

# 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"><li>• El Niño Phenomenon: Below-average rainfall and above-average temperatures have impacted both the yield and quality of sugarcane entering the mills.</li><li>• 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.</li></ul>
Management	<p>The Company focuses on both short- and long-term management as follows:</p> <ol style="list-style-type: none"><li>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.</li><li>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.</li><li>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.</li><li>4. Implement a cutting order system and prioritize milling sugarcane fields that have reached optimal maturity and demonstrate high quality.</li><li>5. Continuously monitor competitive market conditions and promptly adjust operational plans to align with changing dynamics.</li><li>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.</li></ol>

## 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 15<sup>th</sup> 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.