



Sustainability Report 2015

Mitr Phol Group



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From
...To



Mitr Phol Group is in the value-added sugarcane business over a half century. Our offerings cover from sugar to renewable energy business which are friendly to environment and lighten new opportunity for local community and Thailand's economy. At Mitr Phol Group, we strive to operate our business by always keeping in mind the concept of:

"From Waste to Value." Through this we have invested in ways to add value to sugar production by products, thereby creating new business areas such as bio-energy. Bagasse, which is the residue left over after juice is extracted from sugarcane, is converted into a raw material for biomass production. Molasses, which is fermented with yeast to produce ethanol, a key ingredient in gasohol fuel.



Waste
Value



Creating value

Believe in the **Creating value for better life**

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.

Believe in the Value of Human Dignity

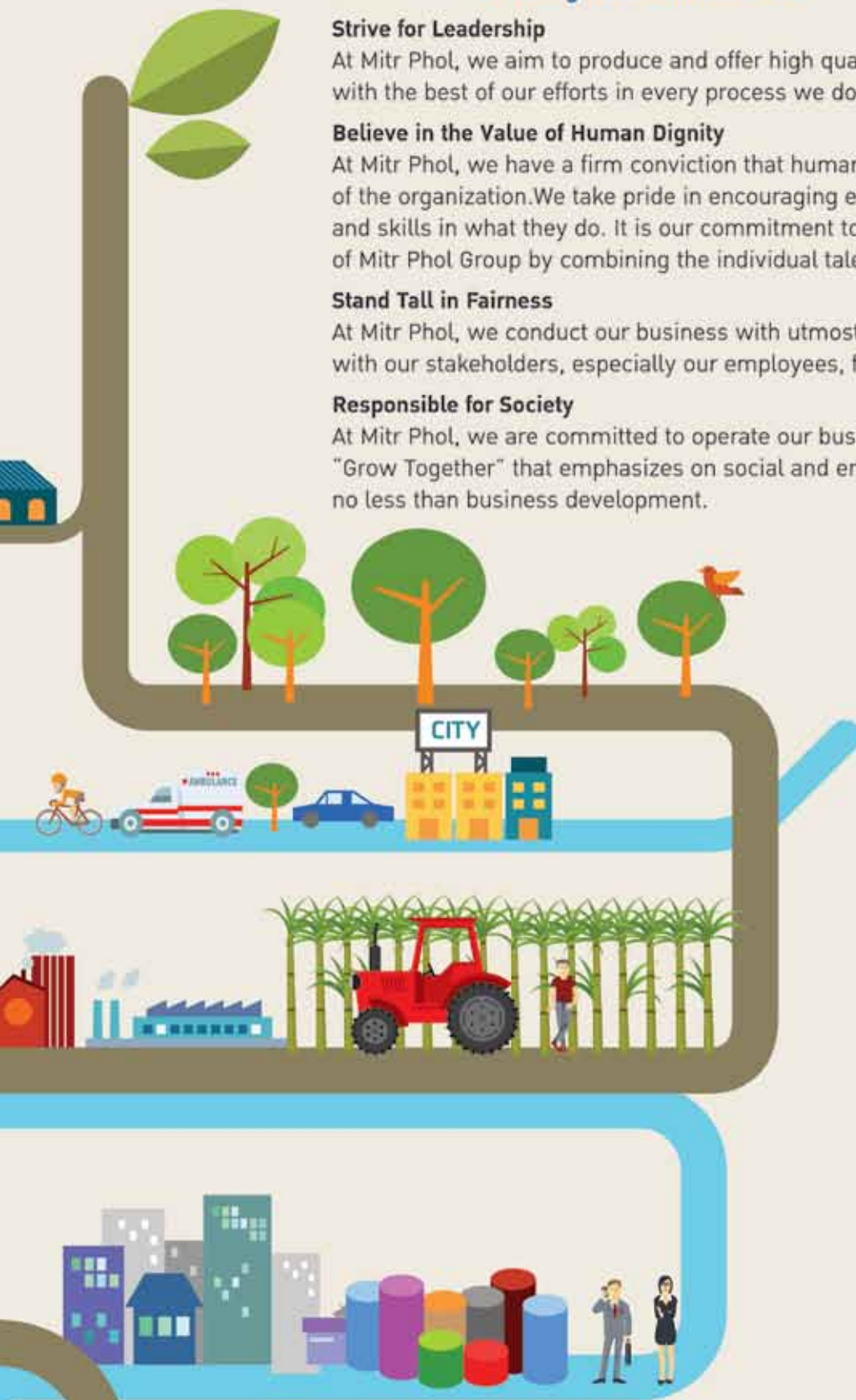
At Mitr Phol, we have a firm conviction that human resources are the most valuable assets of the organization. We take pride in encouraging every team member to gain knowledge and skills in what they do. It is our commitment to enhance the performance of Mitr Phol Group by combining the individual talents of our human resources

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, buyers, suppliers and consumers.

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.



for better life



Message from the CEO and President

Our core value **“Creating value for better life”** has always aligned with the international standards for sustainable development by creating shared value among Mitr Phol Group and cane farmers



Mr. Krisda Monthienvichienchai
Chief Executive Officer and President
Mitr Phol Group

For more than 60 years, Mitr Phol Group has operated our business based on the philosophy of “Strive for Leadership, Believe in the Value of Human Dignity, Stand Tall in Fairness and Responsible for Society”, committed to various stakeholders such as cane growers, business partners, customers, consumers, and others. Our core value “Creating value for better life” has always aligned with the international standards for sustainable development by creating shared value among Mitr Phol Group and cane farmers. The group has grown to become a leader in the global arena as the world’s 5th largest sugar producer.

In 2015, Mitr Phol Group advanced sustainable development to the next level by enhancing our farm management practices and sugar production processes to meet with Bonsucro standards, in preparation for seeking certification in 2016. In addition, the group adopted the GRI (Global Reporting Initiative) G4 guidelines to benchmark our operations in economic, social and environmental dimensions, with an aim to continue improving our business practices. Over the year, we had made an outstanding progress in these three dimensions.

The Economic Dimension

In 2015, Mitr Phol Group produced sugar for domestic consumption and exports to international markets with total revenue of 34,500 million baht, and distributed among 30,500 cane farmers. The group introduced “**Mitr Phol ModernFarm**” project, which seeks to use technology and innovation to improve growers’ production output and improve the standards and quality of the crop.

Mitr Phol Group also signed a Memorandum of Understanding (MOU) with six other government agencies and the people’s sector to support small and medium-sized agricultural enterprises (SMEs). We also participated in the government’s Pracha Rath (Public-Private Collaboration) program to drive the development of modern farming practices and the stimulation of local economic initiatives. By equipping Thai farmers with the knowledge of agricultural best practices and modern technology, we helps growers to minimize costs and maximize yields, as well as to promote awareness the impact to the society and environment. Lastly, we determine to develop new generation farmers to be a Smart Farmer, who would further contribute and strengthen their sustainable communities.

The Social Dimension

Mitr Phol Group places a great importance on the well-being of employees. Our Safety, Occupational, Health, and Environmental (S&HE) management are on a par with international best practices, focusing on 3 key areas: technology and engineering, systems, and S&HE awareness. The implementation of these guidelines is expected to be completed by the end of 2016. Moreover, the group has initiated a plan to prevent the practice of child labor and other labor abuses in the cane and sugar industry over the long term period by setting up “Mitr Phol Child Care for Farmers” centers in the provinces of Suphanburi and Chaiyaphum.

Mitr Phol Group realizes the importance of strong communities and opportunities for underprivileged to contribute to the society. We encourage local communities to gain abilities to become more self-reliant and self-sufficient. We have partnered with the Thai Health Promotion Foundation to initiate the “Sustainable Development for Local Community” project to promote well-being within local villages. In 2015, we set up 56 role-model families, targeting to build 405 leading families in nine sub-districts.

We are considerate in the quality of life for the disability such that we employ persons with disabilities in order to encourage others in society to recognize their values. This has led to positive outcomes in reduced disparities and enhanced social opportunities. The group began implementing “Strengthening Communities by Empowering the Disability” project in six factories that extended opportunities of the physically-challenged members in the surrounding communities. Besides the employment, we also provide knowledge transfer for the disabilities to be truly independent.

The Environmental Dimension

At Mitr Phol Group, environmentally-friendly operations are at the heart of the business. The group’s initiatives cover the entire production process, from managing environmental impact to comply with the regulation, to transforming waste into value. The “Waste to Value” program involves not only the maximization of agriculture efficiency, but also the expansion from our core businesses to biomass power plants and ethanol production facilities. Currently, our combined bio-power in Thailand produces 428MW annually, while ethanol production capacity is approximately 400 million liters per year. We plan to continue investing in renewable energy and bio-based products in the future.

Our business performance is a pride of Mitr Phol Group’s management and employees. It is a solid evidence of our commitment in “Creating value for better life”. I would like to thank the managements, staffs, farmers and all other stakeholders, who were with us from the beginning to create value together over the past 60 years. I sincerely appreciate their supports and partnerships, as they are integral parts of the group’s continued efforts in sustainable development.

Mr. Krisda Monthienvichienchai
Chief Executive Officer and President
Mitr Phol Group

About Mitr Phol



มิตรผล

Mitr Phol

น้ำตาลทรายขาวบริสุทธิ์

pure refined sugar



About Mitr Phol Group



Vision and Philosophy



About Mitr Phol

- About us
 - Production Capacity by Mill in 2015
 - Market Serve
 - Mitr Phol Group's Supply Chain
 - Global Quality with Sustainability
 - Mitr Phol Group's Shareholding structure
 - Corporate Governance
 - Mitr Phol Group Organization Chart
 - Anti - Corruption Policy
 - Mitr Phol's Group Risk Management
-



Stakeholder Inclusiveness



About this Report



Sustainable Development

- Vision on Sustainability
- Sustainability mission
- Sustainability policy
- Mitr Phol's Sustainability Strategy
- Key Sustainable Development Projects in 2015

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 better.

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.



Believe in the Value of Human Dignity

At Mitr Phol, we have a firm conviction that human resources are the most valuable assets 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



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



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.





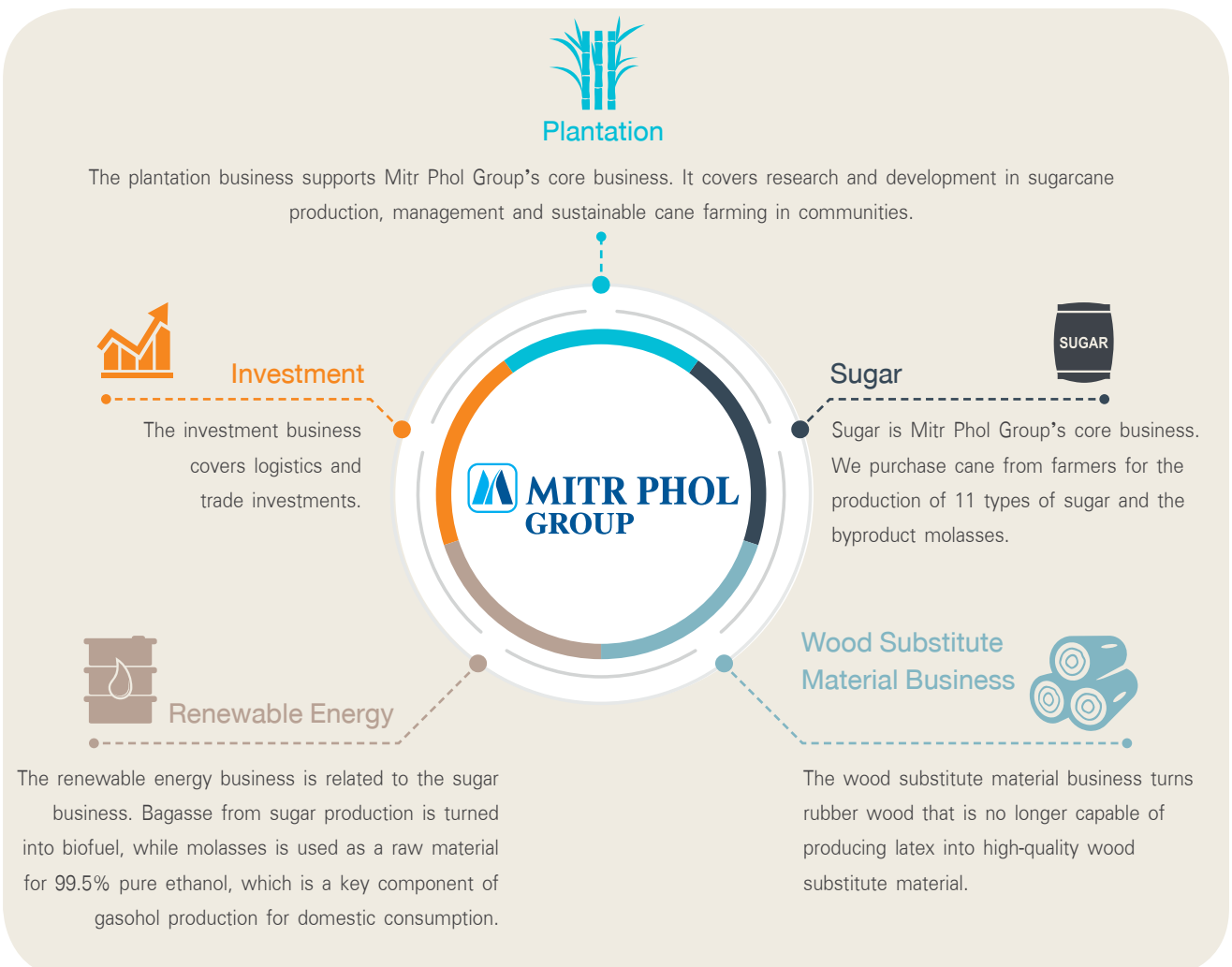
About us

Mitr Phol Group was established in 1946 in the Krubyai sub-district of the Banpong district of Ratchaburi province. It began as a small household operation producing syrup and selling it to nearby sugar mills for the crystallization process. The small operation opened its first sugar factory a decade later, in 1956. The company kept expanding to serve the rising demand, eventually becoming the country's top sugar producer and exporter.

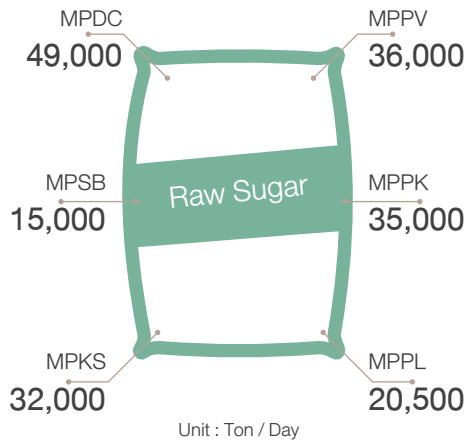
For decades, we have remained committed to creating value from sugarcane, which is a key economic crop for Thai farmers and Thailand as a whole, while at the same time striving to preserve the environment and develop local communities. For more than 60 years, our business operation has promoted farming practices that are in line with the principles and best practices of sustainable development. Today, Mitr Phol Group is proudly Thailand's largest sugar manufacturer and the 5th largest in the world.

At Mitr Phol Group, we strive to operate our business by always keeping in mind the concept of: "From Waste to Value". Through this we have invested in ways to add value to sugar production byproducts, thereby creating new business areas such as bio-energy. For example, bagasse, which is the residue left over after juice is extracted from sugarcane, is converted into a raw material for biomass production. Also, molasses is fermented with yeast to produce ethanol, a key ingredient in gasohol fuel. In addition, vinasse, a byproduct resulting from ethanol production, is mixed with filter cake from sugar production and turned into bio-fertilizer for use in cane fields.

Today, Mitr Phol Group's operations have expanded to the countries of Thailand, China, Laos and Australia. Our five business groups are:



Production Capacity by Mill in 2015



MPDC

Mitr Phol Dan Chang sugar mill
Suphanburi province



MPSB

Mitr Phol Sing Buri sugar mill
Sing Buri province



MPKS

Mitr Phol Kalasin sugar mill
Kalasin province



MPPV

Mitr Phol Phu Viang sugar mill
Khon Kaen province



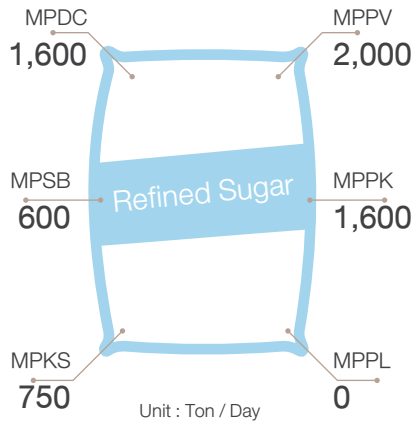
MPPK

Mitr Phol Phu Khieo sugar mill
Chaiyapum province

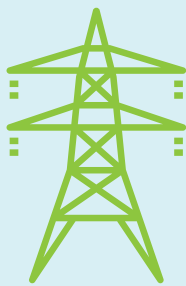


MPPL

Mitr Phu Luang sugar mill
Leoi province



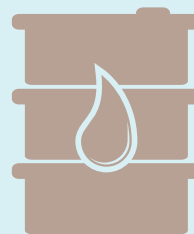
Renewable Energy Capacity in 2015



Electricity

428
megawatts

** Overall Generation Capacity

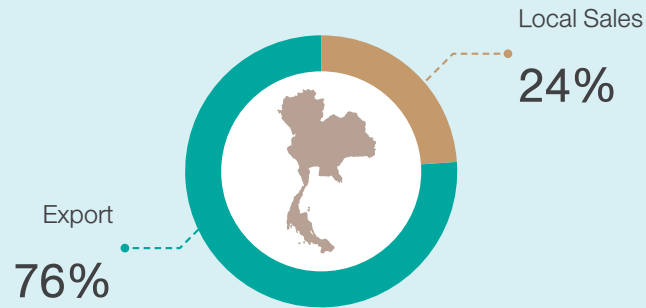


Ethanol

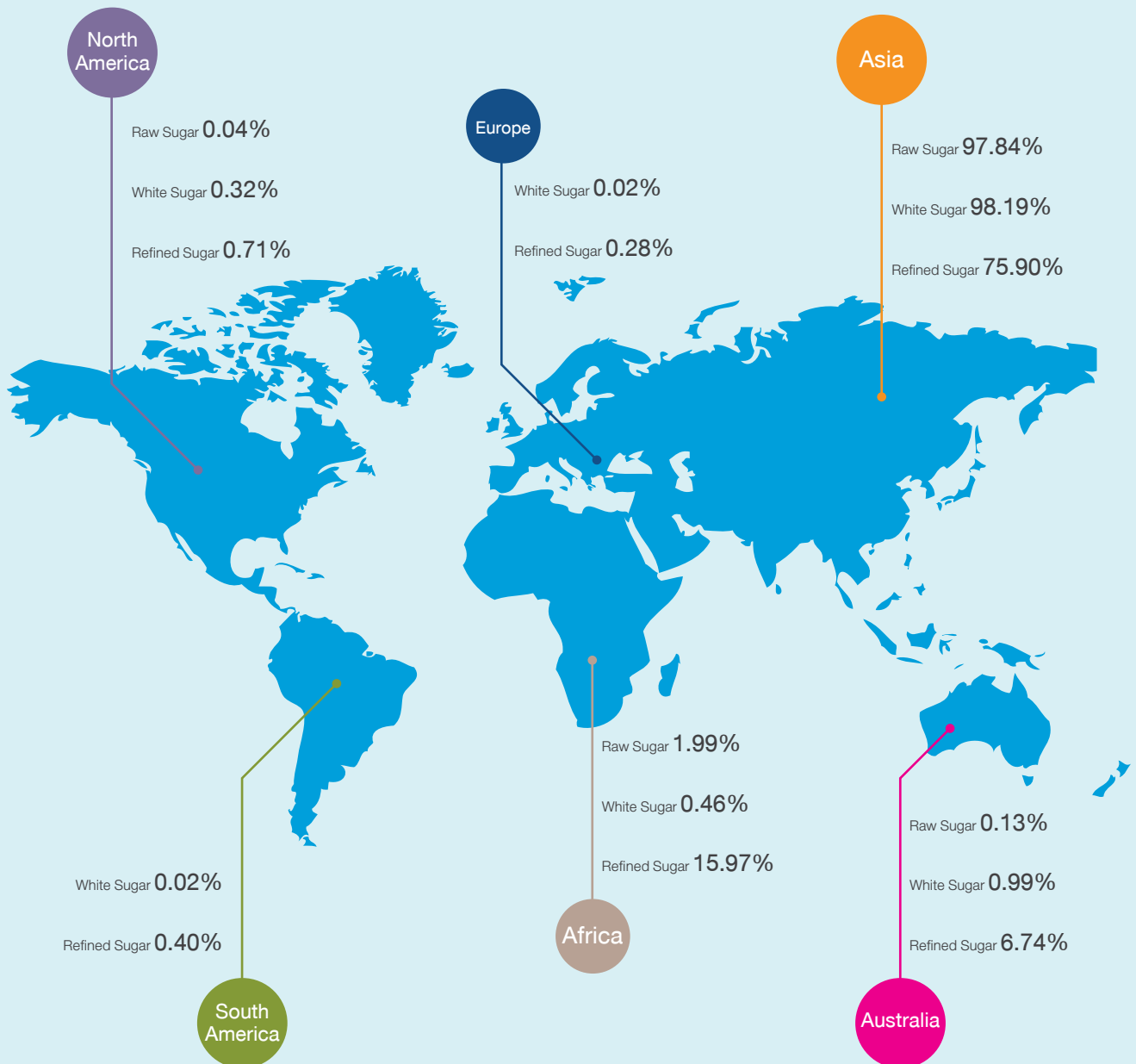
400
million liters

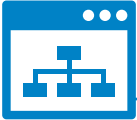
** Overall Ethanol Production Capacity

Market Serve

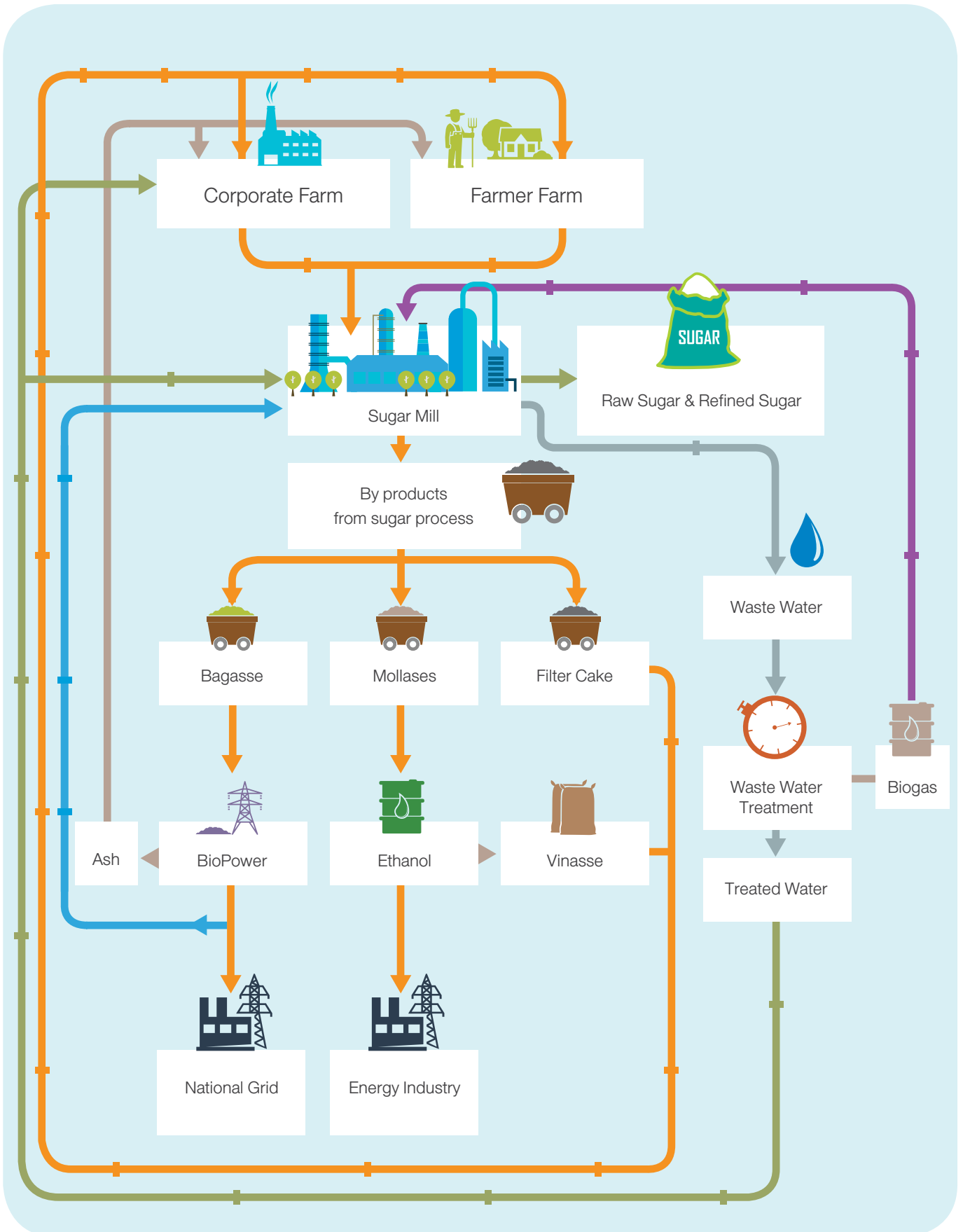


Exports Ratio





The Mitr Phol Group's Supply Chain





Global Quality with Sustainability

In addition to our commitment to creating a variety of high-quality products that fulfill the needs of our customers, Mitr Phol Group places great importance on the production process to ensure that all of our goods meet international standards. Efficient production management means that our products are internationally recognized and accepted.



Labor Practice

- TLS 8001 Thai Labor-Standard



Quality & Product Responsibility

- ISO 9001:2008 Quality Management
- ISO 22000 Food Safety Management System
- GMP & HACCP Good Manufacturing Practice and Hazard Analysis Critical Control Point
- FSSC 22000 Food Safety System
- ISO/IEC 17025 Competence of Testing and Calibration Laboratories
- Halal & Kosher Halal Food and Kosher Dietary Law



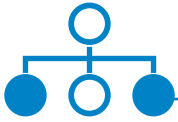
Health, Safety and Environment

- OHSAS Occupational Health and Safety Management System
- ISO 14001 Environmental Management



Sustainability

- Bonsucro
- TISI 9999 Guidance on Sufficiency Economy for Industries
- Carbon Reduction Label
- CSR-DIW Corporate Social Responsibility
- TISI 26000 Guidance on Social Responsibility



Mitr Phol Group Shareholding Structure

Mitr Phol Group is comprised of Mitr Phol Sugar Corporation Limited, which has invested in other subsidiaries and affiliated companies that support the business operation of the main entity, as per the following chart:



As of December 31, 2015, Mitr Phol is registered as a company limited, with business registration number 0106018011759. The headquarters is located at 3rd Floor Ploenchit Building, 2 Sukhumvit Road, Klongtoey, Bangkok 10110 tel: +662794 1000 fax: +66265 8494 web: Mitrphol.com.

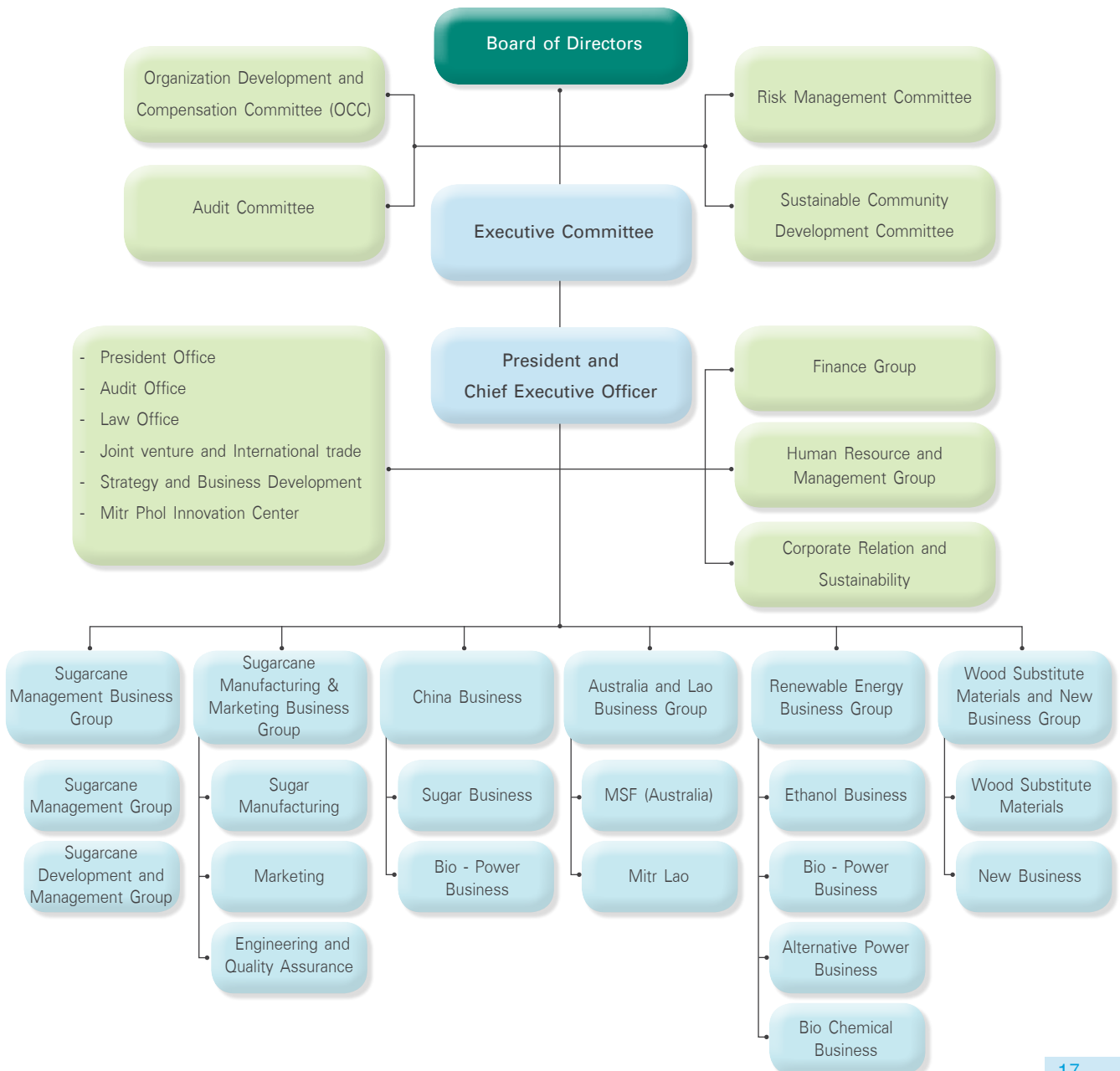


Corporate Governance

Mitr Phol Group realizes the importance of efficient business management under good corporate governance. The board of directors and executive directors are clearly defined and separated. The board of directors is comprised of 11 members who are tasked with ensuring continuous growth by devising the company's policies and business direction, as well as providing oversight and evaluation of the executive board. A meeting is held at least 6 times a year discuss important business matters proposed by the executive board.

The executive board is comprised of five members, all of whom have extensive experience in the sugar industry. The executive board members' roles and responsibilities include executing the business strategies set forth by the board of directors, and analyzing and proposing crucial issues to the board on a regular basis. The executive directors are leaders of each department, including raw materials sourcing, production, marketing and finance. The executive board directors are also responsible for overseeing the day-to-day operations of the company to ensure that policies are executed effectively and business goals are met.

Mitr Phol Group Organization Chart



In addition to sustainable and continuous business growth, the company also places great importance on transparency, fairness and accountability for management and employees of all levels. The Compliance department was established to promote good management practices and business ethics throughout the organization. The team is also responsible for reviewing and improving the Code of Conduct handbook to ensure it is always up to date.

Mitr Phol Group has set up systematic and efficient communications channels through which suspicions and / or grievances can be lodged via the CEO’s Office, and then reviewed by the governance committee. If any are found to be substantive, the committee must accept the grievance for consideration and propose it to the CEO to rectify as soon as possible, before reporting it to the Board. Employees are able to use the following channels to lodge grievances:

- By post** : Compliance Department, CEO’s Office
Mitr Phol Sugar Corporation Ltd., 3rd Floor Ploenchit Center Building 2, Sukhumvit Road, Klongtoey 10110
- By email** : cg@mitrphol.com / audit@mitrphol.com
- Grievance box** : located at the headquarters

In 2015, we maximized the efficiency of the grievance process, as demonstrated in the following chart:



Anti – Corruption Policy

Corruption adversely affects a country’s development in many aspects and threatens its long-term security and sustainability. Mitr Phol Group has put in place policies and measures to discourage corruption at any point in our business supply chain. Key anti-corruption polices are as follows:

- The company prohibits corruption of any kind, including bribery, paying money to expedite business deals or transactions, bid rigging, stealing, cheating during the inspection process, fraudulent expense claims, and any other improper business behaviors.
- The company conducts regular audits and promotes anti-corruption awareness to its employees, including implementing anti-corruption rules and regulations anytime there is a risk of improper business conduct, establishing channels to anonymously report suspected wrongdoings, and promoting anti-corruption practices with other companies.
- If an act of corruption were to occur, an investigation shall take place in line with the company’s anti-corruption policy. All parties must strictly adhere to and comply with anti-corruption laws. The company shall treat the alleged wrongdoer with respect to their individual rights.
- Management and employees must refrain from offering benefits, money or assets to an external stakeholder so that such person would perform an act that violates the law or role of her/ her function.
- Management and employees must not ask for or accept any benefits, money, or assets given to them to perform an act or disregard his/ her function that causes damage to the company.
- Management and employees must refrain from giving and accepting gifts, money or any benefits from suppliers or other stakeholders, except gifts of an appropriate value given as part of a holiday or tradition. Those accepting the gifts must first seek advice from their line manager. If it’s unclear whether the gifts are appropriate, line managers can seek the advice of the Corporate Governance audit committee.
- Management and employees must not give or receive entertainment expenses that exceed what is normally given by stakeholders of the company.

In 2015, Mitr Phol Group began to conduct an extensive review of its Corporate Governance Policy Handbook to ensure it was in line with corporate governance best practices. Communication to promote corporate governance was carried out through several channels, including an internal publication and signage at Mitr Phol Group companies and subsidiaries, to promote awareness about the importance of anti-corruption practices and business ethics.

In 2016, Mitr Phol Group plans to take part in Thailand’s Private Sector Collective Action against Corruption (CAC), an initiative by the Thai private sector to promoting anti-corruption and anti-bribery practices within each organization.

In 2015, the group participated in the “ACTIVE CITIZEN... instilling anti-corruption awareness in Thailand” event held by the Anti-Corruption Organization of Thailand. The event’s goal was to demonstrate a commitment to conduct business in line with ethical corporate governance practices and take a united stand against corruption. Mitr Phol Group was one of the 77 organizations that formed the “Network for Thailand’s Future” and launched a campaign to inspire change in Mitr Phol Group employees, sugarcane farmers, communities, society and Thailand as a whole. The positive fundamental changes in the thought process, value system and behaviors covered four dimensions: economic, social, cultural and environmental. The campaign was promoted to the public via traditional and social media, and several activities held by the network.



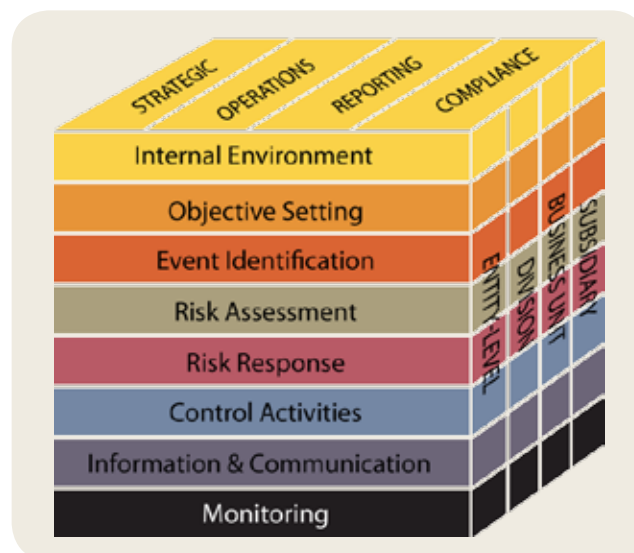
Mitr Phol Group's Risk Management

Mitr Phol Group places great importance on the mitigation and management of risk in all aspects in order to create value and bring about the utmost benefits to the company's stakeholders, while also carrying out our business in line with good corporate governance practices. The risk management policy is aligned with the group's business strategy, plan of action, project plans, rules and regulations and business operations. Key principles of the risk management policy are as follows:

1. Balancing the level of risk and return to ensure business objectives and stakeholders' expectations are met, while creating maximum benefits to shareholders with an acceptable level of risk.
2. The business strategy must be aligned with the level of risk the company Board of Directors considers acceptable.
3. Risk management is an important component of the corporate culture and needs to be adhered to and implemented in an effective and efficient manner by all members of management.
4. Any risks that may impact Mitr Phol Group's business objectives and strategies must be dealt with immediately and continuously, as per the following:
 - 4.1 Risks must be identified thoroughly and in a timely manner
 - 4.2 A risk evaluation must be carried out to determine the likelihood and impact should a risk occur
 - 4.3 Risks must be managed to be at a level acceptable by the board and executive directors. Assessments of costs involved and probable impact must be made.
 - 4.4 Risk monitoring and reporting must be carried out regularly to properly mitigate and manage risks

A designated Committee is tasked with creating, monitoring and reviewing the company's risk management policy and guidelines, to continually improve the effectiveness of the group's approach to mitigating risk.

Mitr Phol Group implements the international COSO Enterprise Risk Management - Integrated Framework as a tool for organizational risk management. The framework consists of 8 components: Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response, Control Activities, Information and Communication, and Monitoring. The correlation between the components is explained in the Figure:



COSO Enterprise Risk Management - Integrated Framework





Stakeholder Inclusiveness





Mitr Phol Group operates its business on the basis of gaining acceptance from the company’s stakeholders by establishing meaningful relationships with different stakeholder groups to learn more about their primary concerns. This in turn helps to improve the Mitr Phol’s overall business operation.

In 2015, the company identified and prioritized stakeholder groups into 10 groups: employees, shareholders/ investors, suppliers, customers/consumers, sugarcane farmers, government, civil society organizations, media, communities and international organizations. Methods of communications and responsible departments for each stakeholder group were also identified and informed of their concerns, so that each responsible department could implement appropriate measures that would lead to gaining the acceptance of their stakeholder group.







Stakeholder group (G4-24)	Communication methods (G4-26)	Stakeholder group’s primary concerns (G4-27)	Responses (G4-27)
Employees 	<ol style="list-style-type: none"> Employee satisfaction surveys Employee meetings and performance evaluations Monthly internal magazine Internal PR (Activities & News update) Intranet (ESS & MyMitrPhol) Suggestion and grievance box 	<ol style="list-style-type: none"> Appropriate remuneration and benefits Fair employment Occupational health and safety Career development Job security 	<ol style="list-style-type: none"> Performance evaluation plan Career development plan Remuneration survey Employee relations plan Occupational health and safety plan Employee satisfaction survey results Mitr Phol culture
Shareholders and investors 	<ol style="list-style-type: none"> Publication of annual reports Annual general meetings Publication of sustainability reports Risk management meeting minutes and reports 	<ol style="list-style-type: none"> Business potential development Corporate governance Transparency and trustworthy information Business risks Corporate social responsibility 	<ol style="list-style-type: none"> Continuous business development Distribution of meeting reports to shareholders Publication of sustainability development reports Risk management and crisis management & response trainings Transparent disclosure of information Socially and environmentally responsible business operation plans



Stakeholder group (G4-24)	Communication methods (G4-26)	Stakeholder group's primary concerns (G4-27)	Responses (G4-27)
Suppliers 	<ol style="list-style-type: none"> 1. Supplier code of business ethics and conduct 2. Visits and inspection trips of the suppliers' place of business 3. Training 4. Satisfaction surveys 	<ol style="list-style-type: none"> 1. Fair business transactions 2. Good trade relations 3. Increased buying volumes 	<ol style="list-style-type: none"> 1. Fair treatment policy 2. Transparent procurement process 3. Supplier code of business ethics and conduct
Customers and consumers 	<ol style="list-style-type: none"> 1. Customer satisfaction surveys 2. Supplier code of business ethics and conduct 3. Business impact assessment 4. Grievance channels 5. Market research 	<ol style="list-style-type: none"> 1. Product and service quality 2. Food safety 3. Corporate social and environmental responsibility 4. Product prices 5. Certainty and efficiency of delivery 	<ol style="list-style-type: none"> 1. Upholding the quality and safety standards of products and services 2. Publication of sustainability reports 3. Transparent disclosure of information 4. Standardized prices
Sugarcane farmers 	<ol style="list-style-type: none"> 1. Publication of monthly magazines for sugarcane farmers 2. Farm officers 3. Contact points in each area 4. The Association of Sugarcane Farmers of Thailand 5. The office of sugarcane and sugar 6. Sugarcane promotion department 7. Local stations for the promotion of sugarcane farming 	<ol style="list-style-type: none"> 1. Increasing productivity and quality 2. Buying price 3. Transport 4. Agricultural technology 	<ol style="list-style-type: none"> 1. Fair Contact Farming 2. Sugarcane transport systems and collection points 3. Advanced notice of buying prices to farmers 4. Mitr Phol's cane extension system 5. Mitr Phol ModernFarms 6. Transfer stations and queue management systems
Government 	<ol style="list-style-type: none"> 1. Allowing government sector to perform checks on sugarcane purchasing 2. Compiling and submitting annual reports as required by law 3. Arranging annual meetings to determine sugarcane prices 	<ol style="list-style-type: none"> 1. Legal compliance 2. Supporting government policies and initiatives 	<ol style="list-style-type: none"> 1. To be legally compliant 2. Support government policies and initiatives 3. Reporting important information to the government



Stakeholder group (G4-24)	Communication methods (G4-26)	Stakeholder group's primary concerns (G4-27)	Responses (G4-27)
Civil society organizations 	1. Working closely with NGOs 2. Joining NGOs	1. Corporate social and environmental responsibility 2. Business transparency	1. Compliance with local and international laws 2. Corporate social and environmental responsibility programs 3. Collaboration with NGOs on projects
Media 	1. Distribution of press releases and communication of company news	1. Transparency, clarity and speed in notifying media of company movements	1. Communicate company news to the media
Communities 	1. Community teams providing advice to local communities 2. Community relations teams receiving grievances from communities / building strong relationships with communities	1. Impact of business operations in surrounding communities	1. Development projects for 9 sub districts to uplift the quality of life of villagers
International organizations 	1. Disclosure of information to the media 2. Certifications, licenses and annual reports	1. Legal compliance 2. Corporate social and environmental responsibility 3. Transparency of information disclosure	1. To be legally compliant 2. Becoming a member of international organizations such as Bonsucro and United Nation Global Compact (UNGC) Local Network



About this Report

Mitr Phol Group has published two reports with the aim of informing all stakeholders about the company's sustainable development initiatives. This report covers sustainability-related operations for the 2015 calendar year, and was produced in accordance with the GRI's G4 Core (G4-32) guidelines for sustainability reporting.

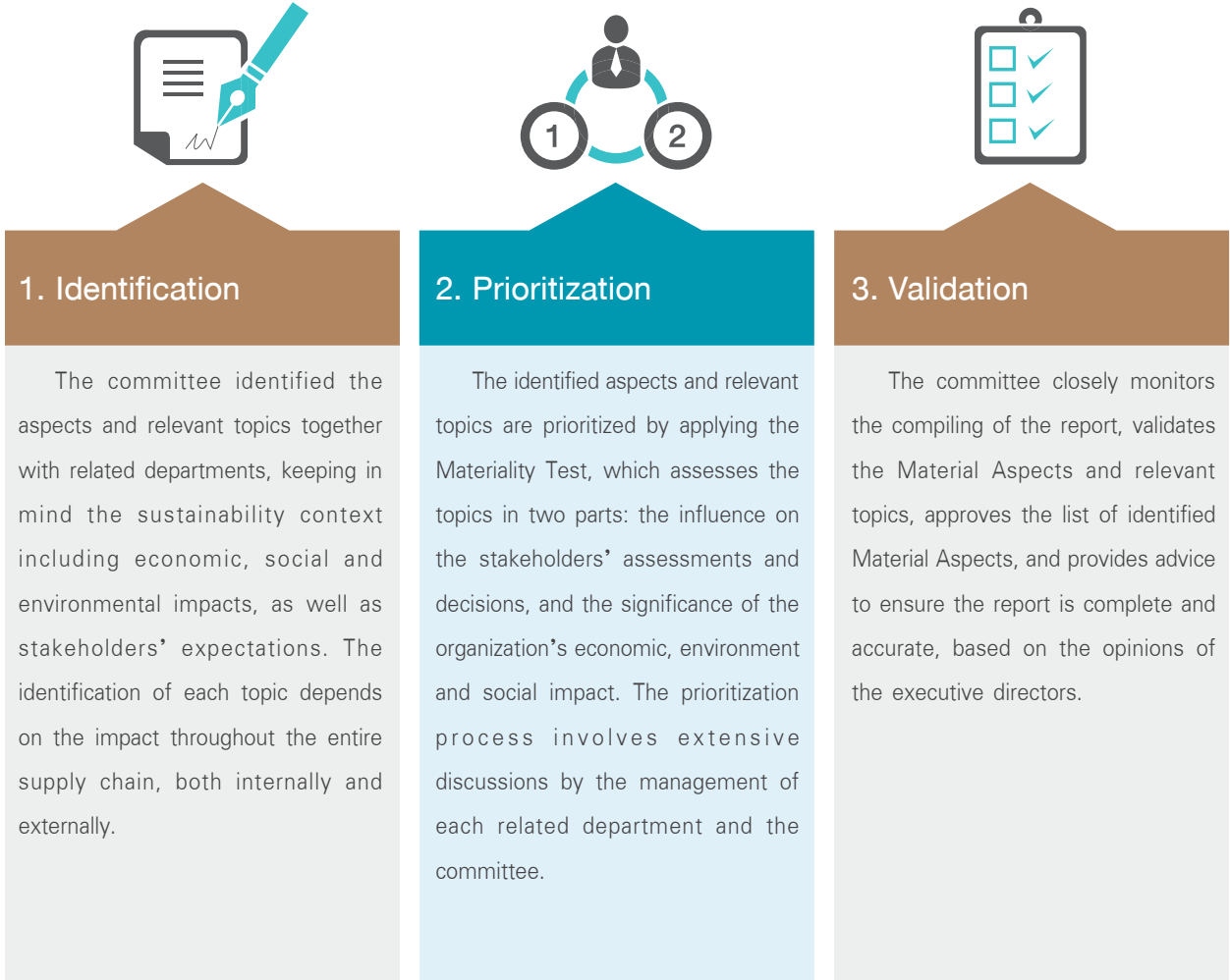
This report includes all aspects of Mitr Phol Group's sustainability-related activities in order to promote transparency and clarity. Disclosures in this report only cover Mitr Phol Sugar's operations in Thailand and do not extend to Mitr Phol Group's other subsidiaries and affiliated companies. However, in the future, the group plans to expand the disclosures to include operations of all related companies.

Mitr Phol Sugar's operation in Thailand.

(G4-17)



Process of defining reporting content and impacts (G4-18)



The process identified Material Aspects and internal impacts from the operations of Mitr Phol’s domestic sugar businesses as follows:





MITR PHOL GROUP Mitr Phol Corp., Ltd, Headquarters

- Mitr Phol Phu Khieo sugar mill, Chaiyapum province
- Mitr Phol Phu Viang sugar mill, Khon Kaen province
- Mitr Phol Sing Buri sugar mill, Sing Buri province

- Mitr Phol Dan Chang sugar mill, Suphanburi province
- Mitr Phol Kalasin sugar mill, Kalasin province
- Mitr Phol Phu Luang sugar mill, Leoi province




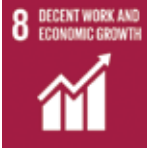





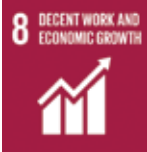












External impacts involve communities, suppliers, customers/consumers, sugarcane farmers and regulatory bodies.










Scope of the report

Material aspects (G4-19)		Scope of internal impacts (G4-20)								Scope of external impacts (G4-21)				
		MPPK	MPKS	MPDC	MPSB	MPPV	MPPL	HQ	Communities	Suppliers	Customers	Farmers	Government agencies	
 Economic	Economic impact Market presence Indirect economic impacts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Employment Occupational health and safety	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Responsibility to customers	Customer satisfaction Customer health and safety	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Freedom of association and negotiation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Environmental	Materials	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Energy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Climate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Effluents and waste	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Transport	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Products and services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Compliance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Overall	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
 Societal	Local communities	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grievance Mechanisms for Impacts on Society	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Compliance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Mitr Phol Sugar’s disclosures of information are also in compliance with the UN’s Sustainable Development Agenda, which was adopted in 2015 by 193 member countries. The report is considered an Enhanced Sustainability Report that communicates with the wider groups of stakeholders and demonstrates the link between Mitr Phol Sugar’s operations and sustainable development goals, as follows:

Sustainability Aspects	Indicators	Sustainable development 
 Economic impact	EC1	
 Market presence	EC5	 
 Indirect economic impacts	EC7 EC8	       
 Employment	LA1 LA2 LA3	 

Sustainability Aspects	Indicators	Sustainable development 
 Occupational health and safety	LA5 LA6	 
 Customer health and safety	PR1	
 Customer satisfaction	PR5	
 Materials	EN1	 
 Energy	EN3 EN5 EN6	   
 Water	EN8 EN10	  
 Climate	EN19	

Sustainability Aspects	Indicators	Sustainable development 
 <p>Effluents and waste</p>	<p>EN22 EN23</p>	   
 <p>Products and services</p>	<p>EN27</p>	   
 <p>Transportation</p>	<p>EN30</p>	 
 <p>Overall</p>	<p>EN31</p>	   

Contact Us

For more information, please contact the Corporate Sustainability Department, Mitr Phol Sugar Company Limited, 2 Ploenchit Center, 3rd floor, Sukhumvit Road, Klongtoey, Bangkok 10110. Tel. +662794 1000 extension 651.

Compiling a sustainability report is an integral part of Mitr Phol Group's organizational development plan to operate its business based on social and environmental responsibility, and is in line with its commitment to become a world-class organization.

The Corporate Relations and Sustainability department was tasked with the responsibility of compiling the company's sustainability report.

The Sustainability Committee attends workshops to identify Material Aspects and scope of impacts as per the GRI's internationally accepted G4 reporting guidelines. The committee also provides support for the preparation, follow-up and gathering of indicators and other important information required for the report.



Sustainable development

Throughout the past 60 years, Mitr Phol Group has operated its business in adherence to a strong sense of Sustainability, within a transparent and ethical framework, and always conscious of its stakeholders, made up of suppliers, customers and consumers. The group also places great importance on conserving the environment and promoting community development, as it strives toward creating sustainable development for the world, in line with its philosophy of “Creating Value for Better Life”.

Vision on Sustainability

“To become a model organization that operates its business with ethics and good governance, as well as sustainable social and environmental development”

Sustainability Missions

- Create new ways of doing business while promoting community, social and environmental development, based on strong corporate culture and social ethics.
- Promote and support research and development of new technology. Conduct efficient production processes. Provide quality products and services that are also safe and environmentally friendly.
- Create job opportunities and uplift the quality of life of people in communities through a variety of charitable programs.
- Encourage employees to actively take part in promoting sustainable social, environmental and community development.

Sustainability Policy

With a real commitment to build a sustainable business, Mitr Phol Group recognizes that we must integrate business operations with sustainable practices. Our sustainability policy includes the following operational guidelines for management and employees as follows:

- Identify processes and procedures for business operations under the Corporate Philosophy and Good Governance.
- Commit to continually improve and implement sugarcane production and sugar-derived products to meet Bonsucro Production Standard as well as Bonsucro Chain of Custody Standard
- Promote and support Research and Development as well as manufacture and distribution management to ensure the ability to deliver quality products and services that are safe and environmentally-friendly.
- Create jobs and provide career development opportunities in order to better the quality of life of local communities through their appropriate participation in development activities.
- Respect the right of individuals and treat all employees fairly and equally regardless of their levels.
- Make the full effort to improve employees’ knowledge and competency so that they are able to work efficiently
- Always be attentive to the development of community welfare as well as social and environmental sustainability.

Mitr Phol's Sustainability Strategy

Mitr Phol's definition of sustainability is based on the corporate culture and business philosophy of "Grow Together". This guiding principle steers the group's business direction and its commitment to providing socially and environmentally friendly products. It also extends to the way in which we care about the well-being of our employees, farmers, communities and stakeholders who are impacted by our business operations. The goal is to build a sustainable society, environment and organization, in line with the **United Nations' Sustainable Development Goals (SDGs)**



The "Grow Together" philosophy that strives to uplift the quality of life for sugarcane farmers is derived from the "Mitr Phol Model", which promotes sustainable sugarcane productivity development in four key areas:

- 1) Having high productivity requires proper farming management: fertile soil, sufficient water, good quality sugarcane sprouts, timely planting and harvest, and effective pest controls.
- 2) Operations must inspire collaborations between farmers, Mitr Phol Group and government agencies, in line with the "Grow Together" philosophy. For example, educating farmers on cane farming, reducing taxes on loans, providing water sources in local communities and procuring sugarcane variety.
- 3) Efficient cost management, particularly planning and controlling every step of the process, collective bidding, and reducing operational costs from soil preparation, farming, maintenance and harvesting.
- 4) Sugar cane farming management must take into consideration environmental and social responsibility, such as reducing the use of chemicals, green cane harvesting, and minimizing field burning.

Key Sustainable Development Projects in 2015

Since its founding 60 years ago, Mitr Phol Sugar has continued on its path toward excellence by operating its business with good governance, developing human capital, following international operation standards, and striving to become "an organization of happiness", all while promoting sustainable growth through caring for its shareholders, customers, suppliers, communities, farmers and employees. The company has also consistently promoted innovation, well-organized management processes and highly-efficient operations.

In 2015, the company pursued one of the sugarcane industry's most important sustainable agriculture certifications, the BONSUCRO. The BONSUCRO standard is a collaborative effort between academics, sugarcane farmers and the private sector to initiate sustainable development standards for the economic, social and environmental aspects of sugarcane farming. The verification covers the entire operation process, from the pre-harvest checking of the soil to the farming period, through to the maintenance of the sugarcane and the harvest. Mitr Phol has begun to adapt its sugarcane production to be in line with BONSUCRO standards for more than 12,000 rai (1,800 hectares) of company-owned farmland, in the hopes that this will result in the production of 7600 tons of sugar. By 2021, the company expects to have implemented BONSUCRO standards for the production of sugarcane in upwards of 570,000 rai (91,200 hectares) of farmland.



Mitr Phol Group wins prestigious “Bonsucro Sustainability Award 2015”

Mitr Phol Group won the coveted Bonsucro Sustainability Award 2015 at the Bonsucro Annual Dinner and Awards Ceremony, held in Brazil. Mitr Phol was commended for its campaign to end the practice of burning farmland fields while encouraging farmers to adopt the Mitr Phol ModernFarm system. After adopting the system, the average annual domestic production volume in Thailand rose from 10.88 tons per rai to 20 tons per rai.

The judging panel was comprised of experts and distinguished members from several industries, and included the chairman and director of Bonsucro organization, sugarcane farmers, representatives from independent organizations, and executives from corporations such as Pepsi, Coca-Cola and Nestle.

To ensure that sustainability also extends to the entire supply chain, Mitr Phol Sugar has outlined a Code of Conduct to help suppliers strengthen their efforts in terms of community, social and environmental responsibility.

Mitr Phol Group’s Supplier Code of Conduct is in compliance with applicable rules, regulations and laws, and ensures that its suppliers operate their businesses by always adhering to strong ethics, a respect for human rights, occupational health and safety for employees, and Environmental Management.

1. Business ethics: honesty, confidentiality, and conflicts of interest.
2. Human rights: labor freedom, child labor, pay and benefits, working hours, termination, humanity, freedom of assembly.
3. Occupational health and safety: emergency preparedness, safety and work environment, occupational health, work-related injuries and sickness.
4. Environmental management: environmental management through the product/service life cycle, waste and hazardous waste, water and air pollution, greenhouse gas emissions, soil and groundwater contamination.

Suppliers are required to formally acknowledge and understand the policy outlined in the Mitr Phol Group Supplier Code of Conduct by filling in their name, company name, designation, signature and date.

Mitr Phol Group's Business Development





Mitr Phol Group's Business Development



Key sugar business operations in 2015

- Economic Impacts
-



Sustainable Development for Farmers and Communities

- Elevating Production Efficiency
 - Mitr Phol Group's Fair Contract Farming
 - Mitr Phol Modern Farm
 - Mitr Phol Sugar's Irrigation Development
- Quality of Life of Farmers and Communities
 - Mitr Phol's Community Development Project
 - Strengthening Communities by Empowering the Disabled
 - Activities for the Youth



Mitr Phol Sugar's Business Development

Mitr Phol Group recognizes the importance of the uplifting and development of the national economy by way of promoting the well-being of the company's stakeholders including shareholders, employees and farmers. Income generation of these stakeholder groups helps drive the country's economy as a whole. Mitr Phol Group represents the business sector, while the people sector is comprised of sugarcane farmers. The business operations reflect the philosophy the company has upheld for more than 60 years: "Grow Together". Mitr Phol Sugar's key economic performance in 2015 is as follows:

Key sugar business operations in 2015

- Economic Impacts

Sustainable Development for Farmers and Communities

- Productivity and Profitability Development Plan for Farmers
 - Mitr Phol Group's Fair Contract Farming Project
 - Mitr Phol Modern Farm Project
 - Mitr Phol Sugar's Irrigation Development Initiative
- Quality of Life of Farmers and Communities
 - Mitr Phol's Community Development Project
 - Strengthening Communities by Empowering the Disabled
 - Activities for the Youth

Economic Impacts

Details	Amount (Million Baht)
Direct economic value generated	
• Revenues	53,246.00
Direct economic value distributed	
• Operating costs consist of:	49,491.00
• Employee wages and benefits	48,871.66
• Payments to government	598.24
• Community Investment	21.10
• Payments to providers of capital	934.00
Economic value retained	2,821.00

Remark : Disclosures in this report only cover 6 Mitr Phol's sugar operations in Thailand.



Sustainable development for farmers and communities

For the past 60 years, Mitr Phol Group has strived to promote job creation and prosperity for sugarcane farmers and sustainable development for local communities, as part of the company's "Grow Together" philosophy.

To promote prosperity, Mitr Phol Group's key focus is helping sugarcane farmers boost productivity and profitability. The Productivity Village project began in 2002 to educate farmers on cane growing best practices, give support for technological advancements and provide financial assistance. The project's aim is to enhance the farmers' capability so that they can continue to work in the industry successfully and eventually pass on their knowledge and skills to the next generation.

To promote sustainability, Mitr Phol Group has strived to improve other aspects of the lives of farmers and surrounding communities aside from increasing productivity. Through the Mitr Phol Model Project, which promotes mixed cropping, healthcare and knowledge development, the company has helped strengthen communities in a sustainable way by elevating the people's quality of life in all dimensions.

Strategies for Community Sustainable Development



1 Model Family

- Self-awareness
- Paradigm shifts
- Creating role models
- Expanding to group activities



2 Community Knowledge

- Developing a knowledge base
- Developing learning centers at the sub-district level
- Making knowledge building a local policy



3 Community Organizations

- Capability development for leaders
- Establishing Mitr Phol Model committees
- Collaborating with relevant authorities



4 Co-development Networks

- Strengthening co-development networks
- Building a knowledge-sharing network

Productivity and Profitability Development Plan for Farmers

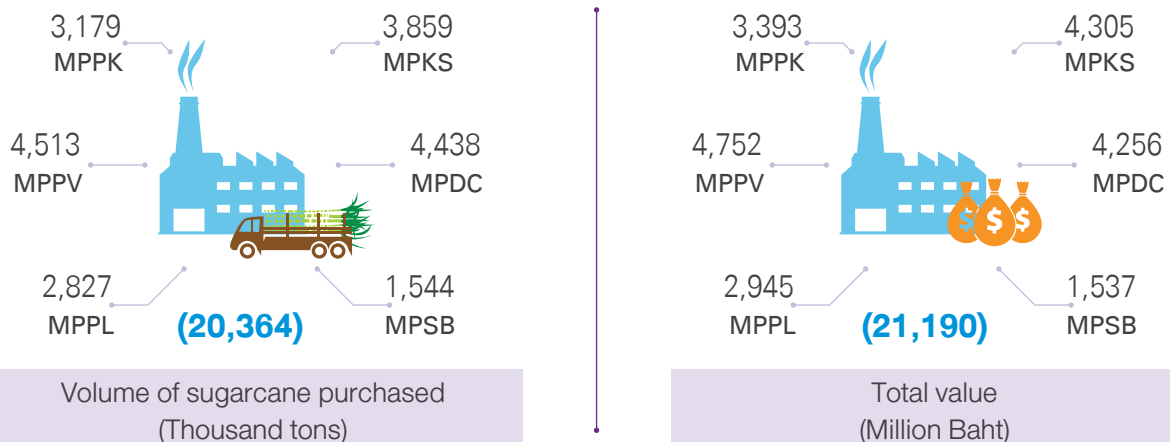


11-step plan to strengthen communities and promote sustainability



1. Preparing community developers
2. Electing community leaders
3. Developing community leaders' capacity
4. Community analysis
5. Compiling data and preparing for the handover
6. Handing over the compiled data to the community
7. SWOT analysis
8. Devising community development plans
9. Holding a referendum on the community development plan
10. Putting the plan in action
11. Promoting strength and sustainability

Once the sugarcane has been transformed into a variety of sugar products and sent for domestic and international distribution, the revenue earned is divided among farmers and millers by a ratio of 70:30. The chart below demonstrates the revenues earned by farmers in terms of factories in 2015.



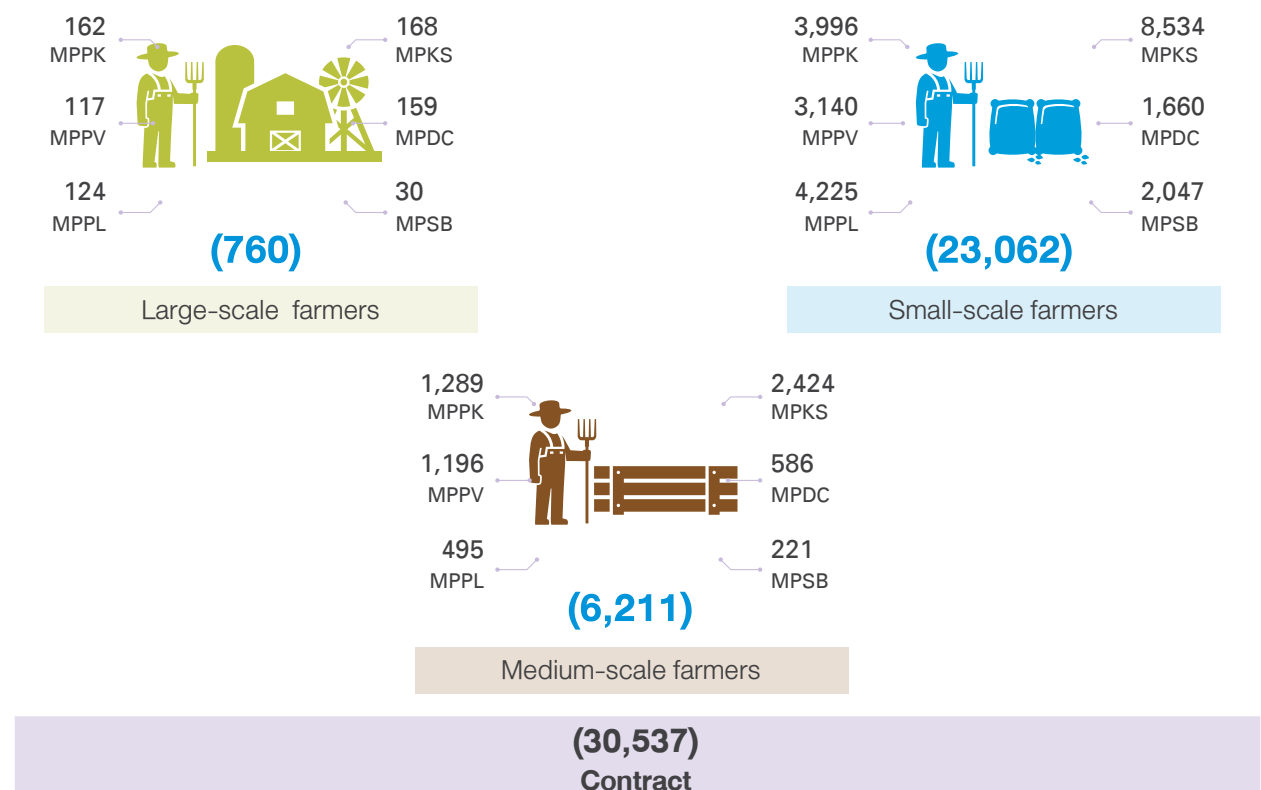
The total value of sugarcane purchased from farmers at all Mitr Phol sugar factories in 2015 amounted to more than 21,000 million baht. The generated income was a direct injection into the grassroots economy, in addition to other types of assistance.

Elevating Production Efficiency

Mitr Phol Group's Fair Contract Farming

One of the most common problems for sugarcane farmers is price fluctuation, making revenue forecasts difficult and crop planning inefficient. A widely-used tool in the agricultural industry to combat price fluctuation is contract farming. Although this method helps farmers and their trading partners arrive at an agreement on product prices and purchasing volume, the dynamics of the relationship mean that farmers are sometimes treated unfairly.

Mitr Phol Group has developed the Fair Contract Farming system. This is a binding commitment between the company and more than 30,573 contract farmers to enhance productivity and provide other forms of support including funding, materials, knowledge and skills.



1. Sources of funds

- The selection criteria are:
 - Eligible farmers must own or partially-lease farmland. The farmland must be conducive to growing sugarcane.
 - Convenient transportation from the farm, which must not be more than 50-80 kilometers from the factory.
 - Sufficient labor to work on the farm.
 - Eligible farmers must be trustworthy and devoted to sugarcane farming.



- Farm inspection:
 - Specifying the farm's coordinates and inspecting the farm to assess the suitability such as terrain, location, soil quality, irrigation, and the using of GPS or tablets
- Evaluation and documentation:
 - Farmers who wish to apply for funding are required to offer collateral. Farmers who are not able to offer collateral may take advantage of the company's credit guarantee scheme.
- Payment of funds:
 - The amount of funds granted is calculated based on the type of sugarcane grown: 5,600 baht per rai for Plant cane and 3,000 baht per rai for Ratoon Cane.
 - The payment of funds is made in a timely manner.
 - Loan repayments are deducted from the revenues the farmers receive during harvest seasons.



2. Providing materials

- Loans for soil tillage, planting sugarcane, and labor costs for contractors or subsidies.
- Top-quality cane breeds.
- Other production factors such as fertilizers, weed killers and agricultural equipment.



3. Providing knowledge

- Documents, pamphlets and training
- Training sessions for contract farmers by company officials. A total of 98 local coordination centers have been established, with 500 dedicated officers providing knowledge and assistance to farmers.



4. Skills development

- Field trips within Thailand and abroad to learn about modern sugarcane management. Developing business plans with small-, medium- and large-scale farmers.



5. Procurement

- Contract farmers can deliver their produce to any of the 142 collection stations. By fiscal year 2017/18, the number of collection stations will grow to 169.
- Using the Commercial Cane Sugar (CCS) measure to determine the recoverable sucrose in the cane, as part of the Sugarcane and Sugar Act.
- To ensure transparency and fairness, representatives from factories, government agencies and the farmers association are involved in the process

Mitr Phol ModernFarm

To promote a sustainable increase in sugarcane productivity and to combat a lack of understanding and knowledge among farmers in some areas about effective sugarcane management, Mitr Phol Group launched the “Mitr Phol ModernFarm” project in 2006. The project introduced the use of machinery to replace manual labor in the harvesting process, promoted a realigning of the space between the raised beds for maximum efficiency of the sugarcane harvester, and initiated climate - friendly approaches such as reducing the amount of burnt sugarcane imported and procured domestically, and increasing the purchasing volume of unburnt sugarcane.

In 2015, Mitr Phol Group promoted knowledge about farm design to sugarcane farmers, while encouraging space allocation for maximum efficiency, as follows:

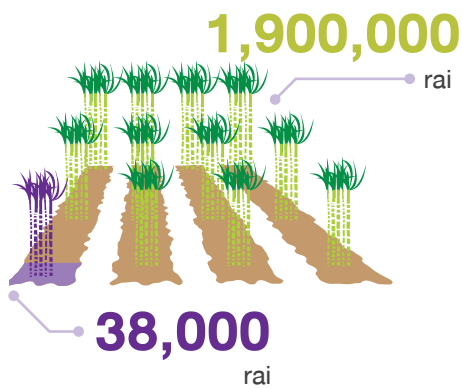


Forecast for the Mitr Phol ModernFarm Project

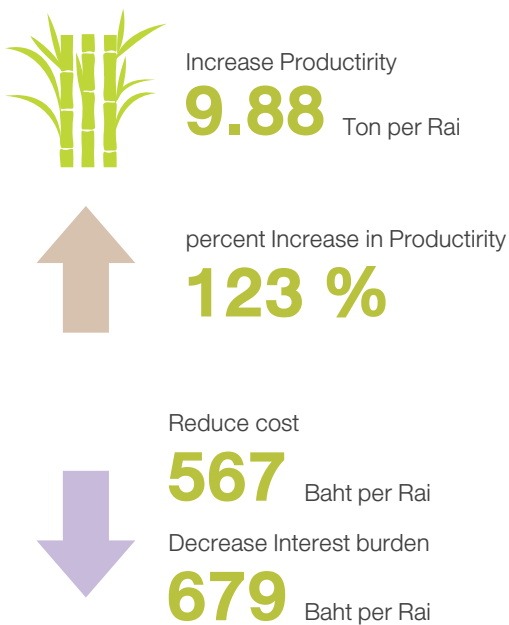
20 rai in size	100 rai in size
Management of small farms up to 20 rai in size	Management of medium-sized farms up to 100 rai in size
<ol style="list-style-type: none"> 1. Building an agricultural water supply (200 cubic meters/ rai) - 0.5 rai 2. Living space, rice fields, vegetable patch, fruit orchard - 3 rai 3. Sugarcane field/ 1.65m. spacing/ realigning groove tillage cultivation - 16.5 rai 4. Operating cost of growing sugarcane - 800 baht/ ton 5. Sources of family income: profit from sugarcane (15 ton/ rai) 75,600 baht, vegetables and rice - 100,000 baht 6. Average income (baht/month) - 14,633 baht 7. Percentage of annual growth (20% year) - 20 years 8. Productivity increase plan by 3 tons/ rai 	<ol style="list-style-type: none"> 1. Building an agricultural water supply (200 cubic meters/ rai) - 3 rai 2. Living space, rice field, vegetable patch, fruit orchard - 4 rai 3. Sugarcane field/ 1.65m. spacing/ realigning - 93 rai 4. Operating cost of growing sugarcane - 800 baht/ ton 5. Sources of family income: profit from sugarcane (15 ton/ rai) - 368,550 baht, vegetables and rice - 150,000 baht 6. Average income (baht/month) - 43,213 baht 7. Percentage of annual growth (20% year) - 20 years 8. Productivity increase plan by 3 tons/ rai

Mitr Phol Sugar's Irrigation Development

Water resource management is at the heart of efficient sugarcane farming as it ensures sufficient resources amid worsening drought problems and uncertain rainfall levels. In 2006, Mitr Phol Group, along with local sugarcane committees, the Bank for Agriculture and Agricultural Co-operatives and the Office of the Cane and Sugar Board, launched an irrigation program to assist farmers with water sources and the mitigation of risks during a drought. The aim of the program was to develop irrigation systems covering 60 percent of the supported lands.



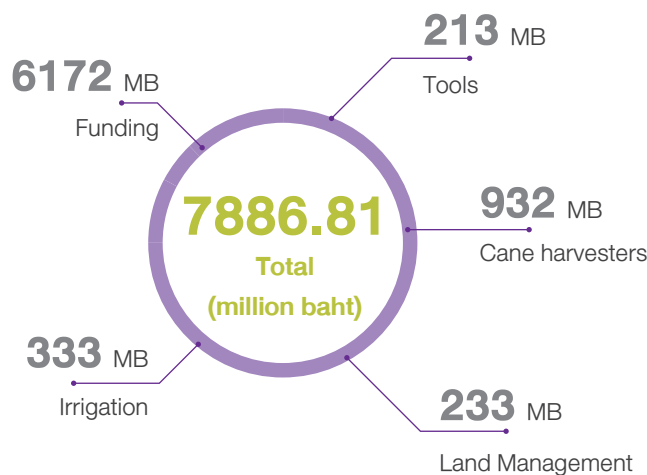
By 2015, the project covered a total of 38,000 rai of farmland, making up 2 percent of the 1,900,000 rai area. Mitr Phol Group provided knowledge, funding and advice for local farmers so they could obtain adequate water sources and become self-sufficient. The water management knowledge given to farmers focused on two areas: securing adequate water sources for agricultural use, including building water reservoirs, drilling wells, setting up pump stations and installing pipes to the farming area, and effective water usage such as drip and center pivot irrigation.



Due to the constant irrigation developments throughout 2015 by Mitr Phol, productivity per rai increased to 17.88 tons per rai from 8 tons per rai the year before. The increase of 9.88 tons per rai, or 123.44 percent, lead to a savings for operating costs of approximately 567.50 baht per rai, along with a 2 percent savings from loan interest, or around 679.25 baht per rai. Total cost savings amounted to 1,246.75 baht per rai.



Mitr Phol Group's support for sugarcane growing



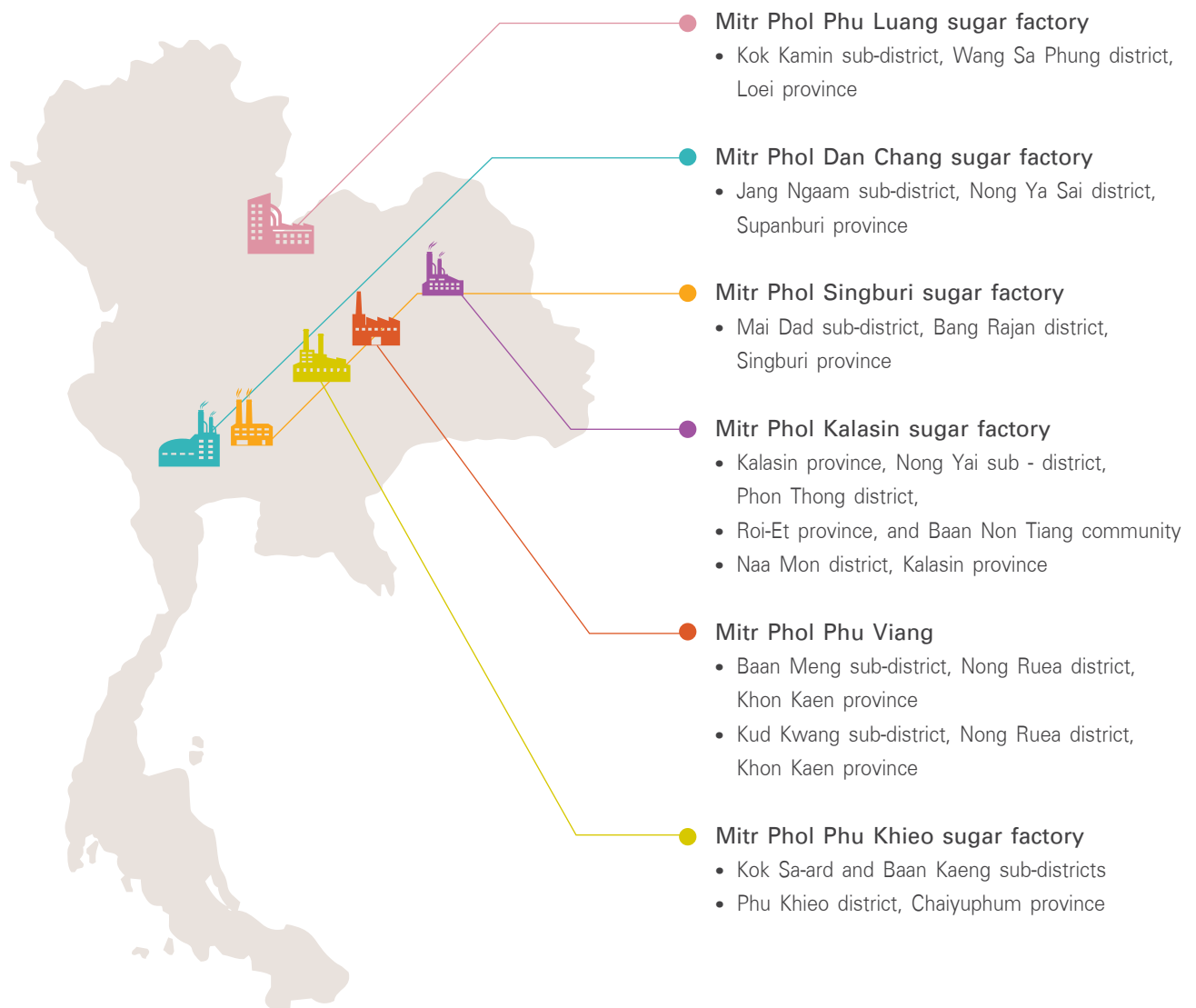


Quality of Life for Farmers and Communities

Mitr Phol's Community Development Project

2015 marked a significant milestone in Mitr Phol Sugar's establishment of a community network for sustainable development. The company signed a Memorandum of Understanding with the Thai Health Promotion Foundation to advance the well-being of residents in sugarcane-growing communities around the country. The project's aim is to uplift the living standards of the underprivileged residents by improving their economic, environmental, social, physical and psychological well-being. Local people were encouraged to take responsibility for their own development and sustainability through efficient sugarcane farming in order to minimize costs, develop other skills to provide additional income sources, exchange community products, and create jobs for the disabled so that they become self-sufficient and are proud to contribute to the community.

The project covered 9 sub-districts, one community, 136 villages and 25,500 families:



The goals of the project covered five development areas:



Economic development: for local residents to understand sufficiency and build a strong, resilient community by increasing income, reducing expenses, refraining from vices, and keeping an income-expense account to control spending and increase savings, as well as skills development training.



Social and educational development: establishing community leaders and role models, encouraging inclusiveness and involvement, setting up learning centers and elevating education standards.



Well-being development: promoting the health and well-being of community members, reducing sickness and medical expenses, and improving the overall social welfare.



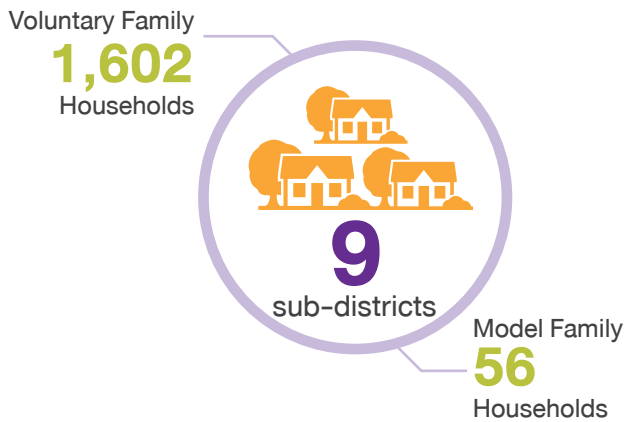
Environmental and natural resources development: preserving natural resources, minimizing the use of toxins and chemicals, having access to natural food sources, and protecting bio-diversity.



Emotional well-being and creativity development: promoting loving families, life planning, positive thinking, problem-solving skills, voluntary spirit, pride in their hometown, and morality.

In 2015, Mitr Phol trained and developed community leaders and voluntary families, and expanded the Mitr Phol Model network by establishing committees that are responsible for driving sustainability in their community. Key operations in 2015 included:

1. Setting up the mechanisms for the Mitr Phol Model Committee and appointing members for each of the 9 sub-districts. At the meetings, which were held every month, the committees exchanged ideas and provided support to one another.
2. Establishing the project coordination office to encourage cooperation in the community and raise funds for sustainable development. Participating authorities also included the Sub-district Administrative Organization, the Non-Formal and Informal Education Office, the Sub-district Health Promotion Hospital, and other agencies.
3. Running projects involving voluntary families, including:
 - Setting up groups to manufacture products such as all-purpose cleaners, and encouraging knowledge-sharing between groups in different communities to assist with product design and distribution.
 - Helping growers of safe vegetables who sell their goods at community markets in five sub-districts to expand their distribution channels to include Mitr Phol factory canteens and PTT gas stations in the Sra Kra Jom sub-district. The idea was adopted from an inspection trip to the 108 Techno Farm in Ang Thong province. The trip was jointly held with the Thai Chamber of Commerce.
 - Developing a mushroom growing group.
 - Knowledge sharing about growing organic Hom Nil jasmine rice. Elevating the Baan Non Tiang agricultural product processing group to an enterprise group.
4. Community knowledge management plans:
 - Developing the “Ruam Mitr Sufficiency Economy Biological Garden” knowledge base in the Nong Yai sub-district as the community center for idea sharing and learning.
 - Promoting education through field trips and educational TV programs.
 - Establishing Wat Pa Na Kam in Kalasin province as the merit center and a community development facility in Nong Yai sub-district.
 - Creating jobs for the disabled at the Malee Sufficiency Economy Center in Jang Ngaam sub-district.
5. Working plans for Mitr Phol Model network:
 - Collaboration with other authorities in the sub-district, with projects including a bio-gas operation run by voluntary families, education programs provided jointly with the Office of Non-Formal and Information Education, and the drilling of water wells with funding by the Sub-district Administrative Organization.
 - Drinking water projects to promote community wellness and sustainability.



In 2015, there were a total of 1,602 voluntary families from 9 sub-districts, and 56 were selected as model families. The goal for 2016 is for participating communities to become more self-sufficient, further develop knowledge, and elevate themselves to become Mitr Phol Model learning centers. By 2017, the Mitr Phol Model will be expanded to other communities.

Performance of the Mitr Phol Model project







Target : Villages
136

Target : Voluntary family 1,275	Status as of Dec' 15 1,602
Target : Model Family 405	Status as of Dec' 15 56

Mitr Phol Model	Villages	Families	Population	Voluntary family target	Status as of ODecember	Model family target	Status as of ODecember	Activity groups
1. Nong Yai sub-district, Phon Thong district, Roi-Et province	15	2,870	11,452	150	150	45	10	5
2. Baan Meng sub-district, Nong Ruea district, Khon Kaen province	18	2,706	11,785	150	187	45	9	2
3. Baan Kaeng sub-district, Phu Khieo district, Chaiyaphum province	21	3,952	14,449	150	215	45	13	2
4. Kok Kamin sub-district, Wang Sa Phung district, Loei province	20	3,472	4,693	150	198	45	12	1
5. Jang Ngaam sub-district, Nong Ya Sai district, Supanburi province	8	3,400	6,473	150	150	45	10	2
6. Mai Dad sub-district, Bang Rajan district, Singburi province	14	2,418	7,310	150	120	20	2	2
7. Kud Kwang sub-district, Nong Ruea district, Khon Kaen province	21	2,325	9,566	150	302	45	-	-
8. Som Sa-ard sub-district, Kuchinarai district, Kalasin province	7	1,351	4,333	75	112	15	-	-
9. Kok Sa-ard sub-district, Phu Khieo district, Chaiyaphum province	12	3,024	8,974	150	168	45	-	-

2015 performance against targets

	Target	Indicators	2015 performance
1. Economy 	<ul style="list-style-type: none"> - Increasing income and reducing expenses, increasing savings - Reduce community debt - Career and skills development 	<ul style="list-style-type: none"> - Income higher than expenses - Reducing unnecessary expenses by 10% - Reducing debt and/or increasing savings - Community enterprises 	<ul style="list-style-type: none"> - Comparing data from 2015 with 2014 household expenses of the 1,225 voluntary families were reduced by more than 10% - A total of 14 community enterprises were registered with the government, including groups that produced all-purpose cleaners, eggs, mushrooms, banana chips, pork and safe vegetables.
2. Society 	<ul style="list-style-type: none"> - Community leaders/ role models - Inclusiveness / Groups - Activity networks/ learning centers - Improved education/ learning that can be utilized to make a living such as local job training programs 	<ul style="list-style-type: none"> - At least 30 role models per sub-district within 3 years - Sub-district learning centers - Local programs - Mitr Phol Model committee 	<ul style="list-style-type: none"> - In 2015, 56 model families were set up across 9 sub-districts - In 2015, three learning centers were established in the Nong Yai, Mai Dad and Phu Khieo sub-districts - In 2015, a sugarcane growing training program was developed in collaboration with the Nong Phai school in Phu Khieo district - Mitr Phol Model committees were established in 9 sub-districts, with monthly meetings held to report progress
3. Natural resources and environment 	<ul style="list-style-type: none"> - Free from pollution - Less use of chemicals/ no chemical residue - Preserving natural resources and abundance - Having food/ bio-diversity 	<ul style="list-style-type: none"> - Voluntary families reducing use of chemicals - Voluntary families practicing household waste management - Establishment of community resources management groups 	<ul style="list-style-type: none"> - Reduction of chemical usage and implementation of household waste management in voluntary families - In 2015, Mitr Phol partnered with Hydro and Agro Informatics Institute to establish water management groups in all 9 sub-districts
4. Health 	<ul style="list-style-type: none"> - Lowered levels of illnesses and medical expenses - Welfare to promote community health 	<ul style="list-style-type: none"> - Half of volunteer families have reduced levels of toxic chemicals - Establishment of a community welfare fund 	<ul style="list-style-type: none"> - Blood tests to measure toxic chemicals were completed at the end of 2015, now awaiting results - The Savings for Health and Exercise groups in Baan Meng and Baan Keng sub-districts
5. Emotional well-being 	<ul style="list-style-type: none"> - Loving families. Each family member knows his/her duties - Having thought process/positive thinking/problem-solving skills - Sense of community and volunteer spirit/participation and voicing opinions - Love for the home/ pride/ desire to return home to improve living conditions 	<ul style="list-style-type: none"> - Voluntary families refraining from vices - Voluntary families have strong desire to develop community 	<ul style="list-style-type: none"> - Data collected from household accounts show a reduction in spending on vices, thanks to the promotion of alternative jobs to provide supplementary income during downtime - The promotion of public activities for community development and encouraging villagers to take part in related activities

Strengthening Communities by Empowering the Disabled

The Thai government promotes job creation for the disabled through the enforcement of the Promotion and Development of Quality of Life for Disabled Persons Act, which requires businesses to hire at least one disabled person for every 100 able-bodied employees. If businesses are unable to fulfil the condition, they are required to make contributions to the Fund for the Empowerment of Persons with Disabilities.

In Thailand, there are 700,000 disabled persons of working age. However, as many as 300,000 of them are unemployed, which demonstrates the severity of the problem in Thailand.

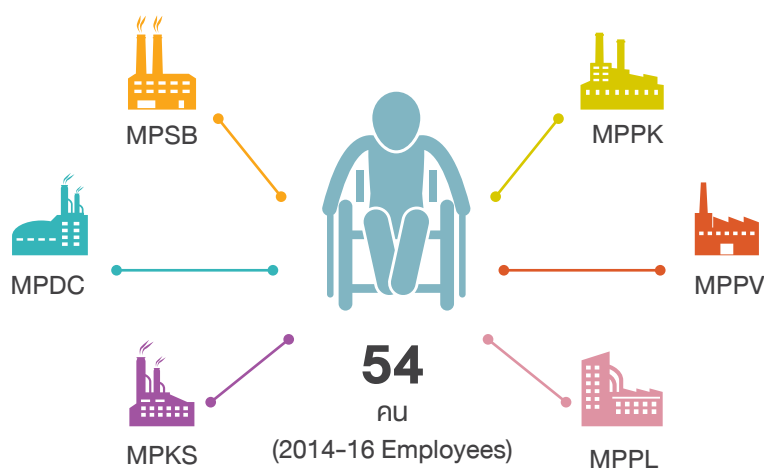
Mitr Phol Group realizes the importance of employing disabled persons in order to encourage others in society to see their value, resulting in reduced disparities and enhanced social opportunities. In compliance with the Promotion and Development of Quality of Life for Disabled Persons Act, Mitr Phol Group began implementing a project in six factories that extended opportunities to the physically-challenged members of the surrounding communities. In addition to the employment, Mitr Phol also provides education to the disabled to help them to become self-sufficient.

Mitr Phol Group employs the disabled as contract workers at locations nearby their residence. In support of this project, the company partners with other local agencies such as the Sub-district Administrative Office and the Sub-district Health Promotion Hospital, as well as community development officers, schools and temples. Disabled workers are employed for the following areas of work:

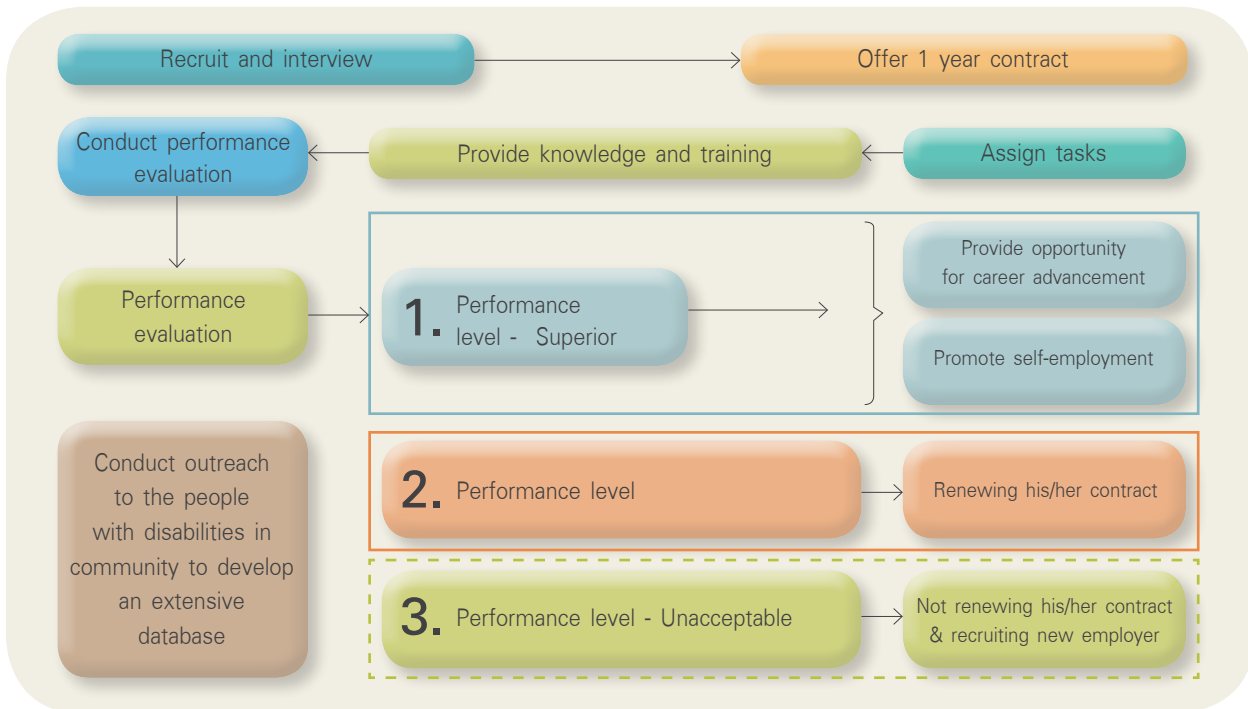
1. Community development support: data collection / recording of household data
2. Public work: assisting local government agencies
3. Visiting the disabled and data collection: paying visits to disabled people in the sub-district
4. Supporting government work: housekeeping, clerical work, coordination work, maintenance work in schools and community signage

In addition to employment, Mitr Phol Group supports the establishment of self-development groups such as sub-district level disabled persons group, career training programs, and skills development and learning centers. The company also supports drafting laws regarding disabled persons promotion, proposing job promotion activities for the disabled in the community, and self-improvement programs for activities such as vegetable growing, weaving and bookkeeping.

Employment of Disabled Workers at Mitr Phol Sugar Factories in 2015



Caring for people with disabilities



Employees in the Project for Strengthening Communities by Empowering the Disabled participate in skills training and social development programs. Two disabled employees now work on sugarcane plantations and have greater roles and responsibilities, as well as with opportunities for career advancement. Mitr Phol Group initiated the skills development centers for disabled persons by repurposing public areas in the Baan Kang, Baan Meng and Nong Yai sub-districts.

Feedback from some of the disabled employees who took part in the program



“I have a steady income every month and can see a **good future ahead of me**. I now have enough money every month to help my family pay for some of their expenses.”

ผมก็มีรายได้ที่มั่นคง มีเงินเดือนประจำ พอที่จะช่วยครอบครัวได้บ้าง
มีเงินเดือนใช้พอค่าเช่าบ้านค่ารถ ค่าใช้จ่ายของครอบครัว

คุณวีระ - อต.หนองใหญ่

“I receive encouragement and moral support to fight for my family. They’ve given me **knowledge, warmth and new behaviors, and taught me how to save money, refrain from vices and keep track of household expenses.**”



เมื่อ ทางใน พิลาธิโก ในเมืองสุโขทัยตอนเหนือของเมืองและครอบครัว
ใน ความรู้ ความอบอุ่น ในสิ่งที่ดีในใจ ในรู้จักอดออม ฝึกฝนงาน
และ ทำบัญชี ครัวเรือน ส่วนตัวและครอบครัว จ้ ความรักและประทีป

คุณประสาน - SW.สต.บ-ตากา



“I am able to work and support myself and family, despite my disabilities. I’ve lived with my disabilities since birth, but now I feel proud that I can help other people.”

ค่าทำทกร...
รับราชการแล้วที่หนได้เพื่อครอบครัวและผมได้ทำมาหากิน ไม่ใช่คนพิการ
ในอันนั้นได้สิ่งมอตัวมาตัวหนึ่งเกิดกับผมก็กลัวว่าภรรยาจะไม่ได้อะไร
เพราะตัวเราก็คือ

คุณกวีล - SW.สต.หนองแวงเหนือ

“Mitr Phol gave me more than just a job. They’ve given me knowledge and a sense of responsibility to help my community.”



ฝึกหลายคนที่ มิตรพลไม่ได้ให้แต่การทำงานแต่ให้ทั้งความรู้ ให้รู้จักช่วยเหลือชุมชนและ
ฝึกมากมาย พวกจักกันงานที่ ได้ขยับลงนามขอรับเงินที่มีส่วนร่วมในการพัฒนาชุมชนเรา

คุณนันทิยา - อบต.หนองใหญ่

In 2015, Mitr Phol had 70 vacancies for disabled employees. The company currently employs 54 disabled persons, with 16 vacancies: at the headquarters (5 positions), plantation business (9 positions) and subsidiary businesses (2 positions). The continued efforts with this program have earned Mitr Phol recognition as an enterprise that promotes quality of life for disabled people through

In order for the program to continue into 2016, Mitr Phol Group has asked for support from municipality offices to announce job openings and handle interviews at municipal and sub-district offices, hospitals, schools, Selected candidates are then offered an employment contract and can begin working with Mitr Phol Group.

Aside from these initiatives, Mitr Phol Group also has strategic multi-lateral partnerships with other organizations to promote efficiency and the exchange of knowledge about social development in several dimensions. Mitr Phol has forged partnerships with organizations including the Hydro and Agro Informatics Institute, the Pracha Rath Network, the Research and Development Institute of Sufficiency Economy Philosophy Foundation, the Office of the National Economic and Social Development Board, and the Right Livelihood Foundation. The partnerships were formed ,under the “Grow Together” framework, to which Mitr Phol Group has been committed for over past six decades to promote a better quality of life for sugarcane farmers and an improved society.



Activities for Youth



The Football Clinic Project, creating value and a brighter future for Thai youngsters

Since 2013, Mitr Phol Group has held football clinics to encourage youngsters to engage in useful activities during their free time. Attendance to the clinic has topped 5,000 participants, and has included the children of both Mitr Phol employees and sugar cane farmers, as well as kids in children in communities surrounding the six sugar factories in Supanburi, Singburi, Khon Kaen, Chaiyaphum, Loei and Kalasin provinces. The children have fun while learning skills and techniques from the coaches and professional players of the Ratchaburi Mitr Phol Football Club. Kids with strong football skills are invited to join the Ratchaburi Mitr Phol Football Club's youth development academy, with the possibility of playing professionally in the future.



Mitr Phol Art Camp Project

The company runs the two-day Mitr Phol Art Camp for children of employees and sugarcane farmers, as well as school students in communities surrounding the six sugar factories. The children learn techniques from Sangkom Thongdee, a renowned art teacher and recipient of the Outstanding Individual in Art award. The Mitr Phol Art Camp has been held since 2014 and so far more than 1,000 children have taken part.



Mitr Phol Scholarship Program

Recognizing the importance of education as part of a child's development, Mitr Phol Group, along with Kasetsart University and Panyapiwat Institute of Management, has set up a program to provide scholarships for undergraduate students. To qualify for the scholarship, children of employees and sugarcane farmers must have graduated high school in the science-math program and have a GPA of 3.0 or above. A total of 20 scholarships are provided:

- 10 scholarships to study at the Kasetsart University's department of agronomy from the Faculty of Agriculture
- 10 scholarships to study at the Innovative Agricultural Management Faculty at the Panyapiwat Institute of Management.



2015 Scholarship Program

Mitr Phol Group emphasizes extending educational opportunities for Thai children. In 2015, the company awarded a total of 105 scholarships to university-bound high school students. These scholarships were awarded via three programs: the scholarships for farmers' children, the Mitr Phol Career Camp, and the bilateral scholarship program. In addition, upon graduation, the students are eligible to work within the Mitr Phol Group family of companies. The scholarship program not only gives opportunities to underprivileged children, but also helps to improve the quality of the organization's workforce.

An addition 294 scholarships were also awarded to the children of Mitr Phol employees. The total number of scholarships awarded in 2015 was 399, amounting to more than 18 million Baht.

A large crowd of diverse people in business attire, including men in suits and women in professional dresses, surrounds a central white speech bubble. The people are arranged in a circular pattern around the bubble, with some standing closer and others further away, creating a sense of a large gathering. The background is a light blue gradient.

Labor and Human Rights



Labor and Human Rights



Labor Practices



Occupational Health, Safety and Environment

- Occupational Health, Safety and Environment Policy
 - Occupational Health and Safety Performance
-



Human Right Practices



Awards and Recognition in Labor Practices






Labor Practices

Mitr Phol Group considers its employees an important group of stakeholders who create value for the organization and drive it toward sustainability. As a result, great importance is placed on the planning, sourcing and development of its people to serve the needs of each department within the organization. In addition, Mitr Phol takes care of its workers, encourages employee engagement, cultivates the company culture, enhances knowledge and skills, and develops leadership competency. To gear Mitr Phol toward becoming a world class organization, the company created the Enhancing World Class Organization 2014-2017 strategy to guide its human resources development.



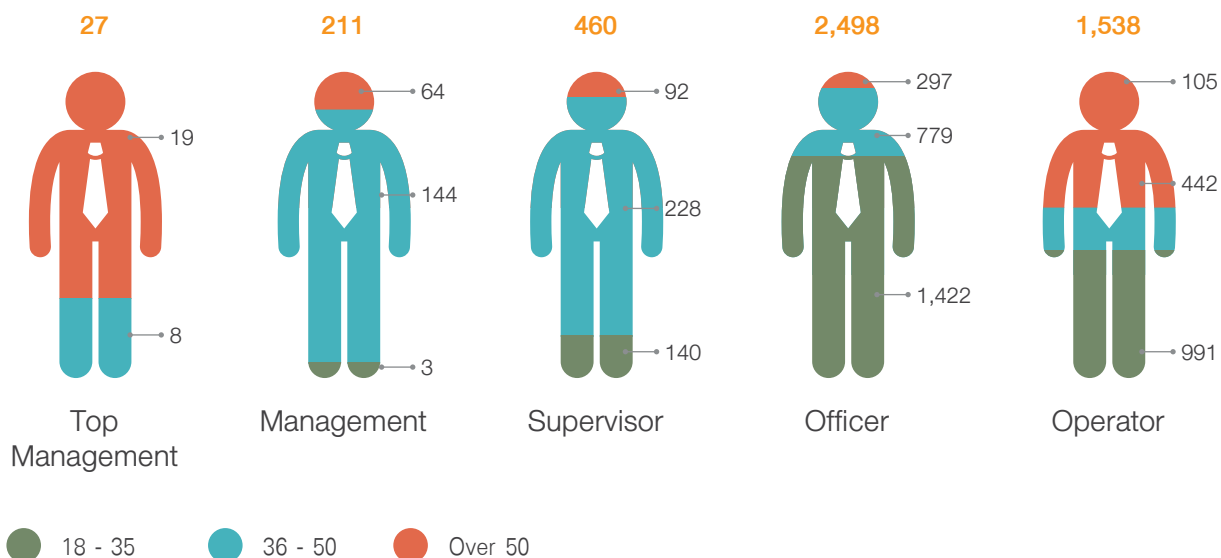
New employees and employee turnover rates in 2015

Type	New Employees	Employee Turnover
	Amount (persons)	
	Total 809 persons	Total 612 persons
Gender  Male Female	623 186	482 130
Age  18-35 years 36-50 years 50 years and above	697 94 18	456 109 47
Area  Headquarters MPDC (Dan Chang) MPSB (Singburi) MPPK (Phu Khieo) MPPV (Phu Viang) MPPL (Phu Luang) MPKS (Kalasin)	117 165 81 176 138 27 105	83 128 64 110 82 36 109

Return to work rates after parental leave



Management to Staff Ratio

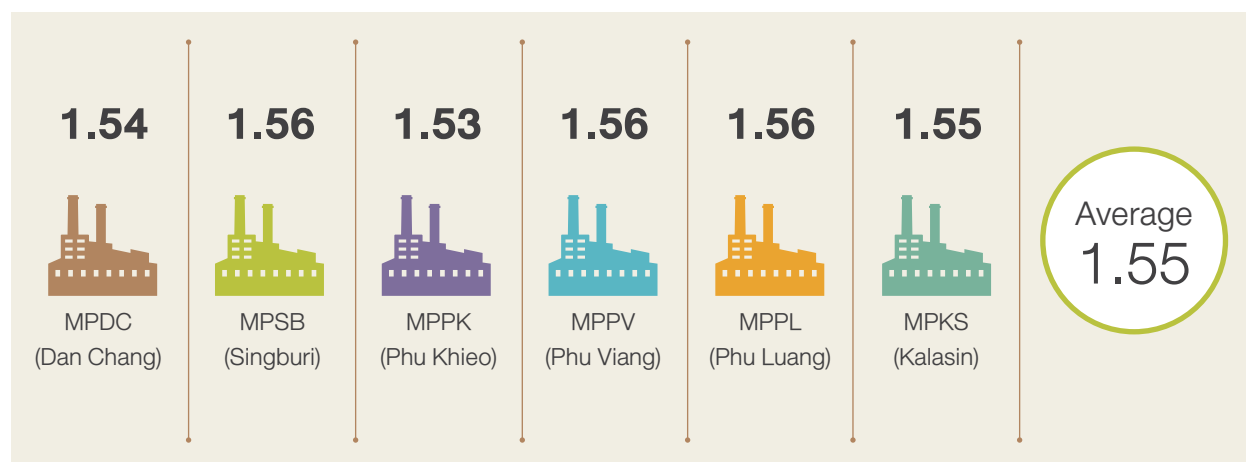


Levels	Age (years)	Number (persons)	Total (persons)
Top Management	18-35	-	27
	36-50	8	
	Over 50	19	
Management	18-35	3	211
	36-50	144	
	Over 50	64	
Supervisor	18-35	140	460
	36-50	228	
	Over 50	92	
Officer	18-35	1,422	2,498
	36-50	779	
	Over 50	297	
Operator	18-35	991	1,538
	36-50	442	
	Over 50	105	

The data shows that male employees make up 78.96 percent of the total workforce, while female employees make up 21.04 percent. The reason behind the significant difference in the male to female ratio is due to the agricultural and heavy machinery industries requiring specific skill sets from fields in which males traditionally comprise the majority, such as technicians, electricians and electronics specialists.

Mitr Phol Group has a policy to employ people in communities surrounding the factories and support skills development - especially for the disabled - to help them to become self-sufficient. Moreover, the employment of local people also leads to good relations between the community and the company. In addition to local community employment, Mitr Phol Sugar's entry-level salaries are also higher than the local minimum wages. The ratios of standard entry-level salaries compared to the local minimum wages at each factory are as follows:

Ratio of Entry Level Wages (Compared to Local Minimum Wages)



Mitr Phol Sugar's entry level wages are on average 1.55 times higher than the local minimum wages. The group plays an active role in creating jobs in the surrounding communities and pays higher wages than the minimum wages required by the Ministry of Labor. In addition to the wages, full time employees and seasonal workers are entitled to other benefits as follows:

Benefits provided to employees

Compensation	Full time employees		Seasonal Worker
	Monthly	Daily	
Wages	X	X	X
Health care	X		
Financial support for funerals	X		
Financial support for weddings	X		
Financial support for accommodation rental	X		
Travel expenses	X	X	
Provident funds	X		
Scholarships	X		
Bonus schemes	X	X	
Gift Baskets	X	X	X
Uniforms	X	X	X
Life and Accident Insurance	X	X	X
Housing	X		
Meals	X		
Annual health checks	X	X	X
Holidays	X	X	X
Trainings and development	X	X	
Chinese New Year gifts	X	X	X
Sports Day activities	X	X	
Employee parties	X	X	

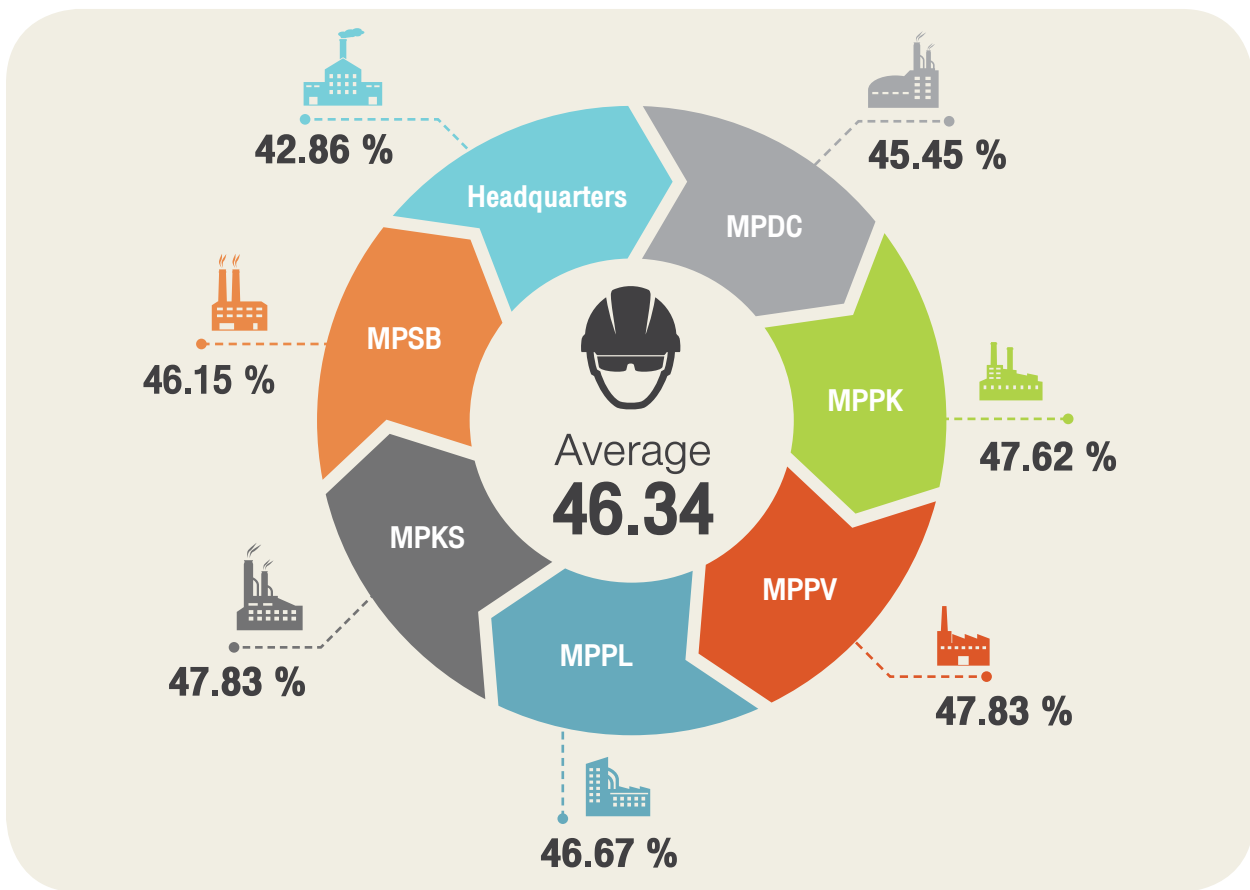


Occupational health, safety and environment

Mitr Phol Group considers the occupational health and safety of its employees as a top priority, as it has a significant impact on the company's sustainable growth. Thus, the SHE Management Committee was established to oversee the occupational health, safety and environmental management of Mitr Phol Group, Mitr Phol Sugar and Mitr Phol Plantation, in order to ensure that good standards are practiced throughout the entire supply chain.

In addition, Mitr Phol Sugar has established a SHE Management Committee for each factory. The committees are well represented by operational-level staff that take part in ensuring the health and safety of employees. The percentage of total workforce represented in the joint management-worker health and safety committees in each location is as follows:

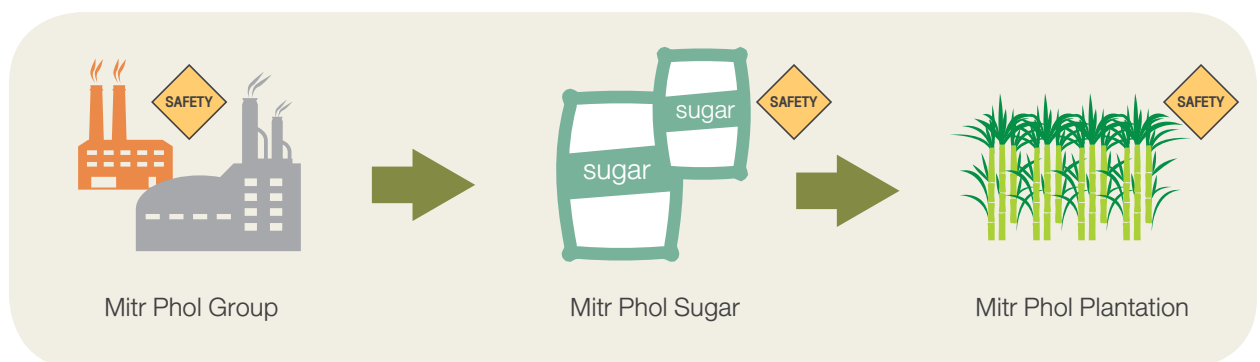
The percentage of Operational-Level staff in SHE committee



Operational-level staff are represented in each committee and are included in the task of overseeing the organization's occupational health, in line with the Ministry of Labor's Regulations on the Prescribing of Standards for the Administration and Management of Occupational Health, Safety and Environment, B.E. 2549.

1. Reviewing and proposing occupational safety plans, as well as accident, injury and illness prevention plans
2. Reporting and recommending measures to ensure that the plans are compliant with the Occupational Safety, Health and Environment Act, to ensure the safety of employees, contractors and outsiders who enter the premises.
3. Promoting and supporting occupational safety activities in the workplace.
4. Reviewing and proposing occupational safety rules and measures
5. Inspecting occupational safety practices in the workplace and performing monthly checks on the safety statistics.
6. Reviewing and proposing occupational safety training courses for employees, supervisors, management and staff of all levels.
7. Implementing a system for reporting unsafe work conditions and making it a requirement for staff of all levels.
8. Following up on the progress of recommendations made to the employer.
9. Presenting an assessment report to the employer after one year of service that outlines the challenges and obstacles, and makes recommendations on improving safety in the workplace
10. Assessing occupational safety performances in the workplace.
11. Carrying out other duties related to safety as assigned by the employer.

In order for the occupational health and safety practices to be implemented with maximum efficiency, Mitr Phol Group has reviewed its policy for preventing serious accidents, death and loss of assets. The group divided the policy into three levels to ensure that the plan was clear and covered all business operations, as follows:



Below are the details of the policy after the review and implementation of the improvement measures:

Mitr Phol Group’s Occupational Safety, Health and Environment Policy

1. The Company considers all employees as valuable resources. Their safety, occupational health and work environment are of extreme importance and part of the Company’s key policy.
2. The Company shall encourage occupational safety and health for all employees, and will provide a safe and appropriate work environment for all staff. The Company also promotes activities relating to social responsibility and the prevention of global warming.
3. The Company promotes and creates safe operations, educates employees about safe working practices, and motivates them to work in a way that avoids harm. Continual improvements and developments are made to the company’s occupational safety, health and environmental management systems in line with ISO 14001 and OHSAS 18001 standards, as well as related laws and regulations.
4. It is company policy to establish a joint occupational safety committee to plan and implement practices promoting employees’ safety, occupational health and work environment, as well as to resolve any issues regarding employee safety, occupational health and work environment.
5. It is company policy that all levels of supervisors are responsible for ensuring the occupational safety, health and work environment of all their direct reports are in compliance with company rules.
6. It is company policy that all employees are responsible for ensuring they follow occupational safety practices to ensure their own safety, as well as the safety of their colleagues and the company, are in compliance with company rules.
7. Company rules on occupational safety, health and environment also apply to contractors, customers and visitors whenever on company premises at the headquarters or factories.

Mitr Phol Group has communicated the policy to all levels of employees, contractors and relevant stakeholders to encourage them to adhere to the group’s occupational safety standards.

Occupational Health and Safety Performance

Mitr Phol Sugar collects statistics from the Occupational Safety, Health and Environment Committee on a monthly basis as shown below:

Workplace Injury, Illness and Fatality Statistics	2014			2015		
	Male	Female	Total	Male	Female	Total
Occupational diseases (persons)	0	0	0	0	0	0
Injuries (persons)	42	4	46	25	1	26
Death (persons)	1	0	1	2	0	2
Total (persons)	43	4	47	27	1	28

Details	Fiscal year 2015
Injury Rate (IR) unit: person/ 200,000 labor hours	
- Male	0.30
- Female	0.04
Occupational Diseases Rate (ODR) Unit: person/200,000 labor hours	
- Male	0
- Female	0
Lost Day Rate (LDR) Unit: day/200,000 labor hours	
- Male	135.13
- Female	0.12
Absentee Rate (AR) Unit: day/200,000 labor hours	
- Male	1.10
- Female	0

Comparing statistics from 2015 and 2014, injury rates were reduced significantly. However, occupational deaths rose, although it is important to note that both deaths were to contractors who may have lacked understanding about occupational safety.

Mitr Phol Sugar took the incidents seriously, and put in place measures to prevent similar incidents from reoccurring and to build employee morale. Improvements were made to the existing occupational safety policy in order to further prevent serious incidents, deaths and loss of assets to Mitr Phol employees and contractors both in the on and off seasons for sugar cane pressing.

The policy to prevent serious accidents, deaths and loss of assets at Mitr Phol factories is as follows:

1. Safety standards for visitors and contractors
2. Obtaining permits for working at elevation
3. Obtaining permits for any operation involving the production of heat and/or sparks
4. Working with high-voltage electricity and lockout/tag out
5. Working in poorly-ventilated areas
6. Working with forklifts
7. Preventing explosions, such as from combustible dust or biogas



Improvements to the policy have strengthened the confidence of our employees about their occupational safety, increased morale, and raised awareness in the workplace. Occupational diseases, injuries and deaths have also been reduced.

In 2015, Mitr Phol Group began implementing a process that will further uplift the occupational safety, health and environment policy to be on par with international standards. The upgrade, expected to be completed in 2016, includes preventative measures to reduce accident rates. Details of the upgrade are as follows:

1. Technology and engineering: assessment reviews and risk mitigation Guidelines

- Reviewing the risk assessments and implementing safety standards for operating machinery across all business units
- Checking and certifying the safety of all machinery, tools and equipment
- On-the-job training for supervisors, officers and contractors to promote knowledge and understanding of safety standards
- Assigning supervisors and occupational safety officers to perform risk assessments and safety knowledge reviews with officers and contractors every three months

2. Management systems: implementation of systems to prevent and control occupational safety

- Establishing and defining the roles of Mitr Phol Group's SH&E Committee
- Analyzing and reviewing whether the occupational safety committees at each location are adequately equipped
- Obtaining OHSAS 18001 certification for all factories
- Devising an SH&E framework and a system to ensure the policy is adhered to, and reporting the performance to management

3. Building awareness: ensuring employees understand the importance of the prevention of accidents in the workplace

- Checking on-site safety behaviors and risks
- Appointing SH&E officers at each location and a rescue team in each department
- Specifying SH&E indicators for supervisor level or above
- Instilling a culture of safety by communicating and sharing experiences. Having a safety brief at the start of every meeting.



Human Rights Practices



Mitr Phol Group places great importance on human rights and labor diversity including gender, age, physical abilities, religion, race, language and nationality. The group respects the employees' freedom of assembly and negotiation to ensure fair treatment. To "believe in the value of human dignity" is one of the core corporate values at Mitr Phol. It is our belief that all are born equal and therefore are entitled to the same rights and freedom at the workplace.

Since 2013, Mitr Phol Group has participated and adhered to the "Declaration against Child Labor and Forced Labor in Sugarcane Fields and Sugar Factories," in conjunction with the Thai Ministry of Labor and the Association of Sugarcane Farmers. The declaration's aim is to remove Thailand from the US Department of Labor's List of Goods Produced by Child Labor or Forced Labor, as the annual report states that child labor is believed to be present in the Thai sugarcane industry.

In 2015, Mitr Phol Group enacted measures to improve working standards in support of the elimination of child labor practices within Thailand's sugarcane and sugar industry. Mitr Phol Sugar's action plan to eradicate child labor in line with the US Department of Labor's standards is as follows:

8 Mitr Phol's operational standard



To strengthen our efforts in the protection of children’s rights, Mitr Phol Group has launched the “Mitr Phol Caring for Farmers’ Children” program, which provides daycare and support for the children of sugarcane workers who accompany their parents to work. The company has implemented the program at the following locations:



Small Children Development Center by Nong Ma Ka Mong Sub-district Administrative Organization, Daan Chang district, Supanburi province




Small Children Development Center at Kok Sawang Bamrung Temple, Dong Tan sub-district, Chaiyapum province

In addition to the two centers, Mitr Phol also works with schools in nearby areas to provide daycare to the children while their parents work in the sugarcane fields. Mitr Phol Group will continue to support and promote children’s rights as part of the “Mitr Phol Group Against Child Labor” campaign.




Awards and recognition in Labor Practices


In 2015, all six Mitr Phol sugar factories received awards from Ministry of Labor's Department of Labor Protection and Welfare for their outstanding labor relations and social welfare practices. The awards were received in the following categories:

 Outstanding labor relations and social welfare records for 10 consecutive years (2006–2015)

- Mitr Phol Phu Khieo sugar factory, Chaiyapum province
- Mitr Phol Dan Chang sugar factory, Supanburi province

 Outstanding labor relations and social welfare records for 5 consecutive years (2011–2015)

- Mitr Phol Kalasin sugar factory, Kalasin province
- Mitr Phol Phu Viang sugar factory, Khon Kaen province

 Outstanding labor relations and social welfare records in 2015 on the national level

- Mitr Phol Singburi sugar factory, Singburi province
- Mitr Phol Phu Luang sugar factory, Loei province



Environmental Management

The Development of Eco-Friendly Businesses

- Biomass power generation business
- Ethanol business
- Wood substitute materials business

Sustainable Use of Resources

- Raw materials sourcing
- Water resources management
- Energy Management



Management of Environmental Quality

- Air pollution management
- Waste management
- Wastewater management
- Noise pollution management process for machinery
- Sugarcane transportation and traffic management
- Encouraging Green cane harvesting
- Social and environmental impact grievance mechanism



Environmental Management



Management of Environmental Quality

- Air Pollution Management
- Waste Management
- Wastewater Management
- Noise Pollution
- Sugarcane Transportation and Traffic Management
- Encouraging Green Cane Harvesting
- Expense in Environment Impact Mitigation
- Social and Environmental Impact Grievance Mechanism



Sustainable Use of Resources

- Raw Materials Sourcing
- Water Resources Management
- Energy Management



The Development of Eco-Friendly Businesses

- Biomass Power Generation Business
- Ethanol Business
- Wood Substitute Materials Business



Environmental Management

As businesses continue to expand and the global population grows, the world is faced with several environmental issues, including dwindling natural resources, climate change, air pollution, and impacts on the ecosystem. Part of the problem comes from the growth in population and the persistent lack of conscience about protecting the environment. This has led to a poor quality of life for many around the world, and without preventive measures, the situation is likely to only get worse in the future.

Mitr Phol Group realizes the urgency and importance of mitigating environmental impacts and practicing conservation throughout the supply chain by complying with ISO 14001 standards and local and international environmental laws. Our commitment to the preservation of the environment goes hand-in-hand with our business growth and social development plans.

The environmental and social development initiatives have led to the expansion of our renewable energy segment, in which economic value is created by turning waste from the sugar production process into valuable raw materials for other related businesses.



Mitr Phol Group’s commitment to environmental conservation is demonstrated by the “Mitr Phol Zero Waste Model”, which led to the creation of our renewable energy business. The process is as follows:

- Bagasse from the juice extraction process is used in biomass power generation
- Molasses, the viscous by-product of the sugarcane refining process, is used as raw materials for the production of 99.5% ethanol - a mixture of gasohol that is a more environmentally-friendly fuel
- The nutrient-rich filter cake from sugar production and vinasse from ethanol production are used as bio - fertilizers in sugarcane fields, helping to increase productivity and lower costs for farmers

To ensure eco-friendly operations, Mitr Phol Group has consistently taken an environmentally-minded approach toward conservation. These include the mitigation of environmental impacts from the production process, sustainable use of resources and promoting environmental friendliness. Key management operations for environmental policies in 2015 include the following:



Management of Environmental Quality

In the past, industrial production processes and practices were not particularly environmentally-friendly. Many blamed the industrial sector as a leading offender of environmental impacts, the effects of which can still be felt today. Those in the sector were lacking sufficient knowledge and equipment to both prevent and mitigate the negative impact resulting from wastewater, industrial waste and air pollution.

Mitr Phol Group, a leading business in the sugar industry, has continuously invested in research and development to lower its environmental footprint through effective management systems of the production processes and education efforts, in order to minimize air and noise pollution, reduce traffic congestion, decrease wastewater and industrial waste, and campaign against the practice of sugarcane field burning.

Air Pollution Management

The sugar production process typically results in dust pollution from stack, conveyor belts and bagasse stockpiles. Mitr Phol sugar factories have implemented the following control measures to mitigate dust pollution:

- 1. Reducing dust particles emitted from furnace flues**
 - Wet scrubbers
 - Electrostatic Precipitators
- 2. Reducing dust particles from bagasse conveyors**
 - Inspecting leaks
 - Installing belt conveyer hoods
 - Using mobile belts to move bagasse
- 3. Reducing dust particles from bagasse stockpiles**
 - Providing dust control training for employees
 - Planting rows of pine trees to control bagasse dust
 - Installing wind breaks to decrease wind speed and windsocks to indicate wind directions
 - Using water sprays from Big Guns, mist sprayers, and dust protection nets

The implementation of these measures in 2015 resulted in a significant reduction of dust pollution. Testing agency Thai Environmental Technic carried out surveys at all six sugar factories on three separate occasions, and found that the average level of dust particles was at 0.01-0.23 mg/m, lower than the legal limit of 0.33 mg/m³.

In addition to the control measures for dust particles in the production process, Mitr Phol Sugar also implements other air pollution management controls in compliance with air pollution regulations of the Department of Industrial Works, and undergoes bi-annual air pollution emission checks. In 2015, the levels of air pollution emissions at all 6 Mitr Phol sugar factories were well below standard values.

Air Pollutants	Standard Values	Office Building/Factory					
		MPDC	MPSB	MPPK	MPPL	MPPV	MPKS
NO _x	≤ 200 ppm	51	74.70	79.71	81.81	61.60	127.77
SO _x	≤ 60 ppm	1.3	1.35	1.30	0.38	4.60	2.81
CO _x	≤ 690 ppm	310.5	397.67	183.00	139.00	416.00	178.00
PM	≤ 120 mg/m ³	27.75	0	26.40	11.70	45.00	19.80

Waste Management

Efforts have continually been made to transform Mitr Phol Group processes into zero-waste operations. However, some waste from the production process cannot be transformed to value. Such waste is managed using an approach called the “3Rs”, or Recycle, Reuse, Reduce. In 2015, total waste, including hazardous and non-hazardous waste, was as per the below table:

Total Hazardous and Non-Hazardous Waste



Hazardous Waste from the Production Process

Waste Types	Hazardous Waste						
	Sugar Factories						
	MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
Used lubricating oils (liters)	69.33	5.00	5.40	56.96	22.29	-	158.98
Used coolants (liters)	0	-	-	0	-	-	0
Used fuels (liters)	0	-	4.60	0	-	16.60	21.20
Contaminated metal scrap (tons)	0	-	22.29	30.00	76.00	-	128.69
Contaminated vessels (tons)	0	2.16	1.87	0.34	-	14.90	19.27
Resin waste (tons)	100.07	16.19	98.08	0	-	-	214.34
Insulation materials (tons)	57.91	2.45	5.00	0.17	8.00	9.80	82.84
Lead contaminated paper and water (tons)	5.42	1.50	-	10.31	8.00	-	25.23
Total combined weight (tons)	163.4	22.3	127.0	40.9	92.0	24.7	470.3

Remark : Average Density of liquid fuel = 0.009 Tons per litre.

To collect and dispose of the hazardous waste, Mitr Phol Group hires a certified service provider authorized by the Department of Industrial Works. The department is notified of the process every time it occurs.

Non - Hazardous Waste from the Production Process

Waste Types	Non - Hazardous Waste							
	Disposal Methods	Sugar Factories						
		MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
General waste (tons)	Bury/Burn	500	70.00	4,440.00	136.47	360	37.70	5,544
Bagasse (tons)	Electricity Generation	1,233,461	312,662	1,018,096	425,980.80	1,198,968	1,093,980	5,283,147.3
Molasses (tons)	Ethanol	206,472	69,868	129,796	113,318.10	197,361.58	169,843.63	886,658.8
Filter cake (tons)	Fertilizer	187,014	74,242	156,256	121,573.11	189,841.99	129,967.20	858,894.1
Ashes (tons)	Fertilizer	111,080	80,000	54,900	33,182.52	28,895	60,295.17	257,272.7
Uncontaminated Metal Scrap (tons)	Sell to Recycle plant	628	73.36	470.34	127.44	859	181.8	2,339.8
Total Combined Weight (tons)		1,739,155	536,915	1,363,958	694,318	1,616,286	1,454,306	7,404,937

Non-hazardous waste including bagasse, molasses, filter cake, vinasse and ashes are 100 percent reused. Some waste is used to generate power, which is then reused in the production process, while others are used to make fertilizers, which are used in the sugarcane fields. The initiative is in line with the company's "Turning waste... into value" concept. Details and methods can be found in the eco-friendly business development section.

Wastewater Management

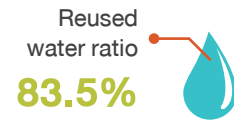
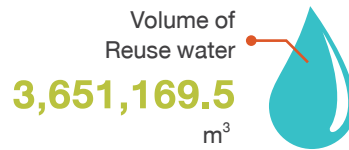
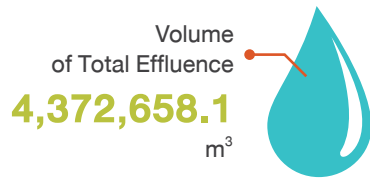
The food production industry uses comparatively more water than other industries. The wastewater from the production process is also larger in quantity. Some of the wastewater may also be contaminated with harmful chemicals, causing a negative impact on biodiversity.

Mitr Phol Sugar places a high level of importance on wastewater management and complies with related regulations and laws. The wastewater from sugar production undergoes three treatment methods, namely:

1. Stabilization Pond
2. Upflow anaerobic sludge blanket digestion (UASB)
3. Constructed Wetlands

All wastewater from the sugar production process undergoes each of the above treatment methods. Treated water that meets legal requirements is reused in the factories for purposes such as watering plants and cleaning.

Volume of Wastewater by Factory



Waste Water Volume	Sugar Factories						
	MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
Volume of Wastewater (m ³)	1,755,616.0	307,288.0	491,501.2	535,090.0	859,762.9	423,400.0	4,372,658.1
Percentage of Reusable water (Compared to Wastewater)	100.00	100.0	100.00	40.90	100.00	60.00	83.5

Quality of Treated Water

Water Quality Measures	Standard Values	Sugar Factories					
		MPDC	MPSB	MPPK	MPPL	MPPV	MPKS
BOD	≤ 20 mg/l	5	12.0	13.0	14.6	16.0	6.0
COD	≤ 120 mg/l	78	94.0	98.0	102.0	104.0	60.0
SS	≤ 50 mg/l	31	43.0	32.0	28.5	28.5	8.8
pH	≤ 5.5-9.0	8.8	8.6	8.4	8.1	8.0	7.7
Temperature	≤ 40°C	31	30.8	31.0	31.0	32.0	28.0

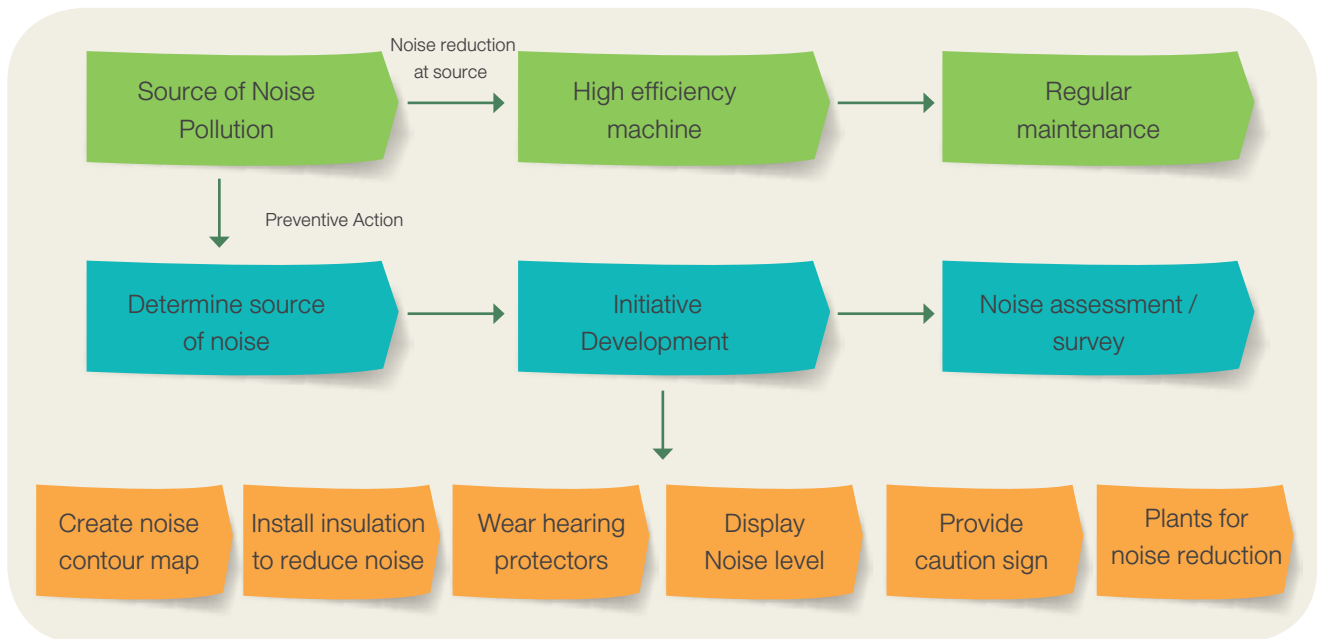
Noise Pollution

Noise pollution is another significant problem in the industrial sector, especially in the production process. Without appropriate control and prevention measures, noise pollution can affect the health and safety of factory workers and members of the surrounding communities.

Mitr Phol Sugar has implemented a systematic noise pollution management plan. An inspection of the root causes of the noise found that the main problems stemmed from the process of flushing and cleaning lines after the maintenance of heavy machinery, high pressure steam blows, and the general operation of machinery. Mitr Phol Sugar has combated this by implementing preventative measures to reduce noise pollution at the source and on-site:

- **Preventative measures to reduce noise pollution** at the source such as using more efficient machinery, and by employing proper maintenance and repairs of machinery and tools.
- **Preventative measures to reduce noise pollution on-site** including floor markings for control areas, soundproofing loud areas, installing noise control equipment, informative signage, planting trees to help absorb noise, and performing regular checks to ensure levels do not exceed legal standards, especially in problem areas. The noise checks are performed on an annual and bi-annual basis in factories and their surrounding communities.

Noise pollution Management Process for Machinery



To ensure maximum efficiency in noise pollution management, Mitr Phol Group participates in the Hearing Conservation Program (HCP) to promote occupational safety, especially for workers in areas where noise levels exceed 85 dBA, which is the standard value required by the Department of Labor Protection and Welfare.

Sugarcane Transportation and Traffic Management

The harvesting and transporting of sugarcane occur from the end of November until February. After the cane has been harvested, it is then transported to the sugar factory as soon as possible, as leaving harvested cane for too long can reduce the level of sweetness and has a negative effect on the buying price. This situation can lead to traffic congestion nearby the factories, as well as dust pollution and sugarcane falling onto highways from trucks that are carrying excess loads. To mitigate the impact, Mitr Phol Group has implemented the following measures:

Prevention and Mitigation of Impacts caused by Sugarcane Transportation

1. Identify the responsible people and communication channels
2. Drafting a contract with clear conditions for transportation trucks. Violations of any of the conditions may affect the return of the security deposit or result in a termination of the contract.
3. Posting signs and setting up a call center to handle complaints about sugarcane residue on the streets. Setting up a sugarcane collection station for individual farmers.
4. Campaigning for the appropriate sugarcane transportation practices. Implementing height restrictions by installing sensors to ensure loads do not exceed 4.2 meters in height from the ground level, and regulating the use of straps to hold the sugarcane in place.
5. Regulating sugarcane price cutting conditions based on the following factors:



Encouraging Green Cane Harvesting

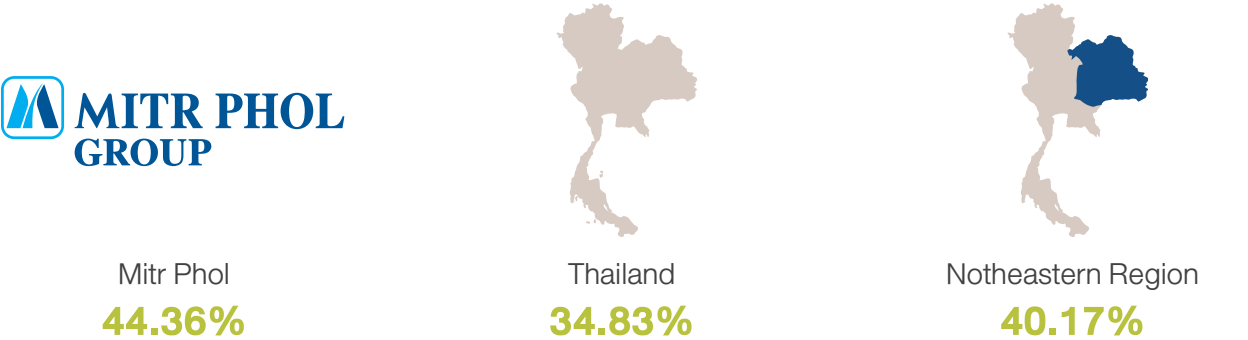
One of the problems for the upstream operation of the sugar business is the lack of local manual labor, which can cause a delay in transporting the harvested sugarcane to the factory. To speed up the harvesting process, some farmers resort to burning rather than cutting sugarcane. However, burning leads to significant environmental impacts in the fields and surrounding areas, and causes greenhouse gas emissions that contribute to global warming.

Mitr Phol Group, in collaboration with the government sector, initiated a campaign to promote fresh sugarcane for higher income and encourage farmers to minimize field burning. This campaign involved the following programs and incentives:

 <ul style="list-style-type: none"> • Educating farmers about green cane harvesting 	 <ul style="list-style-type: none"> • Promoting the use of cane harvesters
 <ul style="list-style-type: none"> • Giving special rewards 	 <ul style="list-style-type: none"> • Constructing fire lines in sugarcane fields
 <ul style="list-style-type: none"> • Price cuts 	 <ul style="list-style-type: none"> • Providing fire engines

The above measures not only promote the reduction of sugarcane field burning, which emits greenhouse gases, and help preserve the eco-system, they also aid farmers in minimizing operational costs for items such as fertilizers and pest control chemicals. In addition, Mitr Phol Group promotes research and development in maximizing the efficiency of sugarcane farming, from soil preparation to growing methods, to developing quality breeds and harvesting, with an aim of producing high-quality, clean and safe raw materials for sugar production.

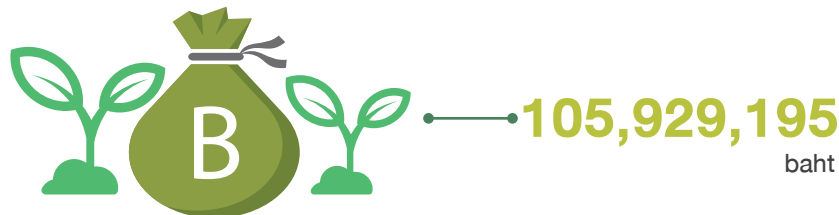
As a result of green cane harvesting campaign, Green cane harvesting made up 43.9 percent of the total purchase volume for the 2014/15 crop year, while burnt cane made up the remainder. The Mitr Phol Phu Khieo and Mitr Phu Viang facilities purchased the highest volume of green cut cane among all the sugar factories located in the Northeastern region. Details are shown in the below table:



Factory/Region	Volume of Purchased Cane for Milling		Total Volume (tons)	Percentage	
	Fresh cane (tons)	Burnt cane (tons)		Fresh cane (%)	Burnt cane (%)
MPPV	2,760,957.150	1,752,902.350	4,513,859.500	61.17	38.83
MPPK	2,210,368.220	968,838.170	3,179,206.000	69.53	30.47
MPPL	1,260,503.590	1,567,364.300	2,827,867.890	44.57	55.43
MPKS	1,413,296.280	2,446,372.610	3,859,668.890	36.61	63.39
Northeastern region	19,028,130.290	28,337,975.375	47,366,105.665	40.17	59.83
MPDC	1,064,324.390	3,374,466.890	4,438,791.280	23.98	76.02
MPSB	323,738.300	1,220,977.600	1,544,715.900	20.96	79.04
Central region	9,234,757.630	18,765,564.360	28,000,321.990	32.98	67.02
Mitr Phol Sugar Group	9,078,579.950	11,600,041.970	20,678,621.920	44.36	55.64
Percentage of fresh cane/ burnt cane at all factories in Thailand				34.83	65.17

Expense in Environmental Impact Mitigation

To achieve maximum efficiency of the environmental impact mitigation efforts, Mitr Phol Sugar has invested a total of 105,929,195.40 baht for improving, maintaining and repairing the machinery used in the sugar production process:



Type of expense in environmental impact mitigation (baht)	Year 2015						
	MPDC	MPPK	MPKS	MPSB	MPPV	MPPL	Total
Waste Treatment & Disposal	856,946.0	1,096,675.0	977,050.0	109,210.0	1,357,919	481,100.0	4,878,900.0
Treatment of Emissions (Air & Water)	593,102.0	1,222,923.7	-	79,418.0	862,540	295,380.0	3,053,363.7
Maintenance and service of equipment and operating materials	2,564,317.0	552,832.4	4,883,323.8	-	21,406,005	6,985,452.4	36,391,930.7
Clean-up expenses	1,910,100.0	390,807.8	620,000.0	80,000.0	-	1,061,422.4	4,062,330.2
Environmental Protection projects and initiatives	14,932,208.5	2,863,937.0	145,355.0	9,949,800.0	18,800,000	4,349,702.3	51,041,002.8
Education and training	7,500.0	-	-	-	50,000	19,925.2	77,425.2
External services for environmental management	-	744,750.0	1,808,135.8	2,210,500.0	-	-	4,763,385.8
External certification related to environmental management	78,000.0	0	60,807.0	-	339,568	821,762.0	1,300,137.0
Research and development related to environmental performance	0	0	-	0	-	360,720.0	360,720.0
Others environmental protection expenses	0	0	-	-	-	-	-
Total	20,942,173.5	6,871,925.8	8,494,671.6	12,428,928.0	42,816,032	14,375,464.4	105,929,195.4

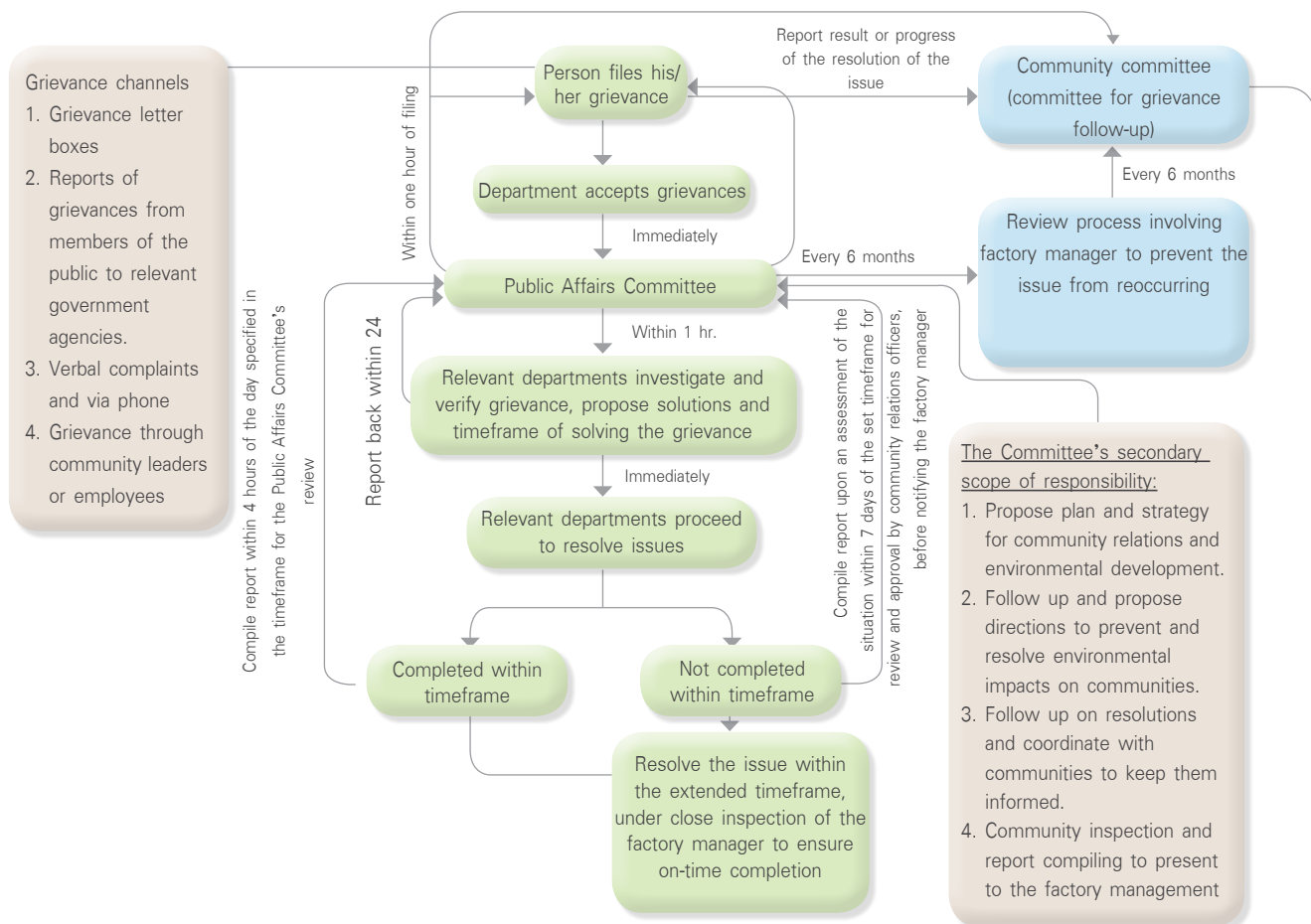
In addition, Mitr Phol Sugar has initiated an environmental impact mitigation effort by changing from the traditional way of sugar refining to the decoloring method, which incorporates the ion exchange resin process. However, the method still has an impact on biodiversity. The process involves using saline to wash off the resin, and the brine water is then required to undergo a treatment process by being directly exposed to the sun, which impacts the soil conditions in the area.

Mitr Phol Phu Viang sugar factory has initiated the Regenerate Granular Activated Carbon process to help reduce the amount of saline resulting from the regeneration process. The facility is Thailand's first to have implemented the process, and the factory received the Outstanding Industry Award in 2015. Mitr Phol Sugar plans to extend the process to its remaining factories in the future.

Should an incident or problem occur as a result of Mitr Phol's environmental impact mitigation measures and immediate attention is required to resolve the situation, all stakeholders are able to lodge grievances through the following channels:

Factory	Telephone number	Address
Mitr Phol Sugar Corporation Ltd.	02-794-1000	3 rd Floor Ploenchit Center Building 2, Sukhumvit Road, Klongtoey 10110
Mitr Phol Dan Chang sugar factory	035-418-103-7	109 Moo 10, Nong Ma Kham Mong sub-district, Dan Chang district, Supanburi 72180
Mitr Phol Singburi sugar factory	036-591-475-6	24/2 Moo 2, Mai Dad sub-district, Bang Rajan district, Singburi 16130
Mitr Phol Kalasin sugar factory	043-134-101-4	99 Moo 1, Bua Khao - Pon Thong Road, Som Sa-ard sub-district, Kuchinarai district, Kalasin 46110
Mitr Phol Phu Viang sugar factory	043-294-202-4	365 Moo 1, Maliwan Road, Nong Ruea sub-district, Nong Ruea district, Khon Kaen 40210
Mitr Phol Phu - Khieo sugar factory	044-881-111-4	99 Moo 10 Kok Sa-ard and Baan Kaeng sub-districts, Phu Khieo district, Chaiyaphum 36110
Mitr Phol Phu Luang sugar factory	042-810-921-3	199 Moo 1, Maliwan Road, Kok Kamin sub-district, Wang Sa Phung district, Loei 42130

Social and Environmental Impact Grievance Mechanism



The Committee's secondary scope of work

1. Inspecting the needs of community members, establishing strong relationships between the community and the project, and coordinating with other organizations or stakeholders.
2. Inspecting the projects, understanding the process of environmental impact assessments in line with international standards for a transparent project environmental management.
3. Processing and managing grievances.
4. Discussing and mapping preventive measures and resolutions for environmental and health issues.
5. Checking and reviewing compensation for affected communities resulting from a factory's impacts on natural resources, the environment, agricultural produce, livestock and health.
6. Negotiating and resolving environmental impact issues between the factory and the community.
7. Considering and reviewing suggestions and grievances from the community, representatives from the residents and local government sectors, about environmental and health impacts caused by the factory's operations.
8. Setting standards and building networks to efficiently follow up on and mitigate risks of environmental and health impacts.
9. Promoting understanding and relationships between the community and factory, and working with other organizations and stakeholders.

Remarks: *

- 1.) Establishing causes, directions and timeframes to resolve issues within 24 hours.
- 2.) Reporting on progress every seven days, for cases in which resolving issues requires a longer timeframe.
- 3.) Notifying the persons lodging the grievance about the progress within the indicated timeframe and setting up inspection trips to ensure the issues have been resolved.
- 4.) For cases in which issues cannot be resolved within the timeframe, an advanced notice of at least seven days must be given, along with reasons why the issues cannot be resolved in time. The responsible team must meet with the person lodging the grievance and inviting him/ her to inspect the progress of the resolution, before informing them of the expected timeframe. Notifications of progress must be given every seven days, until the issues are resolved.

At the end of 2015, Mitr Phol Sugar Group began implementing its Information System to manage the social and environmental impact grievance mechanisms to streamlining the process of dealing with submissions.



Sustainable Use of Resources

Today, Mitr Phol Group has expanded its business operations and become the world's 5th largest sugar producer. The current production capacity requires Mitr Phol to use natural resources in a considerably higher volume than is necessary in other industries. A lack of proper management systems to ensure effective and sustainable use of natural resources could lead to shortages in the future.

Mitr Phol Sugar Group has consistently placed a great importance on a sustainable use of resources in terms of raw materials management, water usage, and energy efficiency. To ensure the production process is eco-friendly beginning from the downstream process, Mitr Phol Group has implemented a green procurement policy to govern all of its business operations. The green procurement policy regulates that:

1. Procurement officers use resources in the most efficient manner to derive maximum benefits and practice eco - friendliness.
2. Procured products and services do not cause environmental impact throughout their life cycle, taking into consideration the acquisition of raw materials, the production process, transportation, usage and disposal after use.
3. Recyclable resources do not cause environmental impacts
4. Sellers and service providers who are selected are certified for their environmental standards as the first priority.
5. The procurement process is carried out in a fair and transparent manner to all organizations.

Mitr Phol Sugar Group's processes to ensure sustainable use of resources are as follows:

Raw Materials Sourcing

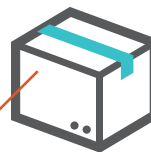
As Mitr Phol Group continues to expand its business operations to serve the increasing needs of customers, demand for raw materials is also on the rise, both for renewable and non-renewable resources. However, disruptions to the production process could occur if raw materials are not managed efficiently. Mitr Phol Group realizes the importance of effective resources management to ensure maximum efficiency and value.

There are two types of raw materials required for the sugar production process: non-renewable materials, fuels and chemicals; and renewable materials, sugarcane. In 2015, the raw material consumption statistics were as follows:

Volume of primary raw materials used in the sugar production process in 2015

Renewable Material

99.7%

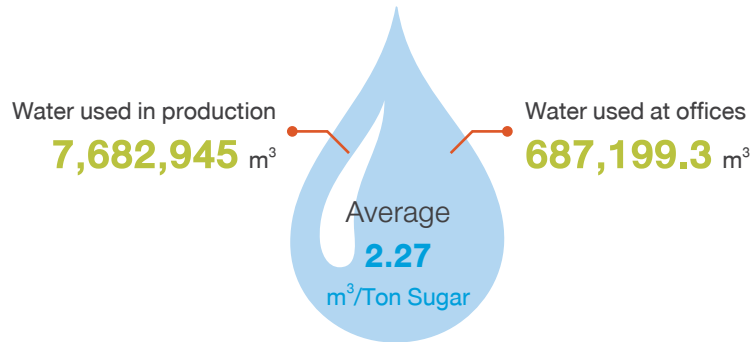


Materials	Unit	Factory						Total
		MPDC	MPPK	MPKS	MPSB	MPPV	MPPL	
Renewable materials								
Sugarcane	Tons	4,438,791.28	1,544,715.9	3,493,718.46	2,827,867.89	4,513,859.5	3,859,668.89	20,678,621.9
Non-renewable materials								
Coolant and lubricant	Tons	-	809	850	925	534	143	3,269
Combined chemicals	Tons	28,478	8,676	7,901	2,875	10,202	2,003	60,135

Water Resources Management

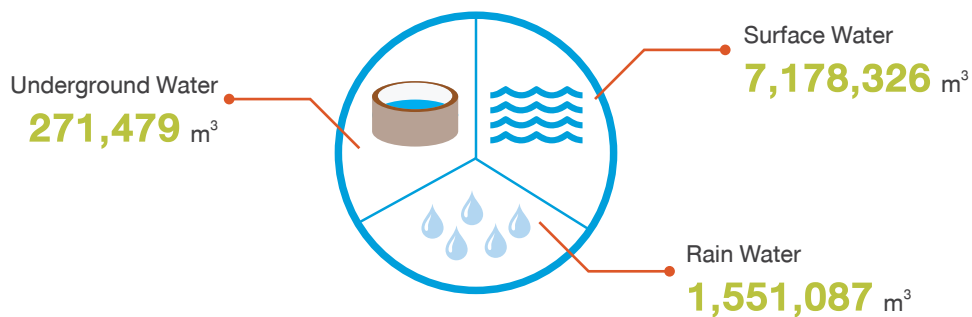
Water is integral to life. Climate change has had an impact on the seasons, contributing to drought and other natural disasters in some areas. Mitr Phol Sugar Group has implemented a resources management policy that focuses on reducing water usage and reusing water, to achieve maximum efficiency and minimize waste at its offices and factories. In 2015, water usage within the group was as follows:

Water Usage



Water Usage (m ³)	Offices/Factories						
	MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
Water used in production	2,700,948	1,058,227	606,289	515,015	1,728,636	1,073,830	7,682,945
Water used at offices	0	109,243	265,449	85,775	108,962	117,770	687,199.3
Total	2,700,948	1,058,227	871,738	600,790	1,837,598	1,191,600	8,370,144
Water Usage	MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Average
Water consumption rate per sugar production (m ³ /TON)	2.49	4.45	0.80	1.58	1.73	2.61	2.27

Water Usage by Water Source



Water source	Offices/Factories						
	MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
Underground Water	-	153,709	-	-	-	117,770.0	271,479
Surface Water (rivers)	3,014,204.0	1,013,761	265,449.0	918,282.0	892,800.0	1,073,830.0	7,178,326
Rain Water	-	-	606,289.0	-	944,798.0	-	1,551,087

Mitr Phol Sugar uses a relatively high amount of water from natural sources in the sugar production process. To draw water from the sources, the company has obtained permission from relevant government authorities including the Sub-District Administrative Office, the municipality and the Provincial Waterworks Authority.

Strict control is exercised to restrict the volume of water drawn from natural sources in instances in which Mitr Phol's cooperation is sought, for example due to drought. This helps ensure that Mitr Phol's use of water from natural sources does not cause any significant impact to the surrounding communities.

Energy Management

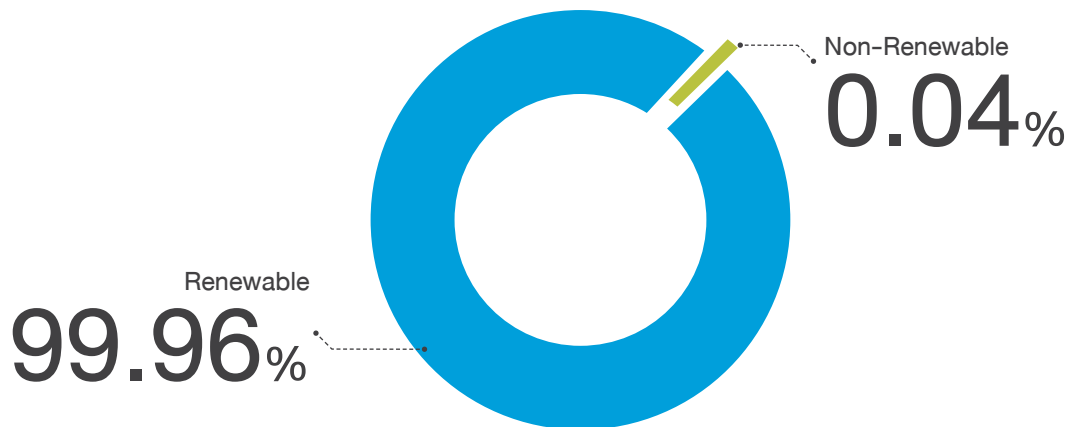
Mitr Phol Group fully realizes its responsibility to the country and the global community to conserve power, as Thailand will likely face an energy crisis in the future. The responsibility is reinforced by the fact that Mitr Phol Group is categorized by the Energy Ministry as controlled factories. This categorization makes it imperative for Mitr Phol to comply with legal requirements related to energy efficiency, such as implementing an energy conservation policy, establishing an energy conservation committee and submitting energy performance reports.

In terms of operations, Mitr Phol Group carries out energy efficiency improvement programs at all operation sites, and encourages employees at all levels to adopt energy-efficient practices. The efforts have helped to significantly reduce operating costs. Mitr Phol Sugar's energy consumption for the year 2015 was as follows:

Energy consumption statistics for 2015

Type	Energy/ Fuels	Energy Consumption by Factory						
		MPDC	MPSB	MPPK	MPPL	MPPV	MPKS	Total
Renewable energy/ fuels	Bio gas (Kcal)	0	-	-	0	8,085,092,112	-	8,085,092,112
	Biomass power (kWh)	119,461,796.7	41,396,898	69,771,271	82,954,468	131,411,642	359,751,315	804,747,391
	Steam (Ton)	40,544,405.5	701,764	1,915,082	1,064,952	2,385,994	2,782,187	49,394,384
	Total renewable energy (MJ)	89,404,881,908	1,689,052,037	4,453,829,682	2,635,676,444	5,743,003,567	7,400,622,452	111,327,066,089
Non-renewable energy/fuels	Liquid propane gas (Kg)	0	26,340	0	0	303,980	83,628	413,948
	Natural gas (BTU)	0	1,198,140	0	0	0	-	1,198,140
	Imported electricity (kWh)	0	1,171,800	1,488,075	1,487,550	1,447,245	1,159,100	6,753,769.99
	Total non-renewable energy (MJ)	0	5,510,404	5,357,070	5,355,180	20,105,102	8,270,532	44,598,288
Total energy	(MJ)	89,404,881,908	1,694,562,441	4,459,186,752	2,641,031,624	5,763,108,669	7,408,892,984	111,371,664,377

Energy Consumption Ratio



Energy consumption ratio	Energy/ productivity ratio (mega joules/tons)
Total renewable energy / Production Unit	29,016
Total non-renewable energy / Production Unit	12
Total energy consumption / Production Unit	29,028

The figures show that renewable energy makes up 99.96 percent of the total energy consumption. The consumption rate has grown considerably from 2014, due to expansions to increase production capacity at each factory. Mitr Phol Sugar strives to continue to use alternative energy from biomasses and minimize any impact on Thailand’s energy security. Mitr Phol Sugar Group plans to further improve the group’s energy efficiency at the offices and on the production lines, as well as through cooperation with communities and sugarcane farmers.

In addition, Mitr Phol Group also participated in the “Improving Logistics Systems for Agricultural Transportation Project,” initiated by the Energy Policy and Planning Office, under the Ministry of Energy. The group’s role is to support the improvement of Thailand’s logistics systems and agricultural products transportation management. It is expected that the project will help reduce carbon dioxide emissions by no less than 275,158.36 Kg CO₂e per year. The efficient logistics systems will elevate the standards of the industry as a whole and help to reduce operating costs for transporting agricultural goods in the future.



The Development of Eco – Friendly Businesses

Mitr Phol Sugar Group realizes the importance of delivering value to our customers through high-quality products. To also create value for society and the environment, our production process is carried out in line with our “From Waste to Value” philosophy, which ensures our operations in the power generation, ethanol production and wood substitute materials businesses are environmentally - friendly.

Biomass Power Generation Business

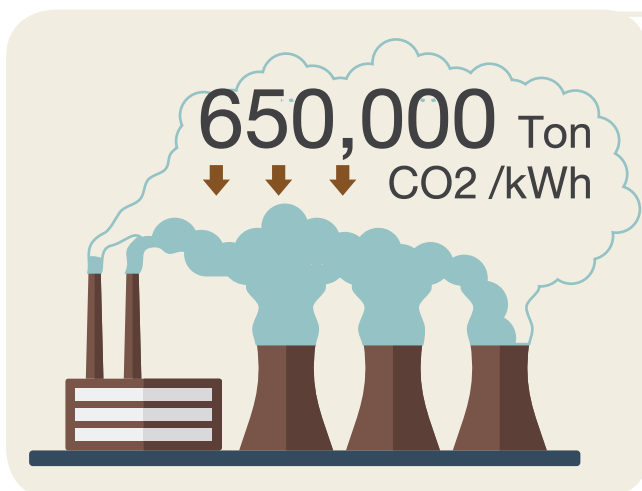
The development of the biomass power generation business alongside the sugarcane and sugar production businesses in Thailand is one of Mitr Phol Group’s initiatives to return value to society. The business is involved in turning bagasse from the sugar production process into fuel for steam and electricity production. The power generated is reused not only in sugar production, but also the group’s other relevant industries. Surpluses are distributed into the Electricity Generating Authority of Thailand’s and the Provincial Electricity Authority’s power grids to help in improving Thailand’s energy security.

Aside from using bagasse as fuel, Mitr Phol Group also purchases other biomasses such as sugarcane leaves from local farmers to supply the power plant. This generates additional income to the communities, discourages field burning, and helps to reduce Thailand’s dependency on imported energy.

Mitr Phol Group’s bio-power plants operate using state-of-the-art and highly efficient technology, allowing for greater generating capacity from the same amount of raw materials. In 2015, Mitr Phol reused bagasse for biomass power generation to produce more than 428 MW of power, which was then used in the sugar production process.

Power Generation Capacity (Biomass Energy)

Energy type	Domestic Biomass Power Plants							
	MPDC	MPPK	MPKS	MPPV	MPPL	Maesod Clean Energy	Singburi	Total
Electricity generating capacity (MW)	113.6	76.4	68.0	70.0	67.0	16	17	428



Biomass electricity is considered to be environmentally-friendly due to the fact that it produces considerably lower greenhouse gas emissions than the amount created via traditional power generation. Biomass energy generation minimizes greenhouse gas emissions by 650,000 tons CO₂ /kWh when compared to traditional power generation.

Mitr Phol Group's first two biomass power plants - Dan Chang Bio-Energy and Mitr Phol Bio-Power - are registered with the United Nations Framework Convention on Climate Change (UNFCCC) and are in the process of applying for certified emission reduction (CER) credits. The two plants were also the recipient of the Thailand Energy Awards and the ASEAN Energy Awards for Biomass Cogeneration Power Plants.

In addition, Mitr Phol Group has developed other energy innovations from byproducts and waste, as follows:

1. Waste water from Mitr Phol Phu Viang Sugar Factory undergoes a biodegradable wastewater treatment process that produces bio gases that are then used in place of liquid propane gas. Currently, the biogas generating capacity is 9,020 m³ per day. In 2015, the factory generated biogas equivalent to 8,085,092,112 kcal, or 33,828,025 mega joules. The biogas was used to regenerate carbon in the sugar decoloring process. Any surplus was used as fuel for the boilers. In the future, the group plans to implement the biogas generation process at other factories.



2. Mitr Phol Group's R&D initiative has built upon the biodegradable wastewater treatment process by developing the compressed bio methane gas production process. The gas can be used in place of natural gas within Mitr Phol Group's logistics system, thereby minimizing environmental impacts caused by using traditional fuels.

Ethanol Business

Global oil price fluctuations can have a significant impact on businesses and the economy. Securing alternative energy sources in place of fossil fuels is always high on the agenda of governments and organizations. Mitr Phol Group has established four ethanol plants to produce pure ethanol from sugarcane and molasses for use as fuel. Currently, Mitr Phol Group is Thailand's top ethanol producer, with an annual capacity of 400 million liters.

Mitr Phol's state-of-the-art ethanol production technology means that the quality of vinasse (a by-product of ethanol distillation) is also suitable for use as soil fertilizer. The vinasse shares similar qualities with other by-products from sugar production, including the presence of filter cake, and ashes and impurities from sand screening machines. The by-products from sugar production are systematically used as bio fertilizers in sugarcane fields, helping to turn waste into value and improve productivity at the same time.

Wood Substitute Materials Business

Deforestation in Thailand has led to a continual decline of wooded areas. Demand continues to climb, however, and attempts have been made to develop substitute materials for use in industries that rely on wood, such as home construction and furniture manufacturing.

Mitr Phol Group realizes the importance of sustainable wood resource management and has established Panel Plus Company Limited under the group to produce wood substitute materials including particle boards, MDF boards and melamine-coated particle boards. State-of-the-art technology, along with efficient management, means that rubber trees at the end of their productive life span are made into wood substitute materials that meet European quality standards. The production process itself is also eco-friendly, as it reduces the emissions of formaldehyde. The results are our "Super E-Zero" wood substitute materials that are safe for consumers, including:

- Panel Plus particle boards for making furniture
- Panel Plus MDF boards for spray painted furniture and interior design
- Panel Plus melamine-coated particle boards for interior design for houses, condominiums, offices, shops and showrooms.



Currently, the combined annual production capacity of both companies is 300,000 m² of particle boards, 300,000 m² of MDF boards, and 23.5 million m² of Melamine-coated particle boards. This is equivalent to saving approximately 45,000 rai of forest annually.

Products Responsibility





Product Responsibility



Product Responsibility

- Customer Satisfaction



Customer Health and Safety

- Sugar Products and Product Information



Product Responsibility

Mitr Phol Group places a tremendous amount of care into the entire production process, from cane growing through to manufacturing and distribution, to ensure that the finished products are clean, safe and of the highest quality. In addition, the production process is also friendly to the environment throughout the sugarcane and sugar supply chain. This is testament to the group's commitment to creating value and meeting the needs of consumers. In 2015, we carried out the following actions related to product responsibility.

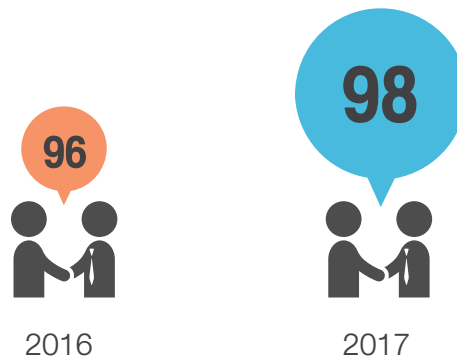
Customer satisfaction

At Mitr Phol Sugar, even the smallest details matter, from the beginning of the growing and production process until the products reach the hands of our customers. To ensure complete confidence and satisfaction, we perform annual customer surveys in order to continually improve our products and services. Thanks to our dedication to customer satisfaction, Mitr Phol sugar products are highly trusted by consumers in Thailand and internationally.

Key factors leading to customer satisfaction in Mitr Phol products:



Customer Engagement Score



The customer engagement score reflects Mitr Phol Sugar's continued commitment to satisfy the needs of customers. However, there is still room for improvement, as we strive to offer better services and satisfy demands across all customer groups.



Customer Health and Safety

In addition to customer satisfaction, Mitr Phol Group places great importance on the health and safety of consumers, demonstrating our care in every step of the production process for all products. Internationally-accepted standards are applied in our production lines to ensure that customer health and traceability safety are never compromised.



- GMP and HACCP certifications
- ISO 9001:2008, ISO 14001:2004 and FSSG 22000 - 2010 certifications
- Halal and Kosher certifications








In addition, Mitr Phol sugar products also undergo stringent international food safety tests by corporate customers including Coca-Cola, Pepsi, Nestle, Purac and Mars. Bonsucro - the sustainable sugarcane and sugar production standards - is applied throughout the supply chain, from downstream production until the goods reach the hands of our consumers. This ensures that customers receive products that were made in compliance with international standards, and are truly clean and traceability safe.







In demonstration of the level of care we have for the health of our customers, Mitr Phol Group promotes safe consumption by communicating important information including the usage of clear product labeling for nutritional facts and ingredients lists, and running a quality-controlled production process free of the use of bleach. The useful packaging information also helps to promote consumer confidence about choosing the correct Mitr Phol products.

Currently, Mitr Phol Sugar offers five product groups comprised of 13 product types, as per the chart below:

Sugar Products
1. Sugars for general usage
Mitr Phol Pure Refined Sugar / Mitr Phol Natural Cane Sugar
2. Specialty sugars for professionals
Mitr Phol Rock Sugar / Mitr Phol Brown Sugar / Mitr Phol Coconut Sugar / Mitr Phol Icing Sugar
3. Aromatic sugars
Mitr Phol Gold Sugar / Mitr Phol Coffee Sugar / Mitr Phol Flavored Syrup
4. Convenience sugars
Mitr Phol Hygiene Pack / Mitr Phol Stick Sugar / Mitr Phol Syrup
5. Health-conscious sugar
Mitr Phol Calorie

Sugar Products and Product Information

Product Type	Product Information
	<p>Mitr Phol Refined Sugar is produced from top cane breeds and standard production process approved by Ministry of Industry. There are no contaminated and lime used in production process, our sugar passes natural coloring and cleaning process to ensure every crystal is pure, white, clean and nutritious. Customers can be sure that every time they add the sweet, they get the safe products.</p>
	<p>Mitr Phol Refined Sugar in Hygiene Pack, Our innovative product for modern family, special designed bottle sugar is hygiene, easy to use and fashionable. The modern - looking bottle is manufactured from Polypropylene (PP), an environmental friendly material, with special qualifications, contaminated-free, reusable, moist protection and 80 °C heat - resistant.</p>
	<p>Mitr Phol Syrup is 100% cane syrup - clear, hygiene, free from artificial colors, flavorings and preservatives. The product contain single molecule sugar from cane that can easily absorbed. Mitr Phol Syrup can easily dissolve by room temperature water. One year shelf life, can be stored longer than usual syrup in room temperature.</p>
	<p>Mitte Flavor Syrup - Vanilla, Caramel, Hazelnut, Blueberry, Blue Citrus, Lychee, Strawberry, Japanese melon, Mango and Tropical punch - the blending of scents and savors. Perfect for hot & cold beverages and ice cream. Mitte Flavor Syrup is made from Mitr Phol's 100% cane juice, clear, hygienic and contaminated free.</p>
	<p>Mitr Phol Coffee Sugar, a classical sweet rock sugar blended with caramel, is just perfect for coffee lovers with the taste for unique aromatic coffee. Good for any hot drinks.</p>
	<p>Mitr Phol Icing Sugar is made by grinding a premium grade of white sugar into fine powder. It is very fine, soft texture, fast dissolving and no caking. It is mostly used for pastries to add a natural sweetness and decorative purposes.</p>
	<p>The smooth sweet that answers every need, a new trend of sweetness anywhere, anytime you want with Mitr Phol Refined Sugar “pure, hygiene, with no bleaching powder” Normally people use 1 - 2 teaspoon of sugar to brew beverages which compare to our product in each packing size:</p> <ul style="list-style-type: none"> • For mild sweet 1 pack = 1.5 tea spoons (6 gram) • For sweet lover 1 pack = 2 tea spoons (8 gram)

Product Type	Product Information
	<p>Mitr Phol Calorie, new trend of sweet lover who also concern of health, the same sweet taste with only 20% calories for cooking and brewing without Aspartame that can be used in high temperature cooking process. Aspartame is an artificial non-saccharide sweetener that must be avoided by people with the genetic condition (phenylketonuria). Mitr Phol Calorie contains sugar 95%, Erithytol 4.25%, Sucralose 0.75%. Sugar substitute comparison between “Mitr Phol Calorie” and “Sugar” (by the same level of sweetness.)</p>
	<p>Gold Crystal, the colorful mix of 2 valuables - made from pure and hygiene white sugar with the scent and savor of sugarcane - calcium, iron, potassium, sodium, magnesium and cane aroma for your food and drink.</p>
	<p>Mitr Phol Coconut Sugar, a real sweet tasty, is our hygiene and lime-free product produced under international standard. Suitable for Thai dishes Papaya Salad (Somtum), boiled egg in brown sauce, numerous curry dishes, chili paste, sweet chili paste, dips, etc. With the taste and flavor, the paste sugar is also perfect for Thai sweets.</p>
	<p>The crystal rock sugar made from pure sugar with slow crystallized process. Mild sweet, a unique taste, is suitable for beverages, sweeten fruits and steamed dishes - soup and Chinese medicine.</p> <p>Mitr Phol Rock Sugar, a sweet secret heritage from the past to present, is a recognized taste. Foods cooked by rock sugar are good for paying homage to Chinese recipes.</p>
	<p>With modern production technology, Mitr Phol Brown Sugar is hygiene, tasty, aromatic and richin natural minerals - calcium, iron, potassium, sodium and magnesium. With the qualifications of sweet, crispy and colorful, Mitr Phol Brown Sugar is good for baking foods.</p>
	<p>Natural Cane Sugar is produced from top cane breeds and standard production of Mitr Phol sugar that customers can be sure every time you add the sweet, you get the pure and safe in every single crystal. With numerous nutrition from natural cane fits the economical family.</p>



Despite Mitr Phol Sugar’s commitment to international standards of quality and safety, sugar is still a contentious product. The consumption of sugar around the world is expected to continue rising, and there are concerns from NGOs such as the World Health Organization that rates of ailments and diseases such as obesity and diabetes will rise as well.

In light of this, Mitr Phol has created a health-friendly sugar product, called Mitr Phol Calorie. The product contains sucralose, a low calorie sweetener with a taste similar to sugar. Mitr Phol Calorie contains only 20 percent the calories of white sugar, making it a great choice for health-conscious consumers, the elderly and diabetics. The product label gives information including the list of main ingredients, storage guidelines, usage instructions and details about its differentiation from real sugar. This labeling allows consumers to use the products correctly and safely.

Health-Conscious Sugar Products

Sugar type	Benefits
Mitr Phol Calorie	Mitr Phol Calorie contains sucralose, a low calorie sweetener that is 600 times sweeter than sucrose (sugar), is heat resistant, great tasting and safe to consume. One packet of Mitr Phol Calorie (1.8 grams/ 7 calories) equals two teaspoons of regular sugar (10 grams/ 40 calories), requiring less amount for the same level of sweetness.

To promote correct usage and healthy consumption of sugar, Mitr Phol has launched the “Sweetness... taste of happiness” campaign. This involved the “Tasty Healthy” caravan traveling to several locations across Thailand over the course of six months. The goal was to educate consumers on the correct consumption methods of sugar, including the variations between the four products Mitr Phol Gold Sugar, Mitr Phol Natural Cane Sugar, Mitr Phol Brown Sugar and Mitr Phol Calorie and how to choose the right one for different lifestyles. The campaign communication was made through several types of media channels, including television, radio, print and online. The campaign also demonstrated Mitr Phol’s deep understanding of the needs of each consumer group.

In addition to healthy products, Mitr Phol also promotes eco-friendly consumer items. We participated in the “Carbon Label” and “Carbon Footprint” programs, and received a special label for our eco-friendly products. In 2015, Mitr Phol Group received an award from the Ministry of Natural Resources and Environment, recognizing the group’s leadership in acting responsibly toward the environment and society. These measures and recognition have demonstrated how Mitr Phol has become a world-class sugar producer and exporter, accepted by consumers and leading food industries around the globe.

For product queries and additional information, contact us at <http://www.mitrphol.com/sugar/service.php?type=eccf>

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GRI





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Mitr Phol Sugar Corp.,Ltd.

3rd Floor Ploenchit Center Building, 2 Sukumvit Road, Klongtoey, Bangkok 10110

Tel. 0-2794 1000 Fax. 0-2656-8494

