque from the Senate Standing Committee on Religions, Morals, Ethics, Arts, and Culture. This accolade recognizes organizations serving as role models in upholding moral and ethical standards in Thai society.

- ▼ Mitr Phol Sugar Corporation Limited received its second-term CAC certification at the CAC Certification Ceremony hosted by the Thai Private Sector Collective Action Against Corruption (CAC).



- ▼ Mitr Phol Sugar Corporation Limited received the “CAC Change Agent Award 2024” at a ceremony hosted by the Thai Private Sector Collective Action Against Corruption (CAC).



- ▼ Mitr Phol Sugar Corporation Limited received the “Good People Organization 2024” honor plaque at a ceremony hosted by the Senate Standing Committee on Religions, Morals, Ethics, Arts, and Culture.





Mitr Phol aims to expand collective action against corruption to its business partners through the “CAC SME Certification Program,” with the goal of establishing sustainable anti-corruption standards across the supply chain. In 2024, the Company launched its first communication initiative to encourage suppliers to declare their intent and apply for certification as members of the Thai Private Sector Collective Action Against Corruption (CAC), with the broader objective of cultivating an anti-corruption culture. A total of 11 suppliers expressed interest and submitted their declarations of intent. To further support their participation, Mittr Phol provided consultation and covered the certification fees, reinforcing their commitment to declaring their intent and joining the CAC.



Raising Awareness and Communication

Ongoing communication of policies, relevant practices, and the Mittr Phol Code of Conduct is essential for fostering awareness and understanding among all personnel, including directors, executives, and employees. These efforts are carried out through various communication channels to ensure the effective implementation of corporate governance and business ethics. Examples of initiatives include employee training sessions, integrating content into onboarding programs for new employees, placing promotional signage at factories and offices, and disseminating information about internal and external activities via email and the Company’s website. Additionally, the Company has established communication channels to centralize information on corporate governance, risk management, and legal compliance. These channels ensure that Mittr Phol personnel stay up to date with relevant news, policies, and practices through engaging formats such as infographics, educational videos, and various activities. To consistently reinforce awareness and understanding, 100% of Mittr Phol personnel are required to sign and acknowledge their commitment to the Code of Conduct on an annual basis.



In 2024, the Company continued the training on “Mittr Phol Code of Conduct and Corporate Discipline” for the 7th consecutive year. The primary aim is to communicate and raise awareness of the Mittr Phol Code of Conduct and Corporate Discipline in a detailed and simple manner, with the target of 100% of Mittr Phol personnel being trained by 2025. This year, the training was conducted both online and onsite in meeting rooms, with 93.08% of Mittr Phol personnel having completed training. The Company has adapted the learning materials on Mittr Phol Code of Conduct for new employees into Infographics and short video clips for easier communication. In addition, still images have been created to communicate relevant internal and external topics. The Company also launched promotional materials during Halloween on the topic “CG Halloween: Defeat 6 Tricky Ghosts, Combating Corruption in Thai Society.”

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

	Number of Personnel Informed of the Mitr Phol Code of Conduct		Number of Personnel Having Acknowledged the Mitr Phol Code of Conduct		Number of Personnel Trained	
	Persons	%	Persons	%	Persons	%
Mitr Phol Sugar Corp., Ltd.	1,949	100	1,949	100	1,843	94.56
Subsidiaries	5,624	100	5,624	100	5,206	92.57
Total	7,573	100	7,573	100	7,049	93.08

Personnel* by level						
Board of Directors	12	100	12	100	7	58.33
Top management	27	100	27	100	14	51.85
Middle management	262	100	262	100	224	85.50
First-line managers	970	100	970	100	948	97.73
Officers	4,154	100	4,154	100	4,043	97.33
Operational staff	2,148	100	2,148	100	1,813	84.40

Personnel* by region						
Bangkok	1,008	100	1,008	100	888	88.10
Other provinces	6,565	100	6,565	100	6,161	93.85

Remark: *Personnel refers to full-time personnel as of 1st August 2024

Anti-Fraud and Anti-Corruption

Being committed to ethical business conduct, Mitr Phol places great importance on preventing fraud and corruption. The Anti-Fraud and Anti-Corruption Policy has been established, along with relevant practices, including guidelines for accepting or offering gifts and hospitality. These policies and practices are regularly reviewed to ensure alignment with global and the Company's contexts.

In 2024, continuous communication was carried out to raise awareness and understanding among personnel within the organization through various forms and channels. Apart from that, Mitr Phol Group participates annually in national anti-fraud and anti-corruption activities, encouraging its employees to engage in these initiatives 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. Additionally, the Company publicized these anti-fraud and anti-corruption activities on its website to inform its stakeholders and the general public.

- ▼ Mitr Phol joined Thailand's Anti-Corruption Day 2024 held under the theme "Transparent Corruption: The Invisible G in ESG" on September 6th, 2024, through online channels.



- ▼ Mitr Phol participated in the "GOOD GUY RUN 2024" held under the theme "Fight Against Corruption" on November 24th, 2024, at the Office of the National Anti-Corruption Commission (ONACC), Sanambin Nam.



- ▼ Mitr Phol participated in International Anti-Corruption Day 2024, held under the theme "Fight Against Corruption," on December 9th, 2024, through online channels.



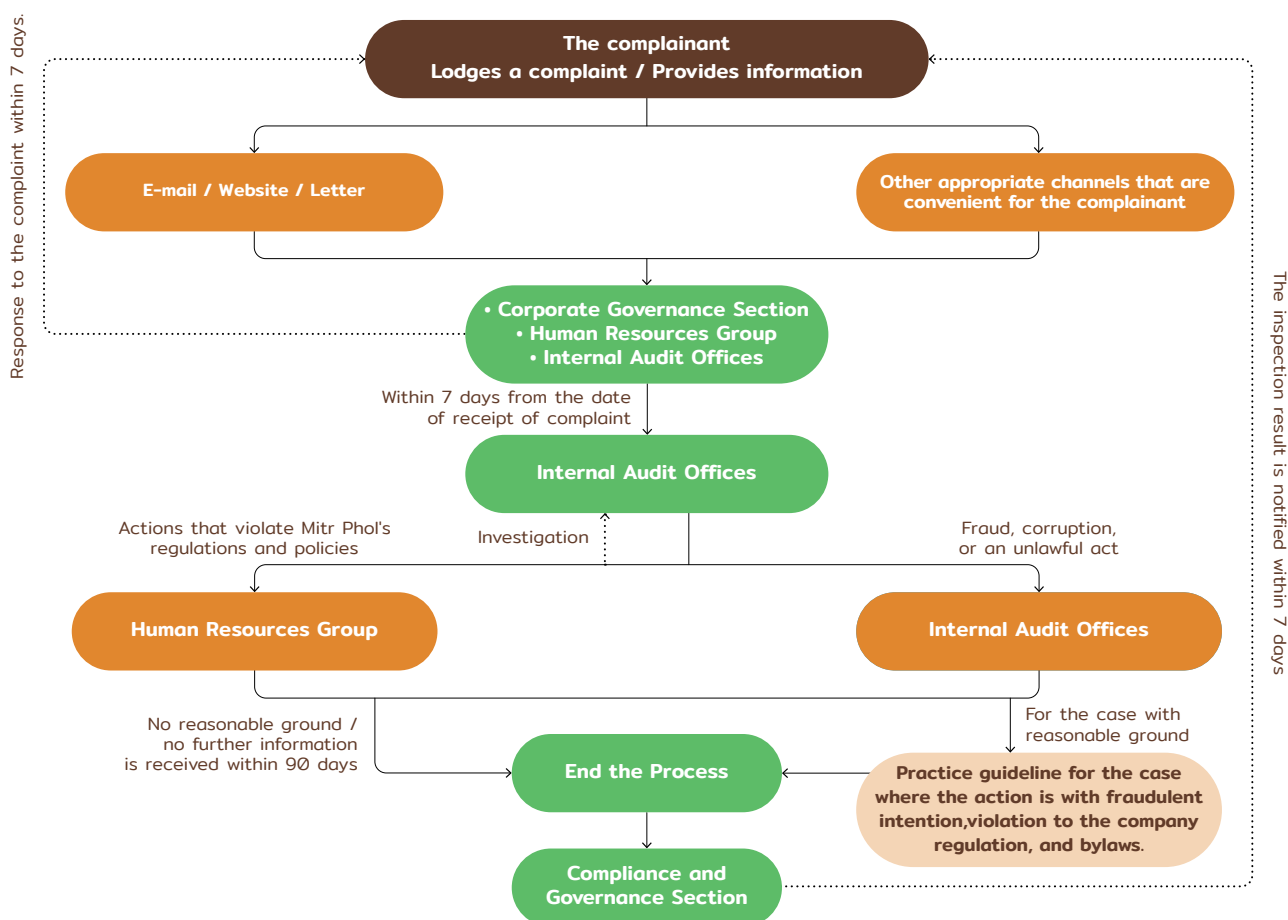
Whistleblowing Mechanism

Mitr Phol Group has established the Whistleblowing Policy 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 authorized personnel or those responsible for investigations. This mechanism 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, Anti-Fraud and Anti-Corruption Policy, Human Rights Policy (covering issues such as right to equality, discrimination, harassment, and labor practices), and the Diversity, Equity, Inclusion, and Belonging (DEI&B) Policy (which promotes equal and inclusive treatment for all), and other relevant policies and practices, as well as actions that violate the 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.

Additionally, the Company regularly reviews and updates its practices to ensure they remain current. It also continuously communicates the complaint-handling procedures and whistleblowing mechanisms through training and various communication channels, such as internal PR, signage, employee computer screens, and video clips explaining the complaint submission process. These efforts aim to encourage and enable Mitr Phol personnel and all stakeholders to actively participate in monitoring and reporting misconduct, including filing complaints related to violations of duty or inappropriate behavior or actions by Mitr Phol personnel.

Complaint Handling Procedure



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

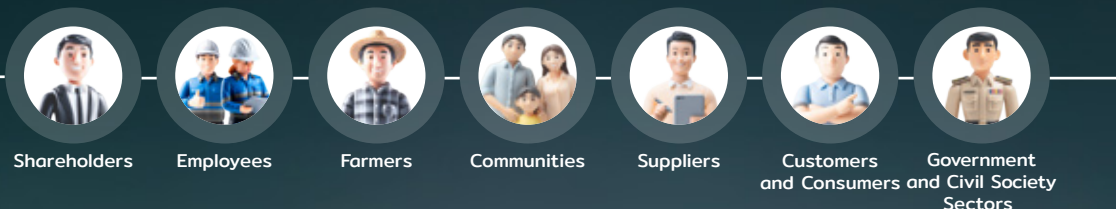
Number of Complaints (Case)	2021	2022	2023	2024	
	Investigation Completed	Investigation Completed	Investigation Completed	In Process	Investigation Completed
Bribery and corruption	0	0	0	0	0
Unfair trade practice	0	0	0	0	0
Conflict of interest	6	3	7	1	1
Discrimination and harassment	3	6	9	6	4
Other breaches of the Mitr Phol Code of Conduct*	5	8	6	1	4
Total	14	17	22	8	9

Remark: * Other breaches of the Mitr Phol Code of Conduct include non-compliance with the Company's rules and regulations.

Mitr Phol has addressed all complaints received by conducting thorough investigations and taking appropriate actions in line with the Company's regulations. Preventive measures were also implemented to avoid recurrence. The investigations confirmed that the complaints reviewed in 2024 were not related to bribery, corruption, or unfair trade practices.

Chapter

04 Risk Management



Effective risk management is a fundamental foundation for business operations and sustainable organizational growth. Accordingly, Mitr Phol implements appropriate and consistent risk management and business continuity practices that address economic, social, and environmental risks. The Company emphasizes a systematic approach to risk management organization-wide, covering the formulation, review, and improvement of risk management policies, risk assessment, risk mitigation, as well as internal communication and employee awareness-building. These efforts aim to foster a strong risk management culture under the oversight of the Risk Management Committee.

2024 Target and Performance

Mitr Phol requires a review of its risk management policy every three years or whenever significant changes occur. The Company also aims to successfully foster a risk management culture across the organization. Mitr Phol has been committed to promoting knowledge and understanding among employees, encouraging them to recognize risk management processes as valuable tools in their operations. In 2024, key initiatives undertaken to strengthen this culture included:



Communicating the updated risk management policy

to employees through various internal channels, such as internal PR and business unit risk management representatives.



Enhancing knowledge and understanding of risk management processes and key risk trends

relevant to the business. Risk trends and key issues impacting on the Company are shared with directors and executives on a quarterly basis. In addition, all employees at the officer level and above are required to complete basic risk management training through the Company's designated learning platform.



Communicating general risk-related knowledge

both domestic and international, on topics relevant to the Company and its employees through the Shared Point GRC Channel, which has over 1,000 followers.



Supporting business continuity management

through business continuity plan (BCP) drills conducted at 10 locations to strengthen preparedness and response to potential threats.

Management Approach

Risk Management Structure

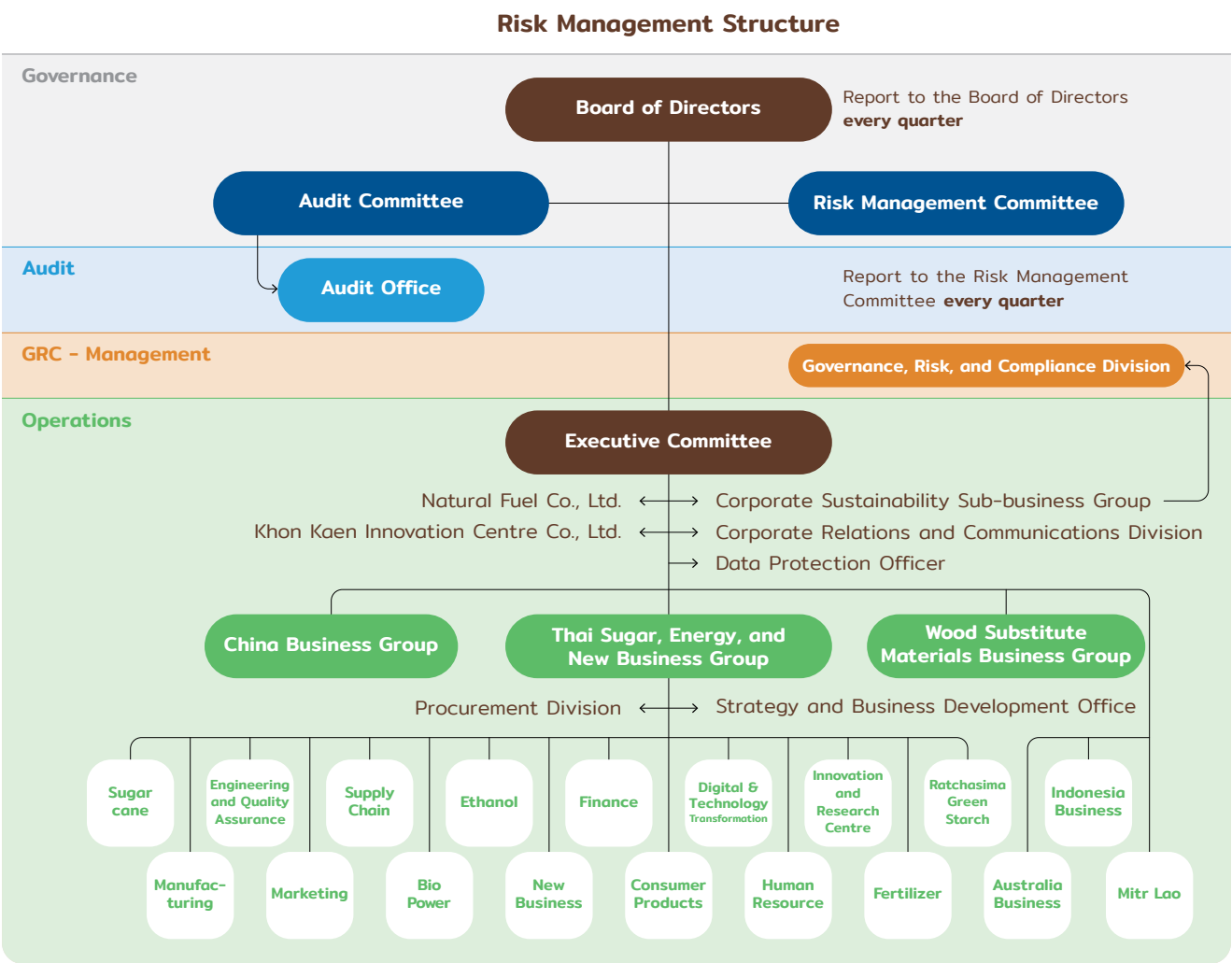
Mitr Phol has adopted the COSO Enterprise Risk Management Integrated Framework as a key tool for designing its risk management process. The Company emphasizes effective, transparent, and sustainability-aligned risk management practices. The Board of Directors has delegated the Risk Management Committee to oversee the implementation of the Risk Management Policy and framework, monitor the overall risk management process, and ensure that key risks are managed within the defined risk appetite. The Risk Management Department is responsible for communicating the policy and recommendations from the Board and the Committee to relevant business units and coordinating corporate-wide implementation. It oversees risk management across six key risk areas: strategic, operational, digital and technology, financial, legal and regulatory compliance, and sustainability (ESG). The Department also reviews, monitors, and reports significant risks to the Risk Management Committee and the Board of Directors to ensure they are informed of the Company's risk management performance on an annual basis. The Risk Management Department reports directly to the Governance, Risk, and Compliance Division under the Corporate Sustainability Sub-Business Group, which operates independently from the core businesses.

Mitr Phol management structure is designed with clearly defined roles and responsibilities for each unit, based on the “Three Lines of Defense” model. This approach ensures independence among operational processes, promotes transparency in collaboration between executives and employees at all levels, and aligns with international standards. It supports effective risk management through the following structure:

First Line of Defense: Management and Operational Roles – Responsible for executing operations and managing risks associated with various organizational processes. This line integrates internal control measures and plays a crucial role in identifying and managing risks, as well as adhering to control measures to mitigate potential risks within work processes.

Second Line of Defense: Risk Management and Compliance Functions – Responsible for establishing policies, overseeing operations, providing consultation, and supporting the first line in managing risks and implementing internal controls. This line ensures that operations comply with established standards, monitors and evaluates performance, and enhances efficiency to align with organizational goals.

Third Line of Defense: Internal Audit – Responsible for auditing and assessing the operations of both the first and second lines of defense. This ensures that risk management processes and internal controls are effective and comply with established policies and requirements. The internal audit function operates independently from management and reports directly to the Audit Committee, fostering continuous improvement in organizational processes.



Realizing the importance of integrating risk management into operations enables the organization to effectively manage risks at all levels, while promoting operational efficiency and sustainable growth. Accordingly, Mitr Phol has established a Risk Management Policy, which was reviewed and approved by the Board of Directors, to provide a framework and methodology for identifying, assessing, and managing potential risks within the organization. The policy is reviewed every three years or when it is deemed no longer appropriate, given significant changes in the business environment.

In 2024, the Risk Management Department organized quarterly guest lectures by external experts and incorporated risk management and business continuity topics into the onboarding program for new employees at the operational level and above. The Department also produced a Geopolitical Risk Bulletin, summarizing regional conflicts and assessing their potential impact on the Company's operations. In addition, geopolitical risk updates and other risk-related communications were regularly shared with Mittr Phol employees through the Shared Point GRC Channel.

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Risk Management Process

Risk monitoring and assessment are reviewed at least twice a year to ensure they remain current. Each business unit is required to review its key risks, develop corresponding mitigation plans, and define key risk indicators (KRIs) for monthly internal monitoring. These updates are reported to the Risk Management Committee on a quarterly basis. The collected information supports enterprise-wide risk assessment and monitoring, with the results of corporate-level risk management reported to the Board of Directors.



Business Continuity Management

Threats that have the potential to disrupt operations may ultimately lead to business interruption. To address these risks, Mitr Phol Group has implemented a Business Continuity Management System (BCMS) based on the ISO 22301:2012 standard since 2013. This system is designed to cover risk identification, prevention, preparedness, response, and recovery, tailored to the organization's context. The Company conducts annual reviews and drills of its Business Continuity Plan (BCP) to ensure organizational readiness in responding to various threats. These activities are aligned with current risk assessments and reflect the evolving risk landscape, including natural disasters, cyber threats, terrorism, and pandemics. In 2024, Business Continuity Plan (BCP) reviews and drills were conducted in 10 locations, including both factory sites and the Company's head office. These exercises were led by the Risk Management Department in collaboration with the Safety, Occupational Health, and Environment Department, and covered the Emergency Response Plan (ERP), Business Continuity Plan (BCP), and Crisis Communication Plan. The drills involved executives, employees, and relevant stakeholders, aiming to raise awareness, reinforce understanding of roles and responsibilities, and ensure that communication procedures are followed as set forth in the plans. Mitr Phol encourages each factory site to develop clear BCP operational procedures that are easy to apply. Additionally, a handbook has been created to serve as a guide for reviewing and updating BCP documents at each location.

▼ Business Continuity Plan drills in factory areas



Key Risks in 2024

Key Corporate Risks

Strategic Risk	
Risk Factors	1. Raw Material Security
Key Risks and Impacts	<p>The quantity and quality of sugarcane may fall short of projected targets, potentially disrupting sugar production plans and affecting related businesses such as bagasse, sugarcane leaves, molasses, and yeast. This could lead to insufficient supply for sales and higher-than-expected costs. The primary contributing factors in 2024 include:</p> <ul style="list-style-type: none">• El Niño Phenomenon: Below-average rainfall and above-average temperatures have impacted both the yield and quality of sugarcane entering the mills.• Intense Competition: A limited nationwide sugarcane supply, combined with rising sugar prices and stricter government regulations on fresh sugarcane, has heightened competition for shared raw materials. These include sugarcane for fuel blending in the power sector, wood for wood substitute material manufacturing, and molasses for ethanol production, posing challenges for maintaining projected cost controls.
Management	<p>The Company focuses on both short- and long-term management as follows:</p> <ol style="list-style-type: none">1. Establish contract farming agreements with sugarcane farmers and provide financial support for essential production inputs and harvesting. This includes irrigation tools and supplies such as fertilizers, pesticides, and sugarcane varieties.2. Support the development of both small- and large-scale water sources to ensure an adequate water supply for sugarcane farming. This includes initiatives such as the Oasis Project and groundwater recharge programs. The Company also promotes efficient water use through technologies like drip irrigation systems and solar-powered water distribution solutions.3. Promote the adoption of modern technology and advancements to enhance sustainable sugarcane management from farm to factory under the Mitr Phol Modern Farm initiative.4. Implement a cutting order system and prioritize milling sugarcane fields that have reached optimal maturity and demonstrate high quality.5. Continuously monitor competitive market conditions and promptly adjust operational plans to align with changing dynamics.6. 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

2. Waste and Pollution Management

Key Risks and Impacts

Business activities can pose environmental risks that affect employees and surrounding communities. Mitr Phol is committed to controlling and reducing various forms of pollution, including dust, wastewater, and industrial waste.

Today, as environmental concerns continue to grow and regulations become increasingly stringent, failure to manage waste and pollution properly can result in complaints, lawsuits, higher operating costs, reputational damage, and a loss of trust among customers and consumers. Therefore, the prevention and management of pollution and waste are essential missions that must be pursued in tandem with business growth, reflecting the Company's commitment to social responsibility and supporting truly sustainable operations.

Management

Short- and long-term mitigation measures on waste and pollution control include:

1. Air Quality Management

- 1.1) Air quality monitoring and proactive management using tools like AERMODEL and IoT sensors to monitor and alert on air quality within factory areas
- 1.2) Pollution prevention and control at the source by promoting green cane harvesting through the purchase of sugarcane leaves, encouraging the use of bagasse removal machines in sugarcane fields, installing wet scrubbers, and gradually implementing electrostatic precipitators to capture dust from biomass power generation.
- 1.3) Mitigation of dust impact through strict and appropriate control measures, such as planting pine trees along roadways to trap dust from bagasse piles, installing tall mesh fences around the bagasse storage area, and using water-spraying trucks on roads within the factory and nearby communities to reduce dust dispersion caused by traffic.
- 1.4) Establishing and monitoring air quality standards by regularly measuring emissions at exhaust vents and ambient air in surrounding areas to ensure compliance with legal requirements and Environmental Impact Assessment (EIA) reports.

2. Efficient Water Management: The Company adopts the 4Rs principle to ensure efficient and sufficient water use in production processes: Resource – Sourcing water from both surface and groundwater as reserve supplies; Reduce – Minimizing water usage throughout the production process; Reuse – Reusing water from production processes; and Recycle – Recycling treated wastewater for further use.

3. The Company adopts a waste hierarchy strategy, which comprises the avoidance and reduction of waste generation, reuse, recycling, and recovery, such as converting waste into energy. This strategy helps minimize the amount of waste requiring incineration or landfill disposal. Waste management practices are carried out in compliance with applicable laws and aligned with international practices.

4. Standardized environmental management processes are in place and certified under ISO 14001, while energy reduction is promoted through the implementation of energy management systems based on ISO 50001.

5. The Company has established channels for receiving environmental complaints through various platforms, including social media and telephone hotlines. A tripartite committee, comprising representatives from the factory, government agencies, and local communities, has also been formed to foster dialogue, collect feedback, and collaboratively enhance sustainable environmental management.

Financial Risk

Risk Factors

3. Commodity Price Volatility

Key Risks and Impacts

Commodity price volatility makes it difficult to forecast trends for key commodities such as sugar, molasses, fertilizers, wood substitute materials, and energy. This unpredictability results in revenue and cost fluctuations across Mitr Phol's various business groups. In 2024, the Company faced several significant challenges, including the following:

- Sugar prices remained highly volatile, driven by several key supply-side factors, including fluctuations in sugarcane production due to weather conditions in major producing countries such as Brazil, India, and Thailand; government policies on sugar export and import; and decisions on the proportion of sugarcane allocated for ethanol production, which is linked to global oil prices. On the demand side, prices were also influenced by changing consumption patterns and speculative trading by investment funds in futures markets. Additionally, sudden and unpredictable exchange rate movements significantly impacted global commodity prices, including sugar, inevitably affecting the Company's ability to forecast income and costs.
- Rising molasses prices led to increased ethanol production costs, while demand declined due to the government's removal of subsidies for E85 gasoline and the growing adoption of electric vehicles, resulting in a decrease in ethanol sales volume.
- Rising fertilizer prices, driven by the Russia-Ukraine conflict and ongoing unrest in the Middle East, have led to a decline in demand among farmers.
- Rising production and transportation costs, driven by geopolitical tensions in regions such as Eastern Europe and the Middle East, as well as energy policy shifts in major exporting countries, have contributed to ongoing uncertainty in the global energy market. These factors have had a direct impact on oil and natural gas prices. During periods of escalating conflict and shifts in international transportation routes, energy prices remained highly volatile, further exacerbating global economic instability.

Management

The Company focuses on both short- and long-term management, such as:

1. The Sugar Sales Committee and Ethanol Sales Committee were established to define strategic directions and policies for each product group. A dedicated unit is responsible for continuously monitoring market conditions, analyzing trends, and assessing potential impacts on selling prices to ensure timely and well-informed decisions.
2. Close collaboration with organizations such as Thai Cane and Sugar Corporation Ltd. and the Ethanol Producers Association to exchange information and sales approaches. This collaboration supports the development of effective strategies and sales plans for sugar and ethanol.
3. Employ various risk mitigation instruments to hedge against price volatility in sugar, ethanol, and fertilizers, ensuring flexibility in response to changing market conditions, for example, through the use of sugar forward contracts.
4. Coordinate among relevant departments to manage costs and improve operational efficiency in sales planning, storage, and logistics to enhance competitiveness. This includes upgrading machinery to improve efficiency, reduce energy consumption, and minimize raw material usage.
5. Collaborate with suppliers and customers to plan transportation in advance, maximizing the efficiency of transportation cost management.

Financial Risk

Risk Factors

4. Interest and Exchange Rate Volatility

Key Risks and Impacts

Amid rising interest rates and declining confidence in financial and bond markets caused by corporate debt defaults, Mitr Phol has faced higher financial costs, reduced liquidity, and more limited access to funding. In addition, rapid and unpredictable exchange rate fluctuations, caused by both domestic and international factors, have increased production and sales costs and may hinder the ability of customers and partners to meet debt obligations. These financial uncertainties also impacted the Group's investment projects, resulting in financing expenses that exceeded initial projections. In 2024, these volatilities stemmed from internal and external factors, including:

- The US economic slowdown, despite improvements in employment and retail sales, may prompt the Federal Reserve to cut interest rates, influencing global and Thai interest rate trends.
- The People's Bank of China has lowered policy interest rates to stimulate economic recovery, particularly in domestic demand and real estate. The narrowing interest rate gap between China and the US increases the likelihood of further rate reductions by China.
- Ongoing geopolitical tensions and prolonged conflicts continue to disrupt global trade and influence international trade policies.
- Thailand has maintained a cautious monetary policy stance, keeping interest rates high to address household debt risks and preserve national competitiveness amid pressure from external factors.

Management

The Company focuses on both short- and long-term management, such as:

1. Establish the Financial Risk Management Committee to define foreign exchange risk management policies, develop operational frameworks, enhance financial systems, and procure appropriate risk management tools. The committee holds monthly meetings to ensure that financial risk exposure remains within acceptable levels.
2. Establish the Credit Committee to develop credit evaluation frameworks, define lending practices for different customer segments, and set clear guidelines for effective debtor management.
3. Designate a dedicated unit responsible for closely monitoring financial market conditions and promptly reporting significant volatility and potential impacts to the Financial Risk Management Committee and Credit Committee to support timely and informed decision-making.
4. Employ a variety of financial instruments to manage risks arising from exchange rate fluctuations and implement natural hedging by aligning income and expenses in the same foreign currency.
5. Utilize credit rating tools to build confidence in bond issuance and loan applications, and to support the determination of competitive interest rates.
6. Closely coordinate with Thai Cane and Sugar Corporation Ltd. (TCSC) on sugar sales policies and information to support forward exchange rate planning and enhance the efficiency of cost management.

Legal and Regulatory Compliance Risk

Risk Factors

5. Changes in Relevant Laws, Rules, and Regulations

Key Risks and Impacts

Evolving laws and policies, coupled with stricter enforcement, present challenges for organizations. Failure to timely monitor and respond to these changes may result in non-compliance, legal penalties, or an inability to adjust strategies, affecting the organization's competitiveness. Significant legal and regulatory changes in 2024 include:

- Notification of the Ministry of Industry Re: the Regulations Requiring Factories to Install Special Tools or Equipment for Reporting Air Pollution from Factory Chimneys (No. 2), B.E. 2567 (2024)
- Notification of the Ministry of Natural Resources and Environment Re: Types of Buildings to be Designated as Pollution Sources Which Are Required to Control Wastewater Discharge into Public Water Bodies or the Environment (Latest Version)
- Notification of the Thailand's National Cyber Security Committee Re: Cloud Cybersecurity Standards B.E. 2567 (2024)

Management

The Company focuses on both short- and long-term management, such as:

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 on relevant laws by providing ongoing access to legal resources, such as a legal library, and by communicating newly enacted legislation to relevant departments on the 15th of each month.

Environmental, Social and Governance (ESG) Risks

Risk Factors

6. Climate Change (Drought)

Key Risks and Impacts

The El Niño phenomenon during 2022–2023 led to prolonged hot and dry weather, with above-average temperatures and below-average rainfall, accompanied by increased climate variability. This resulted in the following impacts:

- Agricultural Sector: Sugarcane cultivation areas were adversely affected, resulting in reduced yield per rai and lower sugar content due to low soil moisture and insufficient water for sugarcane growth. Some farmers may shift to alternative crops that are more resilient to drought conditions. Moreover, the risk of fires in sugarcane fields increased, potentially disrupting the supply of raw materials for downstream businesses.
- Impact on Water Storage: Prolonged hot and dry conditions affected water availability for industrial processes and increased the risk of fire incidents.
- Labor Impact: Outdoor workers were exposed to greater risks of dehydration and heat-related illnesses due to extreme heat.

Management

1. Promote sugarcane farming in areas near water sources and irrigation systems and support the development of small- and large-scale water resources to ensure sufficient water supply for sugarcane farmers and enhance water use efficiency.
2. Manage high-risk farmers by monitoring sugarcane harvesting weekly to prevent fires and utilizing satellite imagery to accelerate cane delivery from the start of the crushing season. Prioritize the crushing of sugarcane from high-risk and high-competition areas early in the season.
3. Provide modern technology and advancements to strengthen sustainable management systems from sugarcane plantations to sugar mills under the Mitr Phol ModernFarm Project.
4. Implement the 4Rs principle: Resource, Reduce, Reuse, and Recycle, to ensure efficient and sufficient water utilization. Examples include reusing water extracted from sugarcane in the production process, recycling treated wastewater as a raw water source, reducing energy consumption during production, using alternative energy sources, and upgrading from anaerobic to aerobic wastewater treatment systems.
5. Implement fire prevention and response measures such as installing heat detection cameras around bagasse storage areas and compressed bagasse piles, optimizing storage area management to reduce fire risk and enable rapid access in case of emergencies, and conducting fire drills and business continuity plan (BCP) exercises at least once a year to enhance preparedness.
6. Manage outdoor workforce by providing ample clean drinking water, rest areas, and access to an on-site medical facility with 24/7 support.

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:

1. Cyber insecurity from Generated AI risk	
Risk Aspect	Social / Governance
Description	<p>Artificial intelligence (AI) plays an increasingly pivotal role in business operations. Conversely, it also introduces significant cybersecurity risks. Malicious actors can exploit AI to carry out cyberattacks, such as identifying system vulnerabilities, creating malware that evades detection, or forging digital data. Unintentional actions by uninformed users within the supply chain can also create vulnerabilities that expose sensitive organizational data to unauthorized access. Reports in early 2024 indicated that organizations experienced a 28% increase in weekly cyberattacks over the previous year. (Source: Prompt Expert, February 2025)</p>
Impacts on the Company	<p>Mitr Phol has adopted various types of artificial intelligence (AI) and emerging technologies across its entire value chain—from upstream operations such as sugarcane farm data analysis to downstream processes like robotic sugar packaging, advertising management, and improving the efficiency of internal transaction systems. Applications of AI include analyzing data to manage resources such as raw materials, water, soil, and nutrients for production, as well as ensuring efficient delivery of final products. However, due to the rapid pace of technological advancement and integration, the Company may face significant risks and impacts, including:</p> <ul style="list-style-type: none"> • Becoming a target for online exploitation due to system vulnerabilities or weaknesses can lead to the destruction, theft, or ransom of organizational data using AI to analyze and detect system weaknesses. These attacks are often automated and adaptive, designed to bypass organizational security systems. Such incidents can significantly disrupt internal systems and business operations, leading to widespread impacts, including business disruption, financial losses from system recovery and compensation, reputational damage, loss of customer and stakeholder trust, reduced competitiveness, and potential legal action resulting from personal data breaches. • Misinformation and Disinformation Risks: The proliferation of generative AI tools has heightened the risk of spreading false or manipulated information. This includes the dissemination of inaccurate or unethical content via online platforms, the creation or alteration of images, audio, or video to distort facts, and the uncritical use of incorrect data generated by open AI platforms. Such misuse can damage the organization’s reputation, erode customer and stakeholder trust, lead to legal liabilities, and create competitive disadvantages. Furthermore, the spread of false information can cause confusion and uncertainty within the organization, negatively impacting strategic decision-making and long-term planning.
Mitigation Measures	<p>Mitr Phol has operational frameworks and management measures for AI governance, including:</p> <ol style="list-style-type: none"> 1. Establish an AI Governance Policy to ensure that the application of AI within Mitr Phol aligns with principles of good corporate governance. This includes ongoing monitoring and evaluation of AI implementation. 2. The Digital Transformation and Cybersecurity Committee is responsible for formulating strategies, policies, and best practices to drive responsible and effective AI adoption across the organization. 3. Capability building is implemented to ensure that executives and employees possess the necessary knowledge and competencies to perform their roles effectively, while also supporting continuous professional growth through development initiatives such as reskilling and upskilling programs. 4. Operational Standards and Practices: Apply established standards to oversee the entire AI lifecycle, from design and development to deployment, using a data governance process to ensure high-quality, reliable, and standardized data for development and operation. 5. The Internal Audit Office is responsible for auditing compliance with Mitr Phol’s AI policies and practices, monitoring AI-related risks, and ensuring that all relevant units operate accurately, thoroughly, and in accordance with established guidelines. 6. For further information on data security protocols, please refer to the Information and Data Security chapter of this report.

2. Economic Confrontation Risks

Risk Aspect	Geopolitical / Economic
<p>Description</p>	<p>The shifting landscape of international economic relations, driven by efforts to strengthen bargaining power and gain a competitive advantage through economic tools, is becoming increasingly widespread and difficult to predict. Measures such as financial interventions, tax policies, investment controls, state aid and subsidies, and trade restrictions can hinder international trade and investment, contributing to growing uncertainty in the global economy and business supply chains. Given the interconnected nature of global supply networks, such policies are likely to have far-reaching impacts on businesses worldwide.</p> <p>With Donald Trump leading in public support for the US presidential election, concerns are mounting over potential unpredictable policy shifts driven by ultra-conservative ideologies, particularly in international relations, which could significantly impact global business operations.</p>
<p>Impacts on the Company</p>	<p>Engaging in import-export activities and overseas investments, Mitr Phol faces both direct and indirect challenges from increasingly stringent and constantly evolving international measures. These measures impact Mitr Phol's business operations in areas such as trade, international investments, and supply chains. Consequently, they may result in rising explicit and hidden costs, including higher sourcing prices, increased transportation expenses, and growing barriers to expanding into international markets. As a result, Mitr Phol may encounter the following risks and impacts:</p> <p>Export Risk: As many countries increasingly employ economic instruments to strengthen their bargaining power and gain a competitive edge, Mitr Phol may face more complex trade barriers. These include stricter quality inspections for sugar exports to the European Union, the imposition of import quotas, and heightened sustainability requirements. Similarly, exports of wood-substitute materials to countries in the Middle East may be impacted by sanctions or transportation-related restrictions—both maritime and air—imposed by certain nations. Mitigating these risks often leads to higher production and sales costs. However, increasing product prices to offset these expenses could undermine the Company's competitiveness in international markets.</p> <p>Raw Material Management Risk: Reliance on imported technology and machinery may affect Mitr Phol's production efficiency, such as in power generation and sugar manufacturing. If these technologies and equipment depend on countries with export control measures, sourcing replacement parts or upgrading technology may become difficult or more costly. Additionally, the import of raw materials, chemicals, or even domestically sourced inputs could be affected by export restrictions or price increases from foreign suppliers. This could impact product quality and increase overall production costs.</p> <p>Currency Exchange Rate Risk: Exchange rate volatility, which is highly sensitive to international developments and policy measures, tends to intensify during periods of heightened uncertainty. This increases the difficulty of forecasting and may adversely impact financial costs and long-term financial planning. Following the US presidential election, Donald Trump's victory has raised concerns over policy unpredictability, which could lead to heightened volatility in major currencies, including the Thai baht. Such fluctuations may affect Mitr Phol's ability to manage import and export costs, foreign currency-denominated debt, and overall budget planning.</p> <p>Compliance Risk: Mitr Phol faces growing compliance risks as it expands into international markets, where regulations are becoming increasingly complex and stringent. These include tax laws, foreign investment restrictions, product traceability, origin certification, and requirements related to environmental and human rights standards. Navigating these challenges may require additional investment in management and audit systems. Moreover, changes in import regulations by partner countries may necessitate adjustments in production or packaging processes, potentially increasing operational costs and affecting the Company's export capabilities.</p>

2. Economic Confrontation Risks

Mitigation Measures

Mitr Phol closely monitors global political and economic developments, including the use of economic instruments by key countries, to anticipate potential changes and enable timely responses. The Company has implemented several key measures, including:

1. Establish a Corporate Risk Management Committee, along with specialized committees such as the Investment Committee, Financial Risk Management Committee, Sales Committee, and the Digital Transformation and Cybersecurity Committee. These committees are responsible for overseeing operations, setting operational frameworks, developing systems, and procuring relevant tools to ensure readiness and adaptability in response to changing circumstances. They also convene regular joint meetings.
2. Assign specialized units to monitor risks and developments across various domains, enabling timely responses amid rapidly changing conditions. These units also track policy updates and regulatory standards to ensure product compliance, uphold customer and market trust, and remain ready to capitalize on emerging business opportunities.
3. Join trade associations and organizations, such as the Thai Sugar and Cane Association, the Thai Chamber of Commerce and Board of Trade, and the Federation of Thai Industries, to stay informed of relevant developments, actively contribute to discussions, and effectively prepare and adjust strategies and plans.
4. Collaborate with internal departments to develop cost management and business strategy plans that ensure flexibility and responsiveness to evolving conditions.
5. Collaborate with partners and customers on advanced sales and logistics planning to jointly manage costs, exchange information, and strengthen trade cooperation for maximum efficiency.

3. Job Displacement and Skill Mismatching Risk

Types of Risk

Social / Economic

Description

The rapid advancement of technology and artificial intelligence (AI) is significantly reshaping business models and creating challenges for organizations in developing a workforce with the right skills. Without personnel whose capabilities align with these technological advancements, businesses may struggle to effectively implement strategies or develop competitive approaches, potentially missing growth opportunities and losing their competitive edge. Moreover, the emergence of “Agentic AI”—AI capable of performing complex and diverse tasks—may lead to job displacement in certain roles, increasing the risk of labor shortages and affecting workforce stability.

Impacts on the Company

Mitr Phol aims to leverage technology and AI to enhance its business capabilities in both the short and long term. The Company’s workforce spans multiple generations, from Baby Boomers to Gen Z, each with varying levels of understanding and adaptability when it comes to technology and AI adoption. It is therefore essential to develop the capabilities of employees at all levels and ensure proper workforce planning aligned with job requirements. Failure to do so may prevent the Company from achieving its goals, potentially allowing competitors to gain a competitive edge.

Leveraging Technology and AI in Sugarcane Farm Management: The application of technology and AI in sugarcane farming aims to address labor shortages, increase production efficiency, and enhance environmental sustainability. However, it also introduces new challenges related to workforce reskilling. Employees in the sugarcane segment must adapt by learning how to use modern agricultural technologies, such as drones for fertilizer application and AI-powered systems for monitoring and quality control. If the transition and upskilling efforts fall short, the Company may face continued labor shortages, reduced production efficiency, and operational uncertainty—leading to higher sugarcane sourcing costs and a decline in overall competitiveness, both in the short and long term.

3. Job Displacement and Skill Mismatching Risk

Impacts on the Company

Expertise Loss: As AI takes over certain tasks, employees previously responsible for those roles may be reassigned to positions that are not well-suited to their skills, leading to the loss of accumulated knowledge and expertise. This poses a multi-faceted risk to the organization, potentially resulting in employee turnover and the erosion of specialized capabilities. It may also weaken long-standing relationships and diminish trust with farmers, suppliers, and customers who depend on the expertise and continuity of individual employees. Moreover, some tasks still require a combination of human judgment and AI capabilities to achieve optimal outcomes. Therefore, it is essential to invest in developing AI-related skills among employees and implement effective knowledge transfer strategies.

Inadequate Training and Adaptation: A successful transition to full-scale AI implementation requires careful planning and significant investment in workforce upskilling and training. This includes not only financial resources but also time and organizational commitment. For instance, using AI to classify sugarcane types, such as fresh cane, burnt cane, or cane with long tops, or to predict wind direction for dust management requires employees to develop new competencies in digital tools and data analytics. If skill development is underfunded, adaptation is poorly executed, or employees face learning barriers, the organization may experience reduced operational efficiency, financial risks during the transition, and setbacks in achieving its long-term strategic goals.

Mitigation Measures

1. Establish the Mitr Phol ModernFarm Academy as a learning hub for promoting the use of farm management technology, aimed at training farmers and enhancing the skills of employees in the sugarcane operations group.
2. AI is embedded as a key topic in the Company's reskilling and upskilling programs to support continuous knowledge development among all employees.
3. Establish an AI development unit within the digital operations group to work collaboratively with other departments in improving operational workflows.
4. The MITR beyond Innovation Award is held annually to encourage employees to submit innovative ideas in various areas, such as improving operational efficiency, developing new products or services, or creating new business models through the application of modern technologies.
5. Organize the MITR PHOL DIGITECH CHAMPION event to encourage employees to apply AI and digital technologies in developing innovative solutions, with a strong focus on enhancing AI and digital skills.
 1. Host the annual YES Talent Camp to identify talents capable of applying technology and AI to business operations. In 2024, the camp featured the Mitr Phol AI Hackathon as its main challenge.
 2. Establish a succession planning process to develop future leaders for strategic positions, ensuring business continuity.



Chapter



05 Supply Chain Management



Supply chain management is a material issue as it can pose significant economic, environmental, and social risks to the Company and its stakeholders, ranging from product quality concerns and supplier emissions exceeding legal limits to potential human rights violations. To address these risks, Mitr Phol is committed to effective value chain management by establishing a Supplier Code of Conduct and implementing a supplier selection process that integrates sustainability criteria. This approach ensures alignment with the Company's standards and helps mitigate supplier-related risks. In addition, the Company engages suppliers through awareness-raising initiatives on environmental and social impacts and fosters collaboration through joint projects that promote sustainable development.

2024 Target and Performance



The significant suppliers are assessed for environmental, social and governance risks.

Target
100%

Performance
64.6%



Increase the adoption of green products

2 items

2 items





Management Approach

Categories of Mitr Phol's Suppliers

Mitr Phol's suppliers are classified based on their roles or the nature of the products and services they provide. This categorization ensures that each supplier group is managed appropriately and efficiently. Suppliers are divided into two main categories: central suppliers and raw material suppliers, as detailed below:

Central Suppliers

They are providers of products and services or domestic and foreign contractors. Central suppliers are further classified into four subcategories as follows:

Supplier Subcategory		Products
	Routine, Non-Critical, or Low Value-Low Risk Suppliers	Mechanical equipment, consumables, and office supplies, etc.
	Leverage Suppliers or High Value-Low Risk Supplier	Diesel fuel, lubricants, service and repair work, machine cleaning services, etc.
	Bottleneck Suppliers or Low Value-High Risk Suppliers	Specific models of machine spare parts that cannot be replaced by other models, etc.
	Critical Suppliers or High Value-High Risk Suppliers	Chemicals for manufacturing processes and packaging materials, etc.

Raw Material Suppliers

These are suppliers who sell essential raw materials used in the production process of various products or services, including:



Sugarcane farmers

supplying sugar cane as the main raw material to sugar mills



Rubber farmers

providing old rubber trees that complete the latex-producing cycle to 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

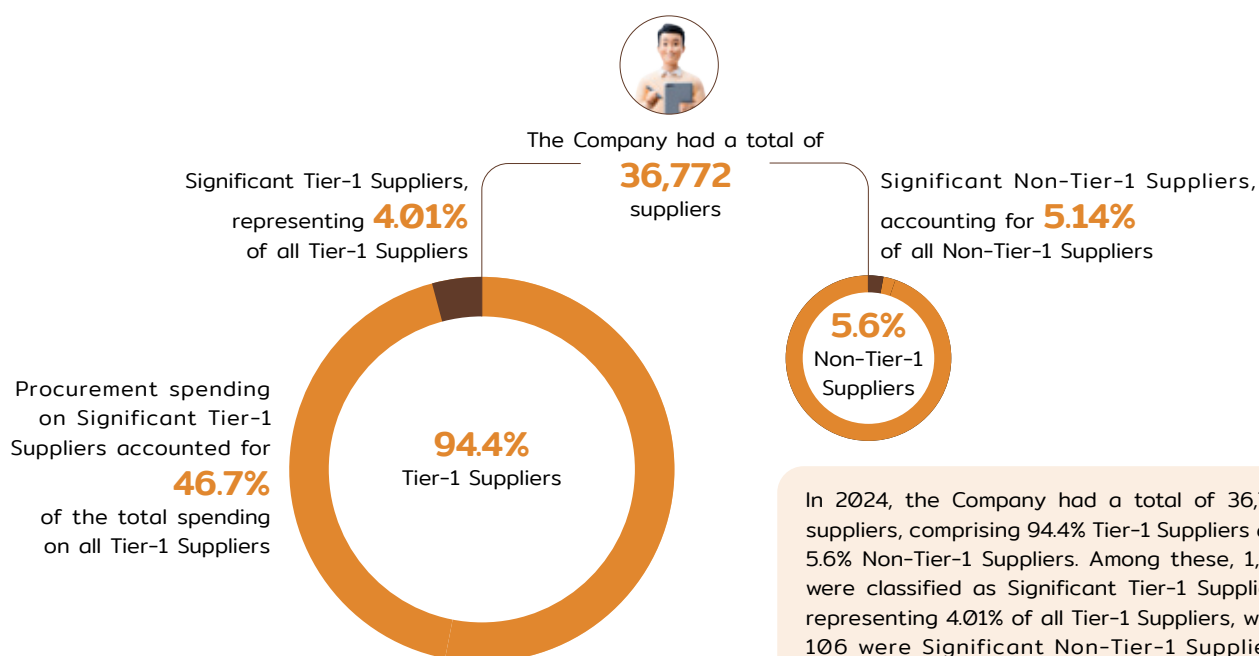


Sugar mills and traders

supplying molasses for ethanol distillation plants

The Company classifies significant suppliers based on procurement spend and the criticality of the products or services provided to enable the development of effective plans and strategies for supplier management. The criteria for identifying significant suppliers are as follows:


- Suppliers are 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.



In 2024, the Company had a total of 36,772 suppliers, comprising 94.4% Tier-1 Suppliers and 5.6% Non-Tier-1 Suppliers. Among these, 1,391 were classified as Significant Tier-1 Suppliers, representing 4.01% of all Tier-1 Suppliers, while 106 were Significant Non-Tier-1 Suppliers, accounting for 5.14% of all Non-Tier-1 Suppliers. Procurement spending on Significant Tier-1 Suppliers accounted for 46.7% of the total spending on all Tier-1 Suppliers.

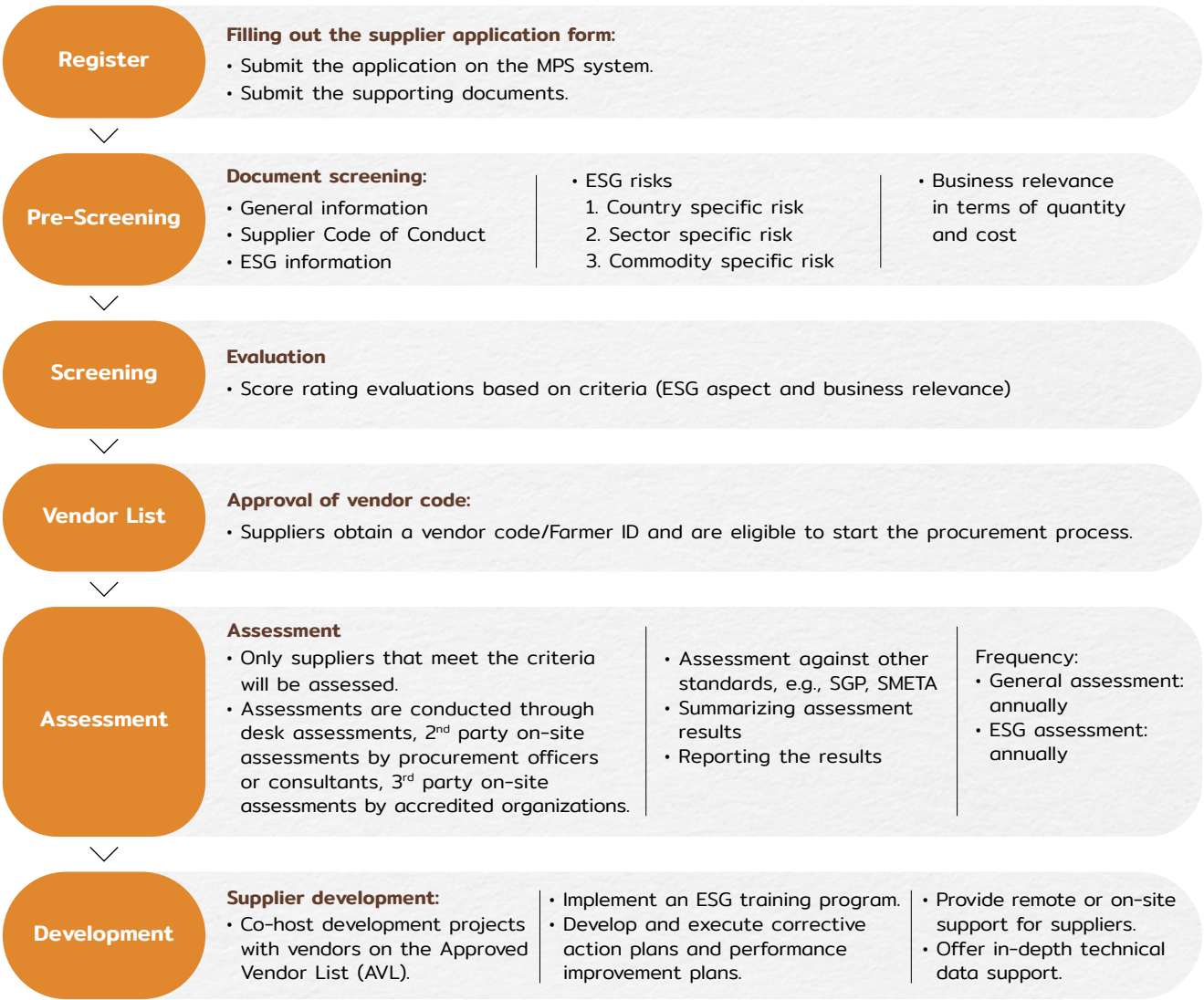
Sustainable Procurement Policy

Mitr Phol has established the Guidelines for Agricultural Raw Materials Sourcing, Green Procurement Policy, Sustainable Procurement Policy, and Mitr Phol’s Supplier Code of Conduct. These serve as operational standards for both employees and suppliers, addressing key areas related to corporate governance, social responsibility, and environmental stewardship. Topics include business ethics, respect for human rights, fair labor practices, promotion of environmentally friendly products, and compliance with safety, occupational health, and environmental standards. These policies are communicated through various channels, and the Company actively monitors and enforces supplier compliance. All suppliers are required to sign an acknowledgment and acceptance of the Supplier Code of Conduct before entering into a business relationship with Mitr Phol.

*Further details on the [Agricultural Raw Materials Sourcing Policy](#), [Sustainable Procurement Policy](#), and [Mitr Phol’s Supplier Code of Conduct](#), are available on the Mitr Phol website 

Sustainable Procurement Process

In Mitr Phol Group’s procurement system, the process for becoming a supplier is as follows:

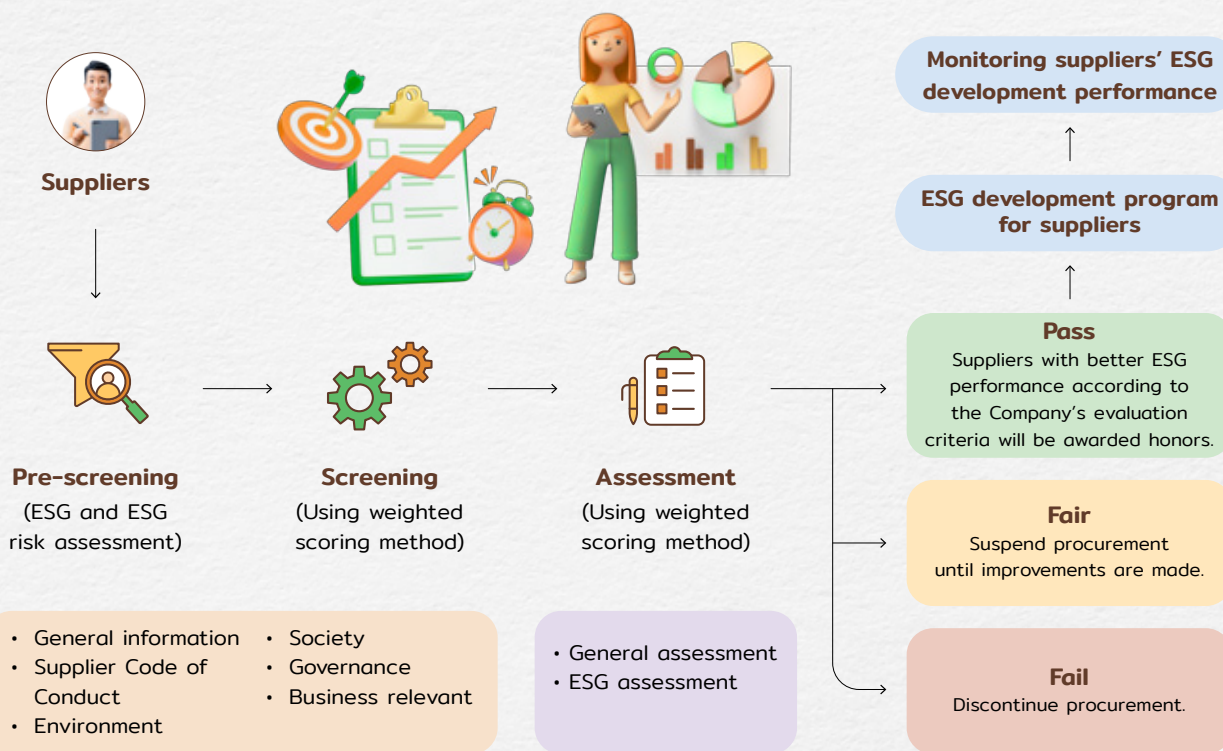


Mitr Phol has a prudent process for verifying supplier qualifications and managing risks based on product and service categories, using the Supplier Position Model. All applicants wishing to register as new suppliers must undergo screening and selection to meet Mitr Phol's standard criteria. The supplier selection process takes into account general supplier information, assessments of business relevance and importance (e.g., price, technology, delivery lead time, order quantity), as well as environmental, social, and governance (ESG) risk assessments at the national, industry, and product levels, each weighted differently depending on the context. After passing the assessments and signing the Supplier Code of Conduct, suppliers become eligible for registration with the Company. In 2024, the Company screened 2,462 new suppliers using ESG assessments, representing 87.37% of all newly registered suppliers. Additionally, a total of 967 suppliers, comprising both Significant Tier-1 and Significant Non-Tier-1 Suppliers, underwent sustainability risk assessments through an initial ESG risk evaluation (Deck Assessment), conducted either via self-assessment or on-site audits by the Procurement Division or Material Sourcing Section.

In addition, the Company has established an annual process for monitoring and evaluating partner performance. This includes assessments of product and service quality and standards, as well as reviews of environmental, social, and governance (ESG) risks for suppliers. This is to ensure that its suppliers strictly adhere to the Supplier Code of Conduct and to mitigate risks related to product quality, supply chain disruptions, and other operational concerns. Supplier performance is evaluated annually through self-assessments using questionnaires, 2nd party on-site assessment, or 3rd party

on-site assessment based on internationally recognized standards such as the Bonsucro Standard for sustainable sugarcane production, the Supplier Guiding Principles, and the Sedex Members Ethical Trade Audit (SMETA). Assessment results are communicated to partners via email or other designated channels. Suppliers may also compare their results with those of other suppliers, enabling them to identify areas for improvement, enhance operational efficiency, and support continuous development. If a supplier is found to be in breach of the Supplier Code of Conduct, such as through violations of human rights, environmental standards, or corporate governance, the Company will issue a warning, outline a corrective action plan with a specific timeline, and closely monitor progress. Failure to comply may result in penalties, including contract termination and permanent removal from the Company's approved supplier list. Failure to comply with the minimum ESG requirement may result in penalties, including contract termination and permanent removal from the Company's approved supplier list. Moreover, suppliers with better ESG performance/score are more likely to be selected or awarded contracts, as sustainability performance is a key factor in the Company's supplier selection process. At present, ESG assessments are conducted for Significant Tier-1 suppliers, including those providing chemicals and packaging. Furthermore, the Company monitors and supports the development of its suppliers through participation in supplier development programs aimed at enhancing operational efficiency and improving the quality of products and services. This results in benefits such as reduced production costs, increased sales, and lower operational risks for both suppliers and the Company.

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.

Mitr Phol Procurement System

Mitr Phol has developed the Mitr Phol Procurement System (MPS) as a platform to support purchase requests, procurement activities, and supplier engagement. It also serves as a real-time communication channel for supplier announcements and enables the evaluation of supplier performance upon completion of product or service delivery. Data from the MPS is integrated with the SAP system, facilitating audits, enhancing transparency, streamlining workflows, and ensuring full traceability across the entire procurement process. This integration also facilitates more efficient resource utilization and effective cost management.

For food contact materials (FCMs) that may impact food safety, such as chemicals used in manufacturing and packaging, the MPS system tracks product quality, production origin, and transportation safety upon receipt of goods from suppliers. If the delivered items fail to meet the required specifications or pose any food safety risks, suppliers are required to correct the non-conformities within a specified timeframe.

Annual Supplier Conference

Mitr Phol holds an annual supplier conference to communicate the Supplier Code of Conduct, procurement regulations, and 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). The Company also promotes supplier development programs and recognition initiatives, while gathering feedback and understanding suppliers' expectations to enhance the efficiency of collaborative processes. These efforts help increase revenue, reduce operational risks, and strengthen the relationships between the Company and its suppliers, enabling them to mutually achieve sustainable business growth.

To recognize committed suppliers and set a positive example for others, Mitr Phol held its third consecutive annual *Supplier Awards Ceremony* in 2024. A total of 92 outstanding suppliers received certificates and special awards, an increase of 18 recipients, or 24.3% from the previous year.

- ▼ Award presentation ceremony for outstanding suppliers in 2024



Employee Training

Developing employees' knowledge and understanding of sustainability in relation to their roles, responsibilities, and organizational context is crucial for enabling effective communication and supporting stakeholder development throughout the supply chain. The Company provides sustainability training covering environmental, social, and governance (ESG) issues. These efforts aim to both reskill and upskill employees, including those in procurement. In 2024, the sustainability training program covered topics such as carbon footprint, net-zero emissions, internal carbon pricing (ICP), human rights, and risk management.

Mitr Phol Collaborative Projects with Customers for Sustainable Development

Green Procurement Project

To promote green procurement, Mitr Phol has adopted ISO 20400:2017, the international standard for sustainable procurement, as the operational framework for its procurement practices. The Company also drives practical implementation by setting clear targets to increase the proportion of green procurement. In 2024, Mitr Phol set a goal to introduce two new categories of eco-friendly products and successfully met this target. As a result, the Company's green procurement increased by 74% compared to 2023, covering items such as electrical appliances, cleaning and construction equipment, office supplies, paper products, vehicles, and accessories. Mitr Phol also plans to expand its green procurement further to include a broader range of products and services.

Thai Private Sector Collective Action Against Corruption (CAC)

Anti-corruption and transparency are fundamental to responsible business practices across the entire supply chain. Mitr Phol encourages its business partners to sign the Declaration of Intent to join the Thai Private Sector Collective Action Against Corruption (CAC). In 2024, a total of 11 suppliers joined the initiative, which the Company intends to continue promoting on an annual basis.

Sustainable Sugarcane and Sugar Production Management under Bonsucro Standards

Mitr Phol encourages farmers to involve in 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, please refer to [Farm and On-Farm Water Management](#).



Sustainable Rubber Plantation Management According to Forest Stewardship Council™ Standards

Since 2014, Panel Plus Company Limited* has implemented a sustainable rubber plantation management program based on Forest Stewardship Council™ (FSC™) standards, with the goal of supporting farmers in managing their plantations sustainably. The Company invites interested small-scale farmers who meet specific criteria to join the program. Eligible plantation areas must be legally documented, such as with land title deeds, Nor Sor. 3, or Sor Por Kor. and must not encroach on reserve forests, protected areas, or high conservation value zones. Once enrolled, farmers are required to attend training sessions related to sustainable rubber plantation practices. The Company also conducts regular performance monitoring. If a farmer's practices fail to meet the program's standards, a corrective action notice is issued. Failure to make the required improvements may result in termination of program membership. As of 2024, the project had 3,503 participating members, covering a total plantation area of 66,377 rai. Through the program, Panel Plus facilitated the buyback of 57,156 tons of rubberwood from members, with a total value of 64.35 million baht.

* Panel Plus Co., Ltd. has been certified for the forest management certification numbers SGSCH-FM/COC-010474 license code FSC™ C125420, SGSHK-COC-470044 license code FSC™ C119407 and SGSHK-COC-470103 license code FSC™ C158975.

In addition, the Company has provided in-depth technic support for project members by organizing various social and environmental activities as follows:

1. Training Program for Members and Relevant

Contractors: This initiative provides training on various social and environmental topics, for instance occupational safety, labor rights and social welfare, human rights, waste sorting and management, conservation of rare plant and animal species, the production of Trichoderma for biological pest and disease control to reduce chemical use and the use of wood materials for basic first aid applications.



▲ Panel Plus Co., Ltd. provided training for members and contractors on environmental and social issues.

2. Establishment of Learning Centers in collaboration with Prince of Songkhla University: This project aims to serve as a model for knowledge transfer, improving the quality of life and well-being of members and local communities. Currently, there are two learning centers: the Ban Khuan Community Learning Center and the Ban Chang Kaew Community Learning Center, both located in Khlong Hoi Khong District, Songkhla Province. These centers promote learning in areas such as organic fertilizer and growing media production, alternate wetting and drying (AWD) rice farming, and the provision of knowledge on rubber-based intercropping. Over 50 households from the local community and project members have participated in the programs offered by these centers.



▲ Panel Plus Co., Ltd., in collaboration with Prince of Songkla University, established learning centers in Songkhla Province to promote knowledge on organic fertilizer and growing media production, alternate wetting and drying (AWD) rice farming, and rubber-based intercropping.

- 3. Promoting and Adding Value to Latex with FSC™ Standards:** This project aims to increase income and promote long-term sustainability in rubber farming among members by aligning practices with FSC™ standards. Currently, it has added value for 1,330 participating members who have sold 5,007 tons of FSC-certified dry rubber, generating more than 7.3 million baht in added income. The initiative has raised awareness among members about the importance of adopting international standards in rubber cultivation, enhancing the sustainability of both the Company's supply chain and raw material sources.



- ▲ Panel Plus Co., Ltd.* promoted and added value to latex production through the FSC™ standards, aiming to increase members' income and support long-term sustainability.

- 4. Water Quality Monitoring, Plant Growth Measurement, and Soil Erosion Inspection Project:** This project aligns with FSC™ standards for sustainable forest management, including water resource conservation and soil erosion prevention, to minimize environmental impact and maintain ecological balance. Water quality is monitored twice a year by collecting samples from four main canals located in members' plantation areas: Khlong Hin, Rattaphum District, Khlong Itam, Hat Yai District, Khlong Lat Yai, and Khlong Lam Pao, Thepha District. The project also includes yearly soil erosion inspections in member farm areas and 16 designated monitoring plots.

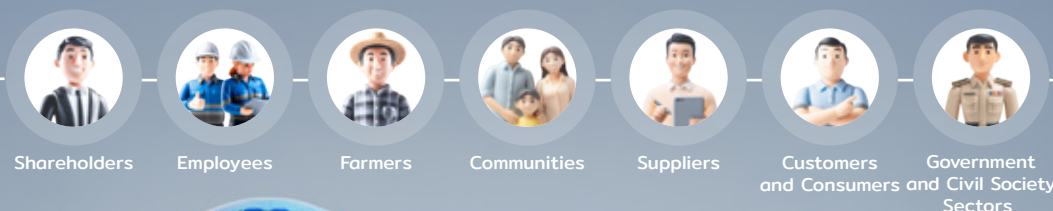


- ▲ Panel Plus Co., Ltd.* conducted inspections of water quality, plant growth rates, and soil erosion to ensure compliance with FSC™ standards.

* Panel Plus Co., Ltd. has been certified for the forest management certification numbers SGSCH-FM/COC-010474 license code FSC™ C125420, SGSHK-COC-470044 license code FSC™ C119407 and SGSHK-COC-470103 license code FSC™ C158975.

Chapter

06 Information and Data Security



In the digital era, where data and technology are integral to business operations, creating added value and enhancing efficiency, robust cybersecurity and data protection are essential for sustainable growth. These measures not only enable responsible and effective use of data but also promote cybersecurity. Furthermore, they help build trust among customers and stakeholders, a key factor in strengthening the Company's competitiveness. However, while technology can significantly support operations, it must be implemented with caution and due diligence, as it may expose the business to risks if cybersecurity is not properly managed.

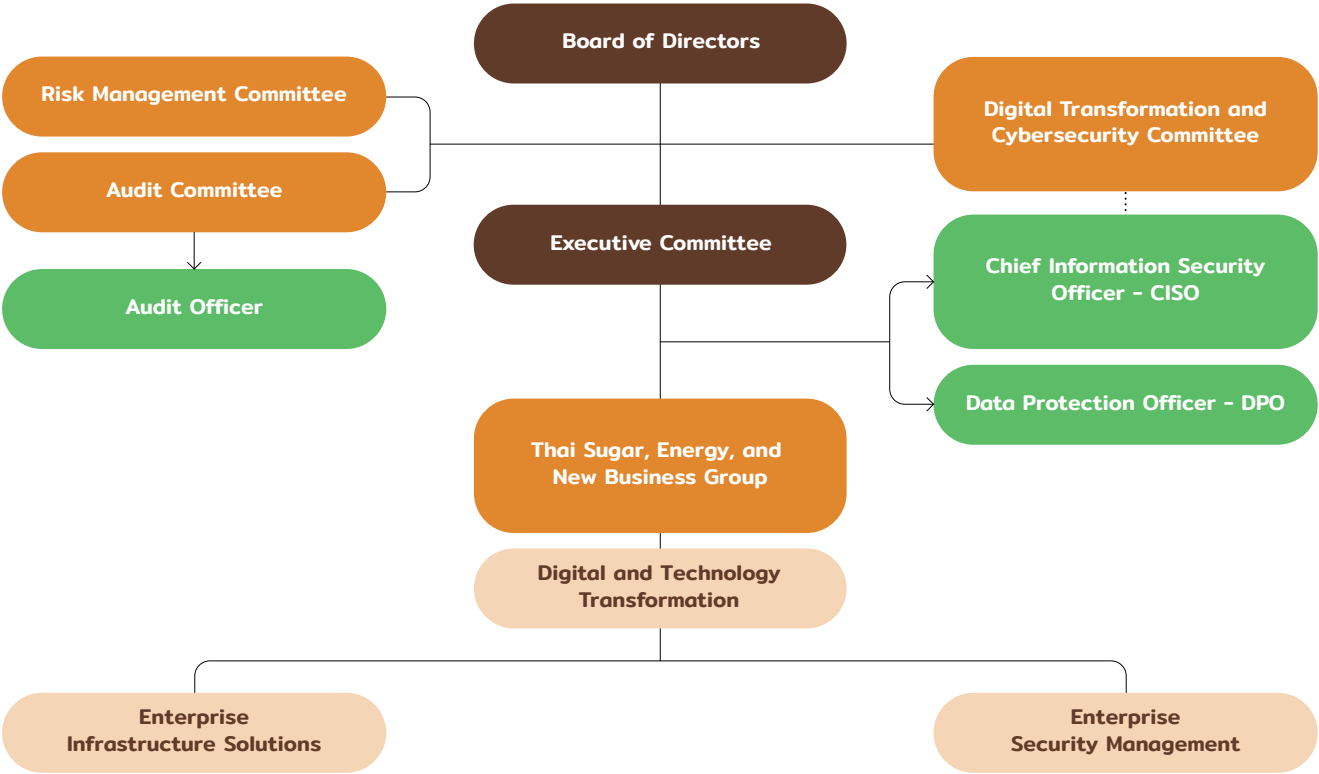
2024 Target and Performance

	Target	Performance
 Timeframe for responding to a cybersecurity breach	Within 4 hours	No cybersecurity breaches
 Evaluate cybersecurity awareness using Phishing Simulation Tests	2 times per year	2 times
 Conduct a cyber drill simulation with the operations team to prepare for cybersecurity incidents	1 time per year	1 time
 Conduct cybersecurity tabletop exercises with relevant units to prepare for cybersecurity incidents	1 time per year	1 time

Management Approach

Cybersecurity Management Structure

Mitr Phol Group’s Cybersecurity Management Structure



Recognizing that information and cybersecurity are critical to business operations, the Board of Directors has assigned the Digital Transformation and Cybersecurity Committee to work in collaboration with the Risk Management Committee and the Audit Committee. The Executive Committee is responsible for translating policies into practice. The Company has appointed a Data Protection Officer (DPO) and a Chief Information Security Officer (CISO) to work directly under the Digital and Technology Transformation Group, which is responsible for overseeing information technology, cybersecurity, and data protection. The roles and responsibilities of each position are as follows:

1. **The Digital Transformation and Cybersecurity Committee** has the duty to define policies on IT, cybersecurity, and information security, as well as oversee and support the implementation of these policies across all business units within the Mitr Phol Group.
2. **The Risk Management Committee** plays a key role in establishing risk management policies, objectives, and guidelines, as well as supporting, monitoring, and evaluating performance, and providing recommendations for effective risk management. This helps Mitr Phol Group to achieve its business goals and maximize benefits for its stakeholders. Key risks related to IT, cybersecurity, and information security are closely monitored by the Risk Management Committee.
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, cybersecurity, and information security as part of its audit cycle. Moreover, the Company has an Audit Office that reports directly to the Audit Committee. This internal audit function is responsible for monitoring and auditing operations of departments related to cybersecurity and personal data management. Its objective is to ensure that the relevant departments operate correctly, comprehensively, and in compliance with the Company's policies.
4. **The Chief Information Security Officer (CISO)**, a role held by the Executive Vice President of Digital and Technology Transformation, is responsible for translating the Digital Transformation and Cybersecurity Committee's policies into IT strategies and managing digital and technology operations across all units within the Digital and Technology Transformation Group. The operations, encompassing digital transformation, systems and business solutions development, IT infrastructure, 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. The performance is reported to the Digital Transformation and Cybersecurity Committee.
5. **The Data Protection Officer (DPO)** is responsible for providing advice, reviewing operations, and supporting all business units within Mitr Phol Group to ensure compliance with personal data protection laws. This includes establishing security measures to safeguard personal data in accordance with legal requirements and in alignment with international standards.
6. **The Enterprise Security Management Unit and the Enterprise Infrastructure Solutions Unit, under the Digital and Technology Transformation Group**, are responsible for technology systems, information systems, and information (including personal data) within the Mitr Phol Group, ensuring security and maintaining confidentiality, integrity, and availability. These units conduct risk assessments, implement IT, cybersecurity, and information security controls, and manage risks to keep them within acceptable levels for the Company. They also monitor anomalous situations and promptly address them to minimize damage and restore normal operations. Moreover, the units promote 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 the Information Technology Policy, Cybersecurity Policy*, Personal Data Protection Policy*, Data Governance Policy*, and AI Governance Policy*, which are enforced and observed throughout the Mitr Phol Group. The Company has also established a risk management framework for digital technology and data 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
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Strategy

Three Lines of Defense	Strengthening cybersecurity measures and fostering a cybersecurity culture and knowledge		
	1 People <ul style="list-style-type: none"> Education Raising awareness Building corporate culture 	2 Process <ul style="list-style-type: none"> Compliance Work instruction Monitoring 	3 Technology <ul style="list-style-type: none"> Standardization Prevention trust and up-to-date

*For more information, please visit [Cybersecurity Policy](#), [Personal Data Protection Policy](#), [Data Governance Policy](#), and [AI Governance Policy](#).



Catalyst Strategy 2027

Aspiring to achieve a sustainable digital transformation while creating measurable impact and driving long-term organizational success, Mitr Phol has established a robust digital management strategy built on the 3C Pillars and 7 Strategic Parts.

3 Core Pillars - 3Cs



Cornerstone of Transformation

Lay a cornerstone for organizational transformation, focusing on stable, flexible, and scalable technology and management.



Cultivation of Innovation

Promote the adoption of innovation and AI while building a culture of continuous learning.



Catalyst for Growth

Catalyze business growth through digital transformation to reduce costs, increase profitability, and create new revenue streams.

7 Strategic Parts

- Secure & Sustainable Value Chain
- Cost Efficiency & Profit Optimization
- Digital Revenue & Ecosystem Expansion

- Digital, Data, and AI Transformation
- Extraordinary Experience for Farmers, Employees, and Customers

- Asset Light & Compostable Technology Building Block
- Integrated & Measurable Transformation Management System

Effective Risk Management

Mitr Phol aligns its organizational structure with the Three Lines of Defense model to ensure proper checks and balances. the Three 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 IT Governance, Risk, and Compliance 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 and second lines of defense, namely the Internal Audit Office and external audit agencies.

Strengthening Cybersecurity Measures and Fostering a Cybersecurity Corporate Culture

Mitr Phol Group places strong importance on developing comprehensive cybersecurity measures, focusing on three key domains: People, Process, and Technology. This approach aims to mitigate risks related to cybersecurity and personal data protection and to effectively respond to cyber threats across all domains, as outlined below:

1. People Domain

The Company has empowered employees at all levels and raised cybersecurity awareness through training programs delivered across various platforms, ensuring comprehensive and accessible learning for all employee groups. The aim is to prepare employees for the rapidly evolving landscape of cyber threats. The following activities were implemented:



Enhancing Knowledge and Skills and Fostering a Cybersecurity Culture

- Cybersecurity training via e-learning was provided to employees at all levels to help them identify and respond to cyber threats.
- Training sessions were held on Cybersecurity & PDPA Awareness, AI for Cybersecurity, and developer security tools.
- The “Mitr Phol DigiTech Champion 2024” program was launched to enhance employees’ skills in low-code development and AI innovation.
- Designated cybersecurity personnel are required to undergo technical training and obtain internationally recognized professional certifications.
- Cybersecurity updates are regularly communicated via email through “Cyber Alert!” and “Cybersecurity Need to Know.”
- Real-world cyber threat cases are shared with relevant units.
- Employees are provided with direct access to the DPO team for guidance and questions.

Preparation for Cyber Threats

- A Cyber Drill Simulation was conducted to ensure readiness for cyber threats.
- Phishing Simulation Tests are regularly conducted, and high-risk units are required to attend focus group training.
- Drill evaluations are used to improve the incident response process.

2. Process Domain

The Company enhances its processes to meet standards and improve efficiency, ensuring systematic risk management and response to cyber incidents through the following activities.



Policy Development and Review

- Cybersecurity policies, practices, and operational procedures were developed and communicated through training to relevant parties.
- The policies are reviewed annually to ensure compliance with evolving laws and cyber threats.
- The Chief Information Security Officer (CISO) was appointed to oversee cybersecurity in alignment with the policies and organizational risks.

Risk Oversight and Assessment

- Cybersecurity systems underwent both internal and external evaluations in alignment with the standards of the National Institute of Standards and Technology (NIST).
- A PDPA compliance audit was conducted at sugar mills, with recommendations provided to ensure proper practices.
- Regulatory changes are monitored, and cyber breaches and cybersecurity lawsuits, both in Thailand and abroad, are studied.
- Procedures for the disclosure and transfer of personal data were established in accordance with Data Sharing Agreements (DSA) and Data Processing Agreements (DPA).

Incident Management

- A Cyber Hot Line and Cyber Alert!! were established, and a Cyber Incident Response Procedure was developed.
- Cyber Drills are regularly conducted, with incident data collected through a Ticket Management System to support analysis and continuous improvement.

3. Technology Domain

Advanced, high-efficiency technologies were implemented to enhance cybersecurity and prevent cyber threats through the following activities.



Access and Device Control

- Multi-factor Authentication (MFA), Network Access Control (NAC), and firewalls have been implemented to restrict access to critical systems.
- A USB blocker has been installed to minimize the risk of sensitive data leakage and the risk from unauthorized use of external devices.

Safe Data Management

- Data Loss Prevention, Data Labeling, and Database Encryption systems have been implemented.
- Legal information is managed through a Consent Management system and Legitimate Interest Assessment (LIA).


Effective Cyber Threat Detection and Response

- A Managed Security Service Provider (MSSP) and Security Operations Center (SOC) are employed to analyze unusual activities.
- Vulnerability Assessments and Penetration Tests (VA/PT) are conducted regularly to detect system vulnerabilities and test penetration security readiness.
- Extended Detection and Response (XDR) system has been implemented to improve speed, accuracy, and coverage of threat detection, analysis, and response.
- The Cloud Management Gateway (CMG) and System Center Configuration Manager (SCCM) are employed to centrally oversee software installations and updates.

Due to the continuous enhancement of cybersecurity practices and the cultivation of a strong cybersecurity culture, no data security breaches were reported in 2024, and no incidents affected the personal data of any stakeholder group. Nevertheless, all stakeholders are encouraged to report any unusual or suspected cyber incidents through the contact channels provided.


Cyber Hot Line

The Company prioritizes prompt and timely notifications to improve the effectiveness of monitoring, analyzing, and responding to cyber threats.



Employees

can report cyber-related incidents via the JIRA Helpdesk system under the Cyber Incident category or contact their facility's IT staff directly.





External parties

may report incidents through the following channels:

- Email: cyber@mitrphol.com
- Telephone: 02-794-1273

Cyber Drill Simulation

Mitr Phol conducted a Cyber Drill Simulation to assess the IT team’s readiness in responding to potential cybersecurity incidents. The simulation involved realistic cyber threat scenarios, with the team responding in accordance with the Quality Procedure and the Cybersecurity and Privacy Incident Response Procedure and the Business Continuity Plan (BCP). This exercise marked a significant step in strengthening the team’s confidence and professionalism in managing future cyber threats, while also reinforcing a strong cybersecurity culture across the organization.

Objectives	Outcomes
<div>  <ul style="list-style-type: none"> • Assess the team’s understanding and readiness in handling cybersecurity incidents. • Test communication processes and coordination between relevant departments. • Develop incident analysis and decision-making skills under realistic simulated scenarios. </div>	<div>  <ul style="list-style-type: none"> • The team successfully responded within the allocated timeframe. • Strong communication and effective team collaboration were demonstrated. • Areas for improvement were identified, such as event logging and early-stage communication. </div>

Mitr Phol Sustainability Report 2024 081



Social Dimension

- 084 Customers and Consumers
- 090 Employee Management
- 106 Management of Security, Safety, Occupational Health and Work Environment
- 114 Society and Community
- 136 Human Rights



The sugar business's
customers Net
Promoter Score (NPS) was



88.44%

The level of employee
engagement was 4.5/5,
equivalent to

90%



87 persons
with disabilities were employed



7 associations
of persons with
disabilities were established.



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



100%



of employees at the operational level
and above received training
on basic human rights.

Communities generated a total income of

4,479,004 baht



from the sales of hygienic vegetables
and community products.

Chapter

07 Customers and Consumers



Shareholders

Customers
and Consumers

Government
and Civil Society
Sectors



As consumer safety and health are of utmost importance, Mitr Phol is committed to maintaining high standards and continuously improving production processes throughout the supply chain to ensure its products and services are of superior quality and safe for health when consumed appropriately. The Company has established clear and relevant policies as guidelines for every stage of the process, ensuring customers receive the highest-quality, safest products that meet diverse consumer needs. Mitr Phol also focuses on developing sales and communication channels to improve access, build strong relationships, and enhance customer loyalty, thereby expanding market reach and increasing sales, with online channels serving as a key driver. In addition, customer relationship management tools enable the Company to collect essential data for developing products and services that align with customer needs, while strengthening sustainable customer relationships and supporting long-term growth.

2024 Target and Performance



Net Promoter Score (NPS)

Target
≥82%

Performance
88.44%

Management Approach

Product Safety and Quality Management

Mitr Phol has a food quality and safety policy, supported by a dedicated quality assurance unit responsible for monitoring product quality and safety in line with international standards. This unit also conducts analyses and develops continuous improvement plans to ensure customer confidence and compliance with commitments. The Group has obtained various international certifications in product safety and quality, covering raw material management, production processes, and delivery. These include the Bonsucro Production Standard, *Forest Stewardship Council™ Chain of Custody (FSC™ CoC), Good Hygiene Practices (GHP), Hazard Analysis and Critical Control Point (HACCP), Food Safety System Certification 22000 (FSSC 22000), ISO 9001 Quality Management System, and HALAL. In 2024, 100% of the Company’s sugar production was certified by independent agencies under internationally recognized food safety management system standards.



The percentage of the Company’s production certified by an independent third party based on internationally recognized food safety management system standards (%)

2021	2022	2023	2024
100%	100%	100%	100%

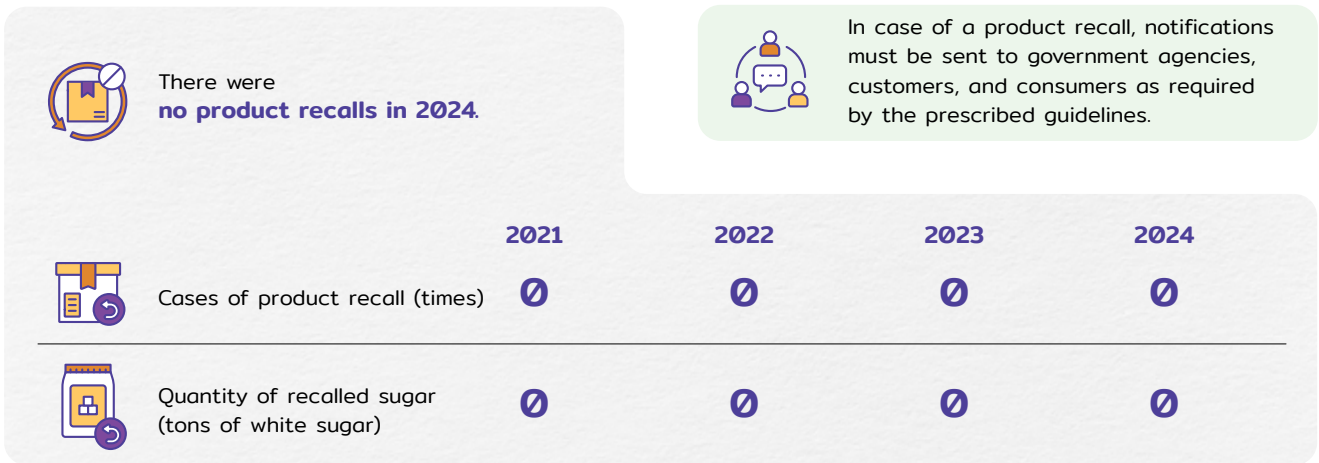
*For more information, please visit [Quality and Food Safety Policy](#).



* Panel Plus Co., Ltd. has been certified for the forest management certification numbers SGSCH-FM/COC- 010474 license code FSC™ C125420, SGSHK-COC-470044 license code FSC™ C119407 and SGSHK-COC-470103 license code FSC™ C158975.

Product Recall Procedure

Quality and safety are Mitr Phol’s top priorities; therefore, the Company has established a systematic and rigorous recall procedure to be implemented whenever a product is found to pose risks to quality or consumer safety. The “Recall of Non-Quality Products” operating guideline outlines clear steps to ensure the effective recall of any non-compliant or potentially unsafe product. This process covers all stages, from raw materials, such as sugarcane and production chemicals, through manufacturing and storage, to final product delivery, as illustrated in the flowchart.



Health Product Development

Increasing consumer awareness of health and new scientific discoveries are among the factors driving Mitr Phol’s development of health and nutrition products. The Company has therefore adapted to evolving customer and consumer needs, seizing opportunities from the growing trend of healthy eating, while also supporting society in gaining greater access to healthier choices.

Mitr Phol Sugarcane Research Center Co., Ltd., a subsidiary of Mitr Phol Group, has been conducting research and development in sugarcane cultivation, sugar-related products and services, and the development of high-value products derived from byproducts of the sugarcane and sugar industry, to drive sustainable growth in the sector. Health product development is also one of the Company’s key missions, with research and development activities encompassing the following areas:



With a strong commitment to research and development, Mitr Phol Group has established a Research and Development Advisory Committee to oversee research plans on sugarcane, sugar, derivatives, and related products, as well as to explore new business opportunities for the Group. The Committee is also responsible for supervising the transfer of technology and knowledge gained from research to employees and relevant personnel, as well as fostering collaboration with national and international organizations, research institutes, and academic institutions. The aim is to ensure that investment in research and product development enhances the nutritional value of products while maintaining affordability and accessibility for consumers. Mitr Phol has continuously developed health products as follows:

Fructo-oligosaccharide (FOS)
Product under
the Vallex Brand

This health-conscious product provides more than just dietary fiber. FOS increases bulk in the digestive system, stimulates bowel movements, and functions as a prebiotic that supports digestive balance. It can be consumed directly or used as an ingredient in foods, beverages, dietary supplements, and animal feed.

Low Cal Sugar Blend

Blending the advantages of granulated sugar and sweeteners, this product uses a unique dry blending process to provide the same sweetness with 50% fewer calories, an ideal choice for those seeking to manage their weight or reduce sugar consumption.

Zero Cal Syrup – B2B Only

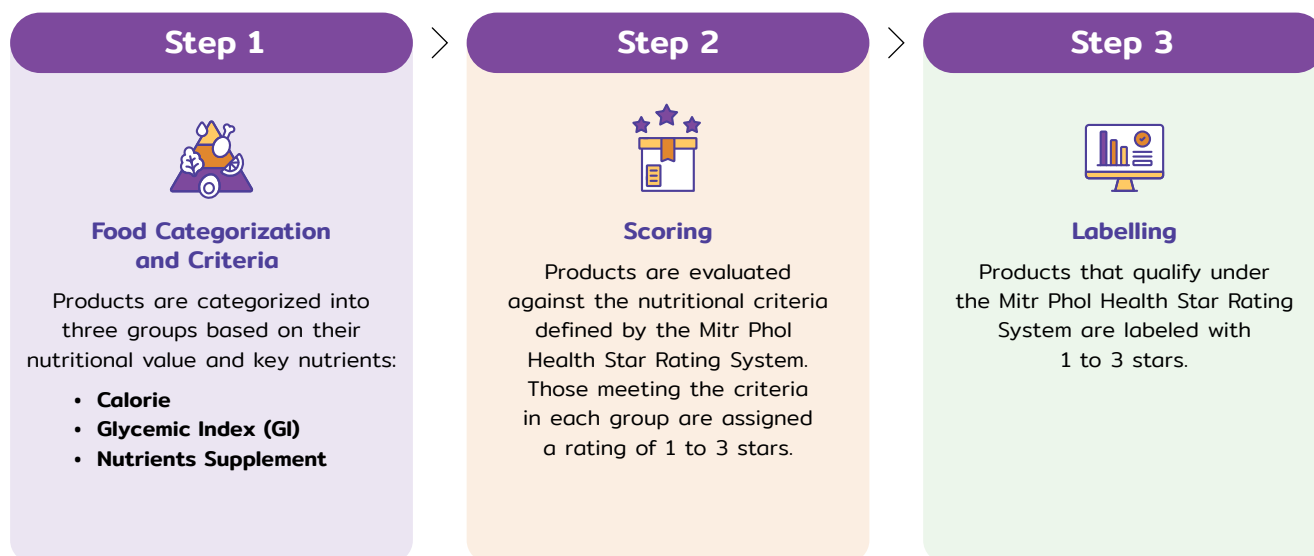
This product is a liquid, zero-calorie sugar substitute, making it an ideal option for individuals seeking to manage their weight or reduce sugar intake. One teaspoon of this product delivers the equivalent sweetness of one teaspoon of syrup.

The Company’s quantity and share of revenue from health products were as follows:

	2021	2022	2023	2024
Total revenue from products certified by Mitr Phol Health Star Rating (Unit: Million Baht)	36.39	25.24	36.80	55.59
Total revenue from food and beverage products (Unit: Million Baht)	42,058.42	60,370.76	92,920.29	101,017.40
Percentage of revenue from health products	8.65%	4.18%	3.96%	5.5%

Mitr Phol Health Star Rating System

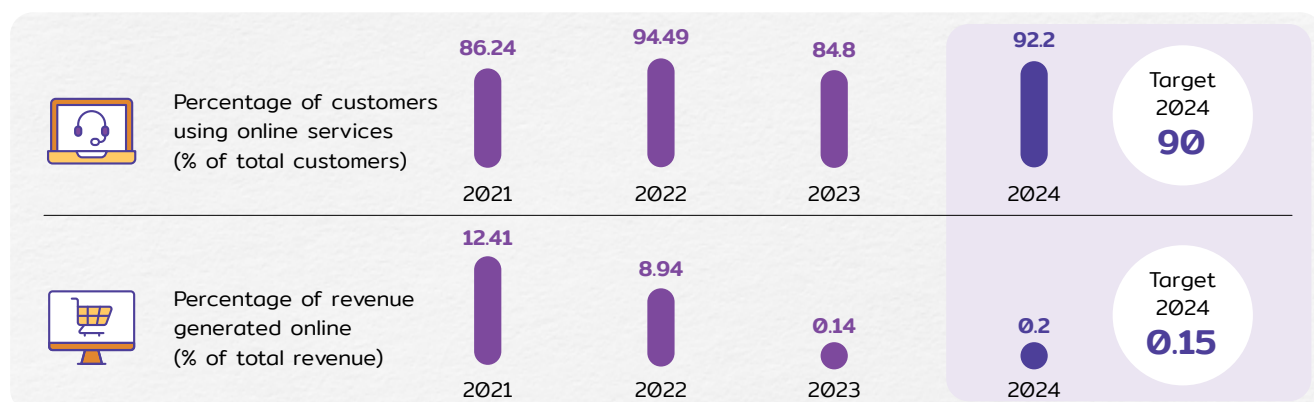
Mitr Phol provides product information to support and promote consumer health and nutrition, while improving and developing new products that encourage healthy eating and address diverse consumer needs. The Company has developed processes and established health and nutrition guidelines known as the “Mitr Phol Health Star Rating System”. This system applies nutritional quality criteria based on announcements from the Food and Drug Administration (FDA), relevant laws, and international nutrition standards to define key indicators used in evaluating the nutritional profile of products, ensuring consistency and appropriateness for the Company’s business. The evaluation is conducted through a Nutrition Profiling System with the following steps:



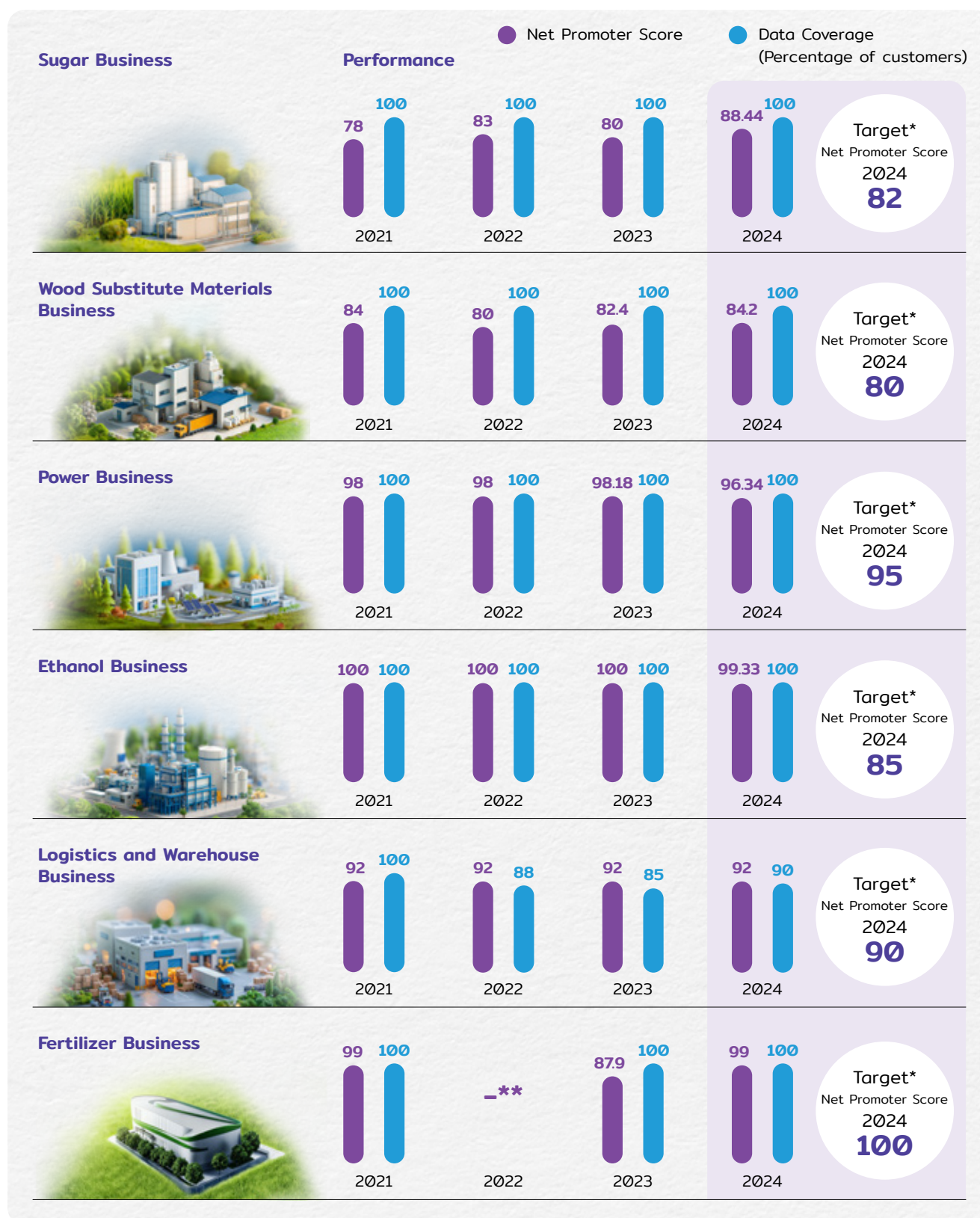
Customer Relationships

In today’s rapidly changing business environment, organizations must adapt in order to survive and grow. Mitr Phol Group recognizes the importance of safeguarding its reputation and consistently building strong, long-term relationships with customers. To achieve this, the Group conducts annual customer satisfaction surveys to gather insights into customer needs and feedback, which serve as valuable input for planning and relationship development. In addition, Mitr Phol is committed to enhancing its service strategies through effective online channels. These not only enable fast and efficient communication but also help foster sustainable customer relationships, expand access to new target groups, and strengthen long-term customer satisfaction.

Information about Online Customers



Customer Satisfaction

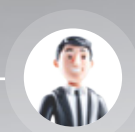


* The 2024 target is based on the average Net Promoter Score of comparable industries.

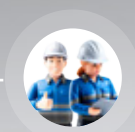
** In 2022, the sales and service strategies of the fertilizer business were adjusted. Therefore, data was not collected that year.

Chapter

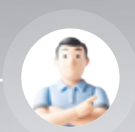
08 Employee Management



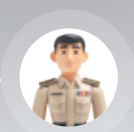
Shareholders



Employees







Customers
and Consumers and Civil Society
Sectors



Mitr Phol recognizes that employees are valuable resources and key drivers of the organization's progress toward its goals. Effective employee management, commitment to diversity and inclusion, and employee engagement are essential to Mitr Phol's success and sustainable growth. Efficient management enables employees to collaborate productively and with a sense of happiness. At the same time, embracing diversity and promoting inclusion helps cultivate an open and flexible corporate culture that encourages active participation in value creation and organizational development.

2024 Target and Performance

	Target	Performance
 Level of employee engagement	4/5 (80%)	4.5/5 (90%)
 Percentage of labor costs to total costs	6.0%	6.1%
 Employees passing post-training knowledge and skill assessments	≥80%	≥95%
 Employees able to apply knowledge in their work	≥70%	≥80%

Management Approach

Employee Management Strategy

Defining clear and effective employee management strategies enables employees to work efficiently and remain adaptable to change while supporting the organization in achieving its goals. To enhance agility, the Company has adopted a more agile working model, the “Agile Organization,” which allows for timely and responsive operations through various initiatives. The Company also promotes understanding and cultivates an Agile mindset among employees, empowering them to apply it in their work based on four core principles:

- 
Encouraging collaboration in the workplace
- 
Prioritizing practical outcomes
- 
Striving to meet customer needs
- 
Recognizing and adapting to changes

Each business group has integrated this working model into its operations, while also encouraging the sharing of real experiences among employees across departments. Additionally, the use of Objective and Key Results (OKRs) has been introduced to align business goals with both individual and team performance. The expected outcomes include:



Employment and Working Conditions Policy

The Company places the utmost importance on strict compliance with labor protection laws regarding employment, wages, working hours, and other terms and conditions of employment. Guidelines for employees have been established to set out the employment and working conditions policy, ensuring that employees are provided with a suitable and legally compliant working environment. This policy is communicated to employees on their first day of employment, and it can be accessible at all times. It covers the following aspects of employment and working conditions:

The determination of working hours, overtime, and rest periods is in accordance with legal requirements, with monthly monitoring of working hours.

Weekly days off and public holidays are provided at least at the statutory minimum, with advance notice. Annual vacation leave is provided and increases with length of service. Employees receive their regular pay during such leave.

In the event of termination, the Company will provide advance notice in accordance with applicable law.

Employee Capacity Development Plan

Mitr Phol has designed and developed training programs that build both job-specific expertise and well-rounded complementary skills, tailored to the needs of a diverse workforce. These programs are designed to align with the Company's business objectives and to strengthen adaptability to change. The employee capacity development plan has been continuously implemented.

MITR Beyond: Reskill - Upskill - Future Skill Program

Mitr Phol has continued to implement the MITR Beyond: Reskill - Upskill - Future Skill Program to develop a wide range of skills for employees and executives at all levels. The program focuses on strengthening leadership skills and building knowledge in areas such as digital technology, artificial intelligence (AI), data-driven organizational practices, and Environment, Social, and Governance (ESG) principles. Delivered through the Mitr Phol Learning Digital Platform, the program's outcomes are assessed through post-tests, learning summaries, and opportunities to apply new knowledge in the workplace. Employees are also encouraged to exchange experiences and insights through a Learning Community. A total of 4,021 employees, or 81%, have completed the program and passed the assessments.

MITR Beyond: Reskill-Upskill-Future Skill

Topic: Digital



Power Platform (139 hours)

What is Power Platform?

Overview of Power Apps

Overview of Power Automate

Overview of Power BI



Power App

- Preparing files for Power Apps creation
- Starting to build an application
- Customizing and configuring various screens
- Testing the application



Power Automate

- Basic introduction
- Example use cases
- Preparation before creating a Flow
- Introduction to basic tools
- Getting started with basic workflows
- Testing Flow execution



Power BI

- Basic introduction
- Business Intelligence concepts
- Installing the program and basic tool overview
- Getting data
- Data analysis
- Creating reports and dashboards



Data-Driven Organization (27 minutes)

- Digital Evolution
- Digital Disruption
- Digital Transformation
- Data Source
- Data Driven Framework
- Big Data



AI: Artificial Intelligence (50 minutes)

- What is AI and its various types
- AI 101 for Entrepreneurs
- AI Ethics, Responsible AI, Trustworthy AI
- AI Governance

Topic: ESG



ESG: Environment Social Governance (1 hours)

Carbon Footprint

Climate Change

Carbon Neutrality and Net Zero



Global Leadership Development Program (GLDP) 2024

The GLDP program focuses on developing future leaders by unlocking their leadership potential and preparing them to effectively navigate diverse global challenges. The program has a process to foster a deep understanding of business operations, global shifts, strategic planning, innovative thinking, and an entrepreneurial mindset, critical capabilities for driving new S-Curves and generating growth opportunities for the Mitr Phol Group. This leadership development approach aims to support the Group's global expansion while building organizational trust and credibility in a sustainable and effective manner. The program's development focuses on the following core areas:

Empowering Entrepreneurial Leaders in Opportunity Pursuit



Business trends-driven
strategy



Strategic thinking
to drive business success



Building Business
Acumen



Entrepreneurship for
seeking business opportunities

Cultivating High Mobility Leaders to Champion Agility



Global Leadership
Perspective



Resilience
and adaptability



Relationship
building



Communication
and Collaboration



Lead effectively
across diverse culture

GLDP 2024's Target Groups



Officer and Supervisor Levels

The program prepares the next generation of leaders to navigate global changes, understand organizational goals, and translate those goals into concrete actions. It emphasizes strategic execution, fosters an entrepreneurial mindset, and promotes cross-functional collaboration to drive organizational success.



Manager Level

The program develops global leaders, enabling them to steer business direction, identify growth opportunities, and drive organizational change. It emphasizes strategic thinking and perspective that lead to tangible outcomes and support the overall success of the business and the Company.

In 2024, 80 employees participated in the program, generating 10 project ideas. If successfully implemented, these projects are anticipated to generate approximately 2.25 billion baht in revenue and reduce costs by around 354 million baht, resulting in a total revenue of approximately 2.6 billion baht for the Company.

People Capability Development Program 2024

This program aims to develop leadership skills tailored to each role level, equipping participants with the knowledge and capabilities needed to earn the respect of their subordinates and close team members, which will lead to effective resource management and maximize operational efficiency of each unit. The project consists of two training programs:

Multiplier Leadership Program		Supervisory Development Program
Purpose	Leaders who build people and teams, uniting them with double the strength (2X) for a strong organization where everyone collaborates	Supervisors possess effective team management skills and are well-respected.
Target Group	Managers or equivalent positions	Employees at levels 7–9, such as supervisors, assistant managers, or equivalent positions
Number of Participants	217	268
Topics	<ul style="list-style-type: none">• Ask better questions• Look for genius• Create space for others• Offer bigger challenges	<ul style="list-style-type: none">• Managing yourself & Team Management• Successful Planning, Organizing and Delegating• People Management of MP Practice

MITR Beyond Innovation Awards 2024

To foster the development of innovation, a core value of the MITR Beyond Culture, Mitr Phol organizes the Mitr Beyond Innovation Awards. This contest encourages employees to dare to develop, innovate, and put their ideas into action. In 2024, Mitr Phol’s employees from all business groups submitted a total of 517 innovations. 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.

Innovation projects submitted in 2024 collectively led to an estimated revenue increase of approximately 2.95 billion baht and cost savings of around 11 million baht.

Champ of the Champs			Transformation Idea
Category 1 New Process Excellence	Category 2 New Product & Service Excellence	Category 3 New Business Excellence	Category 4 New Product & Service/ New Business Model
Develop internal work procedures for performance optimization <ul style="list-style-type: none">• Reduce cost• Reduce work process• Leverage service quality	<ul style="list-style-type: none">• Develop new product• Develop new services under current business of Mitr Phol Group.	New business operation which has never been initiated and such business can generate income from out of the Company.	The competition is arranged to ignite ideas among personnel to create into business plan or prototype for expansion into actual work that yields business income in the future.

Education on Preventing Discrimination and Harassment in the Organization

Mitr Phol is committed to fostering a safe work environment free from discrimination and harassment, including power harassment and sexual harassment, and to promoting fair and equitable treatment of others. In 2024, Mitr Phol has planned training to provide employees and management at all levels across the Mitr Phol Group with knowledge on preventing workplace harassment through the Mitr Phol Learning Digital Platform. This aims to raise awareness and prevent actions or behaviors that could pose a risk of constituting abuse or harassment. The Company also provides a channel for reporting matters related to discrimination or harassment through designated complaint mechanisms, in accordance with the Whistleblowing Policy that cover scope, procedures, protection and confidentiality. This is to ensure that the prevention and resolution of discrimination and harassment within the organization are managed in line with established processes.

*For more information on [the Whistleblowing Policy](#), please visit Mitr Phol's website.



Promotion of Diversity, Equity, and Inclusion

Mitr Phol is committed to creating a positive employee experience by fostering an open and inclusive work environment that embraces diversity and empowers all employees to reach their full potential. This commitment is grounded in the principles of Diversity, Equity, Inclusion, and Belonging (DEI&B) Policy, which apply to the Board of Directors, executives, and all employees. The Company emphasizes embracing diversity and ensuring equal treatment, and it consistently communicates these principles to raise awareness. It also fosters a workplace atmosphere that values employee participation while cultivating a sense of belonging. These efforts help build trust, boost morale, and enhance work efficiency. Moreover, they play a vital role in driving innovation, adding value to the Company's products and services, and contributing to sustainable organizational growth.

*For more information on [Diversity, Equity, Inclusion, and Belonging \(DEI&B\) Policy](#), please visit Mitr Phol's website.



Support for Persons with Disabilities

Mitr Phol places great importance on supporting people with disabilities by providing employment opportunities, particularly for local residents in communities surrounding its operations. The Company aims to create jobs, build careers, generate income, and improve the quality of life for community members, while also fostering strong, positive relationships with the local community. Through the "Sustainable Communities with Disability Empowerment" program, Mitr Phol hires people with disabilities from the community, enabling them to take part in community development work. This program also helps strengthen the local economy by allowing people with disabilities to earn an income and become more self-reliant. In addition, the Company supports the formation of disability clubs to further expand career opportunities for other persons with disabilities within the subdistrict.

In recognition of its commitment to disability inclusion, Mitr Phol received the "Excellence" Award in 2024 in the category of Organizations Supporting Persons with Disabilities from the Department of Empowerment of Persons with Disabilities, under the Ministry of Social Development and Human Security. This award honors organizations that demonstrate ongoing support for the well-being and inclusion of persons with disabilities. In 2024, Mitr Phol provided employment opportunities for 87 people with disabilities. Of these, 17 were employed within the organization, 50 contributed through community-based roles, and 20 were in the process of recruitment. The Company reinvests tax savings to further expand employment opportunities.

Success factors include:



The concept of reinvesting tax savings to expand employment opportunities for people with disabilities



A fair and standardized recruitment and selection process, with participation from community leaders



Career support and opportunities that enable persons with disabilities to choose or adapt work based on their individual skills and suitability

Welfare Arrangement

Mitr Phol strives to improve the quality of life for all employees and to promote a healthy work-life balance. Therefore, the Company has established a Labor Welfare Committee composed of elected employee representatives. These representatives act as intermediaries, communicating employees' welfare needs to the Company while also proposing, monitoring, and overseeing welfare initiatives. The Company offers a range of welfare benefits that go beyond the minimum legal requirements, ensuring that all employees receive fair and equitable support in various aspects without discrimination.

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 accommodation at hotels specified by the Company.

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.

Family Support

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
5. Leave policies that support employees in caring for their families, such as marriage leave (gender-neutral), leave to support a spouse during childbirth, and bereavement leave.

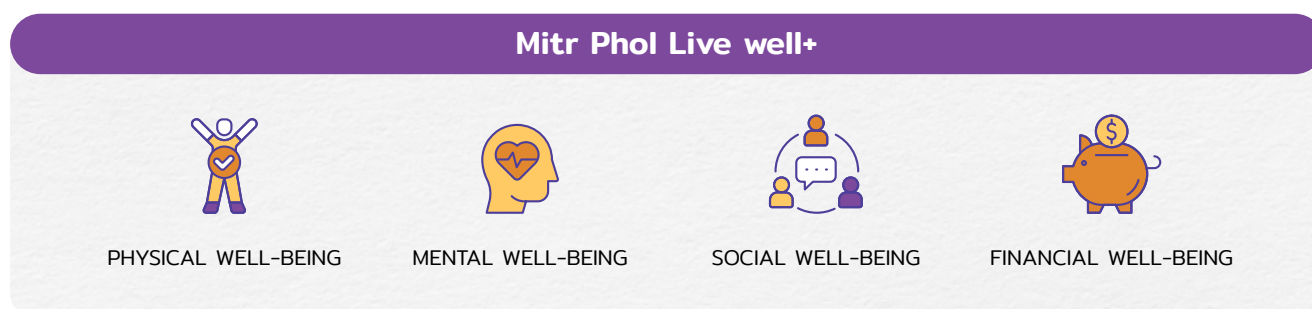
Mitr Phol has a policy to support the education of employees' children by awarding scholarships to those with strong academic performance, helping to ease the financial burden on employees' families. The Company has been awarded these scholarships annually since 2010, marking 14 consecutive years of support. In 2024, a total of 421 scholarships were granted at both pre-bachelor's and bachelor's degree levels, totaling over 2.63 million baht.

Other Benefits

1. Flexible working hours allow 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.

Health Promotion Activities for Employees

Mitr Phol places great importance on supporting and promoting the well-being of its employees both at work and in their personal lives. Thus, the Company has launched the Mitr Phol Live well+ program, which focuses on development in four areas:



1. **Physical Well-being:** The Company promotes proactive physical health care for employees to ensure their well-being both now and in the future through health education, disease prevention activities, sports clubs, exercise programs, vaccination campaigns, and other wellness initiatives.

▼ Sports club activities at Mitr Phol Sing Buri Sugar Mill



2. **Mental Well-being:** The Company supports employees in managing and adapting to life's changes and challenges through stress management training, activities promoting workplace happiness, initiatives to cultivate psychological safety, and training courses on workload management to help employees effectively handle their responsibilities.

- ▼ An activity to raise mental health awareness for office workers



- 3. Social Well-being:** Mitr Phol fosters positive relationships among employees, as well as with their families, friends, and the broader community. Activities focus on building healthy interpersonal connections, organizing employee engagement events, and promoting community service initiatives both within and outside the organization.

- ▼ Happy Songkran activity at the head office and factories



- 4. Financial Well-being:** Mitr Phol supports employees in developing financial management skills and building long-term financial security through a variety of initiatives, including training on budgeting, investing, and retirement planning, guidance on side income opportunities, and debt management counseling.

- ▼ Preparation for a secure and happy retirement



- ▼ Grow Your Savings Campaign – Year 7



Compensation management

The Company regularly monitors and analyzes employee compensation, with a particular emphasis on performance-based pay to ensure that compensation serves as an effective incentive for driving work performance and enhancing employees' long-term capabilities. In addition, the Company conducts an annual review of the gender pay gap. In 2024, the average compensation ratio of female to male employees at the management level was 1:0.93.

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 based on business performance, economic conditions, living wage standards, and individual employee performance. This ensures that employees are reasonably compensated and motivated, and that talented personnel are retained. This ensures employees receive fair and sufficient compensation to support their well-being, boost morale, and retain top talent within the organization. In addition, the Company regularly reviews and adjusts its salary structure and starting wages to remain competitive in the labor market, particularly in response to external factors such as increases in the minimum wage or adjustments in public sector salaries. These efforts aim to ensure alignment with labor market trends, maintain competitiveness, and ease employees' financial burdens.

To promote employee engagement in aligning with the Company's environmental, social, and governance (ESG) strategies, Mitr Phol has established performance indicators for evaluating the annual performance of senior executives and relevant employees to drive sustainable operations. Compensation is linked to Key Performance Indicators (KPIs) in two main categories:



Value Creation Performance

Assessing achievements aligned with the organization's current-year goals.

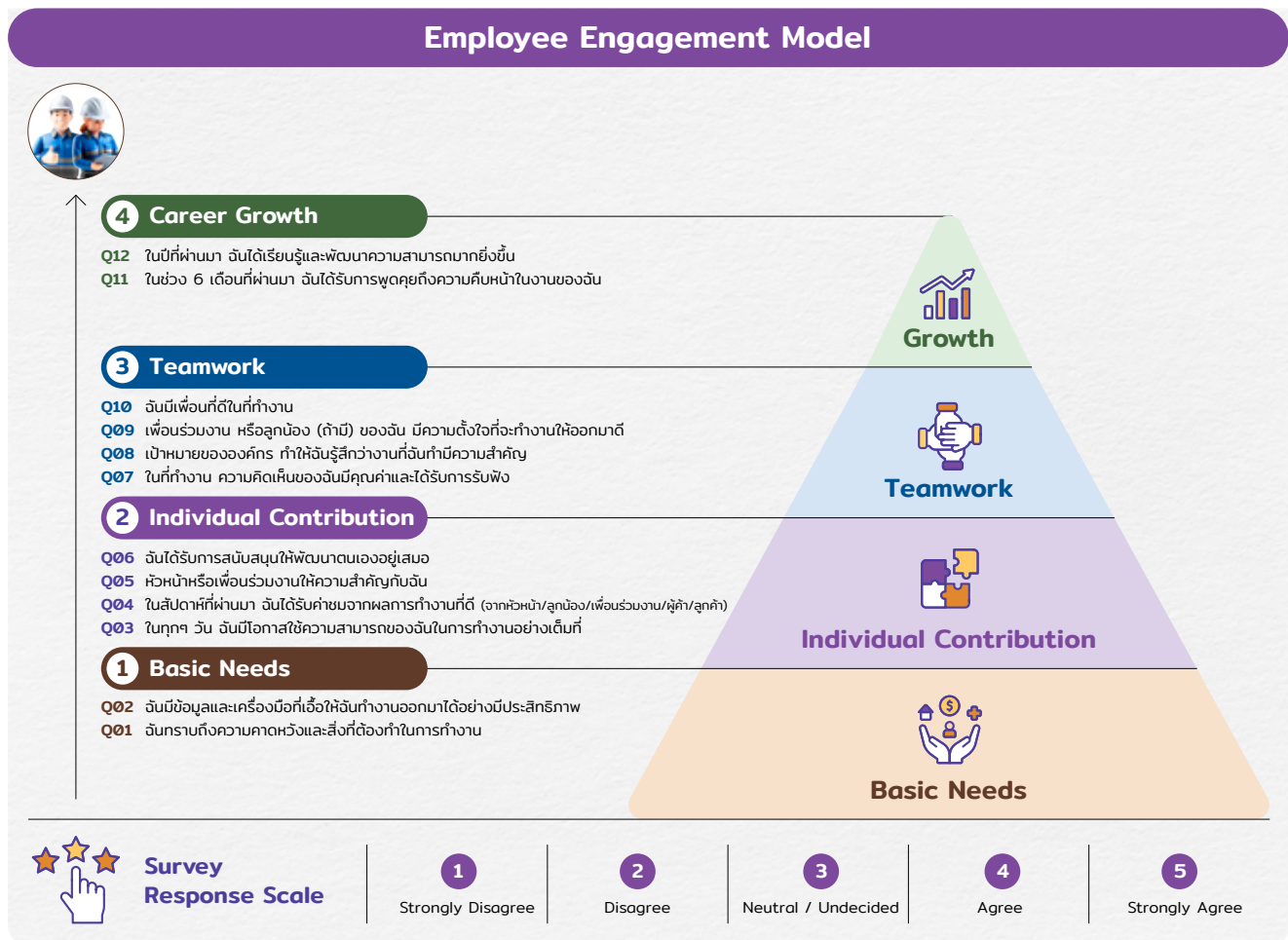


Key Future Value Drivers

Evaluating performance that contributes to the Company's long-term sustainable growth. The weighting of each KPI varies according to the roles and responsibilities of individual business units and functions.

Promotion of Employee Engagement

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 employee care methods in alignment with modern working conditions. Employee engagement questions consist of 4 categories as follows:



- 1. Basic needs:** Provision of information, tools, resources, and other necessities needed to perform duties effectively, as well as what is expected by the organization.
- 2. Individual contribution:** Opportunities to demonstrate abilities and receive recognition, praise, appreciation, and acknowledgement from supervisors and colleagues to improve effectiveness and achieve expected results.
- 3. Teamwork:** Employees feel accepted, heard, and valued as part of the team and the organization, supported by positive relationships with colleagues, all of which significantly enhance employee engagement.
- 4. Career Growth:** Employees receive feedback and advice to help them improve and develop their work, including learning and skills development opportunities.

The employee engagement activities carried out in 2024 are as follows:

1. 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.

▼ CEO Townhall 2024



2. Mitr Phol supports and promotes a culture of Feedback & Recognition to enhance work performance and create a supportive, appreciative work environment that motivates employees and strengthens team relationships. To reinforce this culture, the following initiatives were implemented:

- Powerful Feedback & Recognition Sharing from Executives aimed at empowering leaders to communicate the importance of feedback and recognition while sharing personal experiences that serve as role models and guidance for employees to apply in their daily work.

▼ Powerful Feedback & Recognition Sharing From Executive



- MITR beyond Recognition aimed at cultivating a culture of appreciation among colleagues, supervisors, and subordinates.

▼ MITR beyond Recognition



3. Developing and Promoting Internal Opinion Gathering (Opinion Count) aimed at creating an open environment where all employees can express their ideas without bias or obstruction. This initiative encourages constructive feedback and creative input, leading to continuous improvement and innovation within the organization.





▲ Opinions Matter: An activity promoting a culture of opinion sharing

4. Enhancing Managers’ Skills in Building Employee Engagement is aimed at enhancing managers’ knowledge and strengthening their role in developing employee engagement. This initiative equips managers with practical approaches and techniques to manage and engage their teams.



▲ Leadership Series

Results of the 2024 Employee Engagement Survey

	Target	Performance
 Employee Engagement Survey Results	Male 4.00 (80%)	Male 4.54 (90.8%)
	Female 4.00 (80%)	Female 4.37 (87.4%)
 Employee Survey Participation Rate	Male 99.00%	Male 99.71%
	Female 99.00%	Female 99.73%

Employee Performance Management

Performance management is a crucial process that enables individuals, departments, and the organization to achieve shared goals. At Mitr Phol, this process is clearly defined and consists of setting performance goals, monitoring progress, and conducting performance reviews and evaluations. The Company ensures that employees are well-informed about this process through ongoing communication. To support effective performance management, Mitr Phol has implemented a Digital & Technology System that facilitates performance evaluation, capability development, and career planning. This system fosters collaboration between managers and employees, aiming to align individual performance with departmental and organizational objectives in accordance with the following principles:

Goal Setting

Goal setting starts with corporate goals, which then cascade into departmental strategies and goals, and finally into employee goals and key performance indicators (KPIs). At the beginning of the year, managers at all levels are responsible for communicating the goals, vision, and strategy of the organization and their specific departments to employees. Together, they set work objectives that align with the department's and organization's goals. Additionally, 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. It 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 ask questions about needed support. The aim is to ensure that employees feel confident in performing their jobs.

Performance Review and Evaluation

Management by Objectives Appraisal

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. Currently, the Company uses the MITRSuccess system as the platform for conducting 360-degree evaluations.

Agile Conversations or Continuous Performance Feedback and Recognition

This assessment involves various forms of continuous evaluation, such as 1-to-1 discussions and team meetings, which support continuous learning and improvement among team members. 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.

Employee Management Awards in 2024

Awards	Details
Top Employer 2024 in Thailand	<p>Mitr Phol was accredited as a Top Employer 2024 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.</p> 
Top 50 Companies in Thailand that young professionals would like to work for	<p>Mitr Phol was ranked 19th among the top 50 most desirable companies to work for in Thailand, according to the survey by WorkVenture. This recognition reflects the preferences of young professionals and underscores Mitr Phol's commitment to effective human resource management and employee development.</p> 
Outstanding Organization Supporting Persons with Disabilities Award (Excellent Level)	<p>An award recognizing organizations that consistently and continuously support persons with disabilities, presented by the Department of Empowerment of Persons with Disabilities, the Ministry of Social Development and Human Security</p> 

Chapter

09 Management of Security, Safety, Occupational Health and Work Environment



In its operations, Mitr Phol places strong emphasis on safety, occupational health, and the work environment, regarding these as expected behaviors among its employees. The Company has established a clear policy to guide the implementation of appropriate measures to promote, protect, and ensure the safety of employees, farmers, contractors, and others working within its operational areas. Mitr Phol recognizes that a strong occupational health program and a safe work environment not only enhance operational efficiency but also reduce workplace accidents and illnesses, support employee well-being, and lower medical and other related costs. With this in mind, the Company is committed to managing security, safety, occupational health, and environmental factors, striving toward the goal of zero accidents. Collaboration across all stakeholder groups is emphasized to effectively prevent and mitigate loss of life and property, while also supporting the Company's sustainable business operations.

2024 Target and Performance



Management Approach

Promoting a culture of safety and occupational health is one of Mitr Phol’s top priorities, overseen by the Executive Committee. The Committee has approved a clear policy on security, safety, occupational health, and the environment, which serves as a guideline for management in implementing appropriate measures. The Company is certified to the ISO 45001:2018 standard for occupational health and safety management systems, which requires organizations to establish effective systems and ensure continuous improvement. This includes establishing policies and risk management strategies in alignment with Mitr Phol’s business operations, implementing prevention and mitigation measures, and ensuring effective communication with employees and relevant parties. Mitr Phol has also established a well-defined governance and management structure, with safety, occupational health, and environmental units at both the corporate and factory levels. These units are responsible for overseeing safety and occupational health management, as well as driving safety promotion efforts among employees and relevant stakeholders.

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 both 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 those arising from potential changes. Responsible personnel are appointed to implement and periodically monitor these plans. Insights gained from this process are used to continually enhance Mitr Phol’s 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. 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. 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.

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

Cultivation of Health and Safety Culture

Cultivation of a culture that prioritizes safety and occupational health is fundamental to Mitr Phol's commitment to sustainable and efficient business operations. The Company is dedicated to maintaining a safe and healthy work environment where executives, employees, and all stakeholders can work with confidence, security, and peace of mind. To further strengthen collective awareness and shared responsibility, and to minimize workplace accidents and illnesses, Mitr Phol has continuously implemented training programs, activities, and educational campaigns focused on safety and occupational health.

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

Mitr Phol established a training center for safety, occupational health, and the environment, and selected qualified trainers with the necessary expertise and credentials for each course. All trainers are officially certified in accordance with legal requirements and are authorized to issue training completion certificates. The establishment of this center has enhanced employees' knowledge and understanding of occupational safety regulations, helping to improve their skills and competencies in line with legal standards and contributing to a reduction in workplace accidents. In addition to promoting safe work practices, the center has also reduced training costs for the Company by offering internal programs. These include courses such as Safety Officer Training (for First-line Managers), Safety, Occupational Health, and Environment Committee Training, Safe Forklift Operation, Hazardous Chemical Safety, and Training for Permit Issuers, Supervisors, Assistants, and Workers in Confined Spaces.

To date,
the Training Center
has organized



over **15** training courses

In 2024, more than

2,000 participants

attended the center's
programs, resulting in
total cost savings of

2,175,000 baht

in training expenses for
the Company

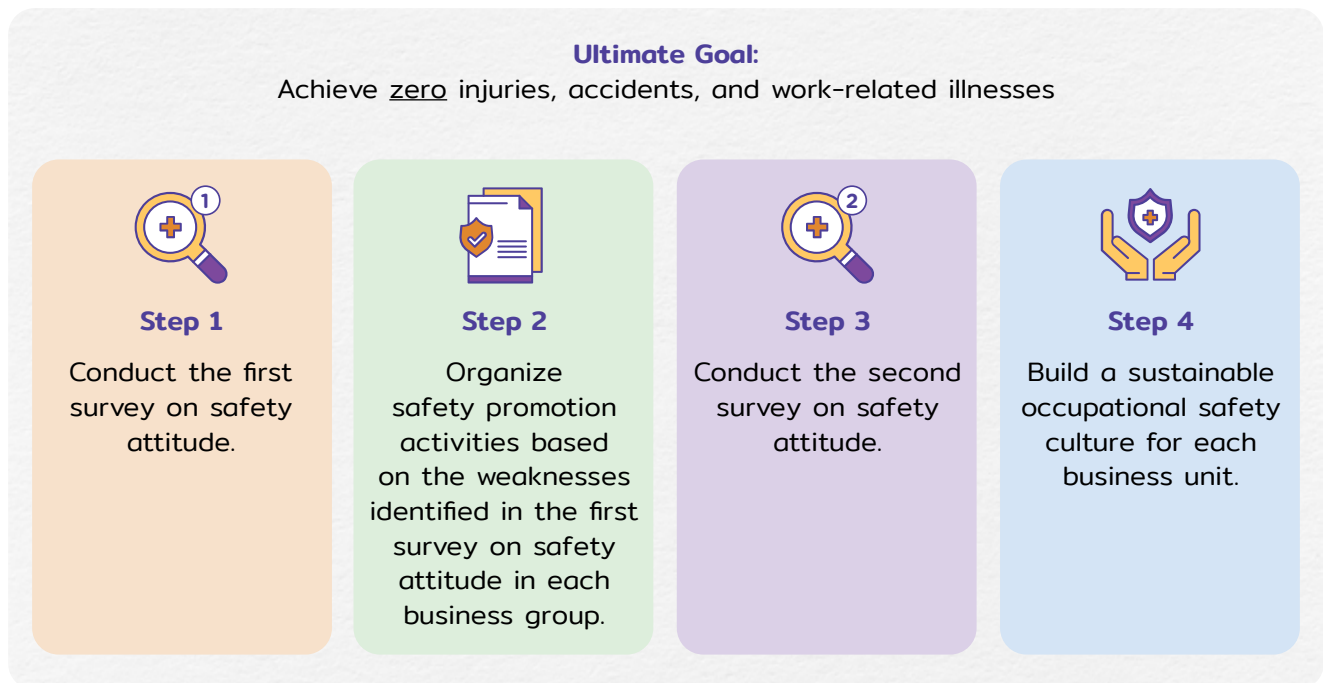
Safety Culture Survey

Mitr Phol conducted its first Safety Culture Survey in 2023 to assess behaviors and attitudes toward workplace safety, as well as the perceptions of employees and executives at all levels regarding the promotion of a safety culture within each business unit. The survey's objectives are:

1. To survey employee behaviors and attitudes toward workplace safety, including their perceptions of safety culture promotion within each business unit.
2. To use the survey results as a foundation for enhancing a safety culture tailored to the specific needs of each business unit in a sustainable manner.

In 2023, the Company began surveying all employees in the Ethanol and Wood Substitute Materials Businesses, covering a total of 608 participants. The survey was expanded in 2024 to include an additional 4,284 employees from the Sugar and Energy businesses. The results from this comprehensive survey will be used to enhance the Company's safety culture, address identified gaps and weaknesses, and support the ultimate goal of achieving zero injuries, accidents, and work-related illnesses.

Steps for 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 the quality of life of employees in the workplace. Activities are developed based on feedback from employees and contractors, which is reviewed by the Safety, Occupational Health, and Environment Committee to inform the design of appropriate health promotion programs. In 2024, the Company organized a variety of activities to promote the well-being of employees and contractors. Examples are as follows:

▼ **Health promotion activities**, such as the establishment of a Pétanque Club for employees and community members, aim to enhance employee health and well-being, encourage productive use of leisure time, foster unity and collaboration among members, and build the network and relationship between employees and the community.



▼ **Health education lectures delivered by doctors from various hospitals**, covering topics such as how to take care of yourself and stay safe during your working years, good mental health begins with you, and decoding relationships, unlocking happiness at work.

MITR PHOL
Live well +

โยรห้สความสัณพัณร์
ปลอดลือคความสขในการท่างาน
 โดย พญ. พิศดา หาชัยภูมิ

SOCIAL WELL-BEING

วันที่ 19 กรกฎาคม 2567 กับ HR Strategy and Organization Development จัดกิจกรรมการบรรยายในหัวข้อ **"โยรห้สความสัณพัณร์ ปลอดลือคความสขในการท่างาน"** ผ่านช่องทางระบบ Microsoft Teams Live Event โดยได้รับเกียรติจาก พญ. พิศดา หาชัยภูมิ ผู้เชี่ยวชาญด้าน Mindful Leadership และแพทย์ผู้เชี่ยวชาญด้านสุขภาพใจ เป็นวิทยากร เพื่อการสร้างความพื้นที่ปลอดภัยและการพัฒนาทักษะ เพื่อสร้างบรรยากาศที่ดีในการท่างาน

Social Well-being คืออะไร?

ความสามารถในการสร้างและรักษา Healthy Relationships หรือความสัมพันธ์ที่ดี และมีความหมายกับชีวิตเรา โดยที่เราและคนรอบข้างไม่ทิ้งความเป็นตัวของตัวเอง

4 คำถาม เช็ก Social Well-being

1. ความสัมพันธ์ของคุณและคนรอบข้างเป็นอย่างไร
2. คุณรู้สึกเป็นส่วนหนึ่งของสังคมที่คุณอยู่หรือไม่
3. คุณมีความสามารถในการปรับตัวมากขึ้นเพียงใด
4. คุณรู้สึกปลอดภัยที่จะแสดงความคิดเห็นและความรู้สึกหรือไม่

จากงานวิจัยของ Harvard พบว่า ปัจจัยสำคัญที่สุดที่ทำให้ปลายทางชีวิตมีความสุข และมีคุณภาพชีวิตที่ดี คือ **การมีความสัมพันธ์ที่ดี**

รู้หรือไม่?

คนที่มีความสัมพันธ์ที่ดี จะมีความสุขและพอใจมากกว่าคนที่รู้สึกโดดเดี่ยว 50%

ส่งผลให้มีสุขภาพกายและสุขภาพจิตที่ดี มีคุณภาพชีวิตที่ดี และมีประสิทธิภาพในการท่างาน

สร้างปฏิสัมพันธ์ที่ดี ด้วย SEAT Model

S : Self Awareness	E : Empathy	A : Acceptance	T : Transparent Communication
การรับรู้ถึงความคิด ความรู้สึกของตนเอง สามารถจัดการอารมณ์ได้ และแสดงออกได้อย่างเหมาะสม	การเห็นอกเห็นใจผู้อื่น สามารถสัมผัสถึงความรู้สึกและตอบสนองได้อย่างเหมาะสม เช่น การให้กำลังใจ	การยอมรับในตัวคนของผู้อื่น แม้ว่าจะไม่เข้าใจ เพราะทุกคนมีความแตกต่างกัน	การสื่อสารด้วยความจริงใจ สามารถสื่อสารความคิดและความรู้สึกโดยที่อีกฝ่ายรู้สึกถึงความปรารถนาดี

การสื่อสารที่ดี เริ่มต้นจาก "การฟังที่ดี"

การสร้างพื้นที่ปลอดภัยในการสนทนา โดยผู้กำกับความตั้งใจไม่ตัดสินตนเอง ไม่ตัดสินอีกฝ่าย และเคารพความแตกต่าง ทั้งทำให้เกิดการเรียนรู้และเห็นคุณค่าซึ่งกันและกัน

ในการสื่อสารเรื่องสำคัญ เช่น Performance Feedback การเตรียมตัวเป็นสิ่งสำคัญ ผู้พูดต้องทราบถึงความต้องการของตนเองและอีกฝ่าย อย่างชัดเจน แสดงความเห็นใจและเปิดพื้นที่ในการสอบถาม ความคิดเห็น และขอบคุณกันและกัน

- ▼ **Get to Know the DMIND Application activity** was part of the Company's initiative to promote employees' mental well-being through the DMIND app developed by the Department of Mental Health. It provided pre-screening to help employees better understand their mental state, enabling timely prevention and treatment. The app also provides a confidential channel for users to seek support in a comfortable and private setting.



- ▼ **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. Additionally, the Company also organizes other sub-activities, such as the 'Dare to Change' activity, which invites all employees to participate in promoting good health for everyone.



- ▼ **Mental Health Promotion activity** for employees and contractors, featuring an information booth that provided mental health education and encouraged participants to express their feelings by writing down personal burdens to help relieve stress.



- **Drive Safe, Get Home Safe: Songkran Road Safety Campaign** promoted safe driving among employees during the Songkran holiday through internal awareness efforts focused on accident prevention. As part of the campaign, souvenirs with emergency hotline numbers were also distributed.



Healthy Body, Happy Heart with Healthy and Safe Workplace Project

Mitr Phol has adopted the “Healthy Body, Happy Heart with Healthy and Safe Workplace” approach from the Ministry of Public Health, and management has established health, safety, and environmental promotion policies such as the prevention and control of illnesses and injuries, as well as environmental health. These policies are communicated to all employees, and a working committee has been established to encourage engagement and collaboration between employees and the organization.

Additionally, the Company conducted an assessment of situations and a survey of workers’ needs and preferred activities. The results have been 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

Currently, 28 out of 101 companies within the Mitr Phol Group are certified under the ISO 45001:2018 standard for occupational health and safety management systems, reflecting the Group’s commitment to building a safe and healthy work environment. Mitr Phol also plans to expand certification to additional companies in the future, aiming to continuously raise their standards in line with international best practices. Furthermore, the Company has established Lost Time Injury Frequency Rate (LTIFR) targets at both the group and business unit levels and conducts annual performance monitoring.

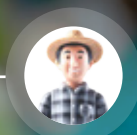
Lost Time Injury Frequency Rate (LTIFR)



Chapter

10

Society and Community



Farmers



Communities



Government
and Civil Society
Sectors







Mitr Phol firmly believes that mutual support is the foundation for shared growth between business and society, in line with its Grow Together philosophy. The Company therefore places strong emphasis on supporting and developing surrounding communities to their economic well-being, physical and mental health, and access to education. Mitr Phol has established a Community Engagement Unit and an Education Management Unit as key mechanisms for advancing social and community development. The Community Engagement Unit operates at each factory location, while the Education Management Unit is based at the Company's headquarters. The central team collaborates closely with local teams, conducting regular field visits to ensure timely, effective, and responsive engagement with community needs. The Company aims to uplift education and improve the overall quality of life in society, while also contributing indirectly to national economic growth by equipping younger generations with skills aligned with international labor market standards. This not only increases the earning potential of skilled individuals but also helps address labor shortages in key industries, reinforcing the stability of the sugarcane and sugar sectors while supporting the sustainable well-being of local communities.

Driving Community Development

Aiming to improve the quality of life for farmers and society at large, empowering them to become self-reliant and live happily in a healthy environment, Mitr Phol conducts field visits to understand the community context, lifestyle, resources, and existing potential. These insights then inform collaborative planning between the communities and the Company.

2024 Target and Performance

	Target	Performance
 <div>Targeted communities can reduce household expenses on food.</div>	5%	5%
 <div>Communities can increase household income through agriculture.</div>	5%	5%
 <div>Develop community enterprises in collaboration with Plook Por Suk Co., Ltd.</div>	20 community enterprises	32 community enterprises
 <div>Establish model sub-district Model</div>	14 model sub-districts	15 model sub-districts

Operational Framework

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

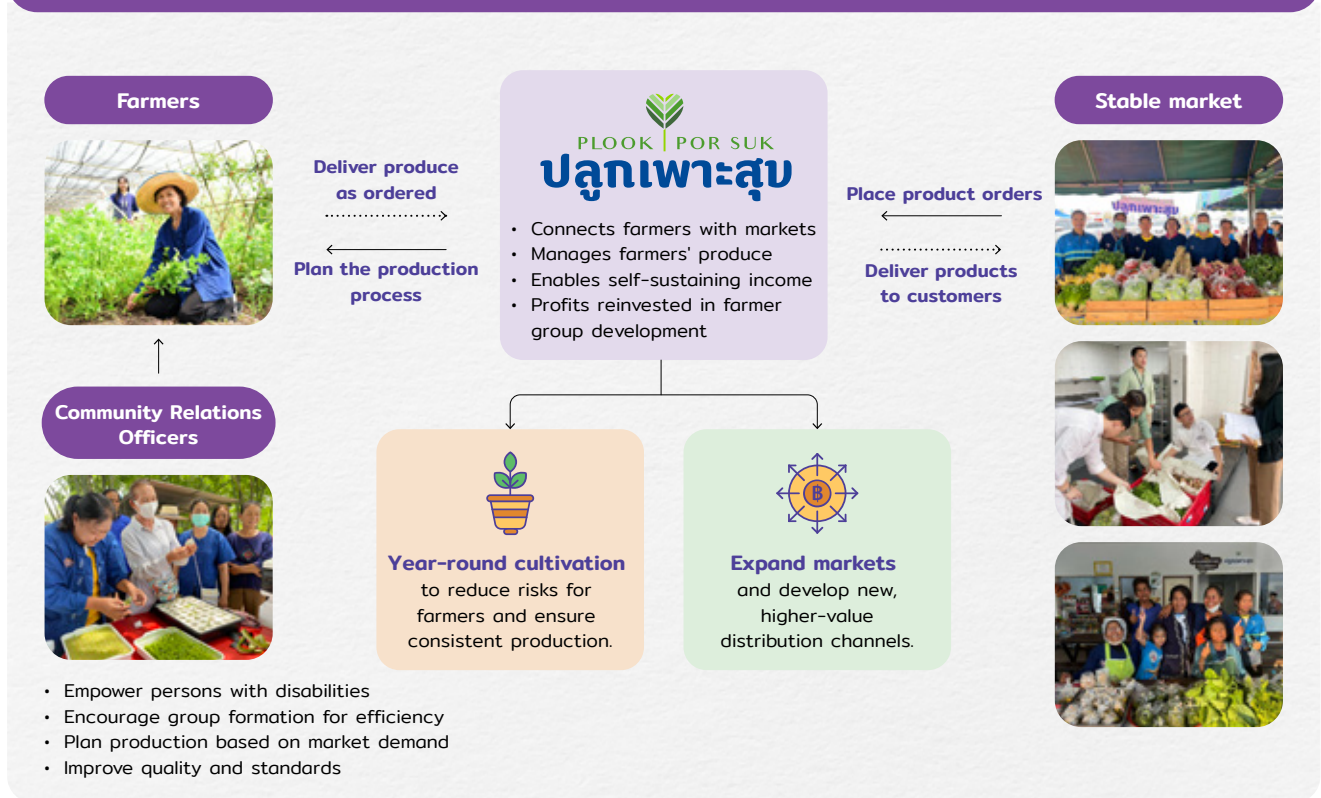
Operational Framework		
Sustainable Community Management <p>The operating principles are as follows:</p> <ul style="list-style-type: none"> • Emphasize mutual responsibility in the study, analysis, planning, and implementation stages. • Leverage the local community's existing capital and potential through the Mitr Phol Joint Development Sub-District Committee, which collaborates with related local government agencies and organizations. • Exchange ideas on local issues and jointly develop a sub-district development plan. 	Development of Community Farming System and Food Safety <p>The operating principles are as follows:</p> <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 <p>The operating principles are as follows:</p> <ul style="list-style-type: none"> • Support communities by leveraging their existing potential, 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.

Performance

To promote hygienic vegetable cultivation and produce management among sugarcane farmers, the Sustainable Community Development Department has established a social enterprise, “Plook Por Suk Co., Ltd.”, with the following major duties:

 <p>Acting as a mediator between “suppliers” and “farmers.”</p>	 <p>Providing advice to farmers on the planting phase, marketing plans, and pricing to help them sell their produce at optimal prices.</p>	 <p>Seeking distribution channels for farmers' produce.</p>
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Operational Process of Plook Por Suk Co., Ltd.



In 2024, one example of Plook Por Suk Co., Ltd.'s mission in action was supporting a community enterprise in Nong Ruea District, Khon Kaen Province, in selling safe, locally grown vegetables directly to the kitchen of Ad Lib Khon Kaen Hotel one of the province's leading hotels. The vegetables were grown following the New Theory Agriculture principles and were certified under the Good Agricultural Practices (GAP) standard. This empowered the community to produce high-quality crops for premium markets willing to pay higher prices, creating new distribution channels, and generating additional income for local farmers.

▼ Safe produce supported by Plook Por Suk Co., Ltd. is now served at Ad Lib Khon Kaen Hotel.



In addition to supporting farmers through training and establishing a marketing foundation, Plook Por Suk Co., Ltd. also promotes the employment of persons with disabilities in the community. In 2024, the Company hired 50 individuals with disabilities to serve as Sustainable Community Development Assistants. These individuals play a key role in bridging communities and factories to foster sustainable community development. Their work includes understanding the needs of communities surrounding the factories—particularly vulnerable groups—to help build a more inclusive society, support continuous job creation, and raise awareness of environmental conservation.

In 2024, Plook Por Suk Co., Ltd. recorded total revenue of 1,867,159.80 baht, reflecting its success as a model for promoting food security, expanding learning opportunities, developing local potential to support sustainable economic growth, and helping reduce social inequality.

Sustainable Community Management

Driving sustainable and effective community management requires collaboration among all sectors of society, which is a cornerstone of strong collaboration. Mitr Phol embraces a “multi-stakeholder mechanism,” a collaborative approach that brings together various stakeholders to improve the local environment and promote community well-being. Therefore, Mitr Phol has established the Mitr Phol Subdistrict Joint Development Committee, comprising local administrative organizations (SAOs/municipalities), community leaders, village health volunteers (VHVs), representatives from occupational groups, and volunteer households. The Company’s community relations officers work closely with the committee to facilitate its operations. The committee plays a key role in drafting subdistrict

development plans that align with and support government plans. It also coordinates with relevant local agencies, monitors and supervises activities, and shares issues and solutions with the Community Relations team on subdistrict development plans. Moreover, the committee engages stakeholders across all sectors to drive development projects toward their intended goals. This inclusive process not only fosters a sense of ownership among community members but also promotes shared responsibility in driving community development. In addition, the Mitr Phol Subdistrict Learning Center has been established as a community learning center, alongside support for integrated farming, such as cultivating high-value economic seedlings and natural pig farming.



1 **2,408** households participated in the project.



2 Mitr Phol Joint Development Sub-District Committees with **324** 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 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 group organization, skill and knowledge development, and the provision of welfare for persons with disabilities in the community, in collaboration with partner agencies.

▼ Strong Community Powered by Persons with Disabilities Project



Development of Community Farming System and Food Safety

Mitr Phol supports communities in developing safe and sufficient food sources for household consumption through integrated farming practices that combine agriculture, livestock, and fisheries. The Company also provides training and technical guidance on a variety of farming methods, including composting, producing biofertilizers for on-farm use, crop rotation, reducing chemical inputs, and cultivating Bhutan oyster mushrooms. In addition, the Company provides communities with leftover materials from its

production processes, encouraging them to turn these materials into soil conditioners to enrich agricultural plots. This initiative not only promotes sustainable by-product management but also supports local farmers by advancing hygienic vegetable cultivation in areas surrounding the Company's eight factory sites. These efforts enable the production of high-quality, safe food at lower costs, and surplus beyond household consumption can be sold to generate additional income for the community.

▼ Model households for integrated farming



▼ Promotion of hygienic vegetable cultivation



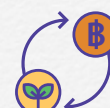
Benefits to farmers and communities



Established **15** hygienic vegetable cultivation groups.



Involved a total of **217** members in the hygienic vegetable cultivation groups.



Generated a total income of **2,910,117** baht from hygienic vegetable cultivation.

Community Economy System

In addition to providing training in integrated farming to support job creation in communities, Mitr Phol also promotes and develops a range of vocational skills tailored to local capacities and available resources. These initiatives aim to generate income and strengthen the local economy through the development of community enterprises, including coconut midrib and grass broom production, sewing industrial cleaning cloths, food processing, cotton weaving, cage-based frog farming, solid cane juice production, and organic rice cultivation. The Company purchases part of these community products for use in its operations, for example, brooms used in factories and fresh produce prepared as meals

for employees. For the remaining output, Mitr Phol provides support in improving management systems, including production cost efficiency, training in market mechanisms, developing stable distribution channels, and offering advice to farmers. Furthermore, the Company helps upgrade safe vegetable farming practices to meet Good Agricultural Practices (GAP) certification standards, with continuous monitoring and evaluation to ensure that the produce is safe, high-quality, and compliant with international standards. These efforts not only promote food self-sufficiency and security within communities but also enable them to generate stable supplementary income alongside sugarcane farming.

Benefits to farmers and communities



Established **16** occupational groups.



A total of **242** members joined occupational groups.



Generated a total income of **1,568,887** baht from the sale of community products.

▼ Promotion and Development of Community Occupational Groups



Driving Community Relations

Mitr Phol drives its community relations efforts in tandem with community development, aiming to build strong relationships with surrounding communities and foster trust that the Company operates with full consideration of its impact on them. 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.

Operational Framework

Target	Target Areas
 <p>To maintain positive relationships with surrounding communities and build mutual trust.</p>	 <p>Communities in 9 provinces: Suphan Buri, Sing Buri, Khon Kaen, Kalasin, Chaiyaphum, Loei, Roi Et, Yasothon, and Amnat Charoen.</p>

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

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 targeted 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.
Supporting activities under the Eco-Industrial Town Project in the areas of Mitr Phol Dan Chang Complex, Suphan Buri and Mitr 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 participatory approach promotes inclusive decision-making in shaping the development direction, resulting in a high-quality action plan that is comprehensive, clear, and practical, supporting the effective implementation of industrial development initiatives. 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 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)

Outstanding Projects in 2024

Stay Fit and Firm After Retirement Project

In 2024, Mitr Phol partnered with the Thai Health Promotion Foundation (ThaiHealth) and the Pho Sangkho Subdistrict Administrative Organization in Sing Buri Province to enhance the quality of life for the elderly by establishing the “Healthy Aging Club”. Following a three-dimensional approach to elderly well-being, the club currently has 80 members. Mitr Phol encourages elderly people to participate in a monthly Elderly Empowerment Program to improve their quality of life. The program consists of three core courses:

1. Life and Health Skills – This course promotes knowledge and essential daily living skills for the elderly, combined with natural health practices such as prayer, exercise, singing, dancing, and sports day activities.
2. Vocational Skills – This course focuses on developing job-related skills suited to older adults, enabling them to engage in supplementary occupations and earn additional income for themselves and their communities.
3. Academic Skills – This course aims to enhance knowledge and capacity by raising awareness and understanding of useful topics for seniors, such as government benefits and entitlements, basic legal rights in daily life, and how to protect themselves from scams.



Project to Transform Sugarcane Leaf Fibers into High-Value Products

Mitr Phol has partnered with Asst. Prof. Dr. Saran Chankaew of Rajamangala University of Technology Phra Nakhon on a project to transform sugarcane leaves into value-added products. The pilot initiative, led by the Group's Community Relations team at the Mitr Phu Khiao Sugar Mill, serves as a model for future expansion to other communities. The project aims to add value to agricultural waste by combining academic knowledge with local wisdom and adapting the resulting products to suit community lifestyles, transforming sugarcane leaves into textile products. One such effort is underway with the Ban Lat Cotton Weaving Group in Khok Khamin Subdistrict, Loei Province, a community enterprise supported under Mitr Phol's sustainable community development program. The group uses sugarcane leaf fibers to weave textiles, which are then crafted into items such as handbags and placemat sets. Currently in the research and development phase, the project focuses on converting sugarcane leaves into products that meet international standards, improve efficiency, and ensure the products align with market demand.



Community Mobile Health Check-Up Project

Recognizing the importance of community health, Mitr Phol has consistently supported mobile medical units to provide annual health check-ups for communities surrounding its 8 sugar mills and bio-industrial parks. In 2024, for example, the Mit Phu Luang Sugar Mill partnered with the Village Health Volunteers Club of the Khok Khamin Subdistrict Health Promoting Hospital to implement a community health surveillance and preventive care project. The project provides health screenings for residents within the hospital's service area, along with health advice aimed at encouraging behavioral changes that support long-term well-being.



Loei Safety Food Project

The Loei Provincial Health Assembly has actively promoted the development of participatory public policies involving all sectors of society. One of its key resolutions focuses on driving food security by establishing a local food safety standard known as “LOEI SAFETY FOOD” or “LSF”, which serves as Loei Province’s official benchmark for safe food practices. To date, 206 farmers and 16 safe food vendors across the province have been certified under the LSF standard. Among them are farmers supported by the Mit Phu Luang Sugar Mill in Wang Saphung District, who have received both equipment and technical training. This support includes composting workshops, training on drip irrigation systems, and the distribution of molasses to help farmers produce their own organic fertilizers.



FIX IT Volunteer Project – Repairing Household Electrical Appliances and Agricultural Machinery for the Community

The project is a collaboration between the Mitr Phu Viang Sugar Mill and Khon Kaen College of Advanced Agricultural and Industrial Technology, a vocational institution under the Partnership School program. Its primary goal is to improve the quality of life in the community through a mobile repair clinic for household electrical appliances. In 2024, the project entered its second year in Non Than Subdistrict, expanding its services to include repairs of agricultural machinery following the success of the 2023 pilot. The response from local residents was positive: 65 households received appliance repairs, while 71 households had agricultural machinery serviced. These efforts helped residents save over 60,000 baht in repair costs, and the project achieved an average satisfaction score of 4.95 out of 5.



Implementation of the Ministry of Industry's MIND Concept to create new value for industries

Mitr Phol has implemented the Ministry of Industry's policy, "Green Industry Coexists with Sustainable Communities," through the "MIND Project to Conserve Water and Support Communities," which focuses on four key areas of environmental care, as follows:



Soil

Strictly monitor and manage industrial waste by applying the 3R principle to minimize waste volume and ensure effective waste management.



Water

Monitor natural water sources and industrial discharge to ensure compliance with legal standards and prevent negative impacts on nearby communities. Implement measures to rehabilitate public waterways and improve overall water quality.



Air

Monitor sugarcane burning, promote green harvesting practices, and reduce air pollution from factory operations to address PM2.5, carbon dioxide emissions, and other greenhouse gases.



Fire

Ensure industrial safety by regularly inspecting equipment and systems to meet safety standards, helping prevent fires.

In 2024, Mitr Phol implemented **the MIND Concept** as follows:



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, Chaiyaphum Province, 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.

Additionally, Mitr Phol has implemented **the "MIND Project to Conserve Water and Support Communities"** through the following three key processes:



Process 1

Inspect wastewater treatment to ensure discharged water meets quality standards.



Process 2

Survey and collecting samples from high-risk water sources for quality analysis.



Process 3

Restore water sources to meet quality standards by installing water treatment equipment, controlling the spread of water hyacinth, dredging canals, conducting training for surrounding communities, and collaborating with relevant agencies to maintain clean water sources.

Driving Educational Administration

Driven by its vision and commitment, Mitr Phol recognizes the vital role of education and believes that:

"If a nation's people are well-educated, uphold moral values and ethics, and respect the rights of others, the nation will enjoy peace and prosperity as knowledge is the foundation of progress and development."

Guided by this belief, Mitr Phol not only provides educational opportunities for the children of its employees and partner farmers but also works to improve education in communities surrounding its factories. This is achieved through collaboration with government agencies and private sector partners to elevate the quality of Thai education. The Company supports curriculum development, vocational training, and access to learning resources to enhance educational efficiency. With a strong commitment to advancing education and knowledge, the Company aims to help build a 'Learning Ecosystem' as a sustainable platform for empowering the next generation of Thai youth.

Operational Framework

2024 Target





Elevate the quality of education in communities surrounding sugar mills tailored to local contexts.

1

Establish model community schools

2

Develop leading vocational institutions in agro-industry at the ASEAN level

Operational Framework			
	Building a Learning Ecosystem <ul style="list-style-type: none">Improve the learning environment both inside and outside the classroom.Provide essential educational technology, including hardware, software, and digital literacy support.		Academic Skills Development <ul style="list-style-type: none">Train and develop teachers on quality education administration skills to improve student achievement and facilitate career advancement.
	Vocational Skills Development <ul style="list-style-type: none">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.		Life Skills Development <ul style="list-style-type: none">Provide essential resources to improve learners' livelihoods and quality of life.Support extracurricular activities that cultivate learners' morals, ethics, and desirable qualities.

Performance

To achieve its educational development goals, Mitr Phol has joined the CONNEXT ED Project and the Partnership School Project. The Company's key performance in 2024 is as follows:

24 educational institutions supported by the Mitr Phol Group



1. Tak Province: 1 school

- Ban Pha Deh School

2. Suphan Buri Province: 5 schools

- Wat Thabphungnoy School
- Ban La-wa Wungkwai School
- Thai Rath Wittaya 20 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 (Iam Mhod Anusorn)

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 Prachasarn 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 CONNEXT ED Project

** Join only the Partnership School Project

CONNEXT ED Project

Since 2016, Mitr Phol has been one of the 12 founding organizations of the CONNEXT ED Foundation, established in collaboration with other private sector partners with a shared commitment to raising the standard of education and laying a foundation for sustainable national development. To date, 20 schools across 8 provinces in the central and northeastern regions have participated in the project. In 2024, the project achieved the following key outcomes:

Target: Model of High-Quality Community Schools

Building a Learning Ecosystem	<ul style="list-style-type: none"> • Promoted ICT literacy development. <ul style="list-style-type: none"> - 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 professionally design teaching and learning activities in digital formats through a project promoting expertise in Google technologies, resulting in 113 teachers becoming Google Certified Educators. - Fostered a technology-driven learning environment and promoted a “Zero Waste Society” by reducing electronic waste through the Digital Classroom: Google for Edutainment project, which provided 266 used computers to participating schools in the central and northeastern regions. • Supported the development of learning facilities such as learning centers, science laboratories, playgrounds, and both indoor and outdoor learning spaces.
Academic Skills Development	<ul style="list-style-type: none"> • Implemented child-centered learning and improved teaching and learning quality according to the guidelines of the Chulalongkorn University Demonstration Elementary School. • Promoted the Active Learning approach, which emphasizes student engagement and interaction through hands-on activities to support the development of 21st-century skills. Training was provided to teachers, both online and offline, on enhancing teaching techniques and developing instructional materials. • Provided educational supplies worth a total of 900,000 baht, including technological media, school supplies, supplementary library books, textbooks, and teaching manuals, in accordance with the guidelines of the Chulalongkorn University Demonstration Elementary School. • Organized training to reskill and upskill teachers in developing active learning materials, following the guidelines of the Chulalongkorn University Demonstration Elementary School. The training was conducted for schools in Suphan Buri, Sing Buri, Ratchaburi, and Tak provinces, with 88 teachers successfully completing the program.
Vocational Skills Development	<ul style="list-style-type: none"> • Supported extracurricular activities to equip students with vocational skills tailored to the specific context of each area, such as agriculture, product processing, manufacturing, and distribution.
Life Skills Development	<ul style="list-style-type: none"> • Supported activities to strengthen the engagement mechanism between schools and local communities through the process of reflection, co-creation, and support, led by 10 local school partners for sustainable educational development. • Supported extracurricular activities that cultivate learners’ morals, ethics, and desirable qualities while preserving local arts and culture. • Promoted and cultivated environmental awareness in schools among directors, teachers, students, and educational personnel through the “Environmental Citizenship Awareness” project, aimed at building sustainable communities. A total of 271 school directors and teachers from 15 schools completed the Sustainable Community training course via the THAI MOOC platform. The knowledge gained was then applied to the design of learning activities under the theme “New Generation Youth Caring for the Environment,” with Mitr Phol’s participating schools competing in the contest. The program successfully raised environmental awareness and shared knowledge with 429 students.

Partnership School Project

This project aims to develop an innovative educational management model and elevate Khon Kaen Higher College of Agricultural Technology as a leading vocational institution in the agro-industry within ASEAN. Currently, 8 educational institutions—7 schools and 1 vocational college—from 6 provinces across the central, northeastern, and southern regions are participating in the program. The project focuses on building a supportive learning ecosystem, which includes:



Emphasizing learner-centered education

to foster academic excellence through active learning approaches.



Prioritizing the development of teachers

who are a key driver of educational progress, by equipping them with essential 21st-century teaching skills, such as critical thinking, creativity, collaboration, and communication, as well as future skills like English proficiency and technological skills.



Cultivating vocational skills aligned with the local context

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



Improving classroom environments and developing learning resources

to enable schools to deliver quality education.



Promoting the school as a community learning center

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

Development of 7 Model Schools

Mitr Phol aims to establish model schools for innovation in educational management. In 2024, the Company carried out the following initiatives:

Target: A model of community school

Building a Learning Ecosystem

- **Quality classroom development:** Supplied instructional materials, desks and chairs, classroom decorations, and tools for developing active learning resources.
- **Technological equipment:** Provided support for the computer lab, robotics classroom, projectors, classroom televisions, and audio kits, and also contributed robotics learning equipment valued at 1,100,000 baht through collaboration with DEPA's "Depa for Better Life" project.
- **School learning resources:** Provided learning centers, science laboratories, vocational training labs, a library, smart farming facilities, playgrounds, and both indoor and outdoor learning activity areas.
- **Teaching and learning support materials:** Supported the development of technology skills by providing 120 Clicker toolkits to 5 schools and robotics and coding tools to 7 schools.
- **Extracurricular Activities:** Promoted students' morals, ethics, and desirable character traits, while preserving and promoting local arts and culture.

Target: A model of community school

Academic Skills Development

- **Developing teachers' digital skills**
 - Developed teachers' skills in using Google tools for teaching and learning and supported them in obtaining Google for Education (being Google Certified Educator) Level 1 and 2 certifications, resulting in 133 teachers becoming certified.
 - Krab Yai Vongkusolkrit Phitthayakhom School was 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. Additionally, 100% of the school's staff have been certified as Google Certified Educators.
- **Developing English proficiency according to CEFR (Common European Framework of Reference for Languages)**
 - 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.
- **Developing soft skills for teachers through "Learning Facilitator" and Coaching Skills Development for Teachers" training sessions**
 - Enhanced the potential of 40 school leaders and teachers to maximize their effectiveness both in work and daily life, which leads to collaboration and effective teamwork.
- **Enhancing Early Childhood Competencies Based on the HighScope Approach**
 - In collaboration with the University of the Thai Chamber of Commerce, supported Wat Thung Lung Mittraphap 198 School in Songkhla Province under the Reducing Inequality through Early Childhood Education (RIECE Thailand) project.
- **Enhancing Academic Excellence through Active Learning Innovation**
 - 1. Instruction for Active Learning**
 - Provided reskilling in instructional material development and upskilling in digital platform integration to enhance 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 developing teaching materials for active learning based on the approach of Chulalongkorn University Demonstration Elementary School to 32 additional schools within the same educational service area, resulting in the development of 151 master teachers.
 - 2. Clicker: Educational Innovation for Active Learning**
 - Used Clicker tools 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.
 - Used Clicker tools in various school activities, such as student council president elections, lunch menu voting, academic competitions, and student attendance checking.
 - 3. Robotics & Coding**
 - Promoted robotics and coding as a means to enhance learning and develop students' 21st-century skills, focusing on the 4Cs: critical thinking, creativity, collaboration, and communication.
 - Supported the establishment of robotic classrooms in schools and promoted learning activities both inside and outside the classroom, such as club formation, skill competitions, and project exhibitions.
 - Collaborated with the Robotics Club of Thailand to establish Krab Yai Municipality Kindergarten School in Ratchaburi Province as a learning center for robotics in the central region of Thailand, aimed at transferring robotics and drone technology to educational institutions in the Central and Northeastern regions.
 - Krab Yai Municipality Kindergarten School, Ratchaburi Province, has expanded its curriculum in computational science and promoted learning outside the classroom in Robotics & Coding. The school has shared its expertise in robotics by organizing the Mitr Phol Krab Yai Ratchaburi Grand Robotics Championship 2024 (for the second consecutive year). The event was attended by over 1,000 participants, including students from primary to lower secondary levels, teachers, parents, and those interested. A total of 525 teams from 127 schools across 43 provinces took part in the competition.



Target: A model of community school

Vocational Skills Development

- **Discovering excellence for career development**
 - Promoted vocational skills development based on students' 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 to support teachers and students in developing vocational skills.
 - 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**
 - Developed five short courses for lower secondary school students to prepare them for further vocational education: Basic Computer Skills for Careers, Basic Electrical Engineering for Careers, Basic Automotive Mechanics for Careers, Basic Industrial Machinery for Careers, and Basic Agricultural Machinery for Careers. These courses have been offered since 2023 through collaboration with industry experts, vocational college instructors, and teachers from network schools.

Life Skills Development

- **Promoted Participation through corporate culture: Mitr Beyond – Trustworthiness**
 1. **Mitr Volunteers for Education Initiative:** This initiative promotes the cultivation of corporate culture by encouraging employees to engage in volunteer activities that contribute to society, reflecting the desirable qualities that Mitr Phol prioritizes.
 - The Mitr Sharing Activity:
 - 1) Raised funds to purchase school uniforms for underprivileged students in 19 schools.
 - 2) Raised funds to provide prizes for activities on National Children's Day.
 - 3) Brought knowledge into the classroom through the co-creation of 5 short courses to prepare students for further study in vocational education programs.
 - 4) Repaired and upgraded school facilities and supported the establishment of learning spaces within schools, such as the Community Sugarcane Learning Center.



- Mitr Phol Knowledge Sharing: Organized 4 sessions to share knowledge, exchange experiences, and inspire both teachers and students on the following topics:
 - 1) "How to Prepare for and Win a Robotics Competition"
 - 2) "Eco-friendly Waste Management"
 - 3) "Unpacking the Learning Process through the Magic Box Project"
 - 4) "PDPA: What Schools Need to Know and Teachers Must Understand – Session 2"
- 2. **Scholarships:** Granted scholarships totaling 1,526,000 baht to support living expenses and improve the quality of life for students from kindergarten to high school, as detailed below:
 - Scholarships to support living expenses and improve the quality of life for students from kindergarten to high school, totaling 646,200 baht
 - Scholarships for 4 partner schools, 20,000 baht per school, totaling 80,000 baht
 - 36 continuing scholarships from primary to lower secondary: totaling 241,200 baht
 - 5 undergraduate scholarships of 25,000 baht each, totaling 125,000 baht
 - 10 White Elephant Scholarships of 20,000 baht each, totaling 200,000 baht

Development of Khon Kaen Advanced Agro-Industrial Technology College



Mitr Phol has partnered with Khon Kaen Advanced Agro-Industrial Technology College 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 competency and expertise to meet business demands and enhance the country's competitiveness. The Company's key operations in 2024 are as follows:

Target: To develop Khon Kaen Advanced Agro-Industrial Technology College into a leading vocational institution in ASEAN

Academic Skills Development

- **Establishment of the Center of Vocational Manpower Networking Management (CVM)**
To produce and develop a workforce that aligns with the spatial context, aiming to ensure that the country has a sufficient and skilled labor force to meet the needs of the Thai labor market. This also includes responding to the demands of targeted industries (S-Curve) and supporting the transition to Industry 4.0. The college offers five key academic programs:
 - Modern Farm Management and Harvesting Technology
 - Agro-industrial Production Technology
 - Aviation for Agriculture
 - Agro-industrial Warehouse and Distribution Management
 - Agro-industrial Information Management Technology
- **Collaboration with Leading Vocational Colleges in China**
 - **In collaboration with Guangxi Industrial Vocational and Technical College**, the "China-Thailand Institute of Modern Craftsmanship of Sugar Industry" was established to develop teachers and in-company trainers in sugar production technology. A total of 12 personnel were trained. In addition, a simulator program was introduced to teach sugar production processes to students in the Agro-industrial Production Technology program (specializing in Sugarcane and Sugar Processing Technology).
 - **In collaboration with Guangxi Electrical Polytechnic College**, "Modern Electric Technician College" was established to offer a High Vocational Certificate program in Agro-industrial Production Technology (specializing in Electricity and Steam Production Technology).
- **Collaboration with Leading Enterprises in Thailand:** Mitr Phol Group has partnered with three network enterprises: Real Soluplus Co., Ltd., CNH Industrial (Thailand) Co., Ltd., and Power Agrotech (Thailand) Co., Ltd., to provide tools, equipment, and personnel support, as well as serve as training sites for students to gain hands-on vocational experience.

Vocational Skills Development

Supported students in developing competencies in accordance with international standards to meet the needs of enterprises, as detailed below:

- **Development of vocational competencies based on the German model** in collaboration with Rajamangala University of Technology Isan Khon Kaen Campus
- **Foreign language proficiency development:** Enhance English skills to meet standards equivalent to TOEIC.
- **Digital competency development:** Improve digital literacy based on the IC3 Digital Literacy Certification standard.

Target: To develop Khon Kaen Advanced Agro-Industrial Technology College into a leading vocational institution in ASEAN

Life Skills Development

- **Granting scholarships** to support students' living expenses and improve quality of life as follows:
 - Granted 78 scholarships for Higher Vocational Certificate programs, totaling 2,340,000 baht.
 - Granted 36 scholarships for Vocational Certificate programs covering the full 3-year study period, totaling 1,080,000 baht.
- **Enhancing the College's Learning Environment as follows:**
 - Renovated the first floor of the Academic Services Building into an Innovative Learning Center to provide additional space for learning and enrichment activities.
 - Upgraded the Simulation Training Center classroom to enhance the effectiveness of virtual learning.
- **Support for extracurricular activities integrated with community activities:** Collaborated with various organizations to promote moral and ethical values while preserving local arts, culture, and traditions through initiatives such as environmental conservation, community service, art and cultural promotion, and religious development activities.

Chai Fah Vongkusolkit Foundation

The Chai Fah Vongkusolkit Foundation was established by the Vongkusolkit family on January 21st, 2012, in remembrance of Mr. Chai and Mrs. Fah Vongkusolkit, the parents of Mitr Phol's executive family. The Foundation's primary mission is to support communities surrounding Mitr Phol's factories, with a focus on two key areas: education and medicine, nursing, and public health. In 2024, the Foundation supported 45 projects with a total budget of 8,420,735 baht across 12 provinces: Bangkok, Ratchaburi, Amnat Charoen, Yasothon, Khon Kaen, Kalasin, Roi Et, Chaiyaphum, Loei, Tak, Sing Buri, and Suphan Buri. The details of the Foundation's support in each area are as follows:

Educational Support: A total of 24 projects were carried out with a budget of 4,501,825 baht in total. These projects focused on providing instructional materials and technology-enhanced learning tools to improve students' academic performance. They also included developmental equipment for both classroom and outdoor activities to support physical, cognitive, emotional, and social development. One such project was the construction of outdoor playgrounds for early childhood development centers.

▼ Educational support by Chai Fah Vongkusolkit Foundation



Medical, Nursing, and Public Health Support – A total of 21 projects were implemented with a total budget of 3,918,910 baht. These projects primarily focused on providing essential medical equipment and supplies to enhance the efficiency of healthcare services at institutions such as hospitals, subdistrict health-promoting hospitals, and emergency medical service centers. In addition, the Foundation supported health promotion initiatives for patients and the elderly. One example was the distribution of 1,613 sets of resistance bands for seniors to support exercise and physical therapy for those with muscle weakness.

▼ Support for Medical Equipment by the Chai Fah Vongkusolkrit Foundation



Mitr Phol will continue its efforts to enhance quality of life and promote education and lifelong learning for people at every stage of life within the community, in line with its “Grow Together” philosophy. The Company firmly believes that business and society must grow hand in hand.

Chapter



11

Human Rights



Mitr Phol places a strong emphasis on respecting human rights across its entire supply chain, in line with its commitment to Creating Shared Value (CSV) with society. The Company is dedicated to achieving sustainable growth alongside the stewardship and development of both society and the environment. Respecting human rights is not only a moral obligation but also a key factor in building trust and confidence among all stakeholders. In addition, Mitr Phol emphasizes the importance of conducting Human Rights Due Diligence as a means to reduce the risk of fundamental rights violations. This approach also contributes to fostering a safe and healthy working environment for all, while supporting positive relationships in operations throughout the supply chain.


2024 Target and Performance

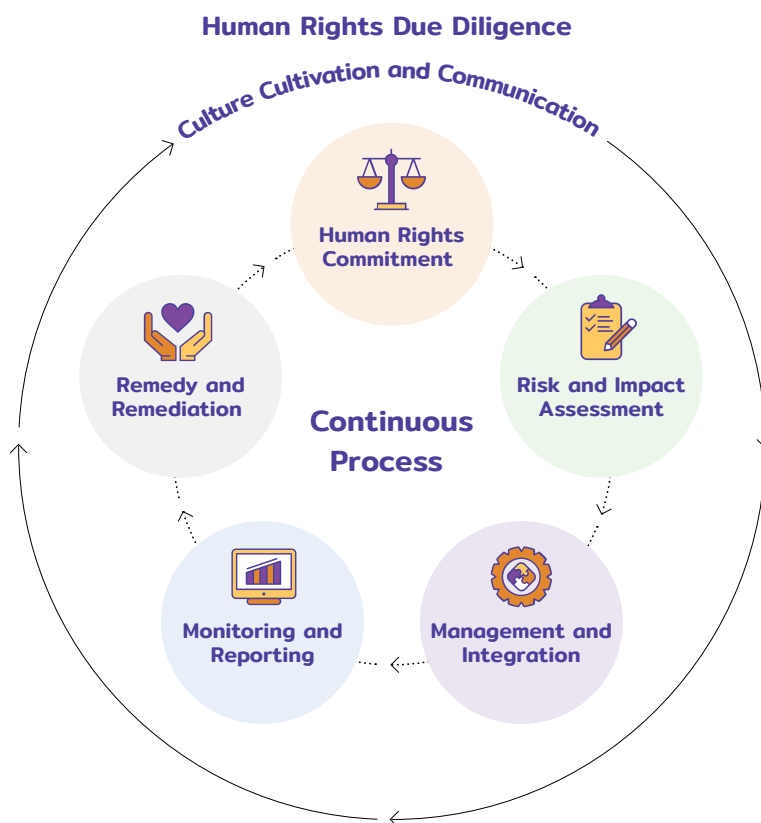
	Target	Performance
 Handling of Human Rights Complaints	100 %	100 %
 Providing Education on Fundamental Human Rights to operational-level employees and above	100 %	100 %

Management Approach

Mitr Phol is committed to complying with laws and regulations and aligning its operations with international standards such as the Universal Declaration of Human Rights (UDHR) and the United Nations Global Compact (UNGC). The Company has adopted the United Nations Guiding Principles on Business and Human Rights (UNGPs) as a foundational framework for its business practices. In addition, Mitr Phol adheres to the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work to ensure that its operations uphold international standards and contribute to sustainable development in all dimensions.

Accordingly, the Board of Directors has established the Human Rights Policy*, and conducted an assessment of salient human rights issues with relevant departments to review potential risks from business activities of Mitr Phol, its suppliers and partners throughout the supply chain to ensure compliance with applicable laws and international human rights principles. To effectively address each salient issue, Mitr Phol has developed supporting policies and relevant guidelines, including the Diversity, Equity, Inclusion, and Belonging (DEI&B) Policy; the Quality and Food Safety Policy; and the Security, Safety, Occupational Health, and Environment Policy.

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



Human Rights Due Diligence

Mitr Phol has conducted Human Rights Due Diligence in alignment with the United Nations Guiding Principles on Business and Human Rights, with the following key practices:

- Chairman has announced the adoption of the Human Rights Policy and regularly reviews the Group's Human Rights Policy, which applies to all business activities of Mitr Phol Group, its subsidiaries, and related business investments (mergers, acquisitions, and joint ventures). This ensures alignment with the Group's operational practices, compliance with applicable laws and regulations, and adherence to international human rights standards.
- Mitr Phol conducts a human rights risk and impact assessment every 3 years to identify salient issues that require mitigation measures and risk prevention strategies both for current operations and potential future impacts. In 2024, the Company held internal

workshops to review human rights risks related to business activities across 7 business groups of Mitr Phol in Thailand. The assessment covered 100% of operational areas across the business value chain, including subsidiaries and investments in related businesses (mergers, acquisitions, and joint ventures). Activities assessed span raw material sourcing, production, maintenance, construction, storage, and the delivery of products and services. Both core and support activities were included in the review. The assessment also addressed forced labor, human trafficking, child labor, freedom of association and right to collective bargaining, equal remuneration, discrimination, and harassment. It also considered other relevant issues that may impact the Company's stakeholders, employees, third-party workers, and vulnerable groups such as children, women, persons with disabilities, migrant workers, and local communities.

Scope of Human Rights Due Diligence



Core Activities

- Raw Material Sourcing
- Production
- Maintenance
- Construction
- Storage and Delivery of Products and Services

Support Activities

- Digital and Technology Transformation
- Human Resources
- Procurement
- Safety, Occupational Health, and Environment
- Quality Assurance
- Sustainable Community Development and Community Relations

Based on a human rights risk assessment conducted across the Company's business operations and supply chain activities, it was found that 12 out of 43 operational sites (accounting for 27.91% of all sites) were identified as having salient human rights issues. The Company has implemented mitigation measures covering 100% of these identified sites, as detailed below:

Salient Human Rights Issues	Operational Measures
Labor	
1. Occupational Health and Safety	<ul style="list-style-type: none"> • Establish a safety policy and Standard Operating Procedures for operations, tools, and equipment. • Implement life-saving rules based on the specific risks of each business unit, conduct organization-wide safety assessments, and engage each factory in accordance with the SSHE framework. • Cultivate a safety culture in the organization. • Provide training on workplace safety and working in high-risk areas for employees, farmers, and contractors. • Prepare personal protective equipment (PPE) for employees and set equipment standards for contractors. • Implement a Behavior-Based Safety Program and report any unsafe conditions for corrective action. • Register pregnant employees annually to monitor pregnancy cases and ensure appropriate job placements that suit their physical condition during pregnancy. • Organize health promotion activities, such as Lose Belly, Get Fit, Gain Health. • Achieve the ISO 45001:2018 Occupational Health and Safety Management System certification.

Salient Human Rights Issues	Operational Measures
2. Unclear Employment Conditions in the Supply Chain	<ul style="list-style-type: none"> Establish a Manual of Practices for human resources and contracted labor. Ensure written acknowledgment of the Code of Conduct both by all employees and suppliers. Implement an assessment process and conduct random inspections of supplier operations. Communicate with suppliers and raise their awareness about labor laws and human rights policies. Establish an explicit complaint-handling process.
3. Care for Children in the Workplace	<ul style="list-style-type: none"> Allocate safe rest areas for farmers, guests, and contractors. Establish protocols for controlling and inspecting entrances and exits at all factories across every business unit. Provide farmers with knowledge and understanding and establish an inspection process for sugarcane plantations. Set up childcare centers in the area of sugar mills and Panel Plus.
Community Rights and Environment	
4. Safety and Livelihoods of People in the Community	<ul style="list-style-type: none"> Clear procedures for conducting community surveys and handling complaints. A tripartite environmental management process to facilitate joint deliberation among factories, communities, and government agencies or governance networks. Establish a dedicated unit responsible for communication, oversight, and engagement in sustainable community development. Launch a sugarcane leaf-buying project to reduce sugarcane-burning practices and boost farmers' income. Set a Net Zero Goal to address and mitigate the impacts of climate change.
5. Waste Management and Pollution Control	<ul style="list-style-type: none"> Establish a Security, Safety, Occupational Health, and Environment policy, Green Procurement policy, and a policy to hire authorized suppliers to remove unwanted materials from permitted factories for disposal according to the regulations of the Department of Industrial Works. Establish a monitoring and control system in alignment with key environmental indicators. Deploy the AERMODEL and IoT sensor system, leveraging digital technology to create a platform to show a forecasted wind direction, wind speed, and pollution. This initiative enables real-time information dissemination, advanced 12-hour alerts, and study of the automated control within the Company's pollution management system. Deploy the AERMODEL modeling system, an air pollution forecasting tool, to analyze air quality using meteorological data and smokestack emissions. This system supports data visualization and environmental management in the wood substitute material business. Implement a plan for regular environmental quality assessments inside and outside factory premises, including installing Continuous Emission Monitoring Systems (CEMs). Implement the Waste-to-Value project to explore and manage waste recycling opportunities, such as researching and repurposing ash from power plants. Achieve ISO 14001:2015 Environmental Management Systems certification.
6. Water Management in Business Operations	<ul style="list-style-type: none"> Establish and improve systems for odor control, air quality improvement, and wastewater treatment. Implement a zero-discharge project by reusing treated water in Mitr Phol's farming operations.

Salient Human Rights Issues	Operational Measures
Customer and Consumer Rights	
7. Health and Safety for Consumers of Sugar Products	<ul style="list-style-type: none"> • Supervise and ensure food quality and safety in line with international standards such as ISO 9000, ISO 22000, FSSC 22000, GMP, and HACCP throughout the supply chain to maintain consumer trust in the quality and safety of the Company's food products. • Inspect contaminants in products and control the use of herbicides and heavy metals to ensure compliance with specified standards. • Utilize industrial technology in production and packaging to meet international standards for Good Hygiene Practices (GHP) for food production and Food Safety System Certification 22000 (FSSC 22000). • Regularly survey customer and consumer satisfaction and incorporate feedback to continuously improve the quality of products and services to maintain customer satisfaction. • Establish the process and channels for receiving complaints and suggestions about products or services, ensuring prompt complaint handling to enhance customer satisfaction.

Whistleblowing Channels for Reporting Human Rights Violations

To demonstrate its commitment to addressing human rights issues with transparency and in collaboration with stakeholders, Mitr Phol has established channels for reporting all forms of human rights violations, such as inequality, discrimination, harassment, and labor rights violations. The Company emphasizes protecting the rights of complainants and whistleblowers. All reports are handled confidentially and transparently, with thorough investigations and resolutions conducted within a defined timeframe. Mitr Phol also ensures regular communication with complainants and affected individuals throughout the process and considers fair and appropriate remedies based on the specific circumstances of each case. Whistleblowers may report concerns anonymously through the channels provided. The Corporate Governance Department is responsible for receiving, consolidating, and forwarding all complaints for further action. Both internal and external stakeholders of Mitr Phol Group and its subsidiaries are welcome to submit 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, 3rd Floor,
Sukhumvit Road, Klong Toei,
Bangkok 10110



Other Channels

Other channels that complainants find suitable and convenient for them

For more information, please visit the “[Whistleblowing Policy](#)” section on Mitr Phol’s Website



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 contributed to or caused a violation, appropriate remedies will be provided for affected parties based on the specific circumstances and nature of each case. Employees found to have violated human rights will be considered in breach of the Company's Code of Conduct and will face disciplinary action, which may include suspension, wage deductions, dismissal, and potential legal penalties if the actions are deemed unlawful.

Labor Management

Ensuring fair and appropriate compensation and care for workers has always been a key priority for Mitr Phol. The Company remains committed to continuously improving its labor management practices through both internal initiatives and collaboration with external organizations. In 2024, Mitr Phol introduced new labor management projects to further enhance its ongoing efforts as follows:

Collaboration on Labor Management

In 2024, Mitr Phol signed a Memorandum of Understanding (MOU) with the Department of Labour Protection and Welfare, Ministry of Labour, to enhance labor management through the adoption of Good Labour Practices (GLP), guided by the "4 No" "6 Yes" principles as follows:

Good Labour Practices (GLP)



4 No

- No child labor
- No forced and compulsory labor
- No discrimination
- No human trafficking



6 Yes

- Labor management and administration
- Freedom of association
- Collective bargaining
- Safe working environment
- Hygiene and waste management
- Proper welfare

This labor management guideline aims to protect workers' rights in all dimensions, including preventing and eliminating child labor, forced labor, discrimination, and labor trafficking. It reflects the Company's ethical business conduct and social responsibility through fair labor practices.



Mitr Phol's Well-Being Program

Employees at different stages of life have diverse needs, and providing tailored benefits helps foster fairness and inclusivity. To support employees during key moments in their personal lives, the Mitr Phol Group introduced additional special leave days in 2024 for the following events:

- Graduation leave for early-career employees
- Marriage leave for those entering a new family phase
- Paternity leave for male employees to support their partners during childbirth
- Bereavement leave for funeral arrangements, applicable to employees at all life stages



Promoting Human Rights Awareness and Understanding

Mitr Phol Group has consistently promoted understanding and positive behaviors related to human rights through training programs and public relations materials. In 2024, the Group officially announced its Diversity, Equity, Inclusion, and Belonging (DEI&B) Policy. It also organized a training course titled “The Inclusive Leader in Modern Organizations” to strengthen understanding of the importance of diversity, equity, inclusion, and belonging, and to highlight the role of leadership in fostering these values. The course was designed for team leaders and was attended by 418 participants.

Human Rights Awards

Human rights operations require continuous effort. To deepen its understanding and promote best practices in human rights implementation, Mitr Phol Group has participated in the Human Rights Model Assessment Program, organized by the Rights and Liberties Protection Department, Ministry of Justice, since 2020. The Company aims to apply the knowledge and insights gained from this program to strengthen and improve its operations. In 2024, Mitr Phol was honored with the Outstanding Role Model Organization in Human Rights Award in the Large Enterprise category for the fifth consecutive year. Beyond receiving this prestigious national recognition, the Company has consistently benefited from the assessment process and the recommendations provided, using them to further enhance its organizational development.



HUMAN RIGHTS AWARDS 2024



Environmental Dimension

- 146 Climate Change Management
- 156 Farm and On-Farm Water Management
- 168 Energy Management
- 176 Industrial Environmental and Water Management
- 186 Biodiversity Management
- 192 Packaging
- 196 Food Loss and Food Waste Management



98.14%



of total electricity consumption within the organization is sourced from biomass electricity and solar energy.

Having planted

666,516

 trees

aiming to achieve the target of 1 million trees by 2032.

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



95%

of packaging is made from recyclable and compostable plastic materials.



47,461 hectares

of sugarcane cultivation area has been certified for sustainable sugarcane production



Chapter

12

Climate Change Management



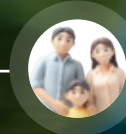
Shareholders



Employees



Farmers



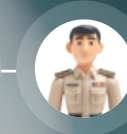
Communities



Suppliers



Customers and Consumers and Civil Society Sectors



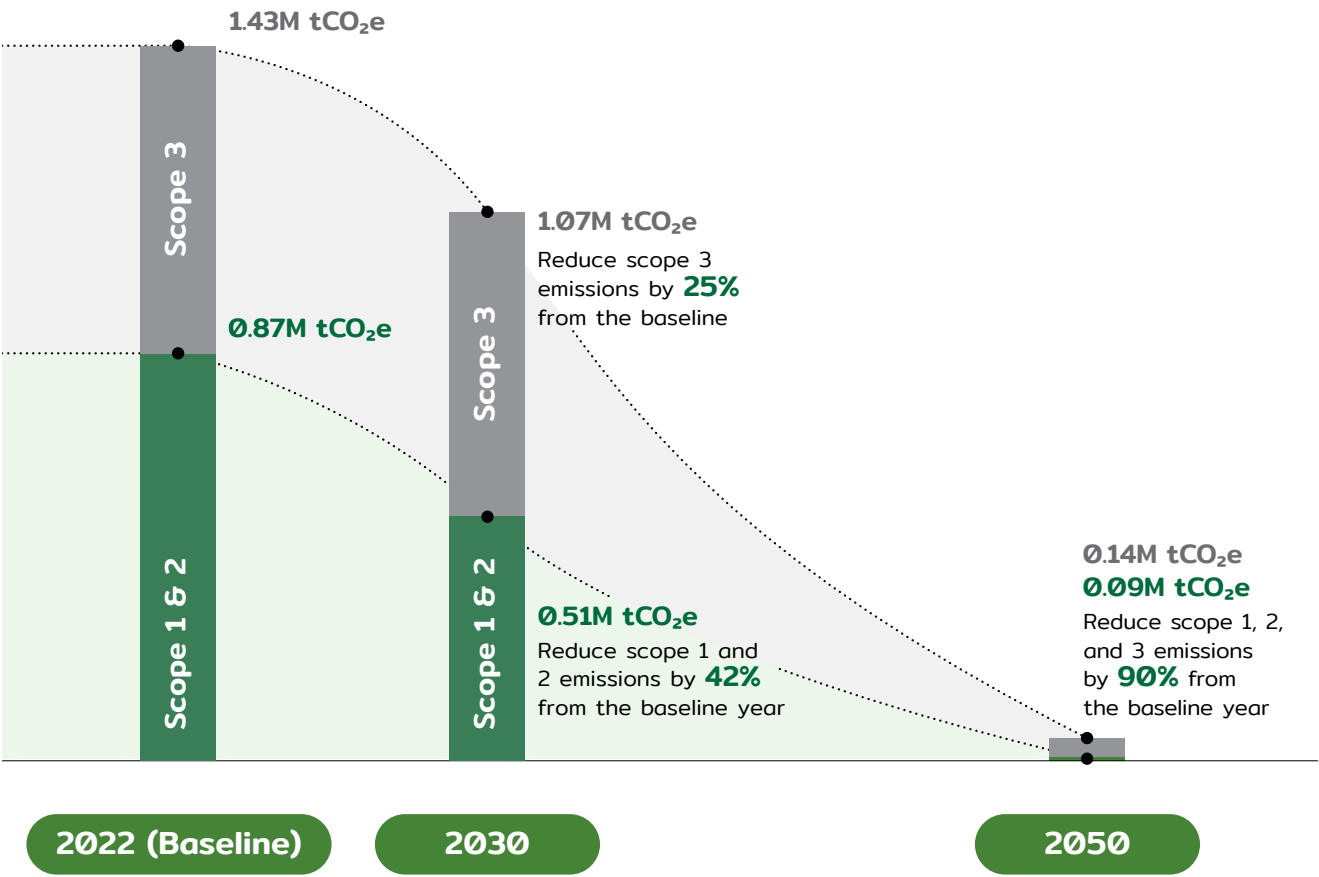
Government and Civil Society Sectors



Mitr Phol Group recognizes the impact of climate change on its operations and the urgent need for both adaptation and mitigation. Since 2015, the Company has systematically compiled its Carbon Footprint for Organization (CFO), which serves as a critical foundation for setting strategic emission reduction targets and action plans. The Group has set

ambitious climate goals, aiming to achieve carbon neutrality by 2030 and net-zero greenhouse gas emissions by 2050. To reach these goals, Mitr Phol has implemented comprehensive emission reduction measures across its supply chain, while developing low-carbon products and integrating innovative technologies to minimize environmental and social impacts. At the same time, it fosters a culture of environmental responsibility by raising awareness and building understanding among employees, empowering them to contribute to advancing the organization's sustainability objectives.

Net Zero Pathway

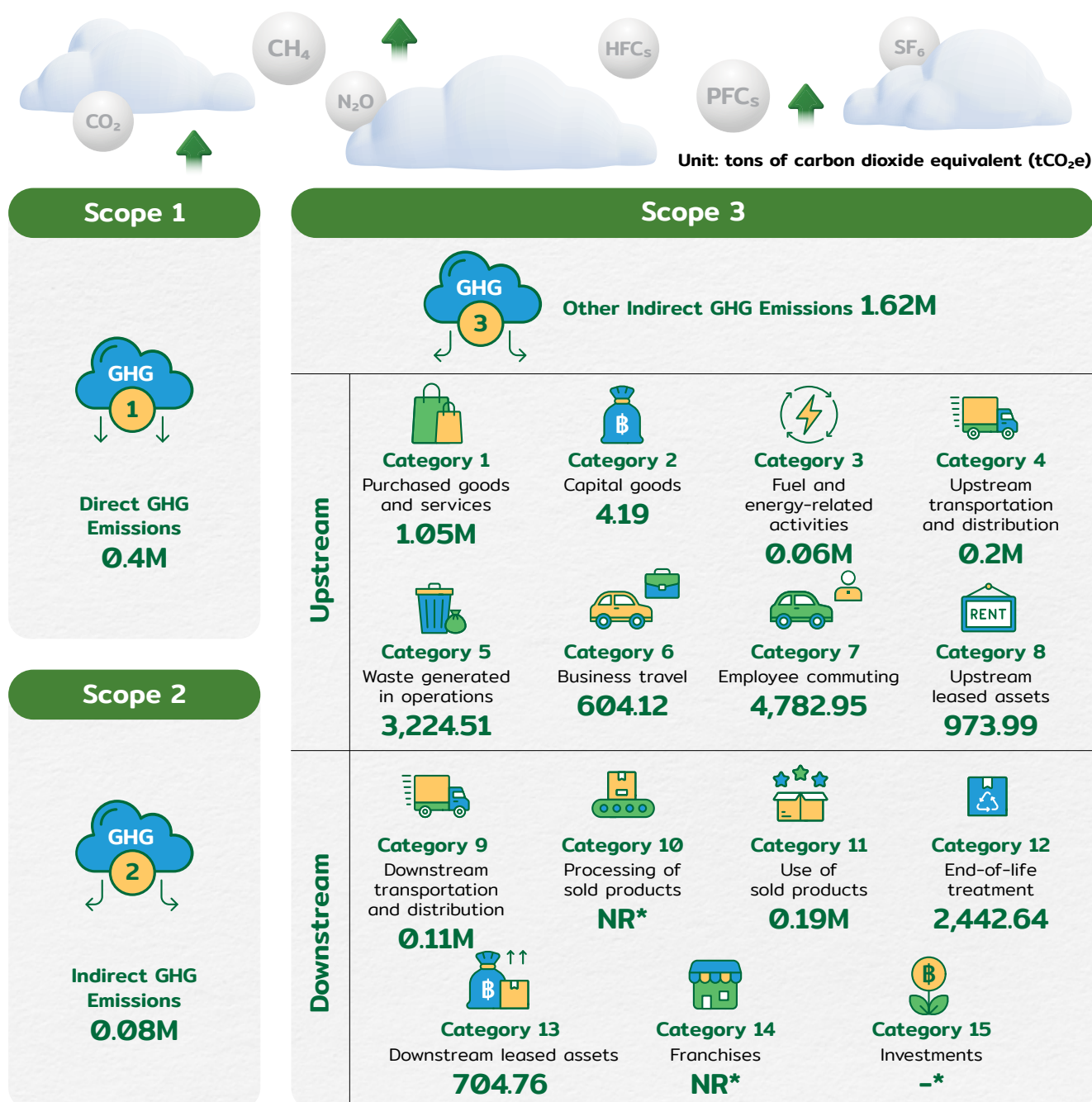


Management Approach

Climate change management activities include:

Developing an organizational GHG emissions inventory

To support its plan to reduce greenhouse gas emissions across the entire supply chain and achieve carbon neutrality by 2030, as well as net-zero emissions by 2050, Mitr Phol has prepared a GHG emissions inventory based on the assessment of the Carbon Footprint for Organization (CFO), covering Scopes 1, 2, and 3 across all business groups. The data is verified by a third party to ensure accuracy, reliability, and transparency. The breakdown of greenhouse gas emissions for 2024, categorized by scope, is as follows:



Remarks: * NR refers to no indirect greenhouse gas emissions activities under Scope 3, Category 10 and 14.

- refers to Category 15, which cannot be calculated due to insufficient data.

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 greenhouse gas emission assessment processes are conducted in compliance with the standards set by the Thailand Greenhouse Gas Management Organization (TGO) and in alignment with the internationally recognized GHG Protocol. The digital reporting system provides detailed information categorized by emission source and business activity, as well as consolidated greenhouse gas emissions data from Mitr Phol's operations in Thailand. This enables relevant agencies to effectively utilize the information for planning and operational decision-making.



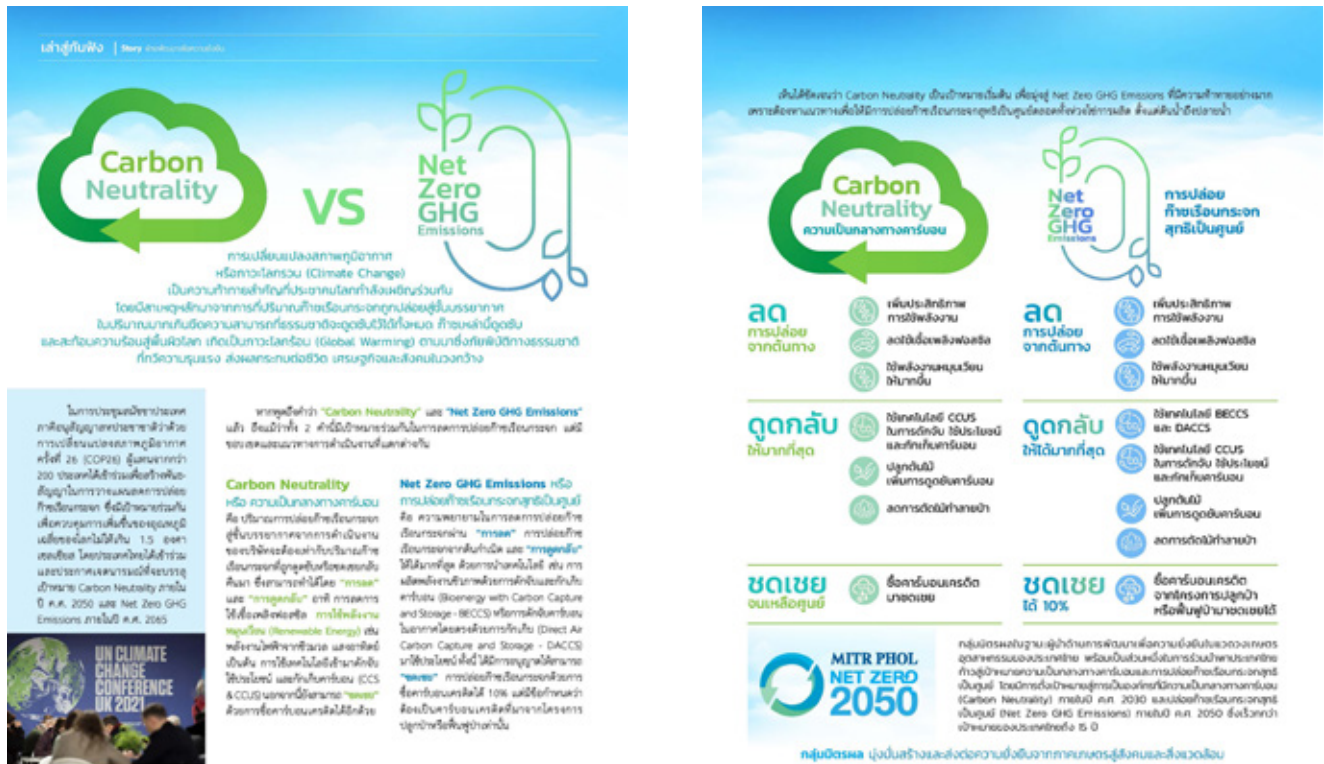
Raising Awareness and Understanding of Organizational Carbon Footprint Assessment

To foster employee understanding of the importance of data collection and to encourage their support for greenhouse gas reduction efforts and the Company's net-zero emissions goal, the Sustainable Development Division organizes comprehensive training programs. These include online Reskill–Upskill courses on basic greenhouse gas knowledge for operational-level staff and above, as well as workshops for relevant executives and employees across various business units, such as sugarcane farming, sugar production, ethanol, energy, fertilizers, wood substitutes, logistics, and other businesses. The training covers key topics, including fundamental concepts, data collection methods, identification of greenhouse gas emission sources, workshops on organizational carbon footprint assessment, and communication of corporate emission reduction targets. In 2024, employees at all levels completed online training, and workshops were held across more than 40 operational sites.



- ▲ Workshop on organizational greenhouse gas data collection and carbon footprint awareness held at Mitr Phol Dan Chang Park, Suphan Buri Province

Additionally, the Company continuously provides related knowledge through various channels, such as email, bulletin boards, and the Mitr Samphan Journal, to ensure that employees at all levels understand greenhouse gas issues and are informed of the Company's goals.



▲ PR and educational materials on climate change

Task Force on Climate-related Financial Disclosures (TCFD)

Since 2022, Mitr Phol has disclosed climate-related financial information, including assessments of both physical and transition risks, as well as potential opportunities arising from climate change. For physical risk assessments, the Company applies climate scenarios based on the Shared Socio-Economic Pathways (SSPs), which project future changes in global temperatures under varying economic, social, technological, and policy conditions.

Mitr Phol conducts transition risk assessments using the State Policy Scenario (STEP) and the Announced Policies Scenario (AP). These scenarios consider potential risks associated with current and anticipated policy measures aimed at controlling greenhouse gas emissions.

Both types of risk assessments cover the analysis of climate-related risks and opportunities across the entire business and throughout the supply chain. The results provide valuable insights into the potential impacts of climate change on the Company's operations. These insights inform the development of strategies to effectively and prudently manage, mitigate, or adapt to such risks. In addition, the assessments serve as a crucial database to inform the Company's investment decisions.


*For more details [TCFD Report](#) please visit.



Deployment of Digital Technology to Support GHG Emissions Reduction


Mitr Phol continues to promote the use of digital technology to enhance organizational operations. In 2024, the Company adopted environmentally friendly technologies to support green sourcing and green operations, aiming to reduce greenhouse gas emissions and improve resource efficiency. These efforts reflect the Company’s commitment to balancing business growth with environmental and social responsibility. The key digital technologies deployed to support these initiatives are as follows:

1 Green Sourcing



IT Equipment Sourcing


Mitr Phol procures computers made from recycled materials both in the products themselves and their packaging. This reflects a commitment to responsible resource use and waste reduction in the production process, while also contributing indirectly to the reduction of greenhouse gas emissions.



Electric forklift sourcing


Mitr Phol has a policy to transition from fuel-powered forklifts to electric models, with a goal of achieving 100% electric forklift usage by 2027. Currently, Mitr Phol Dan Chang Sugar Mill has fully transitioned and operates **100%** with electric forklifts.

2 Green Operation



Document storage via digital platforms to reduce paper usage

The Company has adopted a digital E-Workflow system for document storage, reducing the use of over **400,000** sheets of paper in operations. This shift helps lower document storage costs, reduce waste management burdens, and minimize deforestation for paper production, contributing to the reduction of greenhouse gas emissions, the driver of climate change.



Use of Cloud Services Supporting Green Energy

The Company has transitioned from using in-house servers to Cloud Services, such as Azure and SAP that are powered by green energy. This shift also helps reduce the Company's electricity consumption.

Sustainable Sugarcane Plantation Management

Mitr Phol reduces greenhouse gas (GHG) emissions from sugarcane cultivation by managing all field activities from land preparation, planting, crop care, to harvesting under environmentally friendly Mitr Phol ModernFarm method. This method integrates innovative techniques to maintain soil health and sugarcane productivity, such as planting legumes before sugarcane, green cane harvesting and trash blanketing, and deploying natural enemies for biological pest and disease control. These practices not only help control production costs, improve efficiency, and generate additional income for farmers, but also reduce the use of natural resources and lower GHG emissions from agricultural activities. In addition, the Mitr Phol Innovation and Research Center (MPIR), an entity dedicated to advancing agricultural technology, continuously supports research and development aimed at reducing GHG emissions. This includes comparative studies between conventional practices (CP) and Good Agricultural Practices (GAP) to identify effective GHG reduction strategies, as well as the development of biopesticides for controlling sugarcane pests.

For more information, please refer to [Farm and On-farm Water Management](#).



Efficiency Improvement of Energy Use

Mitr Phol reduces its environmental impact by improving energy efficiency in production processes and minimizing energy loss. Given the diverse nature of its business operations, the Company has established tailored energy-saving guidelines and methods specific to each production process to maximize efficiency and support its energy sustainability goals. Key initiatives to promote energy efficiency and conservation include recovering excess heat for reuse in production, insulating boilers to prevent energy loss, and modifying or maintaining aging equipment to enhance system efficiency and reduce thermal loss.

Further details of these activities can be found in [Energy Management](#).




Low-Carbon Product Development

Products certified for GHG management

Recognizing the importance of building a low-carbon society, Mitr Phol has promoted low-carbon products, including sugar and others, and has applied for product registration with the Thailand Greenhouse Gas Management Organization (TGO). The Company’s currently registered products are detailed as follows:

Carbon Footprint of Products

A label indicating 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.




41 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, caramel granulated sugar, ethanol, and animal feed yeast.

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.

Carbon Footprint of Circular Economy Product (CE-CFP)

A label indicating that the product is manufactured in accordance with circular economy principles, emphasizing resource circulation. Greenhouse gas emissions are assessed based on methodologies certified by the Thailand Greenhouse Gas Management Organization (TGO).



3 products are certified.

The certified products are in the groups of ethanol and animal feed yeast.

Controlled Release Fertilizers

Sugarcane requires nitrogen throughout its growth cycle, as it is vital for plant development and a key component in energy production. However, chemical fertilizers containing nitrogen, such as urea, are not fully absorbed by the plants. The excess nitrogen re-enters the environment and is eventually converted into greenhouse gases, contributing to atmospheric emissions.



The Mitr Phol Innovation and Research Center has developed a specialized product known as Controlled Release Fertilizer (CRF), which gradually releases nitrogen in line with the crop's needs, ensuring that sugarcane receives consistent nutrients throughout the growing period. A single application of 50 kilograms of CRF is equivalent in effectiveness to two bags (100 kilograms) of conventional fertilizer. This innovation improves crop management efficiency, reduces fertilizer costs, prevents excessive use of chemical fertilizers, and helps lower greenhouse gas emissions.

PlaneX – CaneX: Eco-friendly Packaging Products

The Bio-Materials business reflects Mitr Phol Group's commitment to developing innovation in compostable plastic solutions. Made from natural materials such as cassava and sugarcane, the Company's bioplastic products meet the growing demand for sustainable, eco-friendly alternatives. These products stand out for their biodegradability, ability to reduce environmental pollution, and consumer safety. Currently, Mitr Phol offers two main product lines: compostable compounds and compostable food packaging, under the "PlaneX" and "CaneX" brands.



- ▲ CaneX: Compostible Food Packaging and
- PlaneX: Compostable compound

Eco-friendly Wood Substitute Material Products

Panel Plus Co., Ltd.* conducts its business with consideration for the impacts of climate change. The Company ensures that its wood substitute products are responsibly managed in accordance with international Forest Stewardship Council (FSC) standards, which support sustainable sourcing throughout the entire value chain, from the planting of rubber trees for commercial use to production and final delivery. Compliance with these standards assures customers that the products do not contribute to deforestation or ecosystem degradation, both of which are vital to carbon absorption and climate change mitigation.

In addition, Panel Plus's melamine-coated wood products are certified under the Singapore Green Labelling Scheme (SGLS), the country's leading environmental standard. This certification confirms that the products have a lower environmental impact compared to similar uncertified products, based on a comprehensive life cycle assessment, from production and use to disposal. The products have also earned the Greenguard Gold certification, an internationally recognized standard developed by the GREENGUARD Environmental Institute. This certification verifies that the products emit extremely low levels of volatile organic compounds (VOCs), helping to improve indoor air quality and ensure user health and safety, while also supporting efforts to minimize environmental impact.

Product and Service Development through Collaboration with Partners

Low-Carbon Logistics Services

Fair and Fast Co., Ltd., a subsidiary of Mitr Phol, provides integrated digital logistics and supply chain solutions. The Company has been expanding its green business initiatives by offering low-carbon transportation services, including the use of electric vehicles and rail transport, both of which generate lower greenhouse gas (GHG) emissions compared to conventional trucking. In 2024, Fair and Fast launched a pilot project deploying electric tractor units to transport bagged sugar within Laem Chabang Port, Chonburi Province. The project is a collaboration with Banpu Next Co., Ltd., a leading smart energy solutions provider in the Asia-Pacific region, and Thai EV Co., Ltd., a major supplier of commercial electric vehicles. In the future, the Company plans to expand the use of electric tractor trucks for sugar deliveries to customers located near its production facilities. It also aims to shift the transportation of raw sugar from diesel-powered trucks to rail, in a bid to reduce dependence on fossil fuels. This initiative represents a strategic move toward digitally driven green logistics, which helps reduce operational costs while advancing long-term social and environmental sustainability.

Supporting Sustainability through Financial Instruments to Address Climate Change

Implementing financial instruments linked to sustainability performance supports strategic goal setting, enhances risk management, and strengthens corporate governance, while also helping to reduce financial costs. These instruments also reinforce the role of financial institutions in addressing climate change by facilitating a sustainable transition across the business sector. Mitr Phol Group has consistently collaborated with financial institutions to access loans and working capital aligned with its sustainability objectives. In 2024, the Group partnered with Siam Commercial Bank to launch a Sustainability-Linked FX Option, which links the Company's environmental performance to preferential exchange rate terms. This initiative not only helps mitigate market volatility risks but also underscores Mitr Phol's commitment to tackling environmental and social challenges through responsible and sustainable business practices.

* Panel Plus Co., Ltd. has been certified for the forest management certification numbers SGSCH-FM/COC-010474 license code FSC™ C125420, SGSHK-COC-470044 license code FSC™ C119407 and SGSHK-COC-470103 license code FSC™ C158975.

Chapter

13

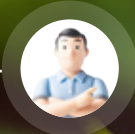
Farm and On-farm Water Management



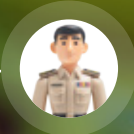
Shareholders



Farmers






Customers
and Consumers and Civil Society
Sectors



As an agro-industrial business, Mitr Phol relies heavily on agricultural produce, particularly sugarcane, as a key raw material driving its operations. Effective management of sugarcane farming and water resources is therefore essential to ensuring a stable supply for the business, while also supporting sustainable income for farmers, in line with the Company's "Grow Together" philosophy. To support sustainable agriculture, Mitr Phol initiated the Mitr Phol ModernFarm project, aiming to increase productivity and reduce costs while minimizing social and environmental impacts. The project provides opportunities, equality, funding, knowledge, sugarcane varieties, and technology. It also supports the conservation of natural resources such as soil and water, and builds knowledge and skills for personnel to manage sugarcane farms with maximum effectiveness and efficiency.

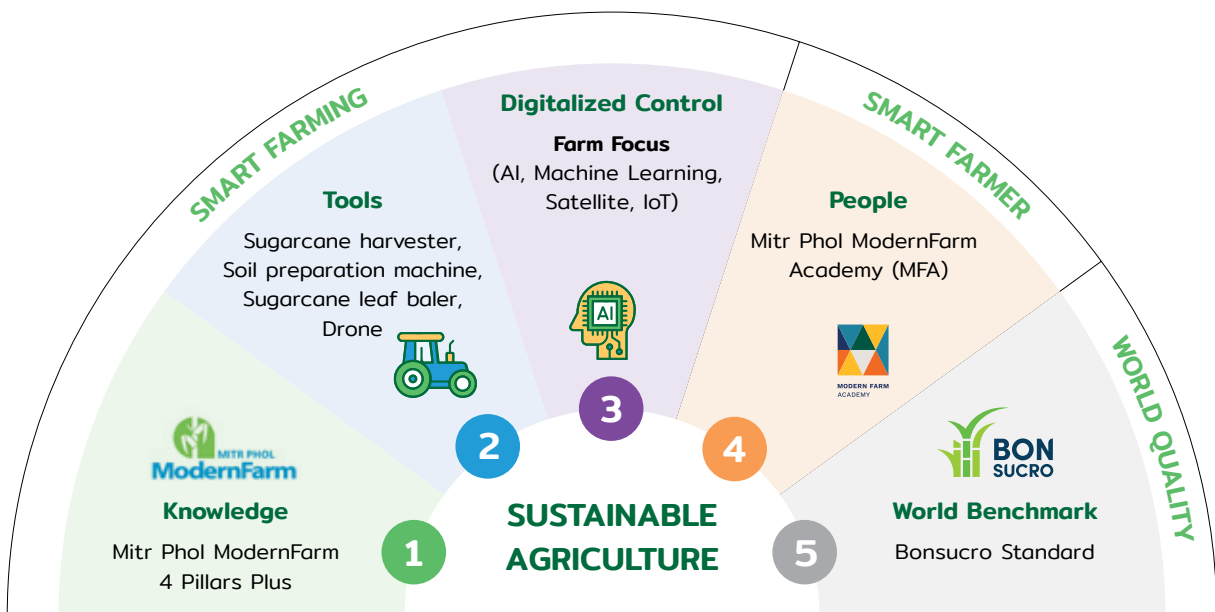
2024 Target and Performance

 <p>Being certified for sustainable sugarcane production</p>	<p>Target</p> <p>Short-term Target 48,000 hectare by 2023/2024</p> <p>Long-term Target 96,000 hectare by 2030</p>	<p>Performance</p> <p>47,460.8 hectare during 2023/2024</p>
 <p>Promotion of sugarcane farming based on the Mitr Phol ModernFarm approach</p>	<p>Short-term Target 106,272 hectare by 2023/2024</p>	<p>101,978.72 hectare during 2023/2024</p>
 <p>Develop the irrigation infrastructure in the promoted sugarcane plantations.</p>	<p>Short-term Target Accumulated irrigated area of 180,096 hectare by 2024</p>	<p>Accumulated irrigated area of 100%</p>

Management Approach

Committed to developing a sustainable sugarcane and sugar industry, Mitr Phol promotes farming practices based on the Mitr Phol ModernFarm approach, incorporating modern information technology and enhancing the knowledge and skills of its personnel and partner farmers through the Mitr Phol ModernFarm Academy. The Company also encourages sugarcane farmers to obtain Bonsucro and VIVE certifications, international standards for sustainability, to ensure transparency and sustainability across every stage of its sugarcane and sugar production process.

Encourage Farmers to Adopt the Mitr Phol ModernFarm Approach



Guided by Mitr Phol Group's corporate philosophy, "Grow Together," the Mitr Phol ModernFarm initiative was launched to promote sustainability for sugarcane farmers and the broader sugarcane and sugar industry in Thailand. It integrates environmentally friendly farm management practices with innovative technologies to help farmers increase yields, reduce costs, and improve their quality of life sustainably, **under the framework of the 4 Pillars and irrigation systems, also known as 4 Pillars Plus.**

1. Legume Rotation Crops

Continuous sugarcane planting without fallowing 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.

2. 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.

3. 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.

4. Trash Blanket

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.

In addition, Mitr Phol places strong emphasis on reducing the use of chemicals in sugarcane cultivation and is committed to ongoing improvement. The Company currently offers a mobile soil analysis program to help farmers apply fertilizers based on the specific needs of their crops. This approach ensures that sugarcane receives only the necessary nutrients, helping to maintain the balance of beneficial soil microorganisms. Mitr Phol also promotes biological farming practices by breeding and releasing natural enemies into sugarcane fields to control pests and reduce reliance on chemical pesticides in agricultural areas.



Mitr Phol Group 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 the 2023/2024 crop year, the accumulated area reached **101,978.72 hectare**
- Increase of **1,293.92 hectare**, from 2022/2023.



Currently, Mitr Phol partners with **40,577 contract farming families**

- over **18,000 agricultural workers**
- generating more than **6 billion baht per year** for farmers and local communities.

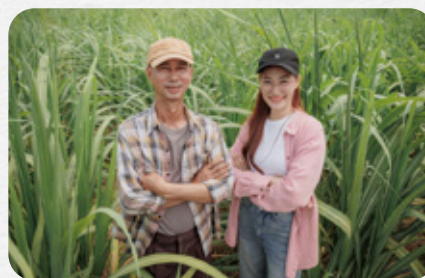
Modern Farmers in the Mitr Phol ModernFarm Model

Mr. Manus Sae-ngow
a sugarcane farmer in Suphan Buri



Through support under the Mitr Phol ModernFarm approach, Mr. Manus Sae-ngow, a sugarcane farmer in Suphan Buri, has successfully reduced his annual water-pumping costs by 252,000 baht by installing solar panels to replace fuel oil in his drip irrigation system.

Mr. Pradit Saengsri, a contract farmer for the Mitr Phol Amnat Charoen Sugar Mill, has successfully adopted the Mitr Phol ModernFarm approach to sugarcane farming. His success stems from managing his farm according to the crop cycle, planning planting schedules with the use of machinery to ensure timely operations, and adjusting row spacing to accommodate agricultural equipment. This has enabled him to achieve 100% fresh sugarcane harvesting using mechanical harvesters. He also enriches the soil with vinasses, helping to exceed expected yields. Additionally, he earns extra income by selling over 3,679 tons of sugarcane leaves to biomass power plants.



Mr. Pradit Saengsri
a contract farmer for
the Mitr Phol Amnat Charoen Sugar Mill

Deployment of Advanced Technology and Information Technology

Application of Soil Water Index (SWI) derived from satellite imagery technology

The Soil Water Index (SWI) is used to analyze soil moisture levels to support more efficient water management. Derived from satellite imagery, the SWI enables effective, large-scale monitoring of soil moisture across all farming areas. Its application reduces the need for traditional ground-based soil moisture sensors, allowing farmers to manage water usage more precisely. This not only helps prevent over-irrigation but also contributes to improved sugarcane yields over time.

Promotion of Smart Farming with agricultural drones and helicopters

The Company promotes Smart Farming management by hiring contractors with agricultural drones and helicopters to survey sugarcane fields and spray pesticides and ripening chemicals, replacing traditional tractor-based methods. This approach helps reduce production costs, increase daily work capacity, speed up operations, and lower fuel consumption. In the 2023/24 crop year, agricultural drones and helicopters were applied across more than 9,127.2 hectare of sugarcane plantations.

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 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)

Mitr Phol has integrated AI and machine learning (AI/ML) into sugarcane farm management through the Farm Focus Project, aiming to increase sugarcane yield to 125 tons per hectare. The Company has developed four AI/ML models and one digital platform to support effective sugarcane farm management, 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 imagery was taken. This information helps extension officers promote new farmers or purchase sugarcane in target areas.
- **Crop Health Monitoring Model:** This model combines satellite imagery with field data to monitor sugarcane health throughout the growing season. It identifies abnormalities in the fields and distinguishes between planted and ratoon cane to assess whether

the crops are growing as expected. The results are then used to provide timely recommendations for 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 three years. It estimates the expected yield for each sugarcane plot, providing a basis for recommendations to help improve crop yield.
- **Harvest Monitoring Model:** This model monitors the harvesting progress of each of Mitr Phol's registered sugarcane plots using Sentinel-1 and Sentinel-2 satellite imagery. It can monitor harvesting activity at intervals of every 3 to 5 days and is capable of penetrating cloud cover.

- **Farm Advisor System:** This system integrates the four 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 GIS by OneAgri, which is a productivity tool, to Mitr Phol Group's extension officers.

Developing a cane management information system (Cane MIS)

The Cane Management Information System (Cane MIS) 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 enhances convenience, speed, and transparency in business transactions, while also improving data management through digital systems. Contracts can be created, and sugarcane trading information can be tracked via online platforms, boosting efficiency and reducing errors associated with paper-based processes. Additional services, such as agricultural loans, academic advice on precision farming, and efficient data collection systems, further support farmers in managing their sugarcane farms more effectively and accurately.

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

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.



MODERN FARM
ACADEMY

Building Employee Knowledge through Mitr Phol ModernFarm Academy



MFA Learning Framework: Self-driven & Lifelong Learning



INSPIRE

We help people think
and act differently



DO

Learn by doing
to create own solutions



SHARE

Reflect to process
and build confidence

Mitr Phol ModernFarm Academy aims to enhance employees' knowledge and skills, equipping them with both academic and practical expertise to become professional farmers. The academy focuses on growing sugarcane and other crops using the Mitr Phol ModernFarm approach, covering the entire cycle from soil preparation and planting to crop care and harvesting. It also aims to transfer this knowledge to farmers, helping them boost productivity, reduce costs, and adopt environmentally sustainable farming practices.



In 2024, the ModernFarm Academy provided training to



89 employees

and



95 Smart Farmers

with a target to train an additional **100** employees
and **230** smart farmers by 2025.

Benefits to Mitr Phol Employees



Employees gain accurate knowledge and practical skills in farming based on the Mitr Phol ModernFarm approach, enhancing their confidence. This enables them to effectively encourage farmers to adopt sustainable, environmentally friendly sugarcane farming practices.


Benefits to Farmers




By adopting the Mitr Phol ModernFarm approach, farmers can manage their farms more effectively under current conditions. This includes reducing manual labor, increasing the use of agricultural machinery, and applying advanced technologies to boost crop yields. As a result, farmers can generate higher income and contribute to more sustainable farming practices, helping make agriculture a more attractive and viable profession for future generations.

Sustainable Sugarcane and Sugar Production in Accordance with International Standards


Mitr Phol is committed to the continuous improvement of its sugar production processes and supports farmers in meeting the international Bonsucro standard for sustainable sugarcane and sugar production. This certification ensures full traceability of raw materials throughout the entire production process. Since 2016, Mitr Phol has been the first sugar producer in Thailand and the second in Asia to be certified against the Bonsucro standard. The Company is dedicated to sustainability, fair labor practices, and environmental responsibility throughout the supply chain, in line with the core principles of the Bonsucro standard, which apply to every stage of sugarcane and sugar production. These principles include:




Principle 1
Assess and manage environmental, social & human rights risks




Principle 2
Respect labour rights & occupational health and safety standards



Principle 3
Manage input, production and processing efficiencies to enhance sustainability

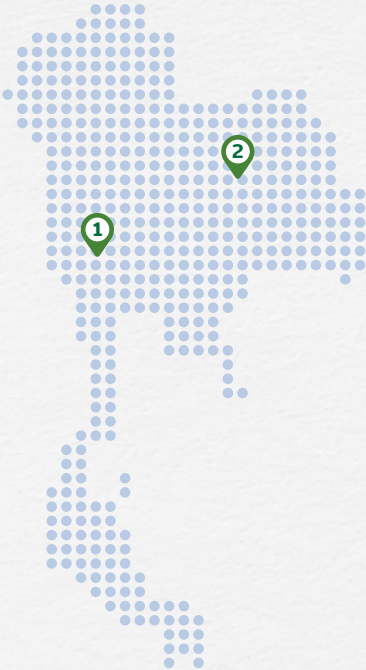


Principle 4
Actively manage biodiversity and ecosystem services



Principle 5
Continuously improve other key areas of the business

In 2024, Mitr Phol also planned to expand its certification efforts to include the VIVE Program—a voluntary sustainability initiative focused on continuous improvement across the supply chain of agricultural products and commodities. The program sets clear targets and tracks progress to help companies enhance their practices in alignment with environmental, social, and governance (ESG) frameworks. This supports Mitr Phol’s target to extend certification to cover over 96,000 hectare of sustainably grown sugarcane by 2030.



Over the past 18 years, since **Mitr Phol began implementing the sustainable sugarcane production certification**, a total of **47,460.8 hectare** has been certified, representing **16.46%** of the total **288,320 hectare of sugarcane planted in 2024**. The certified areas include:

1. Mitr Phol Dan Chang Sugar Mill, Suphan Buri Province	44,160 hectare
2. Mitr Phu Wiang Sugar Mill, Khon Kaen Province	3,300.8 hectare

Green Sugarcane Harvesting and Sugarcane Leaf Purchasing



- ▲ A public awareness campaign promoting green cane harvesting practices was conducted under the initiative “Let’s Green the Sugarcane,” communicated through various public signage and outreach materials.

Mitr Phol Group has continuously supported green cane harvesting for seven consecutive years by purchasing fresh-cut sugarcane leaves from farmers. This initiative promotes environmentally responsible agricultural practices and facilitates the conversion of sugarcane leaves into biomass electricity. In the 2023/24 crop year, the Company launched the campaign “Let’s Green the Sugarcane” to encourage farmers to adopt green harvesting methods. The campaign aims to reduce the environmental, social, and operational impacts associated with sugarcane burning. To achieve this objective, Mitr Phol has implemented a set of measures to promote and support the delivery of green cane to its mills, as outlined below:

- Support and develop farmers from the land preparation stage to enable the use of agricultural machinery in place of manual labor.
- Promote green cane harvesting among groups of farmers with large cultivation areas as follows:
 - Provide harvesting services for farmers facing labor shortages.
 - Support potential medium and large-scale farmers in forming sugarcane harvesting groups.
 - Arrange for contractors to provide cane harvesting services in the area with 20 machines.
 - 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 2023 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 sugarcane leaf removing machines before cutting sugarcane by supplying the machines to farmers.
- Establish a policy of purchasing green sugarcane leaves to be used as fuel for biomass power plants at 900 baht per ton.
- Communicate green sugarcane harvesting activities through various formats and channels, for example, using eye-catching stickers with catchy slogans and distinctive designs.
- Encourage farmers to participate in a truck rear decorating contest under the theme “Fighting Together: Supporting Green Cane Harvesting and Reducing PM2.5,” organized by the three Thai Sugar Factory Associations (or Thai Sugar Millers Co., Ltd.: TSMC).



As a result of these measures, in 2023/2024, Mitr Phol purchased **12,615,153 tons of green sugarcane**, accounting for **70.70%** of the total sugarcane delivered to its sugar mills. The Company also purchased **578,528 tons of sugarcane leaves**, generating **611.55 million baht in additional income for farmers**.

On-farm Water Management

Water is a valuable resource in agriculture, essential for producing high-quality crops in quantities that meet market demand. However, increasingly severe weather patterns caused by climate change, particularly the intensifying effects of El Niño and La Niña, pose a growing threat to sugarcane production and the livelihoods of those in the sugarcane industry. Given these risks, effective water resource management has become more critical than ever.

Accordingly, Mitr Phol has implemented an irrigation program aimed at ensuring a sufficient water supply for sugarcane production by promoting the development of on-farm water sources and supplemental irrigation to enhance yields. These efforts are intended to minimize or entirely prevent any negative impact from the Company's operations on surrounding communities and the environment.

Promoting the Development of On-farm Water Sources

The objective of promoting the development of on-farm water sources is to supplement rainfall in order to meet sugarcane's annual water requirement of 1,500–1,700 millimeters and to reduce the potential impact of drought conditions on sugarcane farms. The targets and performance of this initiative are as follows:

2024 Target and Performance



Areas supported for irrigation development in the 2023/24 crop year

Target

Total target area is **29,752** hectare

Performance

Actual area supported is **32,506.88** hectare



By the 2023/24 reporting period, cumulative areas have been supported and developed for improved irrigation systems

Cumulative target area is **180,096** hectare

Cumulative actual area is **180,789.6** hectare

In 2024, the Company achieved its target for accumulated irrigated areas, reaching a total of 180,789.6 hectare, exceeding the target by 693.6 hectare. The irrigated areas are categorized by type of irrigation system as follows:



Natural water sources

44,390.72 hectare



Pumping stations

13,433.76 hectare



Mitr Phol Oasis Project

1,207.2 hectare



Groundwater wells

90,145.92 hectare



Ponds

31,614.56 hectare

Promoting Supplemental Irrigation to Enhance Yields

The objective of promoting supplemental irrigation is to increase yields for 2.88 – 3.2 hectare of newly planted sugarcane and 1.92-2.4 hectare of ratoon cane, while also improving irrigation efficiency to at least 80% to ensure the crops receive a sufficient and timely supply of water. To achieve this objective, the Company has implemented the following promotion measures:

Enhancing Irrigation Performance

- **Promoting the use of an on-farm drip irrigation system:** Drip irrigation is considered the most efficient method for watering sugarcane, as it delivers a minimal yet sufficient amount of water directly to the base of the plant. This targeted watering not only supports healthy crop growth but also helps reduce and suppress weed development. Therefore, the Company promotes the adoption of this system and supports farmers by offering installment payment plans through its sugar mills. Currently, drip irrigation has been implemented across 46,800 hectare, or approximately 16% of Mitr Phol's total sugarcane farming area.
- **Installing solar panel systems:** Solar panel systems have been installed across 22,400 hectare to provide clean energy for water pumping in sugarcane farming. This also helps reduce reliance on fossil fuels, a major source of greenhouse gas emissions.
- **Developing groundwater wells and recharge ponds:** In sugarcane plantations, the high demand for groundwater can lead to imbalances in the water table. Mitr Phol has thus developed 151 groundwater wells across 966.4 hectare to help restore and conserve groundwater, while also restoring natural groundwater levels.

Deployment of Water Management Technologies

- **Crop Health Monitoring System:** The objective of this system is to monitor sugarcane growth and ensure it meets standards. In 2024, the Company used the system to monitor crop health and receive alerts at various growth stages. When the analysis identifies plots that are underperforming, the Company takes corrective action and continues to monitor and support those areas until the sugarcane meets the required standards.
- **Internet of Things (IoT) and Geographic Information Systems (GIS):** These systems support timely water management by monitoring soil moisture levels to control water distribution. By applying this technology, the Company can efficiently regulate the amount of water provided to crops, ensuring it meets the plants' needs.

Mitr Phol Oasis Project

Mitr Phol has developed and constructed large farm reservoirs with a capacity of over 1 million cubic meters in areas prone to recurring floods. The reservoirs are designed to collect water during the rainy season for use during the dry season, helping to support sugarcane farmers. The project aims to ease drought conditions and reduce flood risks during periods of heavy rainfall.

Completed Projects

Ban Nong Phai Project

Nong Ruea District, Khon Kaen Province
This project has been operational since 2022, benefiting over **640** hectare of farmland and serving **154** households.

Ban Thanon Klang

Ban Thaen District, Chaiyaphum Province
This project has been operational since 2023, benefiting over **640** hectare of farmland and serving **106** water user households.

Future Projects

Dan Chang Project

Dan Chang District, Suphan Buri Province
This project is scheduled to begin operations in 2025 and will benefit over **1,600** hectare of farmland.

Ban Kaeng Deau

Kuchinarai District, Kalasin Province
This project is scheduled to begin operations in 2025 and will benefit over **640** hectare of farmland.

Benefits of the Mitr Phol Oasis Project



Farmers earn an additional
18,750-37,500
baht/hectare/year
from increased
sugarcane yields.



Watering time is
reduced to **1 day**,
compared to the usual
3 days needed to irrigate
a 1.6-hectare area.



Watering costs
are reduced by
21,875
baht/hectare/year.



Water usage is
reduced by **6,500**
cubic meters/hectare/year.

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 3,200 hectare 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 2024, Mitr Phol requested support for the following projects:



Royal Irrigation Department:
3 projects

covering **3,040** hectare,
supporting **1,392** hectare of
sugarcane promotion areas



Land Development Department:
210 ponds

covering **168** hectare,
supporting **168** hectare of
sugarcane promotion areas



Department of Groundwater Resources: **75 projects**

covering **360** hectare,
supporting **120** hectare 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 2024, Mitr Phol sought support for the following projects:



Development of Solar-Powered Agricultural Groundwater Distribution Systems:

176 projects supporting
1,664 hectare of sugarcane
promotion areas



Expansion of Government Water Distribution Systems:

2 projects supporting
384 hectare of sugarcane
promotion areas



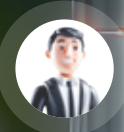
Shallow Groundwater Recharge Ponds:

151 wells supporting
groundwater recharge of
434,000 cubic meters/year

Chapter

14

Energy Management



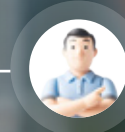
Shareholders



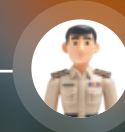
Employees



Suppliers



Customers and Consumers



Government and Civil Society Sectors



Mitr Phol is committed to sustainable energy management through a systematic approach and the continuous implementation of energy conservation measures in line with the Company's energy reduction targets. The Group adopts modern technologies to enhance energy efficiency across its various business sectors. Mitr Phol also emphasizes building employee knowledge and capabilities through training and sustainable energy projects, encouraging participation, raising awareness, and cultivating leadership to drive shared environmental and energy goals. In addition, the Company fosters collaboration with business partners to promote socially responsible practices throughout the supply chain.

2024 Target and Performance



Energy consumption reduction compared to the baseline year 2022

Target

Achieve an annual energy consumption reduction of **4%**

Performance

Energy consumption increased by **13.63%**

Management Approach

Mitr Phol has established a clear energy management policy and systematically developed practical implementation plans, prioritizing execution, monitoring, and evaluation while also promoting awareness and understanding of proper energy management practices among employees at all levels. These efforts are in line with the Energy Conservation Promotion Act B.E. 2550. Each factory has established an energy management working group with the following roles and duties:



- 1 Develop energy management approaches that align with the Company's energy conservation policy as well as to seek opportunities for improving energy consumption and overall performance.



- 2 Present energy management results and proposed operational approaches to the Company's executives and relevant stakeholders to engage them in setting goals and improving work plans.



- 3 Provide training to raise awareness and promote active participation in energy conservation practices among employees.



- 4 Inspect, monitor, and summarize the implementation of energy management practices to ensure effectiveness and alignment with organizational goals.

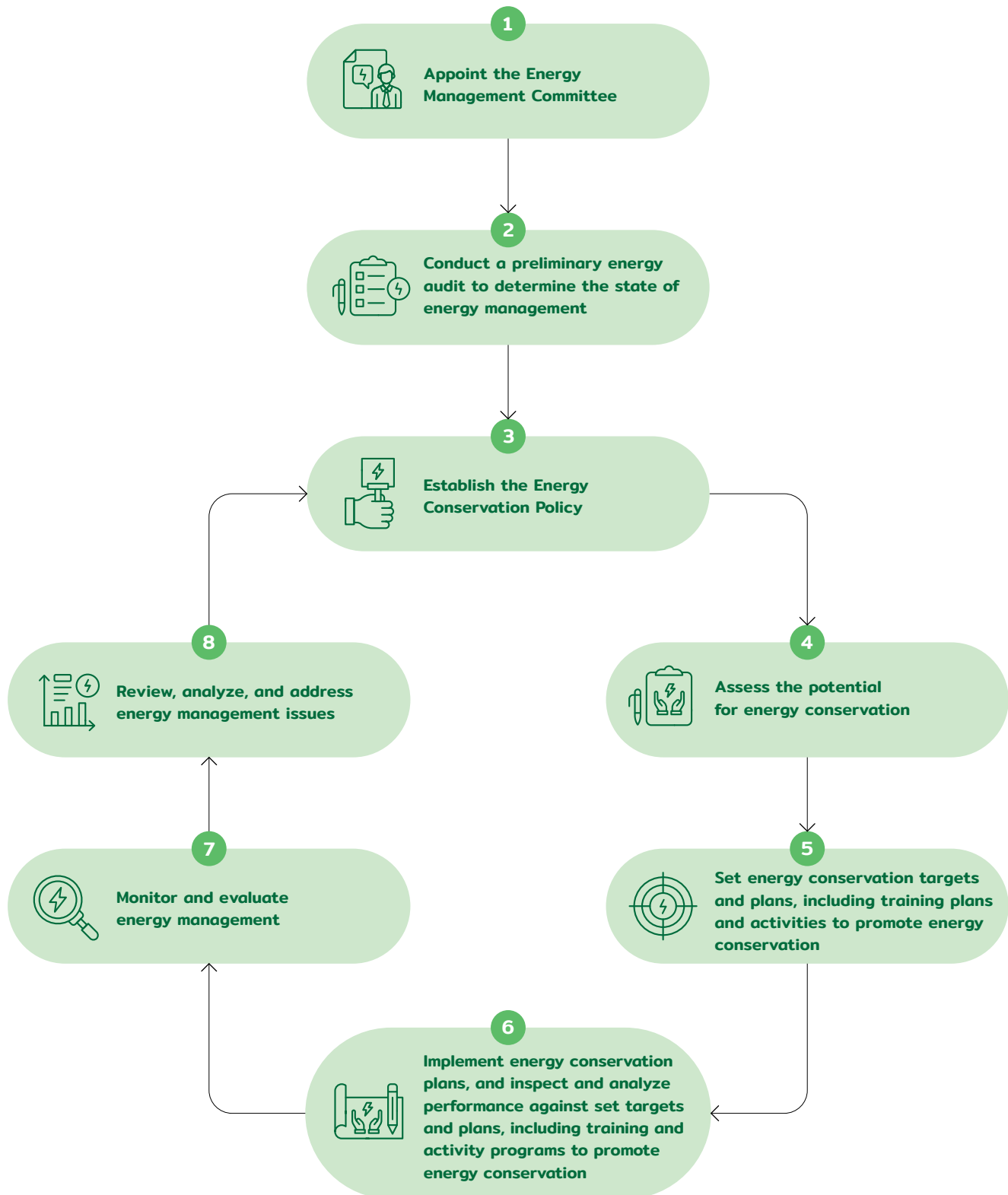


- 5 Summarize internal energy management results and regularly communicate them to employees.



- 6 Support executive involvement and promote compliance with the Energy Conservation Promotion Act to ensure alignment with applicable standards and regulations.

Energy Management Approach



Energy Conservation Projects

All businesses under Mitr Phol Group remain committed to the continuous reduction of energy consumption year after year. Many projects have not only achieved energy savings but also enhanced operational efficiency. In 2024, several energy conservation and reduction projects were implemented across various business groups, with the following outstanding projects:

Sugar Business



Sugar Mill	Energy Conservation Project	Target	Performance
Mitr Phol Dan Chang Sugar Mill	Adjusting gear motor operations to align with the sugarcane crushing volume, for example, stopping the motor when the sugarcane feed decreases	Reduce energy intensity by 1%	Energy intensity was reduced by 0.16%
Mitr Phu Khiao Sugar Mill	Optimizing centrifugal motor settings to match sugar content	Reduce energy intensity by 0.04%	Energy intensity was reduced by 0.04%
	Installing a Brix Refractometer to monitor and control the boiling process, enhancing energy efficiency and reducing energy loss		
Mitr Phu Viang Sugar Mill	Managing air compressor operations based on workload, such as halting operation during unload cycles	Reduce energy intensity by 5%	Energy intensity was reduced by 15.58%
	Improving workflow efficiency by reusing water from the production process in sugar dissolution, helping reduce sugar color instead of relying on raw sugar for affination		
	Optimizing hot water pump motor sizes to align with actual production needs		
	Replacing conventional pump control systems with inverters to adjust motor speeds according to molasses levels		
Singburi Sugar Mill	Installing motor speed controllers to regulate motor speed appropriately for each production process	Reduce energy intensity by 8.5%	Energy intensity was reduced by 15.13%
	Insulating boilers and evaporators to reduce heat loss and fuel consumption		

Power Business



Plant	Energy Conservation Project	Target	Performance
Mitr Phol Bio-Power (Kalasin)	Preheating water before it enters the deaerator boiler to reduce energy consumption in steam production	Reduce energy intensity by 0.8%	Energy intensity was reduced by 1.07%
Mitr Phol Bio-Power (Phu Luang)	<p>Installing inverter-based motor speed controllers on conveyor belts to enable scheduled motor operation based on actual usage</p> <p>Installing inverter-based motor speed controllers to regulate motor speed and optimize motor load distribution to suit the machinery or equipment</p> <p>Improving boiler efficiency</p>	Reduce energy intensity by 0.27%	Energy intensity was reduced by 0.51%

Ethanol Business



Plant	Energy Conservation Project	Target	Performance
Mitr Phol Dan Chang Bio Fuel Plant	<p>Installing inverter-based motor speed controllers to enhance the efficiency of motor speed regulation based on actual usage</p> <p>Scheduling regular cleaning and refrigerant refills for air conditioners to eliminate blockages and improve cooling performance</p> <p>Replacing existing light fixtures with LED lighting to increase brightness, improve energy efficiency, and extend service life</p>	Energy intensity < 7 MJ/L	Energy intensity = 6.78 MJ/L
Mitr Phol Bio Fuel (Kalasin) Plant	Installing energy-efficient air conditioners to replace units that have been in use for more than 10 years	Reduce energy intensity by 0.0086%	Energy intensity was reduced by 0.0086%
Mitr Phol Bio Fuel (Kuchinarai) Plant	Improving pump pressure performance to reduce excessive and unnecessary electricity consumption	Reduce energy intensity by 0.02%	Energy intensity was reduced by 0.0279%
Maesod Clean Energy Ethanol Plant	<p>Installing energy-saving impellers to improve machinery performance, extend gear set lifespan, and lower energy use compared to old impeller systems</p> <p>Installing an Inverter for Mixed Juice processing to enhance equipment efficiency and adjust motor power consumption based on production capacity</p>	Reduce energy intensity by 0.09%	Energy intensity was reduced by 0.1%

Wood Substitute Materials Business



Plant	Energy Conservation Project	Target	Performance
Panel Plus (Hat Yai)	Replacing conventional light bulbs in the factory and storage depot with LED bulbs	Reduce energy intensity by 0.5%	Energy intensity was reduced by 0.1%
	Improving the efficiency of air conditioner usage by scheduling on/off times, performing regular cleaning, and setting optimal temperatures		

Promotion of Renewable Energy Consumption

Mitr Phol promotes the use of renewable energy, including biomass and solar power. Biomass electricity is generated using fuel sourced from agricultural waste such as bagasse and sugarcane leaves, which are by products from the sugar production process and from promoting fresh sugarcane harvesting among farmers. This not only helps reduce agricultural waste and mitigates greenhouse gas emissions, which contributes to climate change and PM2.5, but also decreases reliance on fossil fuels.



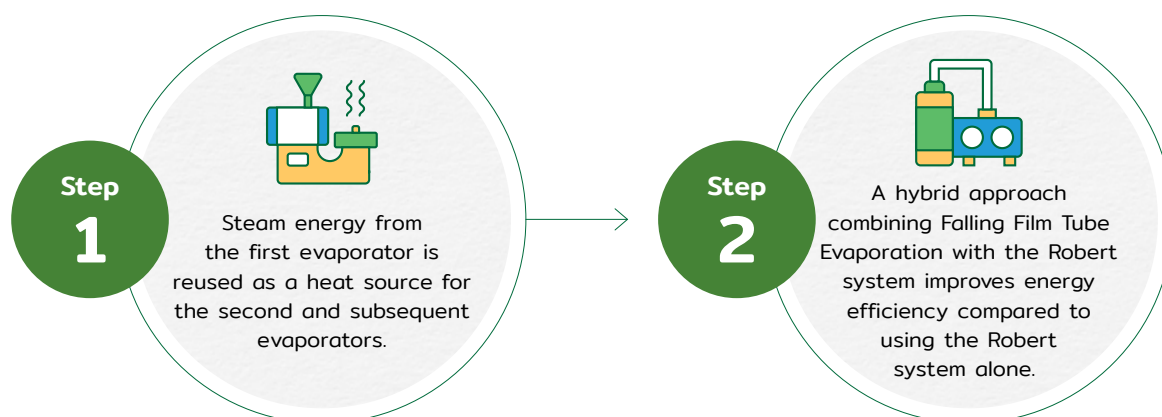
In 2024, the Company consumed a total of **20.99** million MWh of alternative energy, accounting for **98.14%** of total electricity consumption within the organization.

In the transportation process, Fair & Fast Co., Ltd., a one-stop logistics service provider under Mitr Phol Group, began piloting electric semi-trucks in 2023. In 2024, the Company expanded these trials to include the transport of bagged sugar within the Laem Chabang Port area in Chonburi Province. Looking ahead, the Company plans to pioneer the use of electric semi-trucks for delivering sugar products to customers located near its factories. It has also launched pilot projects for transporting raw sugar by rail as an alternative to conventional diesel-powered trucks. These efforts aim to explore more cost-effective logistics solutions, support the transition to alternative energy, and reduce greenhouse gas emissions from traditional transportation activities.

Investments in Innovation or Research and Development to Reduce Energy Consumption

Innovation in the Sugarcane Syrup Evaporation Process

Mitr Phol has studied the sugarcane evaporation process by adopting the Falling Film Tube Evaporation innovation to replace the conventional Rising Film Tube Evaporator (Robert Evaporator). This innovation increases the surface area of the syrup exposed to heat from steam. The adoption of the Falling Film Tube Evaporator results in energy savings through the following two steps:



This new evaporation method helps reduce steam consumption, shortens the evaporation time, improves syrup color quality, and minimizes sugar loss during processing.

The method was first implemented at Mitr Phol Amnat Charoen Sugar Mill. Previously, the evaporation process required 360 kg of steam per ton of sugarcane. After adopting the new method, steam consumption was reduced to 330 kg of steam per ton of sugarcane. Based on the plant's production volume during the 2023/2024 production year, this improvement resulted in estimated cost savings of approximately 16.5 million baht.

Improving Energy Efficiency in the Sugar Decolorization Process

Mitr Phu Viang Sugar Mill, Khon Kaen Province, has improved the efficiency of sugar decolorization process by reusing Transfer Carbon Water from the reactivation of granular activated carbon (GAC) in the MHF system. Recycled water is used to reduce the color of raw sugar, effectively replacing the conventional affination process during the remelting stage in the production of refined white sugar. By adopting this method, the mill has reduced electricity consumption associated with the affination process by up to 18 million kWh annually.

Raising Awareness on Energy Conservation

Employees' understanding and awareness of the importance of energy management and saving are crucial for ensuring the effectiveness and success of organizational goals. Therefore, Mitr Phol prioritizes continuous training and communication related to energy conservation. A key training event in 2024 was a hands-on workshop under the “Energy Management and Industrial Electrical Technology Program” to enhance knowledge and skills among executives and employees in the energy business, factory operations, and the wood-substitute materials group. The training focused on strengthening energy management capabilities, reducing operational energy costs, and leveraging modern technologies such as IoT, Big Data, and AI to improve the efficiency and safety of energy systems. The program was structured into five modules: Energy Management, Cost Reduction in Electricity Business, Energy Conservation, Industrial Electrical Technology, and Application of Digital Technology in the Energy Sector.



- ▲ Mitr Phol and the Faculty of Engineering, Khon Kaen University, cohosted a workshop titled “Energy Management and Industrial Electrical Technology Program”.

Additionally, each of Mitr Phol Group’s operations regularly conducts energy conservation training to meet the specific context of each location. The training covers several topics, such as raising awareness of energy conservation within the organization, onboarding new employees with foundational knowledge of energy-saving practices, and providing specialized training for staff working with electrical systems, focusing on pump efficiency and electrical safety. One example is the energy conservation training program for new employees, which covers essential topics such as the importance of energy management, energy conservation policies, and energy-saving measures applicable to factory and office buildings. The goal of this program is to raise awareness of efficient energy management and empower employees to apply this knowledge in both their professional roles and daily lives.



- ▲ Energy conservation training for 50 new employees at Mitr Phu Viang Sugar Mill in 2024.

In addition to employee training, each Mitr Phol factory disseminates and communicates its energy management initiatives on various topics, including energy conservation policies, the appointment of energy management working groups, plans for promotional activities, training course announcements, and the results of evaluations, along with corrective actions to address energy-related issues. These efforts aim to keep employees well-informed, actively involved in reducing energy consumption, and to foster an effective and sustainable culture of energy conservation.



Chapter

15

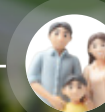
Industrial Environmental and Water Management



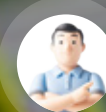
Shareholders



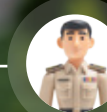
Employees



Communities



Customers
and Consumers



Government
and Civil Society
Sectors



Since business operations rely on nature and coexist with society, companies must carefully consider the impact of their activities on both. This approach helps ensure stable operations while enhancing the quality of life in the broader community. Mitr Phol Group remains committed to responsible environmental and water management.

2024 Target and Performance

	Target	Performance
 <div>Receipt of Serious environmental complaints*</div>	No serious environmental complaints received*	No serious environmental complaints received*
 <div>Water Withdrawal</div>	Decrease by 5%	Increased by 20.7%**

* A serious environmental complaint refers to 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.

** In 2024, the volume of water withdrawals increased due to an expansion of the data collection scope to encompass newly added companies.

Management Approach

The Board of Directors has established a clear policy on security, safety, occupational health, and the environment* and has allocated the necessary resources to support the development of preventive, monitoring, and corrective measures, as well as the inspection of environmental systems. Each factory has a dedicated environmental unit responsible for driving these measures, providing knowledge and understanding, and promoting environmental conservation among employees, farmers, communities, and other stakeholders. Joint meetings with senior management from the sugar and affiliated power sectors are held at least once a month to monitor environmental issues, gather feedback, and exchange information. Internal and external stakeholders are provided with multiple channels to report information, submit recommendations, or lodge complaints regarding environmental impacts. In other business groups, monthly meetings are convened between factory management and the Occupational Safety, Health, and Environment (OSHE) Committee to address both safety and environmental issues. For large factories, the Company has established a trilateral committee in accordance with Environmental Impact Assessment (EIA) requirements, while for power plants with a capacity not exceeding 9.9 MW, a Community Committee has been formed. 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 carrying out continuous review and improvement. The Company has established the following guidelines for identifying environmental issues and assessing their impacts.



The Management

Set policies, allocate resources, and delegate decision-making authority to the Environmental Management Representative (EMR), and appoint an Environmental Management Committee, with the EMR serving as the main driver of the system.



Responsible Persons

Identify environmental issues and assess their impacts to determine the levels of severity and develop mitigation measures to reduce these problems and impacts. Environmental issues include:

- Energy consumption
- Air pollution emissions
- Effluent discharge



Environmental Management Committee and Responsible Persons

Identify key environmental protection issues and establish relevant goals, objectives, and a corresponding plan. This includes preventive and mitigative measures implemented by the Environment Management Committee, which is responsible for reviewing, approving, monitoring, and reporting on performance to management for continual improvement.



The Management and Responsible Persons

Monitor and evaluate related effectiveness, review and improve on environmental issues, and present the findings to management at least once a year.

By implementing these guidelines, the Company is able to identify stakeholders, analyze and assess risks and opportunities related to pollution prevention and environmental protection, strengthen environmental management, ensure compliance with legal and other applicable requirements, and achieve environmental objectives, enhancing transparency and fostering trust among stakeholders.

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



Industrial Water Management

Utility Water

Mitr Phol analyzes both the impact of its operations on water resources and the dependency of its business activities on water, from upstream to downstream, using the ENCORE (ENsemble for CO-Re-Analysis) tool. This includes assessing the effects of the Company's water use. In addition, the Company evaluates water-related risks through the World Wildlife Fund's Biodiversity Risk Filter (WWF BRF) tool, focusing on aspects such as water availability and water quality. These assessments help the Company understand how its business depends on and affects water resources, and how the degradation of these resources could create business risks—supporting more informed planning and management. The Company also studies the potential impacts of El Niño and La Niña on agricultural yields, particularly sugarcane, by reviewing precipitation forecasts and rainfall data from the Meteorological Department. This analysis is used to forecast water availability in the fields and to manage water resources efficiently and effectively, ensuring sufficient support for optimal sugarcane growth.

For further details, please refer to [the Farm and On-Farm Water Management](#).



Wastewater

In industrial production processes, water that has been used and contaminated through systems or internal operations within a factory is collectively referred to as wastewater. The Company has implemented a variety of wastewater treatment systems tailored to the quality of the wastewater and the plant location, such as oxidation pond systems and activated sludge treatment 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 Environment No. 3 (B.E. 2539), Re: Effluent standard for factories in industrial estates.

In 2024, Mitr Phol planned to develop wastewater management at the Mitr Phu Khiao Sugar Mill in Chaiyaphum Province, making it the second facility to improve wastewater quality for reuse. The project involves upgrading the mill's wastewater treatment system to an activated sludge process, a biological treatment method that relies on aerobic bacteria to decompose organic matter in the wastewater. Once implemented, the system is expected to enable the reuse of approximately 2,000 m³ of treated water per day for the Company's plantations and recycle about 3,500 m³ per day for park irrigation.

To ensure efficient water management, Mitr Phol has implemented the 4Rs principle, which includes 1) Resource: Securing surface water and groundwater as backup sources, 2) Reduce: Reducing water consumption in the production process, 3) Reuse: Reusing water generated from the production process, and 4) Recycle: Recycling treated water at sugar mills. Mitr Phol applies the 4Rs principle to mitigate the environmental impact of water usage in its business operations. The following outlines the detailed management approach:

Management Approach



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: Reducing 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.

4Rs



Reuse: Reusing water generated from the production process

- Use condensed water from sugarcane juice evaporation to spray bagasse during the milling process.
- Reuse machinery coolant from the milling process.
- Treat condensed water from sugarcane juice evaporation until the COD value meets legal requirements (100–200 mg/L), then return it to the raw water reservoir for reuse.
- Use condensed water from sugarcane juice evaporation, once cooled to the appropriate temperature, to wash machinery.



Recycle: Recycling treated water at sugar mills

- Recycle more than 3,000 m³ of water daily in the mills through an eco-friendly wastewater treatment system.
- Classify wastewater based on Total Dissolved Solids (TDS) and treat low-TDS wastewater before reuse.
- Use treated water to sprinkle bagasse piles and conveyor belts transporting ash from boilers.
- Use treated water from the final effluent treatment pond that meets quality standards to control dust in open areas, sugarcane truck parking lots, and for crop irrigation.

Air Quality Management

The Company has implemented air quality management measures to control and mitigate air pollution from its source to the point of emission, in order to prevent and reduce potential impacts on surrounding communities. The specific air quality management guidelines for each factory are tailored to its circumstances, with measures categorized into three main approaches:

Air quality monitoring

- The Company proactively manages air quality under the concept “Know Before the Community, Act Before Impact” to mitigate potential impacts on surrounding communities. This initiative is being piloted at two sites, Mitr Phol Dan Chang Sugar Mill (Suphan Buri Province) and Sing Buri Sugar Mill (Sing Buri Province), through the development of the AIRMODEL system and installation of IoT sensors to monitor wind direction, wind speed, and ambient air quality, including PM2.5 levels. At nine other sites: Mitr Phol Dan Chang Sugar Mill, Sing Buri Sugar Mill, Mitr Phu Viang Sugar Mill, Mitr Phu Khiao Sugar Mill, Mitr Phol Kaset Sombun Sugar Mill, Mitr Phu Luang Sugar Mill, Mitr Kalasin Sugar Mill, Mitr Amnat Charoen Sugar Mill, and Maesod Clean Energy Co., Ltd., advance wind speed and direction forecasts are provided, together with mitigation measures aligned with forecast data. The Company also plans to use these forecasts to guide both advance and daily operational planning for activities that are sources of emissions. Examples include activating dust-trapping spray systems in locations predicted to be affected, or suspending high-emission activities during critical periods. Meteorological data will also be analyzed statistically to identify seasonal trends in wind direction, which will be used in long-term planning to prevent and minimize pollution impacts. Furthermore, the Company will establish a real-time particulate matter alert system to provide immediate notifications when rapid changes in pollutant levels or wind direction are detected. Automated control devices will also be installed at emission sources to enable prompt prevention and mitigation actions.

Mitr Phol AI-AERMOD Platform Roadmap

AIRMODEL Platforms 9 Sites

2024

- 8 LoRaWAN IoT sensors MSB
- Stream data→AWS Redshift, 2 min
- Built Wind-Rose viz & Streamlit app
- Established data-management
- Deployed notification system
- Expanded weather
- API integration to 9 sites

AI AERMOD, Feedback control

2025

- High-accuracy short-term dust forecasts at MSB
- Prototype "model→control" feedback
- Install LoRaWAN at **MSB, MKS, MKB**
- Spray-gun actuation via ESP32 (MQTT) & Spray-gun actuation via PI WebAPI
- Control System**

Community Engagement

2026-2028

- Replace Weather-API with fullLoRaWAN ingestion at remaining sites
- Roll out spray-gun control to all 9 factories
- Extend AI-AERMOD forecasting to all 9 factories
- Launch "Loyalty Alert" system to notify
- Engage local communities in real time

Prevention and Control of Pollution at Its Source

It is essential to continually improve and develop measures to manage air quality at potential sources arising from various activities, such as:

- Improve machinery and equipment and control the combustion process to reduce pollution from production by optimizing fuel use and combustion factors in biomass power plant boilers to achieve complete combustion.
- Control dust from bagasse and sugarcane leaf stockpiles, as well as woodchip stockyards used as raw materials, by installing mesh barriers, spraying water around the piles, and constructing earth walls and tree windbreaks to contain dust.
- Install air pollution control systems to capture dust from biomass power plant fuel combustion using wet scrubbers and electrostatic precipitators.
- Install and upgrade air pollution control systems to enhance large particle removal efficiency by adding a multi-cyclone system and improving the existing wet electrostatic precipitators at the Mitr Phol Biopower Plant in Kalasin. In the wood substitute material production process, install dust collection systems within the production building and deploy vacuum trucks to collect dust from the slab yard for reuse as fuel in the production process.

- Control dust from sugarcane transport during the milling season by using water trucks to sprinkle roads within the mills and in surrounding communities. Set sugar cane transportation routes and conduct community visits to gather feedback and develop solutions.
- Control dust particles generated from the sugarcane leaf shredding process by using shredders equipped with dust covers, spraying water on the leaves before shredding, and installing dust collectors to reduce dust dispersion.

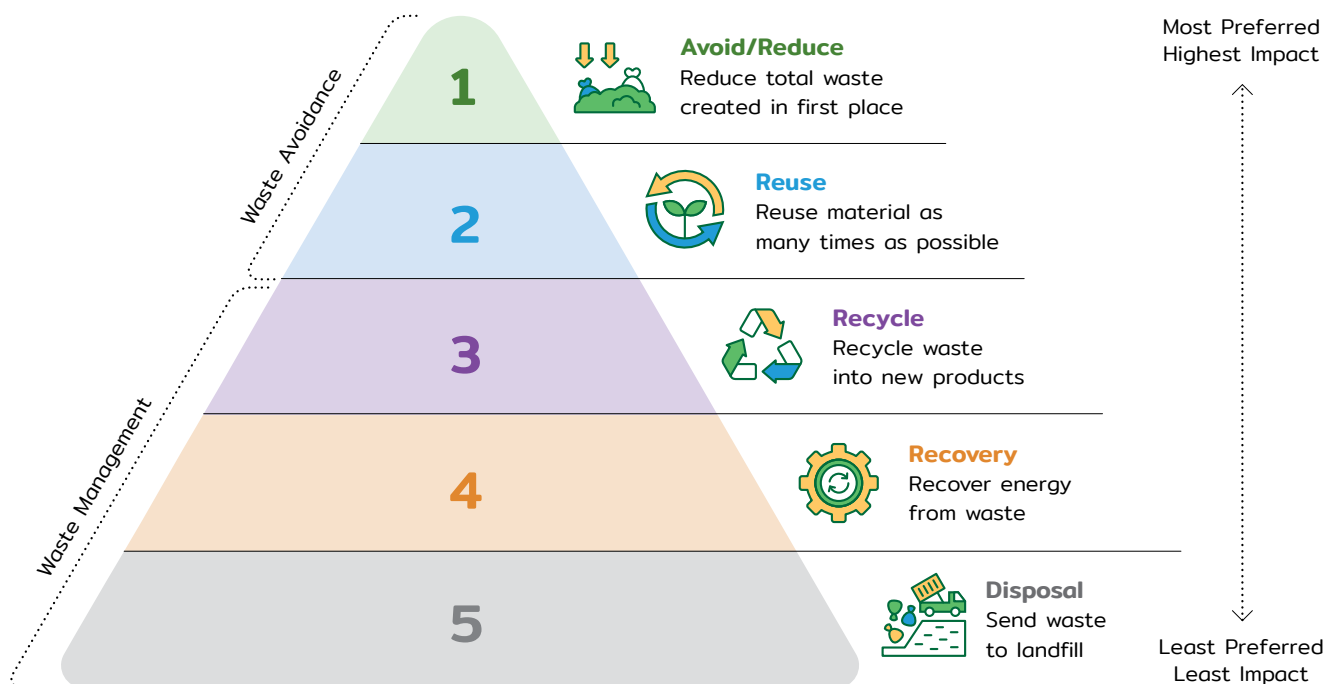
Air Quality Index Standard

- Air quality at emission stacks is regularly monitored to ensure compliance with legal standards and the requirements outlined in the Environmental Impact Assessment (EIA) report. In addition, the opacity levels of smoke emissions are assessed using the Ringelmann Smoke Chart to evaluate pollution levels resulting from industrial activities.
- Mitr Phol has a plan to install a Continuous Emission Monitoring System (CEMS) at biomass power plant stacks by 2025. This system will continuously measure pollutant concentrations and provide real-time data, enabling better control of emissions. It will also help assess combustion completeness and furnace efficiency, further enhancing environmental performance.

Industrial Waste Management

With a strong commitment to advancing Thailand's agricultural sector under the concept "From Waste to Value Creation," Mitr Phol focuses on developing businesses that utilize recycled materials. Waste from one business is continuously transformed to create value for another. For example, bagasse is converted into biomass-fueled electricity, molasses is processed into ethanol for use in gasohol and jet biofuel, and filter sludge and distillation effluent are used to produce fertilizer. The Company also develops bio-based products to replace petroleum-based products. This approach not only reduces waste and minimizes negative impacts across the value chain but also generates new business opportunities for the organization. In addition, Mitr Phol promotes academic and research initiatives for new product development, organizes study visits on waste management practices, and supports indirect financial measures such as establishing reference prices for industrial waste disposal in line with international best practices to ensure operational efficiency.

Mitr Phol has established its waste management strategy based on the waste hierarchy concept, which consists of avoidance/reduction of waste generation, reuse, recycling, and recovery, as illustrated.



To strengthen its waste management capabilities, Mitr Phol Dan Chang Complex has initiated a systematic study and data collection on waste generation to develop a comprehensive Waste Profile, which will serve as a valuable database for future waste management initiatives. The database will provide complete information on the types, quantities, sources, and management methods for each waste stream, in line with environmental management system standards. The Company plans to promote Mitr Phol Dan Chang Complex as a model for a Closed-loop Recycling System through collaboration with other organizations to connect partners across the value chain. This system will maximize waste utilization, reduce the volume sent to landfill, and encourage reuse. In addition, the Company will engage an independent certifying agency to verify waste diversion from landfill, ensuring continuous monitoring and improvement in waste management for maximum efficiency.

Investment in Innovation or R&D to Minimize Waste

Not only does the Company adhere to its waste management guidelines, but it is also dedicated to research, development, and investment in initiatives that add value to by-products and waste materials generated during production. These efforts enhance resource efficiency and reduce the volume of waste sent to landfills. Currently, the Company has introduced several innovation-driven projects focused on waste reduction, as follows:

The Elephant Super Soil Project utilizes agricultural waste from sugar production, such as filter cake, sugarcane leaves, sand residue from sugarcane leaves, and bagasse ash, through fermentation and microbial decomposition. This process transforms waste into soil-enrichment materials suitable for crop cultivation. The product has been approved for agricultural use by the Department of Agriculture. Mitr Phol is now developing plans to expand the application of this soil conditioner to larger areas, to enhance agricultural productivity in the future.

Research Projects by Mitr Phol Innovation and Research Center to Add Value to Waste Generated from Power Plants include:

- **Fertilizer Development Project Using Bagasse Ash as a Filler:** This project repurposes bagasse ash as a filler in fertilizer production. This innovation helps increase sugarcane yields per rai compared with conventional chemical fertilizers mixed with standard fillers.
- **Biomass-based Energy Storage Material Study:** In collaboration with external research institutions, this study focuses on developing energy storage materials from biomass, such as tire materials enhanced with graphene derived from sugarcane bagasse and leaves, which have demonstrated improved abrasion resistance.
- **Project on Developing Synthetic Bricks Using Geopolymer Technology and Building Materials:** In collaboration with the National Metal and Materials Technology Center (MTEC), this project develops prototypes of green building materials by utilizing sugarcane ash from biomass power plants and lime sludge (pressed filter cake) from sugar production to improve strength, durability, and quality. The initiative not only adds value to industrial by-products but also reduces costs for biomass power plants and sugar mills.



▲ Product Prototype – Green Building Material

Waste Reduction Projects for Sustainable Development in the Wood Substitute Material Business

- **Utilizing Fly Ash in Floor Tile Production:** This project repurposes fly ash, a by-product generated during production, as a raw material for floor tiles. The processed tiles can be sold for more than 12 baht per ton. In addition to generating extra income, this initiative reduces fly ash waste by up to 160 tons per year and lowers transportation costs for waste disposal by over 61,000 baht annually.
- **Developing Paving Blocks from Fly Ash and Bottom Ash:** This project explores and applies new technology to produce paving blocks by mixing 7 tons of fly ash and bottom ash with cement. The initiative not only adds value to ash waste but also reduces transportation costs for waste disposal by more than 3,000 baht per year.

Approaches to Developing Personnel in Environmental Management

Training on Environmental Management Systems and Safety (ISO 14001 & ISO 45001)

In 2024, Mitr Phol organized training on Environmental Management Systems and Safety (ISO 14001 & ISO 45001) for targeted units, aiming to equip employees with practical knowledge in occupational health, safety, and environmental management. The training covered knowledge about wastewater management, air pollution control, and waste handling. Practical examples included installing grease traps for canteen wastewater, conducting regular maintenance and inspections of machinery, and ensuring proper waste segregation into designated categories. Employees are encouraged to apply these practices in their daily work and personal lives.

Waste Reduction Training

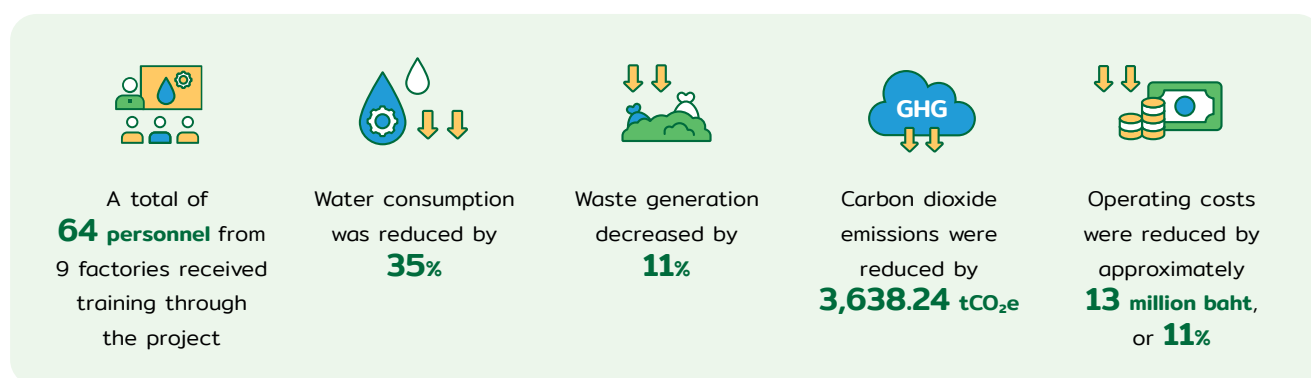
Mitr Phol has organized waste reduction training for employees in line with its Environmental Procedures on managing waste, unused materials, and industrial residues. The training is tailored to the context and environment of each factory. For example, Mitr Phu Luang Sugar Mill, Loei Province, has introduced waste management training to help reduce the volume of waste requiring disposal, conserve resources, and minimize environmental impact. The training covers waste segregation, including general waste, recyclable waste, and hazardous waste, as well as the repurposing of by-products as soil conditioners for agricultural use. Following the training, employees put these practices into action through initiatives such as the Collect and Exchange project, which involves sorting recyclable waste for resale, composting leftover food from the canteen to produce organic fertilizer and bio-liquid fertilizer, and collecting UHT cartons for donation to be transformed into green roofs for community use.



▲ Waste reduction training at Mitr Phu Luang Sugar Mill, Loei Province

Training to Raise Awareness on Efficient Water Management

Mitr Phol has provided internal training programs on utility water management and wastewater treatment, focusing on practical measures to reduce and control water consumption for maximum efficiency. These include simple steps such as turning off taps completely and checking sanitary equipment for leaks to conserve water. The programs aim to raise employee awareness of the importance of water resources and promote efficient water management practices. The Company has also participated in the Water Management Technology Promotion Project for industrial factories, which aims to reduce both water consumption and pollution. This initiative supports the Ministry of Industry's policy framework as well as the 20-Year National Water Management Master Plan (2017–2037). A total of 9 Mitr Phol factories, accounting for 27.27% of all participants, were selected to take part in the project. Each factory is required to attend training sessions on water management to identify approaches and measures that maximize water use efficiency. Examples include reusing recycled water for plant irrigation and reducing the frequency of machinery washing. The outcomes of this project are as follows:



▲ Participation in the Water Management Technology Promotion Project to Reduce Water Use and Pollution in Factories

More importantly, to strengthen and broaden the scope of the Environmental Management System (EMS) in line with international standards, and to ensure consistent oversight and management under a unified policy, Mitr Phol set a target to establish a Multi-site Certification system. This certification covers both the organization's environmental management system (ISO 14001) and its occupational health and safety management system (ISO 45001). In 2024, Mitr Phol successfully achieved Multi-site Certification, operating under a single integrated management system across 13 sugar mills and biomass power plants.

Chapter

16

Biodiversity Management



Biodiversity is the foundation of ecosystem services that are essential to Mitr Phol's business operations, particularly in sugarcane cultivation, where both "sugarcane planting" and "sugarcane yield" are key indicators of business performance across the supply chain. A healthy ecosystem is therefore a critical factor for long-term business resilience. Unsustainable business practices can threaten ecosystems, potentially leading to the degradation of ecosystem services. Thus, preserving and restoring biodiversity to maintain ecological balance is crucial for ensuring long-term stability for both farmers and the business.

To support sustainable growth, Mitr Phol prioritizes biodiversity management and considers the risks that may impact ecosystems. The Company adopts the Taskforce on Nature-related Financial Disclosures (TNFD) framework to better understand and manage nature-related risks and opportunities, while also enhancing transparency through the disclosure of financially relevant information linked to nature. When risks or environmental impacts are identified, appropriate measures are implemented to prevent, avoid, and remediate them. Mitr Phol also works to raise awareness and promote learning within communities, encouraging shared responsibility and appreciation for the value of biodiversity.

2024 Target and Performance



No net loss (NNL) of biodiversity within the Company's operational scope

Target

Long-Term Goals:
Achieve no net loss (NNL) of biodiversity within the Company's operational scope **by 2030**

Performance

Achieved no net loss (NNL) of biodiversity within the Company's operational scope



Ratio of green space within the factory area

Short-Term Goals:
At least **5%** of the factory area

14.34% of the factory area



Tree planting

Short-Term Goals:
Plant **58,900** trees by 2027
Long-Term Goals:
Plant **1 million trees** within **10** years (2022 - 2035)

56,225 trees planted in 2024; cumulative total: **666,516** trees

*For more information on [the Biodiversity Management Statement](#), please visit



Management Approach

Biodiversity Risk Management

Biodiversity management aligns with the Taskforce on Nature-related Financial Disclosures (TNFD)* framework, which guides the assessment and transparent disclosure of nature-related information to stakeholders. The framework includes:

1

Assessing governance structure

2

Evaluating integration with corporate strategy

Identifying nature-related dependencies, impacts, risks, and opportunities that influence the business model, strategy, and financial plans, to enable the Company to better understand and respond to nature-related risks, while also leveraging potential opportunities.

3

Risk management

Integrating nature-related risks into the organization's risk management system.

4

Defining metrics and targets

Defining metrics and targets to monitor and evaluate the Company's performance in biodiversity.

*For more information, please visit [Mitr Phol's Taskforce on Nature-related Financial Disclosures \(TNFD\) Report](#)



Application of the Mitigation Hierarchy

Mitr Phol has applied the AR3T Action Framework of the Science-Based Targets for Nature (SBTN) network, in alignment with TNFD recommendations, to prevent, avoid, reduce, and restore biodiversity impacts resulting from its operations.

Avoid



Avoid potential future impacts on biodiversity.

Design and manage factory areas, particularly biodiversity-sensitive zones, to ensure they remain unaffected. This includes establishing governance and operational controls to preserve biodiversity and ecosystem richness.

Reduce



Reduce current impacts on biodiversity.

Improve existing practices to reduce environmental impacts, such as upgrading wastewater treatment systems and applying the “From Waste to Value Creation” concept. This includes converting sugarcane bagasse into renewable energy, transforming molasses into ethanol, processing vinasse—a byproduct of ethanol production—and filter cake, a byproduct of the sugar industry, into biofertilizer, as well as utilizing yeast to produce protein-rich supplements for livestock and pets.

Restore



Restore

Conduct ecosystem restoration to return degraded areas to their natural state, for example, designing water storage ponds that help replenish groundwater sources. These systems use natural filtration through soil and rock layers to improve water quality and increase soil moisture. Restoration efforts also include reforestation on degraded land, with the goal of planting 1 million trees over 10 years (2022–2032), in collaboration with various networks and agencies. In addition, the Company supports biodiversity conservation initiatives within community forest areas.

Regenerate and Transform



Regenerate and Transform the Foundational System

Promote sustainable farming through the “Mitr Phol ModernFarm” initiative, which regenerates sugarcane cultivation. This includes soil conservation through crop rotation with legumes during fallow periods and the use of green cane trash to blanket and protect the soil. The Company emphasizes efficient water management and encourages the adoption of modern agricultural machinery and technology. These practices help reduce the use of raw materials and labor, lower production costs per rai, and support environmental sustainability.

Biodiversity Conservation Activities

One Million Tree Planting Project

Mitr Phol is committed to conserving and restoring nature through its tree planting project, which aims to expand green spaces and enhance carbon absorption for local communities. The project targets the planting of one million trees over a 10-year period (2022–2035), with a total investment of 50 million baht. Activities include tree planting within the Company’s own areas as well as promoting tree planting on community land in collaboration with farmers and local residents through various programs. As of 2024, the project has achieved the following:



Number of trees planted: **666,516**
163,351 trees planted by the Company
 and **503,165** trees planted by third parties



Total reforestation area:
315.2 hectares



Number of farmers and
 community members
 joining the project: **7,207**

Mitr Volunteer Forest Planting Project at Phu Long

The Mitr Volunteer Forest Planting Project at Phu Long has been held annually since 2020. The project aims to raise awareness of forest conservation, promote environmental protection, and restore watershed forests, while also helping to prevent wildfires. It focuses on planting native tree species such as Hopea ferrea, sappanwood, bungor, black rosewood, Siamese rosewood, teak, yang, and jambolan to rehabilitate forest areas damaged by fire. Over the past five years, a total of 25,000 trees has been planted across 16 hectares.



▲ Tree planting activity in Phu Long Forest in 2024, held at Wat Pa Mahawan, Tha Mafai Wan Sub-district, Phu Khiao District, Chaiyaphum Province

Community Forest Project in Collaboration with the Mae Fah Luang Foundation

Since 2023, Mitr Phol has partnered with the Mae Fah Luang Foundation to implement community forest projects covering 160 hectares in Amnat Charoen Province. This three-year initiative, with a budget of 2.7 million baht, aims to support local communities in sustainably managing and conserving forest areas, particularly as carbon sinks. Activities include strengthening community capacity in forest stewardship, establishing community forest management funds to support forest protection measures, such as creating wildfire prevention lines, and developing guidelines for the sustainable use of community forests.

Target Area			
 160 hectares Amnat Charoen Province		 No recorded forest fire incidents in the area	
Performance			Expected Outcome
2023 <ul style="list-style-type: none">Conducted forest surveys and trained communities in preparation for T-VER registration	2024 <ul style="list-style-type: none">Trained communities in forest fund management and registered the T-VER project	2025 Plan <ul style="list-style-type: none">Collect and analyze forest data	<ul style="list-style-type: none">Restore 160 hectares of community forestIncrease carbon sequestration, estimated at approximately 5.625 tons per hectare per year

Biodiversity Conservation Projects in Collaboration with Rubber Farmers and Communities

The Wood Substitute Materials Business Group collaborates with rubber farmers and local communities surrounding its factories to implement a community forest biodiversity conservation project. The project covers protected areas, including Ban Thung Hua Mueang, Ban Ton Sai, Ban Chong Khao, Khao Kho Hong, Pa Phong, Ban Chang Lon, Ban Khuan Dan, and Ban Bon Khuan community forests, totaling 842.24 hectares. Project performance is monitored and evaluated every five years.

Community Forests	Area	2024 Performance
Thung Hua Mueang Community Forest, Tha Pradu Sub-district, Na Thawi District, Songkhla Province	154.4 hectares	<ol style="list-style-type: none"> Collectively manage forests, focusing on community engagement. Activities include surveying local flora and fauna, patrolling forest areas, and studying methods to control invasive plants. Develop forest trails by installing tree tags. Develop these areas into ecotourism sites by creating educational opportunities for youth, promoting community-based food sources through forest management training, restocking ponds with fish, and establishing guidelines for sustainable forest product harvesting.
Ban Khuan Khao Wang Community Forest, Tha Plak Noo Sub-district, Na Thawee District, Songkhla Province	165.28 hectares	<ol style="list-style-type: none"> Collectively manage forests, focusing on community engagement. Activities include establishing community forest guidelines, installing boundary signboards, surveying local flora and fauna, organizing merit-making and forest ordination ceremonies, and conducting regular forest patrols. Develop forest trails and viewpoints. Manage forests and provide training on the sustainable use of community forests to improve productivity.
Ban Chong Khao Community Forest, Rattaphum District, Songkhla Province	165.28 hectares	<ol style="list-style-type: none"> Collectively manage forests, focusing on community engagement. Activities include developing community forest guidelines, installing boundary signboards, surveying local flora and fauna, patrolling forest areas, and providing training on community forest management. Strengthen the community based on the Sufficiency Economy Philosophy through forest ordination ceremonies and landscape improvement activities. Implement forest management and promote sustainable community forest utilization.
Khao Kho Hong Protected Area, Songkhla Province	32 hectares	<ol style="list-style-type: none"> Collectively manage forests, focusing on community engagement. Activities include developing community forest guidelines, installing boundary signboards, surveying local flora and fauna, patrolling surrounding areas, and studying methods to control invasive plants. Collaborate with Prince of Songkla University to assess the economic value and utilization potential of medicinal plants.
Pa Phong Protected Area, Tamot Sub-district, Tamot District, Phatthalung Province	318.88 hectares	
Ban Chang Lon Community Forest, Khuha Tai Sub-district, Rattaphum District, Songkhla Province	29.6 hectares	
Ban Khuan Dan Community Forest, Khuha Tai Sub-district, Rattaphum District, Songkhla Province	43.68 hectares	
Ban Bon Khuan Community Forest, Khuha Tai Sub-district, Rattaphum District, Songkhla Province	35.2 hectares	



- ▲ Patrols were conducted at the project's community forests and protected areas, namely Ban Thung Hua Mueang, Ban Ton Khuan Khao Wang, Ban Chong Khao, Khao Kho Hong, Pa Phong, Ban Chang Lon, Ban Khuan Dan, and Ban Bon Khuan.

Check Dam Construction Activity in Wang Nam Phung Watershed Forest

Panel Plus Co., Ltd. provided funding and encouraged employee participation in a check dam construction activity in the Wang Nam Phung watershed forest, located in Moo 10, Ban Rai Subdistrict, Hat Yai District, Songkhla Province. The initiative, conducted in collaboration with local communities and industrial network partners, aims to store water for use during the dry season, serve as nurseries for aquatic life, conserve water resources, and restore the upstream ecosystem. The activity also helps strengthen relationships between the Company and the local community.



- ▲ Volunteer activity to build a check dam in Wang Nam Phung Watershed Forest

Chapter

17 Packaging



The use of high-quality, eco-friendly packaging is essential to Mitr Phol as it reflects the Company's commitment to both product excellence and its responsibility to society and the environment. High-quality packaging protects sugar from contamination and damage during transportation and storage, ensuring that customers receive safe and high-quality products. Opting for eco-friendly packaging also underscores Mitr Phol's commitment to minimizing environmental impact. This includes ensuring consumer convenience and safety, as well as facilitating proper sorting and disposal once the packaging becomes waste, helping to reduce landfill waste and unnecessary use of natural resources. To fulfill this commitment, Mitr Phol has set a target that by 2030, 100% of its packaging will be designed to be reusable, recyclable, or compostable. In 2024, 95% of the Company's sugar packaging already met this target. These efforts contribute not only to long-term sustainable business growth but also to enhanced customer trust and satisfaction, while supporting environmental stewardship.

2024 Target and Performance



Packaging is made from recyclable and compostable materials.

Target

95%
of total packaging

Performance

95.38%
of total packaging

Management Approach

Mitr Phol places great importance on minimizing the environmental impact of its packaging throughout its life cycle, while also satisfying the diverse needs of consumers. Therefore, the Company has established a packaging policy focused on four key areas:

1



Develop packaging technologies that support the circular economy model.

2



Reduce the use of single-use plastics and increase the adoption of reusable packaging.

3



Promote the use of compostable and recyclable materials in packaging design and development.

4



Promote the use of recycled materials in packaging to reduce dependence on virgin resources.

For more information on the [Packaging Policy](#), please visit the Company's website.



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 as well as to encourage on phasing out single-use plastic. In 2024, the Company used approximately 7,300 tons of recyclable packaging materials.



◀ Sugar packaging is 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. In 2024, the Company used approximately 0.14 tons of compostable packaging materials.



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

Improving material efficiency in carton packaging

Mitr Phol incorporates up to 94% recycled paper in its carton packaging production. By enhancing the strength of the paper pulp and optimizing the production process, the Company reduced paper usage by 114 tons. In 2024, Mitr Phol used approximately 1,844 tons of recycled paper.



- ▲ Carton packaging that is made of recycled paper pulp

Promoting the use of rPE in the production of outer packaging

Mitr Phol has introduced recycled polyethylene (rPE) in the production of outer packaging that does not come into direct contact with food. By blending rPE with virgin plastic, the Company reduces reliance on petroleum-based materials, which not only reduces plastic waste sent to landfills or incinerators but also lowers greenhouse gas emissions, as rPE requires less energy to produce than new plastic. Additionally, the Company has expanded this effort through the Sustainability rPE Project (High-Quality PCR for Outer Bag), a collaboration with plastic resin suppliers to study the reprocessing of unused polyethylene materials from factory operations into high-quality post-consumer recycled (PCR) materials. In 2024, approximately 30% of the plastic resin used in syrup bag production was sourced from PCR materials. Mitr Phol used approximately 2.8 tons of PCR Resin.

Promoting a 10% reduction in the use of PETE plastic.

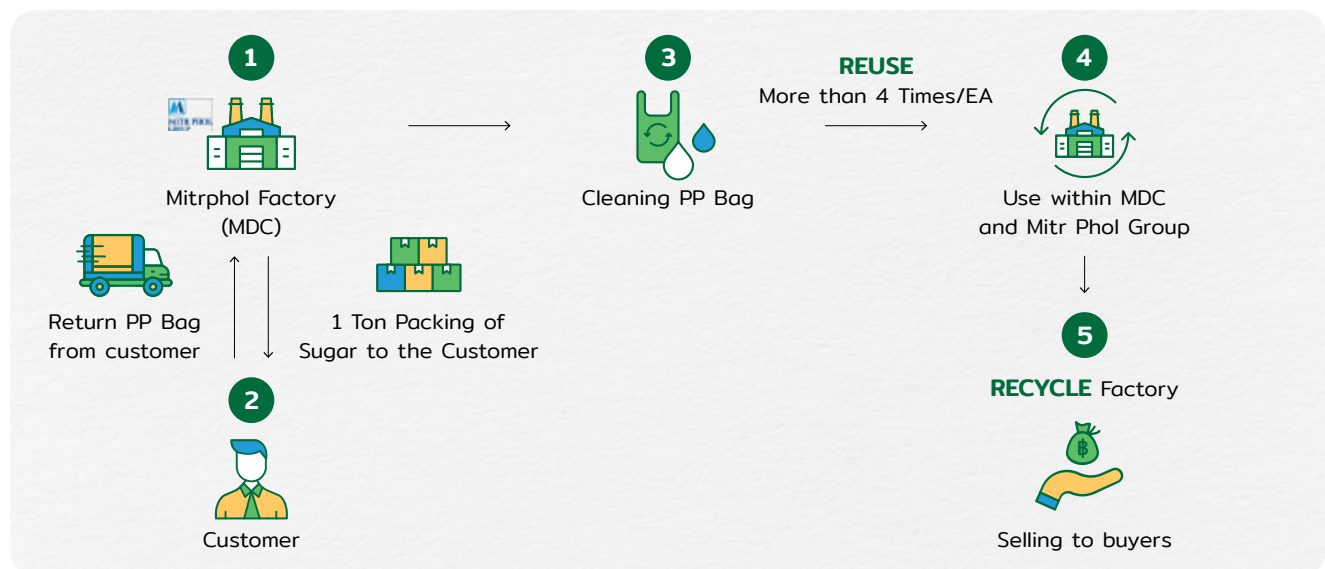
Mitr Phol set a target to reduce the use of Polyethylene Terephthalate (PETE) in its syrup packaging by 10% and successfully achieved this target in 2024.



- ▲ Packaging with reduced Polyethylene Terephthalate (PETE) content

Collaboration to drive and promote sustainable packaging management

- Mitr Phol plans to promote a closed-loop recycling model through collaboration with external organizations, aiming to connect partners across the value chain and maximize resource recovery from waste to minimize waste sent to landfills. The initiative will begin with Mitr Phol Dan Chang Complex in Suphan Buri as a model, with plans to expand it to other factories within the Group in the future. The Company is currently collecting data and conducting a systematic study of waste generation at the Suphan Buri site to build a comprehensive waste profile. This involves identifying the types, quantities, sources, and management methods of each waste stream generated during the manufacturing process, in accordance with environmental management standards. The resulting dataset will support the expansion of Mitr Phol's waste management model across its operations.
- The Reused Program for PP Bags at Mitr Phol Sugar Mill in Suphan Buri Province is a collaborative initiative with customers, aimed at reusing polypropylene (PP) bags for non-food-contact packaging to reduce the need for new packaging materials. In 2024, the Company successfully reused 33,000 PP bags, accounting for 12% of the total PP bags used that year. Mitr Phol also plans to expand this initiative to other mills in the future.



▲ Process flow of The Reused Program for PP Bags

- The Company promotes the use of tank cars to transport cane syrup and granulated sugar to customers to reduce the use of plastic packaging. In 2024, Mitr Phol delivered 254,000 tons of cane syrup and 30,000 tons of granulated sugar using tank cars, which can reduce usage of 264 million plastic packaging bags for syrup and 30 million plastic packaging bags for sugar. Additionally, the Company also reuses the containers, which can reduce plastic usage by 3,500 tons/year.



▲ Tank cars for delivering cane syrup to customers



▲ Tank cars for delivering granulated sugar to customers

Chapter

18

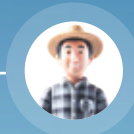
Food Loss and Food Waste Management



Shareholders



Employees



Farmers



Suppliers



Customers
and Consumers



Mitr Phol recognizes that food loss and waste reflect wasted investment as they lead to the unnecessary use of resources, such as raw materials, labor, energy, and water, without delivering any value. They can also limit access to food for vulnerable groups and contribute to methane emissions, a powerful greenhouse gas. At Mitr Phol, food or sugar loss can occur at any stage from sugarcane cultivation to consumer use. Therefore, effective management to reduce food loss and waste not only helps cut costs through better resource efficiency but also improves overall operational performance.

2024 Target and Performance



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

Target

0.20 tons/ton of sugar sold

Performance

0.18 tons/ton of sugar sold

Management Approach

Committed to reducing food loss and waste throughout the production process in an efficient and sustainable manner, Mitr Phol has announced a Food Loss and Waste Policy* to provide clear guidance for employees and ensure management practices are aligned with the Company’s principles. The policy supports sustainable production and consumption across the entire supply chain through the following approaches:

Reduction of Sugar Loss Before Crushing

- Selecting high-quality sugarcane varieties that are suited to local climate and soil conditions helps improve resistance to diseases and pests, reducing the risk of damage and preserving both quality and sucrose content in sugarcane. Proper care during the growth phase, including appropriate irrigation and fertilization, weed control, and pruning, promotes healthy development and efficient photosynthesis, leading to greater sugar accumulation and reduced sugar loss before crushing.
- Collaborative projects with partners to harvest sugarcane at the optimal time, when fully ripe and with the highest sucrose content, help produce high-quality products and prevent losses due to sucrose decomposition. The Company has partnered with upstream stakeholders to implement the following activities.

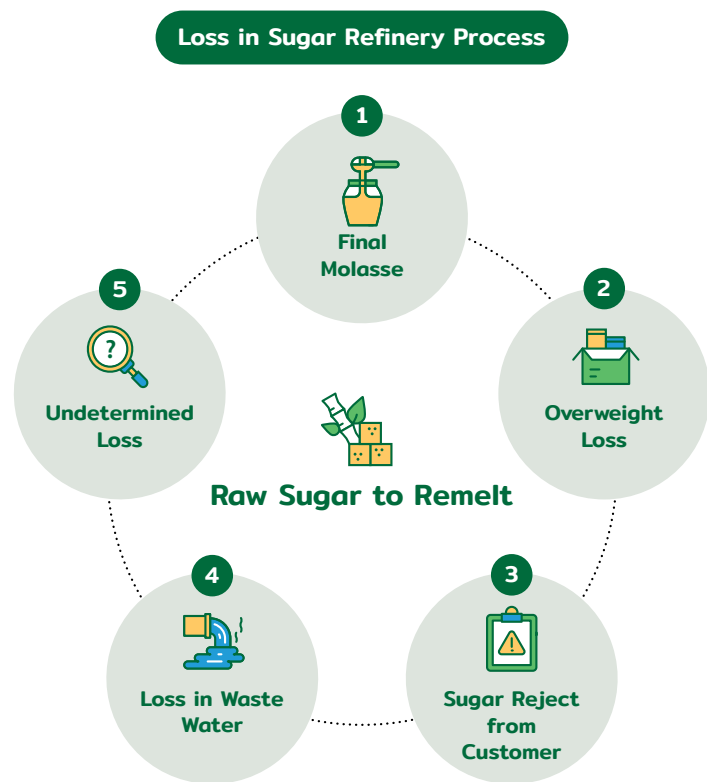
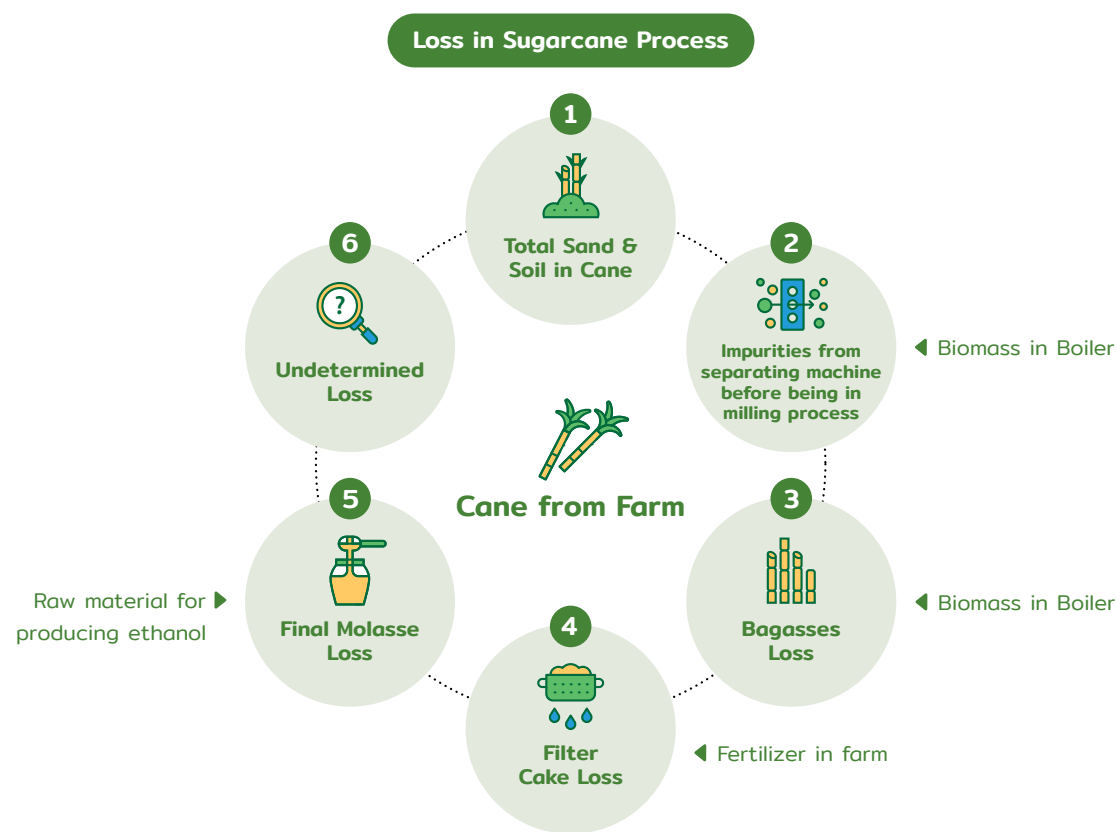
* For further details on [Food Loss and Food Waste Policy](#), please visit



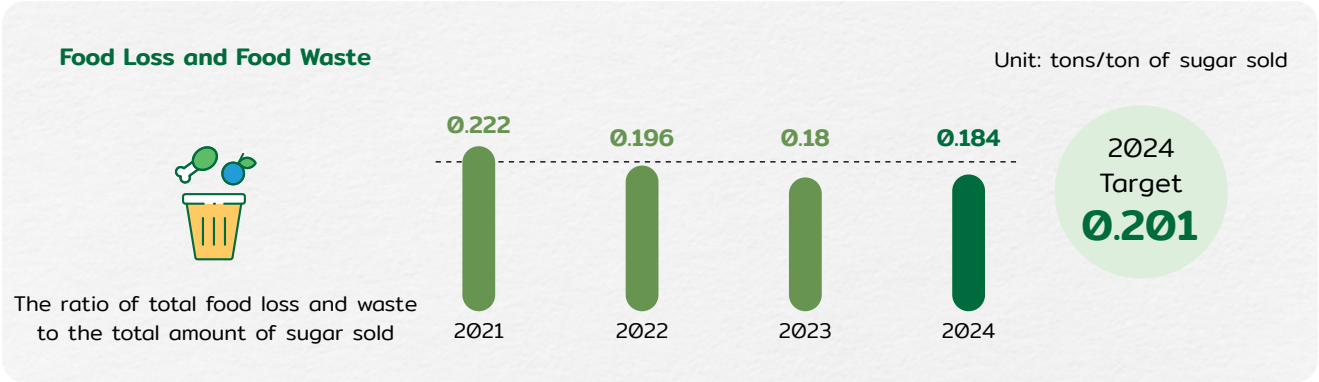
- 1) Mitr Phol has implemented a policy to purchase fresh sugarcane leaves from farmers for over seven years, encouraging green sugarcane harvesting practices and helping preserve sugarcane quality as burning reduces both sucrose content and overall product quality. In 2024, the Company launched the “Namo Tad Sod” campaign, an environmentally friendly initiative marking the start of the production season. The campaign involved proactive engagement with farmers through accessible and relatable communication channels, including vibrant signage around factories and key community areas, eye-catching stickers and banners, and promotional signs on the backs of trucks to enhance visibility throughout farming zones. T-shirts featuring the “Namo Tad Sod” logo were also distributed to network farmers to build a stronger sense of connection to fresh harvesting practices. In addition, the Company used both mainstream and social media platforms to expand public awareness through targeted content.
- 2) The “From Cut to Crush” management approach leverages technology to streamline queue coordination between farmers and sugarcane transporters. The goal is to control the time from harvesting in the field to delivery at the mill, targeted at no more than 8 hours. Currently, this process is managed within 4 to 6 hours after harvest. A GPS tracking system is used to monitor the location of sugarcane transport vehicles, enabling efficient route planning and reducing unproductive waiting time at the mill. This helps minimize losses in cane sweetness, measured as Commercial Cane Sugar (CCS), and prevents unnecessary sugar degradation. As a result, farmers benefit from improved sugarcane quality and better prices.



Reduction of Sugar Loss During Sugarcane Crushing and Production Processes




Operations in the sugarcane crushing and sugar production processes lead to sugar loss at various stages, as illustrated in the diagram. To address this, the Company has developed a sugar loss database in compliance with the regulations of the Office of the Cane and Sugar Board. This database tracks sugar loss associated with bagasse, filter cake, molasses, and unidentified causes, such as leakage, microbial activity, heat, and wastewater discharge. Data is monitored in real-time via a dashboard, enabling ongoing analysis and continuous improvement of production planning to enhance operational efficiency.




Reduction of Sugar Loss During Transportation

1




Select 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.

Employee Training on Safety and Quality Standards for Food Production

Mitr Phol has organized training on safety and quality standards for food production for two consecutive years to enhance employees' knowledge and promote the practical application of international standards in daily operations. First launched in 2023, the training covers key topics such as GMP, HACCP, ISO 9001, FSSC 22000 (Version 6.0), as well as food loss and waste management. In 2024, sessions were conducted for employees at the Company's headquarters and seven sugar mills. Additional training is planned for 2025 to further reinforce these topics for staff at the headquarters and the Kalasin Sugar Mill.



▲ Training on safety and quality standards in food manufacturing

Food Loss and Waste Reduction Management Project Syrup Reprocessing Project

Mitr Phol has implemented a management approach for expired or returned flavored syrup by incorporating it into fertilizer production for internal use. This not only reduces waste but also adds value to unused resources. In addition, the Company plans to donate syrup with less than 50% remaining shelf life as an alternative method of product management and a way to help prevent food waste.

Approach to Managing Leftover Sugar and Syrup Products

During transportation to customers via tank trucks, small amounts of sugar or syrup may remain in the tanks. Leftover sugar content is expelled using air, while syrup is drained. These remnants are then recycled and reused in the production process. The Company has agreements with customers to adjust the price to reflect any remaining sugar or syrup in the tanks.



Chapter

19

About This Report



Since 2013, Mitr Phol has published an annual sustainability report to disclose its performance across the environmental, social, and corporate governance (ESG) dimensions. The information disclosed in this report is in accordance with the GRI 2021 Standards and covers the operations of Mitr Phol and its subsidiaries in Thailand for the period from January 1 to December 31, 2024. The report includes the performance of 7 business groups, covering 2 companies in the farming business, 9 sugar mills in the sugar business, 54 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 16 companies in other businesses, which account for 100% of Mitr Phol's revenue.

Companies Listed in the Report

Business/Company	Corporate Governance Performance	Environmental Performance	Social Performance	
			Occupational Safety	HR
Mitr Siam Sugar Co., Ltd.	/	NR	NR	NR
Farming Business				
Rai Dan Chang Co., Ltd.	/	/	/	/
Rai E-Sarn Co., Ltd.	/	/	/	/
Sugar Business				
Mitr Phol Sugar Corp., Ltd. (Dan Chang)	/	/	/	/
Singburi Sugar Co., Ltd.	/	/	/	/
United Farmer and Industry Co., Ltd. (Phu Khiao)	/	/	/	/
United Farmer and Industry Co., Ltd. (Phu Viang)	/	/	/	/
United Farmer and Industry Co., Ltd. (Phu Luang)	/	/	/	/
Mitr Kalasin Sugar Co., Ltd.	/	/	/	/
Mitr Phol Sugar Corp., Ltd. (Amnat Charoen)	/	/	/	/
Pacific Sugar Corporation Co., Ltd.	/	/	/	/
Mitr Phol Sugar Corp., Ltd. (Kaset Somboon)	/	/	/	/
Energy Business				
Power Business				
Mitr Phol Bio-Power (Dan Chang) Co., Ltd.	/	/	/	/
Mitr Phol Bio-Power Co., Ltd. (Phu Khiao)	/	/	/	/
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
Kasetsomboon Bio-Power Co., Ltd.	/	/	/	/
Phetchabun Bio-Power Co., Ltd.	/	NR	NR	NR
Selaphum Bio-Power Co., Ltd.	/	NR	NR	NR
Mitr Phol Bio-Power Co., Ltd. (Songkhla)	/	NR	NR	NR
Chaiyaphum Community Power Plant (Project 2) Co., Ltd.	/	NR	NR	NR
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
Mitr Phol Energy Services Co., Ltd.	/	/	/	/
Power Prospect Co. Ltd.	/	/	/	/
MP Energy Services Co., Ltd.	/	NR	NR	NR
Betong Green Power Co., Ltd.	/	/	/	/

Business/Company	Corporate Governance Performance	Environmental Performance	Social Performance	
			Occupational Safety	HR
Energy Business				
Power Business				
BMC Energy Co., Ltd.	/	NR	NR	NR
THL Power Co., Ltd.	/	NR	NR	NR
Sawasdee Energy Holding Co., Ltd.	/	/	NR	/
Steem Inc. Co., Ltd.	/	/	NR	/
Kampaengpetch Green Energy Co., Ltd.	/	/	/	/
C A B Woodchip Co., Ltd.	/	/	/	/
Apcon Renewable Energy Co., Ltd.	/	/	/	/
MP Apcon Operations Co., Ltd.	/	/	/	/
Rungtiva Biomass Co., Ltd.	/	/	/	/
Saraburi Solar Co., Ltd.	/	/	NR	/
Prize of Wood Green Energy Co., Ltd.	/	/	NR	/
Safe Biomass Co., Ltd.	/	/	NR	/
Deeyiam Solar Power Co., Ltd.	/	/	NR	/
BS Green Energy Co., Ltd.	/	/	NR	/
Eco Energy Group Corporation Co., Ltd.	/	NR	NR	/
TPCH Power 1 Co., Ltd.	/	/	NR	/
TPCH Power 2 Co., Ltd.	/	/	NR	/
TPCH Power 5 Co., Ltd.	/	/	NR	/
Pracharat Biomass Mae Lan Co., Ltd.	/	/	NR	NR
Pracharat Biomass Bannang Sata Co., Ltd.	/	/	NR	NR
Ethanol Business	/			
Mitr Phol Biofuel Co., Ltd. (Dan Chang)	/	/	/	/
Mitr Phol Biofuel Co., Ltd. (Chaiyaphum)	/	/	/	/
Mitr Phol Bio-Power Co., Ltd. (Kalasin)	/	/	/	/
Mitr Phol Bio-Power Co., Ltd. (Kuchinarai)	/	/	/	/
Maesod Clean Energy Co., Ltd.	/	/	/	/
Bangkok Alcohol Industrial Co., Ltd.	/	/	/	/
Green Pharmahol Co., Ltd.	/	/	NR	/
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	/
Panel Design Lab Co., Ltd.	/	/	/	/
Songkhla Green Energy Co., Ltd.	/	NR	NR	/
Wood Solution Co., Ltd.	/	/	/	/
Fertilizer Business				
Productivity Plus Co., Ltd. (Dan Chang)	/	/	/	/
Productivity Plus Co., Ltd. (Phu Khiao)	/	/	/	/
Productivity Plus Co., Ltd. (Saraburi)	/	/	/	/
Productivity Silo Co., Ltd.	/	/	/	/

Business/Company	Corporate Governance Performance	Environmental Performance	Social Performance	
			Occupational Safety	HR
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	/
Fair and Fast Co., Ltd.	/	/	/	/
Logis Link Co., Ltd.	/	/	NR	/
Ocean Connxt Co., Ltd.	/	/	NR	/
Other Businesses				
Sugar Excellence Co., Ltd.	/	NR	NR	NR
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	/
Mitr Phol International Holding Co., Ltd.	/	NR	NR	NR
Mitr Chuenjai Co., Ltd.	/	/	/	/
Plook Mitr Co., Ltd.	/	/	/	/
Thai Environmental And Energy Development Co., Ltd.	/	/	/	/
Health Innotech Co., Ltd.	/	/	/	/
Plook Por Suk Co., Ltd.	/	/	/	/
Eto-Huay Kasian Valley Co., Ltd.	/	/	NR	/
Mitr Phol Biotech Co., Ltd.	/	/	/	/
MP-CFI Xylitol Co., Ltd.	/	NR	NR	/
MP Green Industrial Co., Ltd.	/	NR	NR	/

Remarks:

NR (Not Relevant) – The issue is irrelevant.

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20 GRI Index



Statement of use

Mitr Phol Group has reported in accordance with the GRI Standards for the period of 1st January - 31st December 2024.

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	18-23	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	202-205				
	2-3 Reporting period, frequency and contact point	202-205				
	2-4 Restatements of information	202				
	2-5 External assurance	Link				
	2-6 Activities, value chain and other business relationships	18-23, 64-73				
	2-7 Employees	Link				
	2-8 Workers who are not employees	Link				
	2-9 Governance structure and composition	26, 40-42				
	2-10 Nomination and selection of the highest governance body	26, 40-42				
	2-11 Chair of the highest governance body	26, 40-42				
	2-12 Role of the highest governance body in overseeing the management of impacts	26, 40-42				
	2-13 Delegation of responsibility for managing impacts	26, 40-42				
	2-14 Role of the highest governance body in sustainability reporting	26, 40-42				
	2-15 Conflicts of interest	40-42				
	2-16 Communication of critical concerns	40-42				
	2-17 Collective knowledge of the highest governance body	42				
	2-18 Evaluation of the performance of the highest governance body	42				
	2-19 Remuneration policies	100				
	2-20 Process to determine remuneration	100				
	2-21 Annual total compensation ratio	-		Confidentiality constraints		
	2-22 Statement on sustainable development strategy	6-7				
	2-23 Policy commitments	24-25, 136-143				
	2-24 Embedding policy commitments	4-5				
	2-25 Processes to remediate negative impacts	48-49, 141-142				
	2-26 Mechanisms for seeking advice and raising concerns	48-49, 141-142				
	2-27 Compliance with laws and regulations	Link				
	2-28 Membership associations	35-37				
	2-29 Approach to stakeholder engagement	30-35				
	2-30 Collective bargaining agreements	Link				
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	27-28	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	28-29				
Economic performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	4				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	22				13.22.2
	201-2 Financial implications and other risks and opportunities due to climate change	150				13.2.2
	201-3 Defined benefit plan obligations and other retirement plans	22, 97-98				
	201-4 Financial assistance received from government	Link				
Market presence						
Indirect economic impacts						
GRI 3: Material Topics 2021	3-3 Management of material topics	4				13.22.1
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	22				13.22.3
	203-2 Significant indirect economic impacts	22				13.22.4
Procurement practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	64-73				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	66				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	40-49				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	46				13.26.3
	205-3 Confirmed incidents of corruption and actions taken	49				13.26.4
Anti-competitive behavior						
GRI 3: Material Topics 2021	3-3 Management of material topics	40-49				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	23, Link				
GRI 207: Tax 2019	207-1 Approach to tax	23, Link				
	207-2 Tax governance, control, and risk management	23, Link				
	207-3 Stakeholder engagement and management of concerns related to tax	23, Link				
	207-4 Country-by-country reporting	23, Link				
Materials						
GRI 3: Material Topics 2021	3-3 Management of material topics	16-17, 181-183				
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	168-175				
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	171-173				
	302-5 Reductions in energy requirements of products and services	171-174				
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	178-179				13.7.1
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	165, 178-179				13.7.2
	303-2 Management of water discharge-related impacts	178-179				13.7.3
	303-3 Water withdrawal	178-179, Link				13.7.4
	303-4 Water discharge	178-179, Link				13.7.5
	303-5 Water consumption	Link				13.7.6
Biodiversity						
GRI 3: Material Topics 2021	3-3 Management of material topics	186-191				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

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	146-155, 180-181				13.1.1 13.2.1
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	149-155				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	181-184				13.8.1
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	16-17, 181-184				13.8.2
	306-2 Management of significant waste-related impacts	16-17, 181-184				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	64-73				
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	68				
	308-2 Negative environmental impacts in the supply chain and actions taken	68				
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	90-105				
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	97-98, Link				
	401-3 Parental leave	Link				
Labor/management relations						
GRI 3: Material Topics 2021	3-3 Management of material topics	90-105				
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	92				
Occupational health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	106-113				13.19.1
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	106-107				13.19.2
	403-2 Hazard identification, risk assessment, and incident investigation	107				13.19.3
	403-3 Occupational health services	106-109				13.19.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	108-113				13.19.5
	403-5 Worker training on occupational health and safety	108				13.19.6
	403-6 Promotion of worker health	110-112				13.19.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	108-113				13.19.8
	403-8 Workers covered by an occupational health and safety management system	Link				13.19.9
	403-9 Work-related injuries	113, Link				13.19.10
	403-10 Work-related ill health	Link				13.19.11

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Training and education						
GRI 3: Material Topics 2021	3-3 Management of material topics	91-96				
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	91-96				
	404-3 Percentage of employees receiving regular performance and career development reviews	Link				
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	90, 96				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	136-143				
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	49				13.15.4
Freedom of association and collective bargaining						
GRI 3: Material Topics 2021	3-3 Management of material topics	136-143				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	136-143				13.18.2
Child labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	136-143				13.17.1
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	136-143				13.17.2
Forced or compulsory labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	64-69, 136-143				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	64-69, 136-143				13.16.2
Security practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	136-143				
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	136-143				
Rights of indigenous peoples						
GRI 3: Material Topics 2021	3-3 Management of material topics	136-143				13.14.1
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	49				13.14.2
Additional Sector Disclosures	13.14.3	136-143				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	114-135				13.12.1
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	114-135				13.12.2
	413-2 Operations with significant actual and potential negative impacts on local communities	115-135				13.12.3
Supplier social assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	64-73				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	68				
	414-2 Negative social impacts in the supply chain and actions taken	68				
Public policy						
GRI 3: Material Topics 2021	3-3 Management of material topics	35-37				13.24.1
GRI 415: Public Policy 2016	415-1 Political contributions	35-37				13.24.2
Customer health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	84-89				13.10.1
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	85				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	11, 85				13.10.4
	13.10.5	86				13.10.5
Natural Ecosystem Conversion						
GRI 3: Material Topics 2021	3-3 Management of material topics	186-191				13.4.1
Additional Sector Disclosures	13.4.2	186-191				13.4.2
	13.4.3	186-191				13.4.3
	13.4.4	186-191				13.4.4
	13.4.5	186-191				13.4.5
Soil Health						
GRI 3: Material Topics 2021	3-3 Management of material topics	156-167				13.5.1
Pesticides Use						
GRI 3: Material Topics 2021	3-3 Management of material topics	156-167				13.6.1
Additional Sector Disclosures	13.6.2			Information unavailable/incomplete		13.6.2
Food Security						
GRI 3: Material Topics 2021	3-3 Management of material topics	196-201				13.9.1
Additional Sector Disclosures	13.9.2	200				13.9.2
Land and Resource Rights						
GRI 3: Material Topics 2021	3-3 Management of material topics	156-167				13.13.1
Additional Sector Disclosures	13.13.2	156-167				13.13.2
	13.13.3	156-167				13.13.3

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Employee Practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	90-105				13.20.1
Living Income and Living Wage						
GRI 3: Material Topics 2021	3-3 Management of material topics	100				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	64-73				13.23.1
Additional Sector Disclosures	13.23.2	64-73, 163				13.23.2
	13.23.3	64-73, 163				13.23.3
	13.23.4	64-73, 162				13.23.4

Topics in the applicable GRI Sector Standards determined as not material

TOPIC	EXPLANATION
Animal Health and Welfare	
13.3.6	Mitr Phol Group has no operations in the aquaculture sector.
13.3.7	Mitr Phol Group has no operations in the aquaculture sector.
13.11.1	Mitr Phol Group has no operations in animal health and welfare.
13.11.2	Mitr Phol Group has no operations in animal health and welfare.
13.11.3	Mitr Phol Group has no operations in animal health and welfare.



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