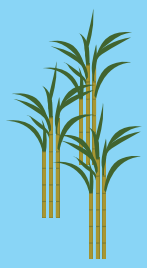
Sustainability Report 2016

MITR PHOL GROUP



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Innovation-driven economy

Elevating Thailand's agricultural sector towards the Thailand 4.0 era driven by modern farmers.

"Modern farmers" refer to farmers who adopt the market-led approach to farming and utilize management systems and technology for all aspects of farming from production, to processing and service to make a new farming business model. Modern farmers are leaders who are aware of global changes and strive towards sustainability.

Era 1.0

During this era, the government focused on investing in the agricultural sector. Thai farmers grew rice, produce, reared pigs, ducks, chickens, etc. They sold their produce to make a living.

Era 2.0

During the era of light industry, there was a high demand for manual labor. Some machinery was used in the production of clothes, bags, drinks, stationery, and accessories. Thailand began to have a higher production capacity.

Era 4.0

The Thai government's strategic vision to shift from traditional economy to innovation-driven economy. The Thailand 4.0 strategy is used as the model to propel the country's economy.

Era 3.0

Thailand is currently in this era of heavy industry and exports, with increased foreign direct investments and use of high technology. The focus is on auto parts and investments.

MITR PHOL GROUP

Message from CEO and President (G4-1)

"creating value for better life
to all stakeholders
and in growing together
with them."

The year 2016 was one of tremendous loss for the people of Thailand. On October 13, the Bureau of the Royal Household announced the passing of Thailand's king, His Majesty King Bhumibhol Adulyadej. With unfathomable gratitude to His Majesty the late king's dedication to the Thai people, Mitr Phol Group's board of directors, management, and employees pledge to continue his legacy by adopting the Sufficiency Economy Philosophy in the group's business operations.

Meanwhile, 2016 was also one of great change for businesses, with technological advancements moving faster than ever. To stay competitive and adaptable to change, organizations must undergo transformations, and Mitr Phol is no exception. With its vision to become a world-class organization and a leader in the agro-industrial sector, Mitr Phol has continued to improve its business foundation, particularly in the IT infrastructure and resources management areas, in order to maximize efficiency and competitiveness. We further expanded into the bio-economy business as a new targeted industry (New S-Curve) of the government and in line with the Thailand 4.0" policy. Finally, digital innovation and technology remain at the core of the group's business operations.

The Mitr Phol ModernFarm project promoted innovative agricultural methods and efficient farming management, uplifting cane growers in Thailand to become smart farmers. Using technology in place of manual labor and working to increase cane productivity and quality, the ModernFarm project has helped Mitr Phol Group become the 4th largest sugar producer in the world.

Modern cane farming management helps to alleviate labor shortages, which will only grow in importance as Thailand advances toward becoming an aging society. Incorporating agricultural technology and machinery is also crucial in attracting younger generations of farmers. Mitr Phol continues to care for the surrounding communities, by expanding existing programs to cover more areas and local people. This includes the sustainable development program, which has grown from 9 sub-districts to 21, job creation assistance for the disabled, and a project that encourages local residents to produce and sell their fruit, vegetable and hand-crafted items as a means of additional income in order to strengthen local community.

The Mitr Phol ModernFarm methods also lead to a reduction in the usage of chemical pesticides, helping to significantly decrease farmers' costs while improving the environment and protecting delicate ecosystems. All of our sugar mills also feature state-of-the-art waste management systems, which helps to protect the environment.

This year also brought about great achievement and recognition for Mitr Phol Group. We received Best Employer 2016 award from global consulting firm Aon Hewitt. We will continue to build and maintain strong employee relations and engagements, while helping to enhance the competency of our staff to drive business growth. And as our business continues to grow in a sustainable way, we will persist in taking care of the environment and our society, and do our part in contributing to the Thai economy. We remain committed creating value for better life to all stakeholders and in growing together with them.

Mr. Krisda Monthienvichienchai

Chief Executive Officer and President
Mitr Phol Group

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About Mitr Phol Group

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MITR PHOL GROUP (G4-3)

Vision

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

Philosophy (G4-56)

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.

Culture (G4-56)

At Mitr Phol Group, we use the Mitr Phol corporate culture as the basis on which we operate our business. Our corporate culture helps our employees to develop their capabilities, and to adapt to change and competition. It is integral in driving our organization toward stability, prosperity, and sustainability in an age of digital transformation, innovation, and shared benefits. The Mitr Phol corporate culture is comprised of five key characteristics:

1. Excellence

Striving towards excellence and professionalism in all of our operations and endeavors to deliver the utmost benefits.

2. Integrity

Strict adherence to ethics, honesty, integrity, and transparency. Taking care to promote ethical practices in the surrounding society. Compliance with company regulations and laws.

3. Trustworthiness

Being trustworthy, keeping promises and commitments, and catering to the needs of all stakeholder groups in order to build trust and faith.

4. Care and Accountability

Caring for and being accountable to all stakeholder groups, including farmers, communities, society, the environment, business partners, and employees, in line with the "Grow Together" philosophy.

5. Innovation

Having the audacity to think outside the box, without fear of failure. Seeking ideas and innovation to help in the development of new products or adding value to existing products, leading to continuous progress and sustainable growth.

Strategic Directions

1. Sustainable Growth

Apply technology and innovation in the production of sugar and its byproducts to create value-added product. Promote cooperation with stakeholders by adhering to good governance and risk management.

2. Competitiveness

Advance a corporate culture that inspires innovation and use innovation and IT solutions to optimize productivity and effective cost control. We partner with world-class companies to gain access to state-of-the-art technology.

3. Modern Farm & Manufacturing

Committed to promoting development of the Modern Farming approach for effective farming management, water management, crop varieties development, cane transportation as well as improving to world class manufacturing practices.

At a Glance (G4-4)

Milestone

Mitr Phol was established in 1946 in the Grab Yai sub-district of the Baan Pong district in Ratchaburi province. From its humble beginnings as a small family-owned operation that produced concentrated syrup for sugar plants, the company eventually grew to become the sugar producer by itself in 1956. Finally Mitr Phol becomes the Thailand's largest sugar producer and exporter, and a global leader in the sugar industry.

1946

Mitr Phol Sugar Business was initially established in Ratchaburi province as a small family business producing and trading condensed syrup to sugar mills.

1956

Mitr Phol Sugar Corporation was formally set up with in-house capacity to produce its own sugar.

1983

Mitr Phol Phu Khiao Sugar Mill was established in Phu Khiao District, Chaiyaphum Province.

1990

Mitr Phol Dan Chang Sugar Mill was established in Dan Chang District, Suphanburi Province.

Particle Board business was initially established.

1993

Expansion of sugar business to Guangxi county, People's Republic of China.

1995

Mitr Phol Phu Wiang Sugar Mill was established in Phu Wiang District, Khon Kaen Province.

1997

Mitr Phol Kalasin Sugar Mill was established in Kuchinarai District, Kalasin Province.

Sing Buri Sugar Mill was established in Bangrachan District, Sing Buri Province.

Mitr Phol Sugarcane Research Center was established in Phu Khiao District, Chaiyaphum Province.

2002

The first two bio power plants, **Mitr Phol Bio Power**, were established in Dan Chang District, Suphanburi Province and Phu Khiao District, Chaiyaphum Province.

2005

The first ethanol plant, **Mitr Phol Bio Fuel**, was established in Phu Khiao District, Chaiyaphum Province.

2006

Mitr Phol Bio Fuel Plant was established in Kuchinarai District, Kalasin Province.

Mitr Phol Sugar was expanded into Savannakhet Province, Lao People's Democratic Republic.

2007

Mae Sod Clean Energy Ethanol Plant, a joint venture project with Padaeng Industry Public Company Limited and Thai Oil Public Company Limited was set up in Mae Sod District, Tak Province.

2009

Mitr Phol Bio Fuel Plant was established in Dan Chang District, Suphanburi Province.

2010

The first bio power plant was established in Funan, People's Republic of China, recognized as China's first bio power plant from sugarcane bagasse.

2011

The first bio power plant was established in the Lao People's Democratic Republic, recognized as Laos's first bio power plant from sugarcane bagasse.

Mitr Phol Bio-Power Plant was established in Kuchinarai District, Kalasin Province.

2012

Mitr Phol Phu Luang Sugar Mill was established in Wang Sapung District, Loey Province.

Mitr Phol Bio Power Plant was established in Wang Sapung District, Loei Province.

Mitr Phol expanded sugar business to Queensland State, Australia.

2014

Established **2nd Innovation and Research Center**, Pathumthani Province

Automatic Refinery Plant was established in Phu Wiang District, Khon Kaen Province.

2015

Fertilizer Plant joined with Sak Siam Group was established in China

Fodder Yeast Plant was established in Phu Khiao District, Chaiyaphum Province.

Mitr Phol is committed to operating its business to add value to cane - a locally and nationally important economic crop – while also protecting the environment and promoting community development in line with international standards. While adhering to this commitment for more than 60 years, today Mitr Phol is the largest sugar producer in Thailand and the 4th largest in the world.

Furthermore, it can create value from waste by using innovation via the "From Waste to Value" beliefs, which include renewable energy, alternative energy, and smart fertilizer production. For example, bagasse (the matter that remains after sugarcane stalks are crushed) is used as fuel in the production of bio power. Molasses is fermented with yeast to produce ethanol, which is used in the production of eco-friendly gasohol, and by-products from ethanol and sugar production -- vinasse and filter cake -- are converted into bio-fertilizers to be reused in cane plantations. The company is also exploring ways to add value to yeast to produce animal feed products in order to further develop to future products (New S-Curve) to promote high-value industries.

Today, Mitr Phol operates businesses in Thailand, People's Republic of China, Lao PDR, Australia and the United States. Its businesses cover five groups:

	Mitr Phol Group Businesses	
	Type	**Details**
	Sugar business	Sugar remains Mitr Phol Group's core business. Cane is purchased from farmers and converted into 11 types of sugar products and one byproduct – molasses.
	Cane business	The cane business supports the Group's core business. It covers research and development, cane farming management efficiency, and the support of sustainable cane farming practices.
	Energy business	The energy business is related to the sugar business. Bagasse, a byproduct from sugar production, is used to produce bio-power. Molasses is also used as a raw material for the production of 99.5% ethanol, which is used in the production of gasohol.
	Investment and trade business	The investment and trade business is comprised of logistics and trade investments.
	Wood substitute and New businesses	The wood substitute is related to the sugar business. Preriously bagasse from sugar production is used as raw materials of wood substitute production but currently we use only rubber trees that no longer produce latex as main raw materials to create high-quality wood substitute materials. Moreover, The new business unit is set to develop residue from sugar production i.e. bio-fertilizer is made from vinasse and filter cake.

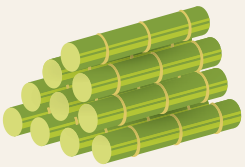
Economics (G4-9)

In 2016, Mitr Phol also began to focus on contributing to and uplifting the Thai economy. By using creativity and innovation to drive our business vision and supporting the same for Thailand's macro-economy, we operate our business based on the "Grow Together" philosophy, taking into consideration the benefits we bring to all of our stakeholder groups. Important milestones relating to sustainability achieved in 2016 include:

Economic Impacts

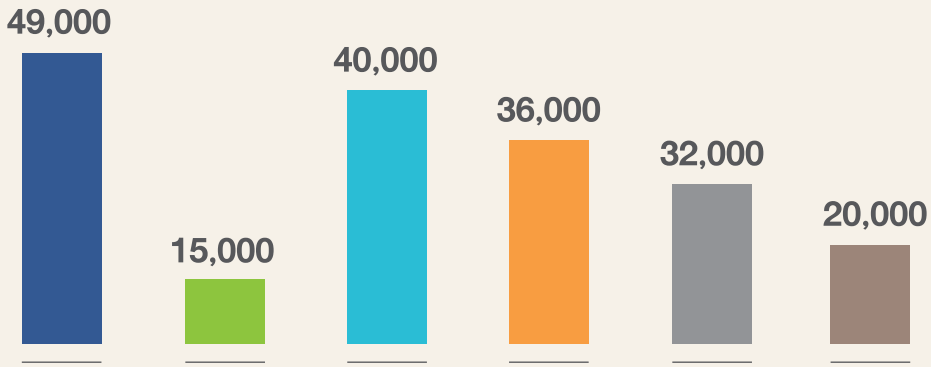
	Details	Value (Million Baht)
	Direct economic value generated	
	• Revenues	58,066
	Direct economic value distributed	
	• Operating costs	48,702
	• Employee wages and benefits	3,391
	• Payments to providers of capital	5,014
	• Payments to government	28
	• Community Investment	17
	Economic value retained	914

Production Capacity by Local Mill (G4-6) (G4-9)



Crushing Capacity

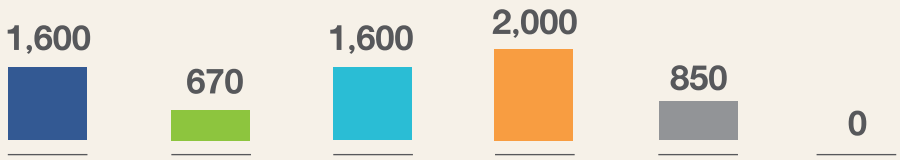
Production Capacity (Ton/Day)



Total 192,000 (Ton/Day)

Refined Sugar Capacity

Production Capacity (Ton/Day)

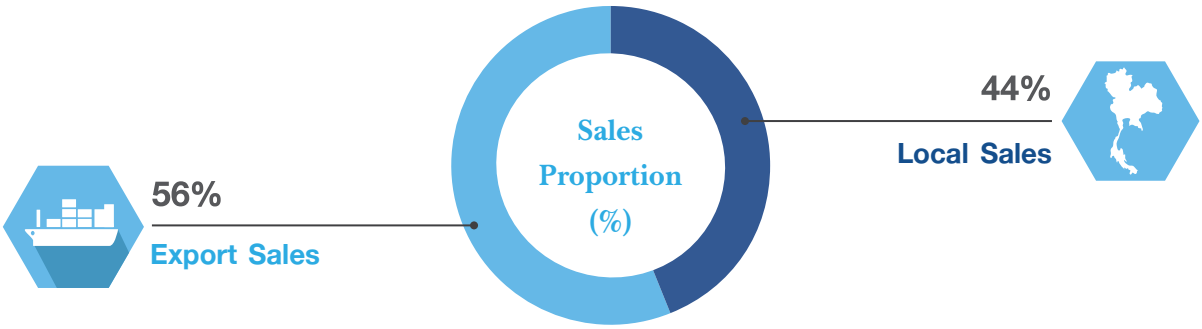


Total 6,720 (Ton/Day)

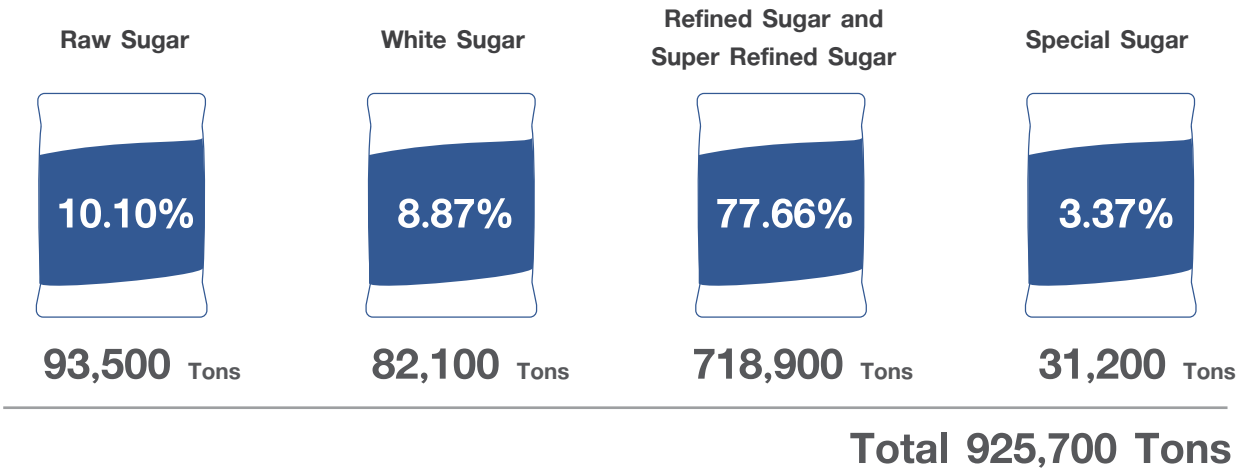
MPDC	MPSB	MPPK	MPPV	MPKS	MPPL
Mitr Phol Dan Chang sugar mill, Suphanburi province	Mitr Phol Sing Buri sugar mill, Sing Buri province	Mitr Phol Phu Khiao sugar mill, Chaiyaphum province	Mitr Phol Phu Wiang sugar mill, Khon Kaen province	Mitr Phol Kalasin sugar mill, Kalasin province	Mitr Phu Luang sugar mill, Leoi province

Remark : *Refined Sugar Capacity is capacity of White Sugar, Refined Sugar and Super Refined Sugar.

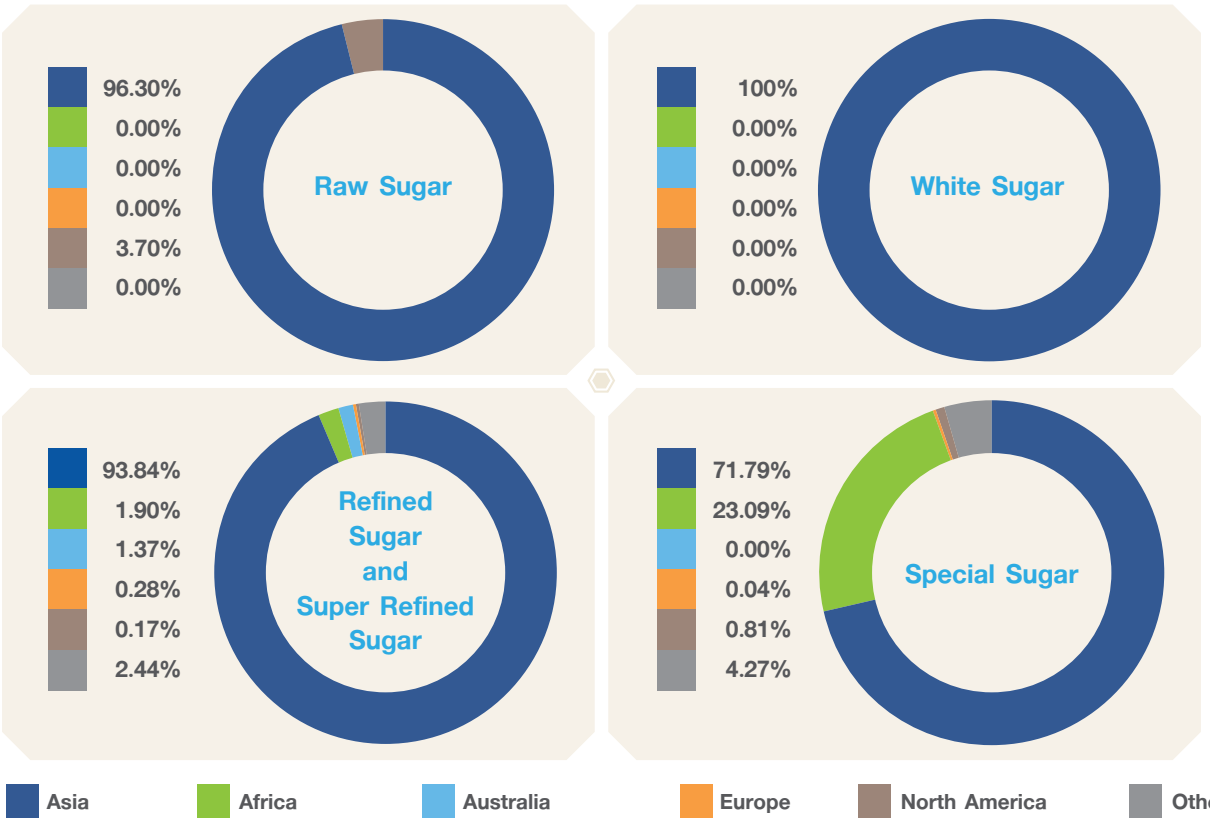
Market Share and Export Ratio (G4-8)



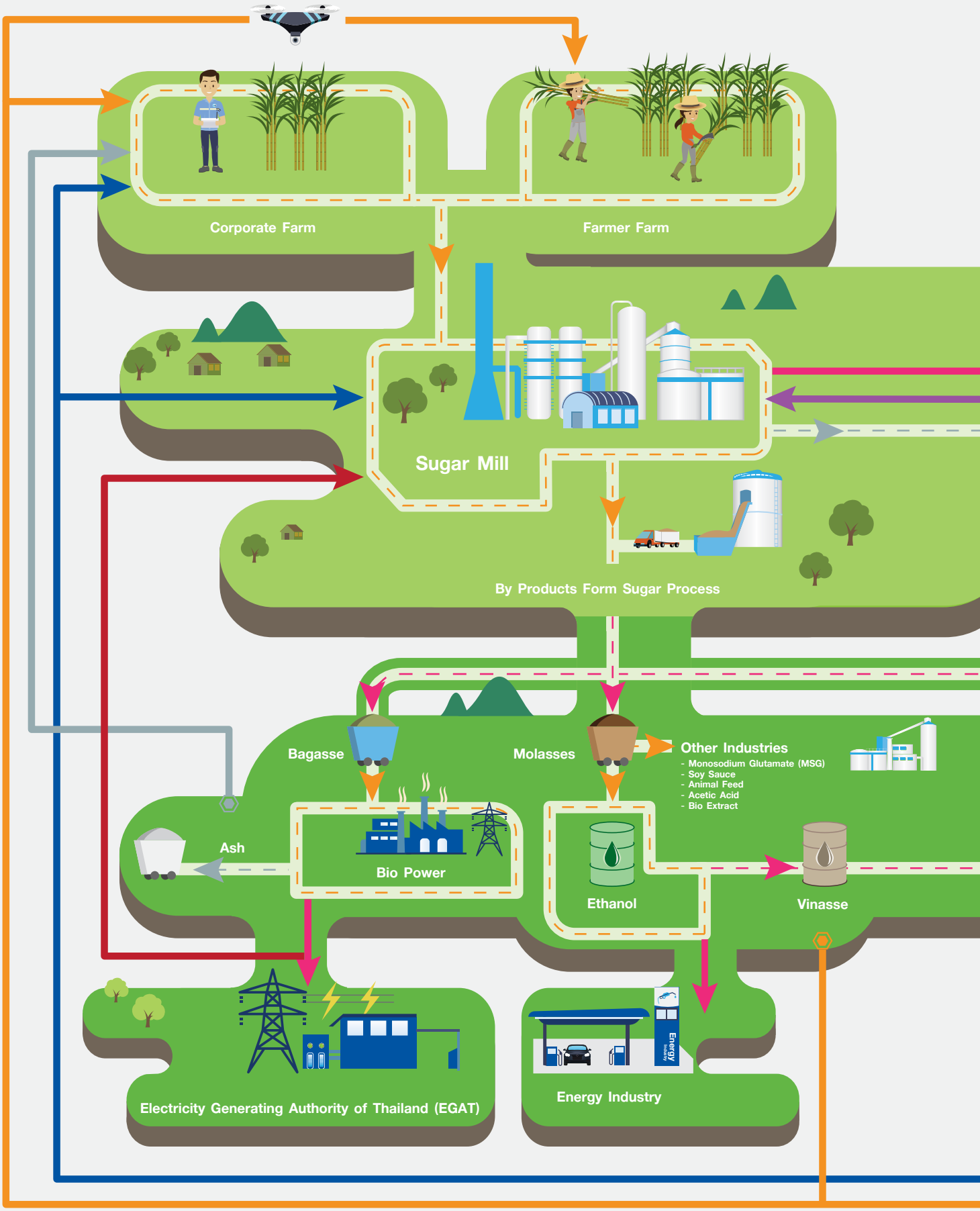
Export Amount and its Ratio by product

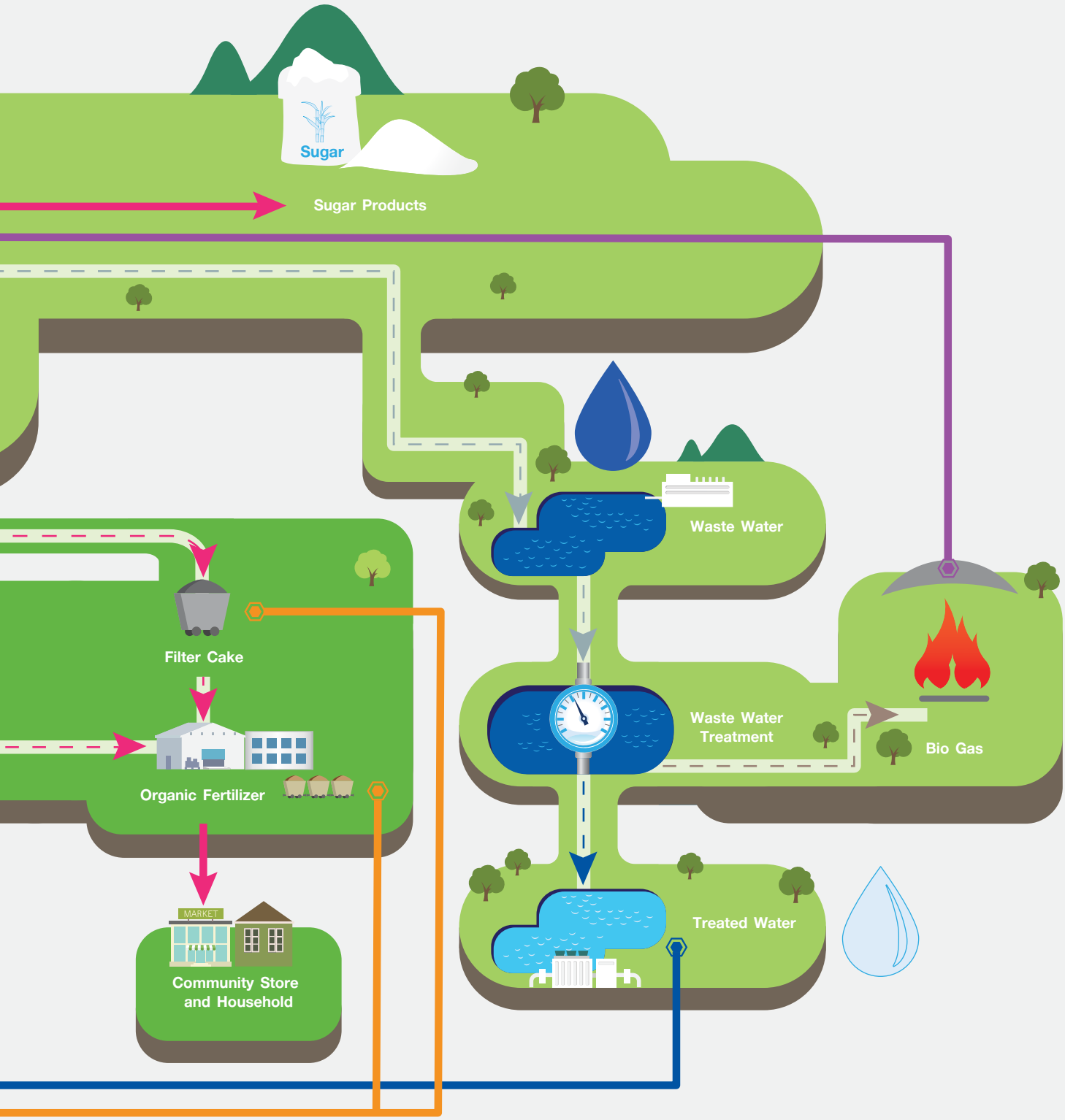


Export Ratio by Continent (G4-8)



Value Chain(G4-12)




Sugar
Sugar Products
Waste Water
Filter Cake
Waste Water Treatment
Bio Gas
Organic Fertilizer
MARKET
Community Store and Household
Treated Water

Recognitions and Achievements (G4-15) (G4-16)

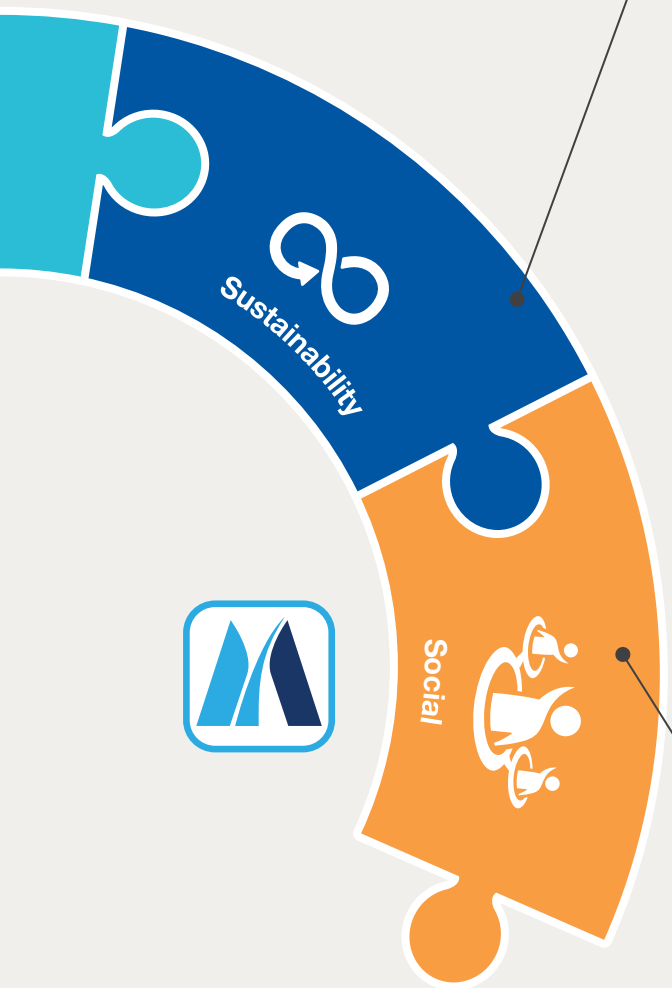
Economic

- **Sugar Mill Excellence**
  from Office of the Cane and Sugar Board:,
  Ministry of Industry
  - ★ **Sugar Mill Excellence (1st prize)**
    Mitr Kalasin Sugar Co., Ltd.
  - ★ **Sugar Mill Excellence (2nd prize)**
    United Farmer & Industry Co., Ltd.
  - ★ **Sugar Mill Excellence**
    United Farmer & Industry Co., Ltd. (Phu Wiang Branch)
    Mitr Phol Sugar Corporation Limited
    Sing Buri Sugar Co., Ltd.

Environmental

- **EIA Monitoring Awards 2016 (Outstanding Award) recognizing for United Farmer & Industry Co., Ltd. (Phu Wiang Branch) for their environmental impact assessment practices and environmental management,**
  from Office of Natural Resources and Environmental Policy and Planning, Ministry of Natural Resources and Environmental.

- **Fresh Cane Award 2016 for United Farmer & Industry Co., Ltd.**
  from Office of the cane and sugar board, Ministry of Industry.



Sustainability

- **Asia Responsible Entrepreneurship Awards 2016**
  organized by Enterprise Asia,
  recognizing Community Enhancement
  through the Collaboration of Disability project.

- **Global CSR Leadership Award 2016**
  organized by World CSR Day.

- **Sustainability Report Award 2016 (Outstanding)**
  organized by the Thai Listed Companies
  Association, the Thai Securities and Exchange Commission,
  and the Thaipat Institute.

Social

- **The Best Employer 2016 Award for Mitr Phol Sugar Corporation Limited**
  from Aon Hewitt Thailand.

- **Award recognizing outstanding work in supporting the disabled in 2016 for Mitr Phol Group**
  from Ministry of Social Development and Human Security.

- **Mitr Phol's Chairman was appreciate to be a Head of private sector of Public-Private Collaborative Committee and Head of working team to drive Modern Agriculture Development (D6) and Pracharath for Society (E6).**

- **Mitr Phol's Chairman Participated in the United Nations Global Compact (UNGC)**
  and being one of 15 founding organizations of
  Global Compact Network Thailand.

Product Standard and Quality (G4-15)

Aside from our commitment of using innovation to create products that serve the needs of customers, Mitr Phol Group ensures that every production process adheres to international standards, both for production excellence and sustainability. Our meticulous attention to detail and strict compliance with international standards in our sugar production process ensure Mitr Phol sugar reaches a wide variety of customers and is internationally accepted.

Labor Practices

- TLS 8001 Thai Labor Standard

Quality & Product responsibility

- ISO 9001:2008 Quality Management System
- 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

Safety, Occupational Health and Environment

- OHSAS 18001 Occupational Health and Safety Management System
- ISO 14001:2004 Environmental Management System
- Green Systems certification under Green Industry programme from the Ministry of Industry

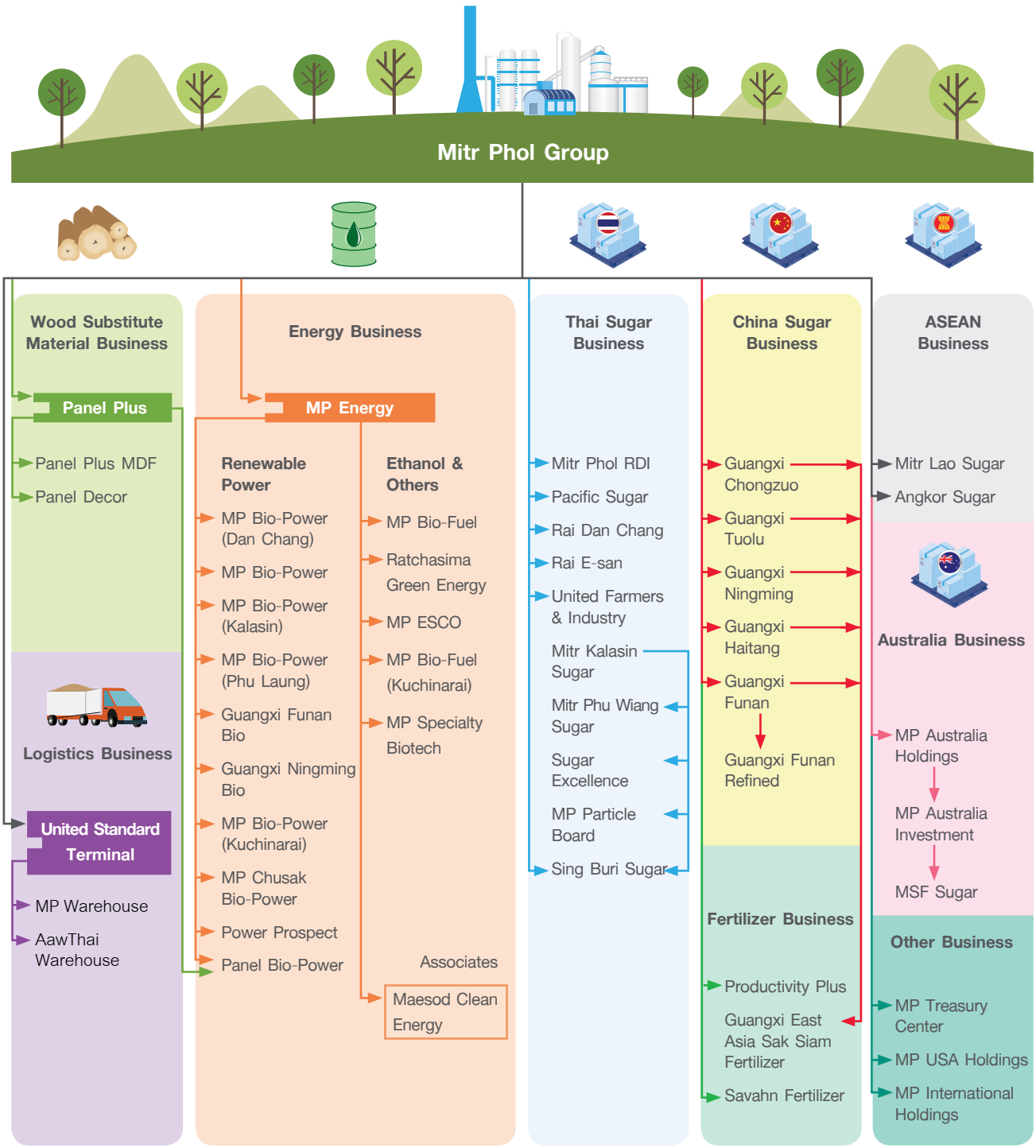
Sustainability Standards

- Bonsucro Production Standard – Standards for sustainable cane and sugar production
- TIS 9999. Vol.1-2013 : Guidance on sufficiency economy for industries
- Carbon Reduction Label
- Corporate Social Responsibility – Department of Industrial Work (CSR – DIW), Ministry of Industry
- TIS 26000:2010 : Guidance on Social Responsibility, Thai Industrial Standards Institute, Ministry of Industry
- UN Guiding Principles on Business and Human Rights – UNGP

Shareholder's Structure

Mitr Phol Group's businesses are classified in five groups are Sugar business, Cane Extension and development business, Energy business, Investment and trade business, Wood substitute and new businesses.

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



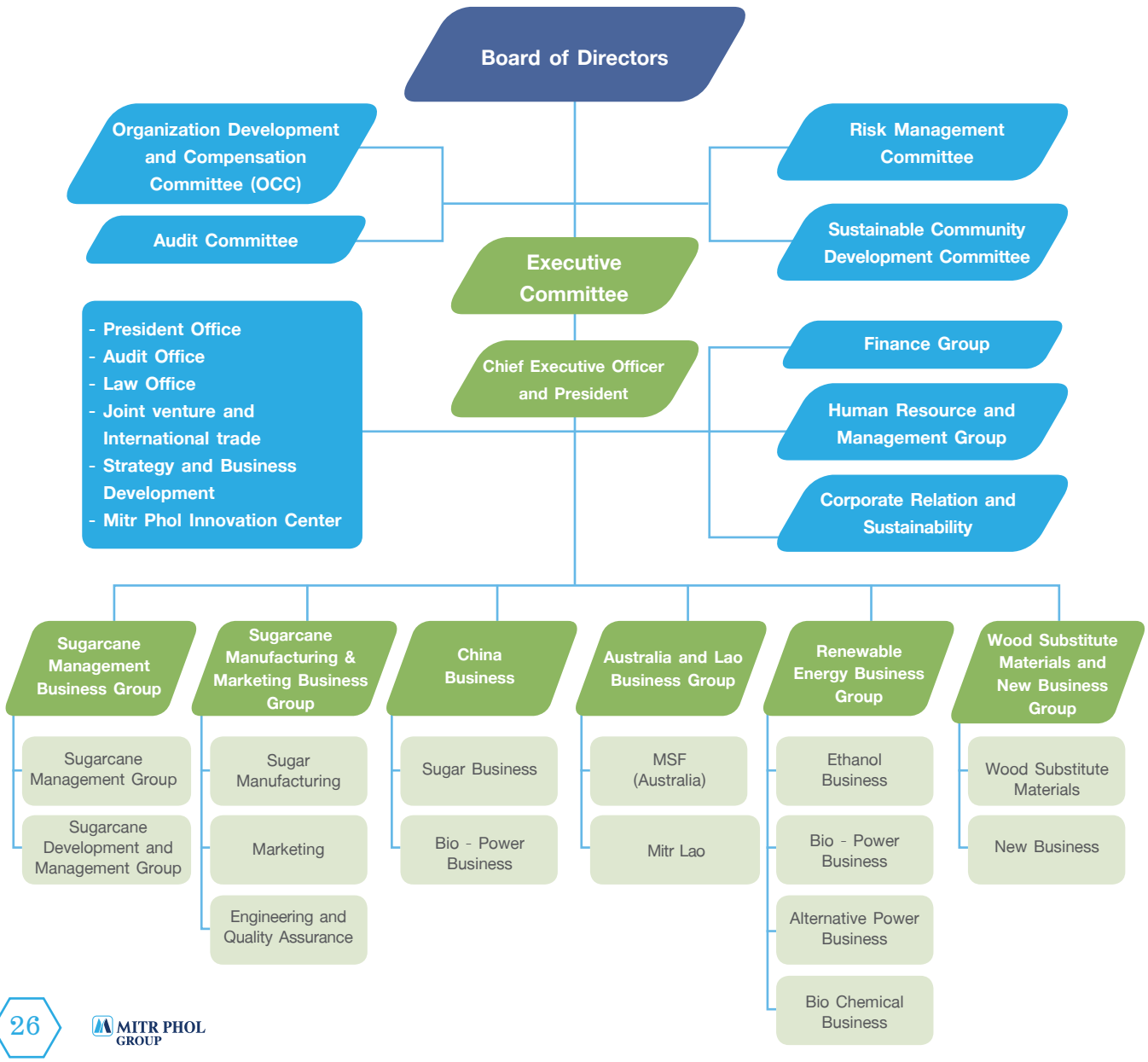
As of October 31, 2016, Mitr Phol Sugar is registered as a company limited, with business registration number 0105518011759. The headquarters is located at 3rd Floor Ploenchit Building, 2 Sukhumvit Road, Klongtoey, Bangkok 10110 Tel: +66 2794 1000 fax: +66 2656 8488 website: www.mitrphol.com.(G4-5)(G4-7)

Corporate Governance (G4-34)

Mitr Phol Group places great importance on efficient, transparent, and accountable business operations, as well as treating stakeholders with equality and fairness, in line with good governance practices.

As per company policy, the company Board of Directors and the Executive Board have clearly-defined and distinct functions. The Board of Directors comprises 13 highly experienced members, who are tasked with outlining the company's vision, goals, strategies, policies, regulations and internal systems, as well as monitoring the Executive Board to ensure its decisions lead to a sustainable and continued growth of the company. The Board of Directors meet at least six times per year to keep up with the company's progress and consider any matters proposed by the Executive Board. An annual shareholder meeting is also held to inform shareholders of the company's business performance and future plans.

The Executive Board is comprised of eight members, each of whom leads different functions within the company, from raw material sourcing, production, marketing, and finance. The board is tasked with devising business plans, managing the company's operation, ensuring goals are achieved and policies are closely followed, making business decisions, and analyzing the actions of and proposing important matters to the Board of Directors.



In its efforts to ensure sustainable growth, Mitr Phol Group realizes the importance of building a corporate culture in which management and employees carry out their duties in an ethical, transparent and accountable manner. The company has established a corporate governance division to increase awareness of the importance of good governance. The Mitr Phol Code of Conduct is reviewed and updated often to ensure it remains relevant an in line with the ever-changing business landscape. Regular communications with management and employees across business functions are also maintained through different channels.

The company also provides opportunities and channels through which employees can lodge complaints about improper or unethical actions, after which an investigation is launched. The Ethics Committee handles such complaints and ensures that proper processes are followed. Employees are encouraged to lodge their complaints via the following channels, if they suspect wrongdoing:

Process of lodging and handling a compliant

Complaint Channels

Written and Verbal Complaints:

- Intranet: Mymitrphol
- Corporate Website: www.mitrphol.com

- E-mail: cg@mitrphol.com

- Letter
- Other appropriate channels that are convenient for the complainant

*The complainant may or may not include his/her name and contact channel when lodging a complaint.

Official Receiving the Complaint

- Company director, supervisor or trusted member of management
- Corporate Governance Section, Human Resources and Management Group, Internal Audit Offices.

*The person receiving the complaint notifies the Corporate Governance Section.

Process

1. The complainant lodges a complaint or provides information though a designated channel.

2. The Corporate Governance Section considers the complaint within 15 days before coordination with a responsible department and follow-up every 15 days.
   If the complaint involves actions that violate Mitr Phol's regulations and policies, it will be passed on to the Human Resources and Management Group.
   If the complaint involves fraud, corruption, or an unlawful act. It will be passed on to the Internal Audit Offices.

3.1 The Audit Committee verifies the complaint and considers and investigation.
   If the complaint is found to have merit or clearly involves wrongdoing, an investigation committee shall be appointed.
   If the complaint is found to have no merit or wrong doing is found, the investigation result is passed back to the responsible department, who will then inform the Corporate Governance Section to notify the complainant.

3.2 An investigation committee will be appointed and report the results to the Audit Committee.

4.1 Internal Audit Offices Upon completion of the investigation process, the Audit Committee shall contact the Corporate Governance Section to notify the complainant.

4.2 Human Resources and Management Group considers appropriate disciplinary actions.
   If an investigation finds the accused guilty, the committee will pass on the case to the Human Resources and Management Department to consider appropriate disciplinary actions and propose such actions for further approval.

5. The Corporate Governance Section reports the investigation result to the complainant.

*If the complainant discloses his/her identity, he/she shall be notified the result.

Remark:

By post:

Corporate Governance Section
Mitr Phol Sugar Corporation Ltd., 3rd Floor Ploenchit Center Building, 2 Sukhumvit Road, Klongtoey 10110

By email:

cg@mitrphol.com

Anti-Corruption

Corruption is a serious matter that plagues many organizations and threatens a company's long-term stability and sustainability. Mitr Phol Group has put in place anti-corruption policies and measures to prevent any corrupt acts that can occur at any link of the business chain. Key anti-corruption policies are as follows:

- Mitr Phol Group has announced an anti-fraud and corruption policy and promotes a systemic monitoring and reviewing process. Employees are made aware of the company's anti-corruption policies and are promoted to fight corruption through several mechanisms, such as good governance promotion activities, having clear rules and regulations in place for business activities that are more prone to corruption, and designating safe and secure channels for whistleblowers, as well as encouraging other organizations that work with Mitr Phol to follow anti-corruption practices.

- In a case of corruption comes to the company's attention, a systemic and fair investigation is launched in line with the company's whistleblowing policies, with a strict compliance to the law. The company treats the investigated parties fairly and provides whistleblower protection in line with human rights practices.

- Mitr Phol Group regularly reviews anti-corruption best practices to ensure they are current and relevant to the ever-evolving business landscape. The Mitr Phol Code of Conduct guidance to employees for proper conduct including anti-fraud and corruption policies and exercising political rights.

- Mitr Phol Group does not condone the giving and receiving of any gifts, valuables, gratuities, facilitation, or benefits that may lead to improper motivations, decision making, or bribery. The company implements clear guidelines for all employees concerning the giving and receiving of gifts, gratuities and other benefits.

- Mitr Phol employees shall refrain from receiving or giving gifts, valuables, gratuities, facilitation or benefits to and from internal and external persons and organizations beyond levels and values deemed appropriate for common well-wishing, cultural practices, and relevant laws. Employees uncertain of the value of such inappropriate gifts should refuse the items and return them to the original party or sent to Corporate Service Department each area for donation as appropriate.

- Mitr Phol employees and their families are prohibited from soliciting gifts, valuables, gratuities, facilitation, or benefits from customers, business partners, suppliers, or other business stakeholders, as such actions may lead to improper motivation or decision making.

In order to raise awareness and promote the importance of anti-corruption conduct, Mitr Phol Group communicated its good governance policies to employees through multiple channels such as the Mitr Samphan internal publication and signage boards on company premises.

In addition, Mitr Phol Group participated in activities coordinated by Thailand's Private Sector Collective Action Coalition against Corruption and the Thai Institute of Directors Association, joining other leading Thai companies in efforts to effectively eradicate corruption.

The company also joined annual activities by the Anti-Corruption Organization of Thailand to reiterate the group's commitment to good governance and in fighting all forms of corruption.

Mitr Phol Group also joined the Thai Future Network in a campaign to encourage company employees to play an active role in the development of local communities and Thai society. The campaign focused on inspiring fundamental changes in values and behaviors in the economic, social, cultural, and environmental dimensions. A communications campaign was launched through several media channels including social media networks and activities by other organizations joining the network.

Risk Management

Mitr Phol Group places great importance on risk management in all dimensions. In line with the company's policy of good corporate governance, the Risk Management Committee assesses the company's risk policies on a yearly basis in order to add value and enhance security for the utmost benefits of all stakeholder groups. The risk management policy is run in accordance with the company's strategic, operational and project plans, as well as relevant laws and regulations governing Mitr Phol Group's business operations. The key risk management practices 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.

Mitr Phol Group has appointed a Risk Management Committee, which assigns important functions such as policy, guidelines and procedures, oversight and review of practices to improve risk management.

Mitr Phol Group has adopted COSO Enterprise Risk Management - Integrated Framework throughout the enterprise. The framework is used for objective setting, event identification, risk assessment, risk response, control activities, information and communication, and monitoring. An annual report is compiled to assess potential risks and vulnerabilities to the company. The COSO Enterprise Risk Management framework is shown here.

COSO Enterprise Risk Management - Integrated Framework

Stakeholders' Involvement (G4-24) (G4-25)

Mitr Phol Group strongly believes that stakeholder involvement is an integral component in building a strong foundation for a sustainable business. In 2016, Mitr Phol Group established and maintained relationships with various stakeholder groups to hear their needs, opinions, suggestions, and key concerns. The information was used to improve the company's business operations.

Mitr Phol Group has defined 7 stakeholder groups: employees, shareholders and investors, business partners, customers/consumers, cane farmers, the government and civil society organizations, and communities. Communication protocols and responsible departments for each stakeholder group are also clearly defined, so that the company can more easily understand and respond to stakeholders' concerns. This is illustrated in the table below.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
Employees	1. **Employee engagement surveys**	Annually	1. Having adequate and appropriate resources for work requirements. 2. Able to keep abreast of corporate news and updates more efficiently.	• Survey and analyze employees' needs. Communicate, promote understanding, and provide guidelines and instructions for requesting company equipment and resources. Present, prepare, and maintain company equipment and resources for use by employees. • Improve communication channels, especially between management and employees, via company town halls (CEO/ COO and employees), COO Talk (COO and employees), HR Talk/ HR Site Visits (HR and employees), Morning Talk, Small Group (team leaders & employees), CEO SEE YOU (for new hires), CEO Official (channel for Generation Y employees and the CEO). • Develop skills communication and leadership skills for management level employees such as team leaders.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
				• Make internal news bulletin boards more interesting and available in all sites to keep employees updated on company news and information. • Improve internal communication tools such as voice broadcast so that they cover all areas of plants and all work shifts. Group similar news updates together and communicate daily through Internal PR to employees.
			3. Appropriate compensation for their job scope and responsibilities. Good benefits.	• Communicate in ways that are easy to understand about pay scale, remuneration, and benefits of Mitr Phol Group for management and employees. • Offer skills-based pay and evaluate the pay scale regularly by studying and benchmarking internally and externally for similar industries, and communicate to employees. • Adjust benefits in line with current situations and benchmarking against leading companies. Offer special privileges for employees at shops, hospitals, restaurants, and banks. Arrange activities to educate employees about money management and how to live a debt-free life.
			4. Being recognized for their contributions.	• Arrange activities for management to meet with employees such as the Management Walk to Cheer, Best Practice Celebration, and Show & Share activities.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
				• Arrange campaigns to promote better communications between team leaders and team members, such as birthday celebrations and Mitr Phol The Idol to encourage a culture of recognizing good work.
			5. Being fairly evaluated and having career development opportunities.	• Clarify and educate employees about performance evaluations, objective setting, HR's involvement in KPI Setting Alignment, and encouraging performance feedback to achieve mutual understanding and fairness. • Arrange HR Briefing activities, in which the HR team meets with employees to cascade Mitr Phol Group's HR strategies, policies, improved employee benefits, and provides an opportunity to hear comments and suggestions from employees about various topics. • Clarify the Career Management system for employees according to their group and level. • Provide HR for non-HR employee training for team leaders to understand about people management, teaching on the job, and being a good role model. • Improve the internal recruitment system and provide career opportunities for internal employees.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
Shareholders and investors	1. General meetings for shareholders and investors. 2. Annual reports or sustainability reports providing company performance.	Annually Annually	1. Business capability development. 2. Transparent and ethical business management. 3. Strong business performance and a good return on investment. 4. Business risk management. 5. Corporate social and environmental responsibility as part of business operations.	• Strategic planning and investments for continued and transparent business growth. • Have in place an effective and comprehensive business risk management plan. • Provide business performance reports for shareholders. • Publish sustainable development progress in annual sustainability reports.
Business partners / Vendors	1. Site visits and evaluations for Business partners / vendors related to food safety, such as packaging and chemicals. 2. Providing training and performing User Acceptance Testing (UAT) with vendors.	Annually Every time prior to the implementation of a new system relevant to particular vendors.	1. Fully understand and be aware of agreements for doing business with Mitr Phol Group.	• Inform Mitr Phol vendors of agreements and require vendors to acknowledge and comply with such agreements.
			2. Decrease Non Conformance Report (NCR) and promote business sustainability jointly.	• Perform site inspections or evaluations fairly. Notify vendors of the objectives. Provide information and suggestions honestly by grading according to a standard checklist. Provide suggestions and solutions to vendors in order to improve standards and become sustainable vendors with Mitr Phol Group.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
	3. Satisfaction survey Mitr Phol Procurement System (MPS – on web).	Annually	3. Acknowledge and understand the procurement systems together for work efficiency and satisfaction.	• Provide training and User Acceptance Testing (UAT), with clearly outlined objectives and manuals prior to the training and testing days, so vendors are able to study beforehand. After the training, a satisfaction survey should be conducted so the training and the new systems can be improved.
	4. Mitrphol Procurement System (MPS – on web).	Real Time	4. Be on Mitr Phol Group's Approved Vendor List (AVL), establish partnership with Mitr Phol Group and increase sales.	• Transparent and fair vendor evaluations with clear scoring criteria. Vendors should be notified of evaluation results.
			5. Receive information and updates from Mitr Phol Group's procurement department. Able to send quotations, check Purchase Orders and PO status, edit vendor information in real time for fast and effective management.	• Publicize and provide training for the MPS so vendors are able to use the system with efficiency. Satisfaction surveys about MPS usage should be conducted in order to continue to improve the system.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
Customers and consumers	1. Complaint call center. 2. Customer satisfaction surveys.	Daily Annually	1. Receive high-quality, safe, and healthy products and services. 2. Provide product variety for different needs.	• Communicate product information on product labels. • Comply with international production standards. • Provide communication materials and arrange activities to promote understanding about products and build consumer confidence. • Introduce new products catering to the needs of specific groups such as 4-gram sugar packs for health-conscious customers.
Cane farmers	1. Mitr Chao Rai Newsletters. 2. Cane farmers meetings. 3. Provide updates and arrange activities about cane farming.	Every two months Monthly Monthly	1. High and fair cane prices. 2. Increase productivity and quality. 3. Loans for agricultural purposes.	• Notify farmers in advance of purchase prices. • Provide training for cane farmers about how to increase productivity and other types of knowledge, such as the Mitr Phol ModelFarm, irrigation system development, and the usage of bio-pesticides. • Carry out loan programs for farmers for improved cane farming management.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
Government and civil society organizations	1. Participating in meetings with government agencies.	Monthly	1. Participation in activities arranged by the government sector.	• Support and participate in government activities. • Legal compliance. • Transparency and good governance. • Participate in activities by the Anti-Corruption Organization of Thailand.
	2. Working together with civil society organizations.	Monthly	2. Legal compliance. 3. Transparency.	
	3. Participate in public forums and panel discussions arranged by international organizations.	Monthly	4. Demonstrate social and environmental corporate responsibility.	• Help drive campaigns and activities in collaboration with civil society organizations. • Have in place social and environmental responsibility plans and practices. • Have dedicated community relations teams to work with local civil society organizations.
	4. Communicate through annual sustainability reports about issues that are of interest to international organizations such as human rights and anti-child labor abuse.	Annually	5. Participate in driving important agendas to create business sustainability. 6. Operate the business with transparency and respect to human rights.	• Become members of international organizations such as BONSUCRO and the United Nation Global Compact (UNGC). • Support joint activities with international organizations such as UNICEF by implementing the Children's Rights and Business Principles in Mitr Phol Group's business operations. • Operate business transparently and ethically. Respect human rights. Participate in human rights promotion activities with Global Compact Network Thailand. Adopt the UN Sustainable Development Goals in Mitr Phol Group's business operations.

(G4-24) Stakeholder	Communication Channels (G4-26)	Frequency	Stakeholders' expectations/ concerns (G4-27)	Responses (G4-27)
Communities	1. Regularly meet with surrounding communities to build understanding and establish good relationships. 2. Local tri-partite committee meetings. 3. Meetings for environmental protection.	Monthly Quarterly Monthly	1. Operate business transparently and fairly. 2. Utilize natural resources efficiently and with conscience. 3. Operate business with environmental protection practices and develop production processes that reduce environmental impact. 4. Provide truthful information to the public. 5. Help people in surrounding communities to be healthy. 6. Provide support for knowledge sharing, resources, opportunities, and a better quality of life to communities.	• Build awareness of the company's news and updates through forums for idea exchanges, opinion surveys, activities to promote quality of life, and providing welfare for local people. • Have a dedicated community relations teams who meet with local people to communicate Mitr Phol Group's updates, participate in community activities, and listen to the opinions of local communities towards Mitr Phol Group. • Arrange plant visits for local communities and visitors to see Mitr Phol Group's operations, "Waste to Value" philosophy, environmental protection efforts, international production standards, and CSR-DIW. • Arrange annual health check-ups for people in surrounding communities. • Establish good relationships with local communities, support their needs, preserve local culture and traditions, promote development, education, and sports for youths, in programs such as scholarships, volunteer projects to build dams, improvements to local schools and temples, reforestation, Green Market, bio-feritilizers, Mitr Phol Art Camp, and football clinics.

02 About the Report

About the Report

- Materiality Aspects and Impact Assessment
- Material Aspects and Boundaries
- Information Enquiry

About the Report (G4-22) (G4-28) (G4-29) (G4-30)

Mitr Phol Group has published an annual sustainability report in line with the Global Reporting Initiatives (GRI) for two consecutive years, with an aim to make public the company's business operations that have an impact on all stakeholder groups. The reporting period of this sustainability report has been adjusted from the calendar year (January through December) to Mitr Phol Group's fiscal year (November through October of the following year).

For clarification and clarity of Mitr Phol Group's performance, the reporting periods are as follows:

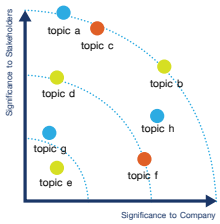
- For the first year (2015), the report details the group's business performance throughout a 12-month period, from January 1, 2015 through December 31, 2015.
- For the second year (2016), the report details the group's business performance throughout a 10-month period, from January 1, 2016 through October 31, 2016.
- Every year thereafter (2017 onwards), each annual report will detail the group's business performance throughout a 12-month period, from November 1 through October 31 of the following year.

This report has been prepared in accordance with the GRI's G4 Guidelines: Core option.(G4-32)

This report details Mitr Phol Group's business performance in 2016, covering activities within the domestic sugar industry in Thailand. The report does not cover the group's other subsidiaries or affiliated companies. However, in the future, the group plans to include the business performances of the group's subsidiaries and affiliated companies.

Mitr Phol Group's domestic sugar business comprises six sugar mills and a head office:(G4-6)(G4-9)(G4-17)

Materiality Aspects and Impact Assessment (G4-18)



Identification	Prioritization	Validation
The working group identifies materiality in conjunction with related departments. The information included in this report was identified based on the sustainability context relating to economic, social and environmental impacts. The identification process also takes into consideration stakeholders' concerns and expectations. In identifying materiality, the working group also took into account the economic, social and environmental impacts throughout the value chain, both externally and internally.	A materiality test is conducted to prioritize the materiality of this report. Material aspects selected to be covered in this report are considered on two levels: influence on stakeholder assessments, and decisions and significance of the organization's economic, environmental and social impacts. Management from relevant departments take part in deliberating these issues together with the working group.	The working group follows up on and monitors the progress of the report, validating the material aspects by seeking advice and approval to disclose the information from the group's top-level management.
1	2	3

The process ensures that the report's material aspects cover internal impacts within the group's domestic sugar business in Thailand, and external impacts on shareholders/investors, cane farmers, communities, suppliers, customers/consumers, employees, government agencies and civil society organizations.

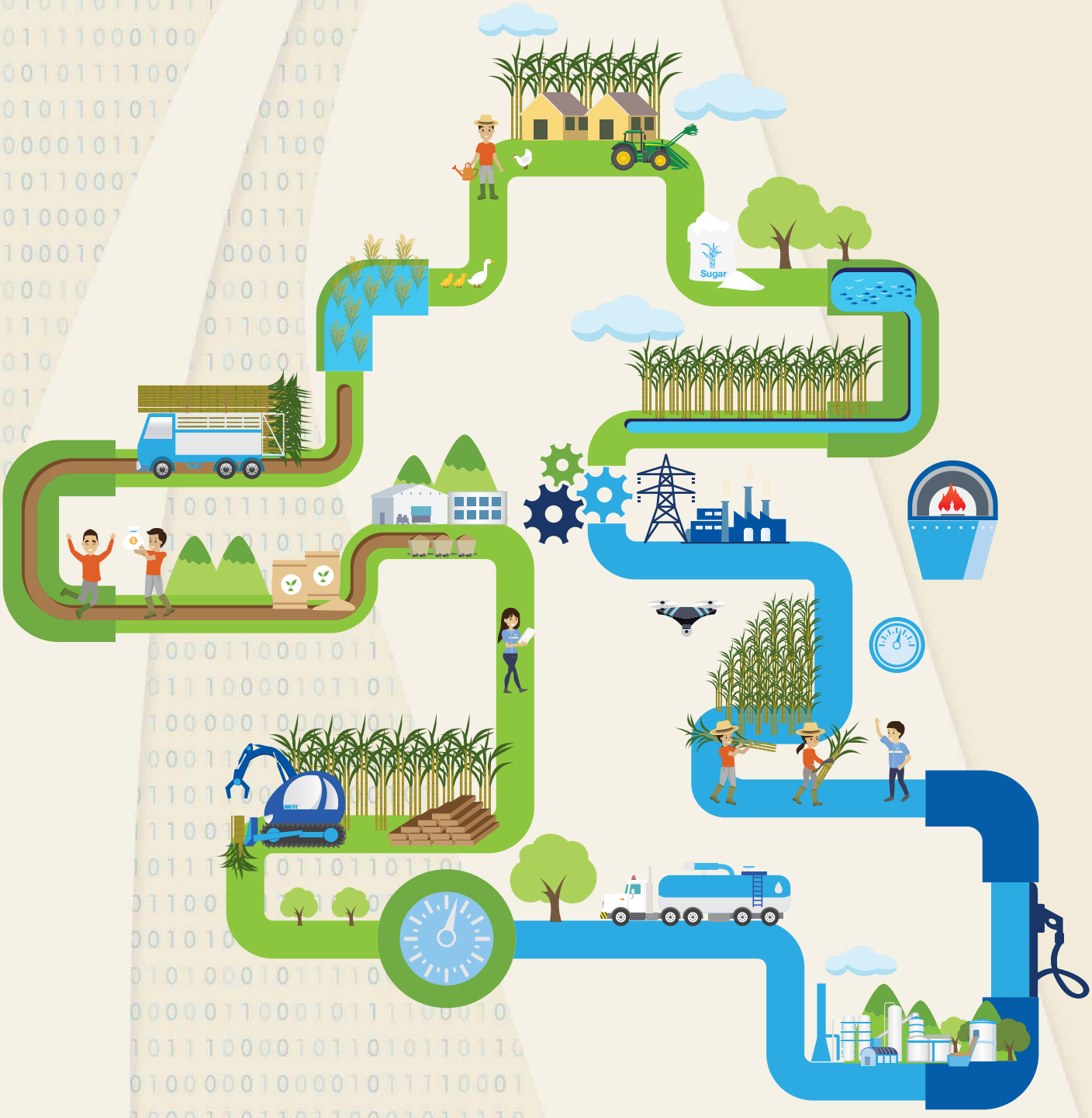
Material Aspects and Boundaries (G4-19) (G4-20) (G4-21)

Material aspects		GRI Index	Internal impacts							External impacts					
			Head Office	MPDC	MPSB	MPPK	MPPV	MPKS	MPPL	Shareholders investors	Suppliers	Customers/ consumers	Cane farmers	Government/ civil society organizations	Communities
Economic	Economic	Economic Performance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Market Share and Export Ratio	Market Presence	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Economic Impact	Indirect Economic Impact	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Human resources	Labor Practice	Employment	✓	✓	✓	✓	✓	✓	✓					✓	✓
	Employee Development	Training and Education	✓	✓	✓	✓	✓	✓	✓						
	Occupational Health & Safety	Occupational Health & Safety	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
Responsibility towards customers	Customer satisfaction	Customer satisfaction	✓	✓	✓	✓	✓	✓	✓			✓		✓	
	Customer Health and Safety	Customer Health and Safety	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
Human Rights	Human Rights	Human Rights	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓
Environment	Materials	Materials	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Energy	Energy	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	Water	Water	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	Dust pollution	Emissions	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	Waste water and Waste	Effluents and Waste	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Cane transportation	Transport	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Products and Services	Products and Services	✓	✓	✓	✓	✓	✓	✓			✓		✓	
	Compliance	Compliance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Society	Sustainable Development	Local communities	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	Complaint process and channels	Grievance Mechanisms for Impacts on Society	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓

Information Enquiry (G4-31)

If you require more information or would like to make a suggestion, please contact the Sustainability Sub-Department, Corporate Sustainability Division,
Mitr Phol Sugar Corporation Ltd.,
2 Pleonchit Center,
3rd floor, Sukhumvit, Khlong Toei, Bangkok 10110
Tel: +66 2794 1651

03 Sustainable Development



Sustainable Development

- Sustainability Policy
- Sustainable Development For Cane Farmers and Communities
  - Sustainable Cane Farmer Development
  - Productivity and Profitability Development Plan for Cane farmer
  - Sustainable Community Development Projects
  - Corporate Social Responsible Project
    - Economic aspect
    - Environmental aspect
    - Educational aspect
    - Health aspect
    - Sports aspect
    - Arts and cultural aspect

Sustainable Development

Over the past 60 years, Mitr Phol Group has guided its operations within the philosophy of sustainable development and social responsibility through frameworks that promote ethical business practices and fairness, keeping in mind the goals and needs of our business partners, customers, consumers, and other stakeholders. Most importantly, Mitr Phol Group has placed great importance on environmental protection and community development, believing strongly that the **"Grow Together"** philosophy will lead to a true sustainable development in today's world.

Sustainability Policy

With this in mind, Mitr Phol Group is committed to growing its business sustainably and realizes the importance of integrating business processes with sustainability practices. Thus, in 2015, the company enacted a set of sustainable development policies.

- Analyzing business processes and procedures to ensure adherence to corporate philosophy and ethical practices.
- Continued commitment for improvements of cane farming and sugar production to be in line with the internationally recognized Bonsucro Production and Bonsocro Chain of Custody standards.
- Promoting and supporting the use of technology, research and development efforts, production process management efficiency, and product distribution efficiency, to ensure an ability to deliver high-quality, safe, and environmentally-friendly products and services.
- Enacting practices that are role models for sustainable development within the framework of the corporate philosophy, ethical practices, and the law.
- Promoting and supporting research for technological development, including management processes for high-quality, safe, and environmentally-friendly products and services.
- Creating jobs and opportunities for career development, and bringing about an improved quality of life for local communities through involvement in corporate programmes.
- Respecting individual rights and providing fair and equal employee treatment regardless of their rank or status.
- A commitment to enhancing the knowledge and capabilities of employees to enable them to work efficiently and grow.
- Promoting the welfare, well-being, and sustainability of communities, society, and the environment.

In order for Mitr Phol Group's sustainable development efforts to expand and cover all key supply chains, in 2015 the company introduced ethics agreements for business partners and suppliers. These guidelines aid key partners in enhancing their corporate responsibility leading to the improvement of their local communities, the environment, and society at large.

Mitr Phol Group Supplier Integrity Pact was stipulated in accordance with the context and frameworks of relevant laws and regulations. The agreement promotes compliance with ethical business practices, respect for human rights, occupational health and safety, and sustainable environmental management.

01 Business Ethics

The business ethics code governs business transparency, confidentiality, social responsibility, and conflicts of interest.

02 Human Rights

The human rights code governs labor freedom, child labor, compensation and benefits, working hours, equal treatment, and termination of employment. The humanity code governs freedom of association.

03 Occupational Health And Safety

The occupational health and safety code governs safety and work environment, emergency preparedness, occupational health, work-related injuries and illnesses.

04 Environmental Management

The environmental management code governs environmental management throughout the product/service life-cycle, waste and toxic waste management, water and air pollution, greenhouse emissions, soil contamination and underground water resources.

Business partners working with Mitr Phol Group are required to understand, accept and adhere to the Mitr Phol Group Supplier Integrity Pact by filling in their name, company name, designation, signature and date.

Sustainable Development For Cane Farmers and Communities

Mitr Phol Group's "Grow Together" philosophy demonstrates the group's commitment to supporting cane farmers throughout the business lifecycle. In 2016, Mitr Phol Group purchased sugar cane from farmers as per the below table:

Item	Unit	Volume and value of sugar cane by Mitr Phol sugar mills in 2016						
		MPDC	MPSB	MPPK	MPPV	MPKS	MPPL	Total
Total volume of sugar cane purchased	Thousand Tons	2,975	1,045	2,773	2,567	2,450	1,710	**13,520**
Total value of sugar cane purchased	Million Baht	3,326	1,167	2,824	2,634	2,371	1,758	**14,080**

The total value of sugar cane purchased by all Mitr Phol sugar mills in 2016 amounted to 14,080 million Baht. Mitr Phol Group provides equal opportunities to sugar cane farmers by making purchases from all farmer groups, helping to distribute income, and stimulating grassroots economies. The below table shows the number of farmers by sugar mill who sell sugar cane to Mitr Phol Group.

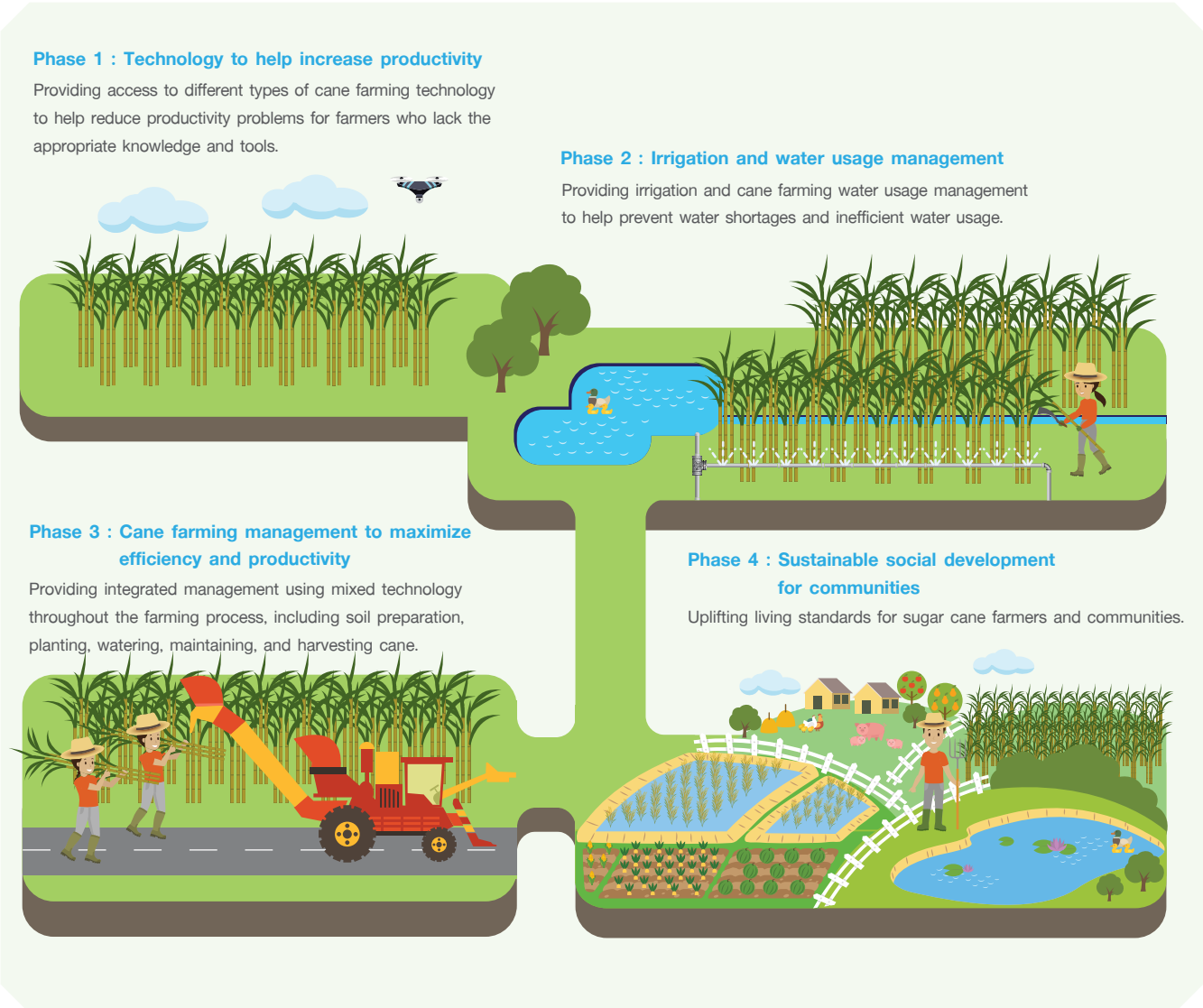
Scale of cane farmers	Number of cane farmers (Persons)						
	MPDC	MPSB	MPPK	MPPV	MPKS	MPPL	Total
Small scale cane farmers	1,603	2,254	2,749	3,122	8,981	3,718	**22,427**
Medium scale cane farmers	513	329	1,195	884	1,016	582	**4,519**
Large scale cane farmers	316	68	312	263	167	167	**1,293**
Total cane farmers	**2,432**	**2,651**	**4,256**	**4,269**	**10,164**	**4,467**	**28,239**

Sustainable Cane Farmer Development

Realizing the importance of sugar cane farmers to Mitr Phol Group's upstream business, along with its commitment to the **"Grow Together"** philosophy, Mitr Phol has incorporated modern agricultural technology into many aspects of its business. This has resulted in increased productivity, greater precision, improved production efficiency, and higher incomes for cane farmers. Mitr Phol Group strives to promote farmers' access to such agricultural technology in order to help them enhance their productivity and improve their farm management.

Productivity and Profitability Development Plan for Cane farmer

Mitr Phol Group works with cane farmers to develop their capabilities in the following phases:



Phase 1: Promoting the use of technology to help increase productivity and using Mitr Phol Group's Fair Contract Farming system

A crucial problem for sugar cane farmers is fluctuating prices, which oftentimes make it difficult for farmers to predict their future earnings, and in turn results in inefficient production planning and income insecurity. Having a fair contract in place on which both parties have agreed is a tool that allows farmers to negotiate selling prices and dictate volume.

Mitr Phol Group's Fair Contract Farming system was established to help farmers connect and build networks in order to gain negotiating power and command more favorable prices when purchasing raw materials from vendors. In 2016, Mitr Phol Group engaged with more than 30,000 contract farmers, working together to increase farming productivity and make agreements on purchasing volumes. Mitr Phol also provided other types of support including funds and agricultural materials, as well as the exchange of knowledge, skills and experiences.

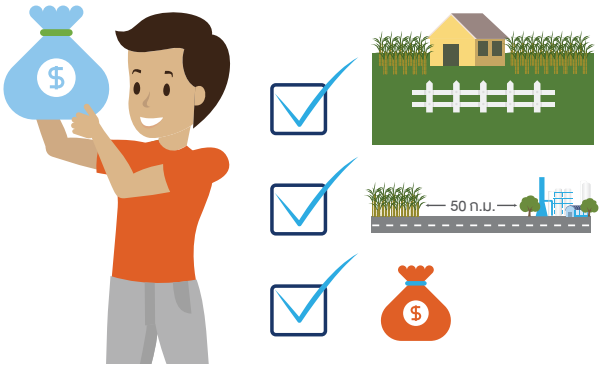
1. Sources of funds

Mitr Phol Group provides financial support to cane farmers in order to assist them during farming periods, eliminating problems arising from a lack of funding. Below are the processes involved:

- Selection process of contract farmers

Mitr Phol Group selects farmers to become contract farmers based on the following criteria:

- Farmers must have ownership of the land or partially rent the land. The land must be appropriate for cane growing.
- The land must have convenient transportation access and be within a 50 kilometer radius of a Mitr Phol sugar mill.
- Farmers must have enough labor in their family to work on the fields.
- Farmers have demonstrated a commitment to cane growing and have a proven track record, such as financial statements and records of cane delivery in the previous year.



- Checking land conditions to ensure it is appropriate for cane growing
  - Using technology such as GPS and tablets to check the location, soil condition, irrigation, and fertility of the farmers' land to ensure it is appropriate for growing sugar cane.
- Evaluation and documentation
  - If farmers wish to apply for financial assistance from Mitr Phol Group, they must prepare collaterals and other documents. For small-scale farmers who do not have collaterals, Mitr Phol Group can help them to set up group collaterals.
- Fund payment
  - Mitr Phol Group considers the appropriate amount of funding based on the following principles: Plant cane at 5,600 Baht per rai of land and Ratoon cane at 3,000 Baht per rai of land.

- Fund payments are made in a timely manner for the sake of efficiency.
- Repayments are made during the harvesting season by deducting a set amount at each cane delivery installment.

2. Materials support

Mitr Phol Group provides assistance to contract farmers to help them maximize production efficiency and yields by:

- Providing loans and financial assistance for land tillage, cane planting, and hiring farm labor.
- Providing high-quality cane varieties.
- Providing other material support such as fertilizers, pesticides, and agricultural equipment.

3. Knowledge and skill development

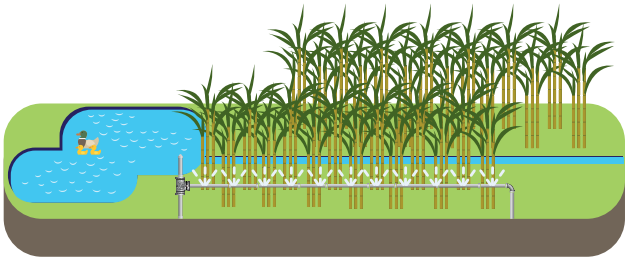
Having the necessary knowledge, skills, and access to technology is crucial to successful cane farming. Mitr Phol Group encourages the development of farmers' knowledge and skills so that they are able to enhance the quality of their outputs and increase yields. To assist farmers, Mitr Phol Group engages in the following activities:

- Publishing manuals and providing training.
- Providing training about cane farming management by sending officials to provide advice and setting up local support centers. There are 138 such support centers and 500 officials dedicated to assist contract farmers.
- Appointing "Iron Man" – Mitr Phol Group employees who are experts in the company's "ModernFarm" methods – to cascade knowledge and act as mentors to contract farmers. Mitr Phol Group aims appoint 500 Iron Man by 2019.
- Conducting field trips within Thailand and overseas to learn about successful uses of modern farming management, and engaging in development projects with small-, medium-, and large-scale farmers to help them grow their businesses.

4. Purchasing sugar cane from farmers

In the interest of fairness and convenience, Mitr Phol Group adheres to the following processes in regards to the purchasing of sugar cane from farmers:

- For the sake of convenience and lowered transportation costs, farmers can deliver sugar cane directly to the sugar mill or at any of the 166 loading stations set up near cane fields. The group aims to increase the number of loading stations to 287 by 2018.
- Sugar cane stock is purchased fairly and within the framework of the Thai government's Cane and Sugar Act. Prices are determined based on the amounts of sucrose, which is a key component of refined white sugar. To ensure the buying process is carried out in a transparent and fair manner, representatives from the sugar mill, the government sector, and the farmers association all take part in the transactions.



Phase 2: Farm irrigation and water usage management using the Mitr Phol Group irrigation system.

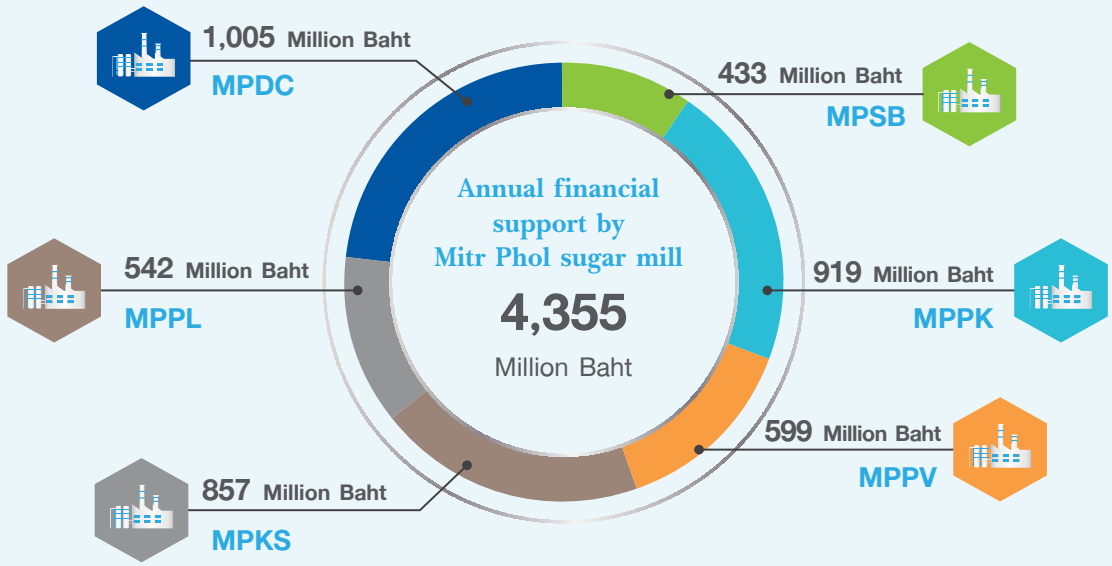
The heart of successful cane farming is efficient water resources management in order to mitigate the risk of drought and uncertain rain levels. Due to the increasing severity of drought problems, farmers need assistance and effective water management systems in place. Since 2003, Mitr Phol Group has collaborated with the Bank of Agriculture and Agricultural Cooperatives, the Office of the Cane and Sugar Board and local cane subcommittees to provide water sources for agricultural use and help farmers improve their water usage management.

In 2016, irrigation works covered more than 478,000 rai of land, or about 28 percent of the total 1.7 million rai of supported area. Mitr Phol Group provided knowledge, financial support, and consultation to community groups to ensure they have sufficient water and are self-reliant. Two key components of the support given to the communities are providing agricultural water sources and efficient water usage. For water sources, reservoirs, wells, and pumping stations were built, with pipe networks leading to agricultural plots. For water usage efficiency, Mitr Phol Group promoted the adoption of drip irrigation and center pivot irrigation methods. In addition, the group also promoted finding agricultural water sources, water circulation systems, and reusing water from sugar mills for agricultural purposes.

In 2016, thanks to the continued efforts to promote full coverage irrigation, the productivity of participating farms went from 10 tons per rai to 18 tons per rai, or an increase of 80 percent.

The below chart shows the financial support provided by Mitr Phol Group sugar mills in 2016.

Annual Financial Support by Mitr Phol Sugar mill



Annual Financial Support by items

Phase 3: Adopting the Mitr Phol ModernFarm method to increase efficiency and productivity of Sugar cane farm management

Due to a lack of knowledge about effective farm management in some areas, in 2013 Mitr Phol Group initiated the Mitr Phol ModernFarm project. This goals of the ModernFarm project are to support sustainable sugar cane farming development through a variety of methods, including promoting the usage of machinery instead of manual labor, accommodating row spacing for effective utilization of cane harvesters, and lowering air pollution by purchasing discarded cane that would otherwise likely be burned by farmers following a harvest.

In 2016, Mitr Phol Group began promoting a program called Farm Design to provide knowledge about efficient land utilization. As part of this program, land was divided into different zones, as follows:

1. Main plantation area = 75%
2. Primary and secondary roads, collection points, primary and secondary transportation routes = 8%
3. Water reservoir = 5%
4. Secondary plantation area (secondary crops/ fruits/ vegetables/ animal rearing) = 12%

Anticipated results from the adoption of the Mitr Phol ModernFarm method

Farm design management for small farms of up to 20 rai	Farm design management for medium-sized farms of up to 100 rai
1. Building water source (100 cubic meters) 0.5 rai 2. Living space, rice field, vegetables, fruits - 3 rai 3. Sugar cane rows/ spacing 1.65 meters/ row spacing alignment - 16.5 rai 4. Cost of cane farming - 800 Baht/ ton 5. Annual family income from growing cane (15 ton/ rai) - 75,600 Baht; vegetables and rice field - 100,000 Baht 6. Average income (Baht/month) - 14,633 Baht 7. Growth goal (% year) – 20% 8. Planned productivity increase - 3 ton/ rai	1. Building water source (200 cubic meters/ rai) - 3 rai 2. Living space, rice field, vegetables, fruits - 4 rai 3. Sugar cane rows/ spacing 1.65 meters/ row spacing alignment - 93 rai 4. Cost of cane farming - 800 Baht/ ton 5. Annual family income from growing cane (15 ton/ rai) - 368,550 Baht; vegetables and rice field - 150,000 Baht 6. Average income (Baht/ month) - 43,213 Baht 7. Growth goal (% year) - 20% 8. Planned productivity increase - 3 ton/ rai

Phase 4: Sustainable community development to uplift the quality of life for cane farmers

Mitr Phol Group places great importance on community involvement. The company makes it a policy to establish an understanding about a community before commencing operations in the area, in order to better serve the needs of the local people. Since 2015, Mitr Phol Group has worked with local committees for long-term and continuous projects in nine sub-districts and seven provinces.

Sustainable Community Development Projects

As part of its **"Grow Together"** philosophy of creating value in a sustainable way, Mitr Phol Group collaborates with community leaders to uplift the economic, social, environmental, well-being, and spiritual lives of local residents, so that both the sugar mills and the community in which they operate can coexist and prosper. In 2002, Mitr Phol Group initiated the program to help villages achieve higher cane productivity. Over the following decade, the program was expanded to support farmers in additional ways, such as promoting community strength, reducing income disparity, increasing access to knowledge and skills, and promoting villagers' participation in building sustainable development for themselves. The program is carried out to uplift the economic, social, and environmental aspects of communities, and is in line with the self-sufficiency economic philosophy devised by Thailand's late King Bhumibhol Adulyaej.

The project was initially active in nine sub districts and was expanded to cover 12 more in 2017. In total, 21 sub-districts have joined the program in eight provinces.

The project covered 21 sub-districts, in 8 provinces

Mitr Phol Dan Chang Sugar Mill

1. Chaeng Ngam sub-districts, Amphoe Nong Ya Sai
2. Nong Makha Mong sub-districts, Amphoe Dan Chang
Suphan Buri Province

Mitr Phol Sing Buri Sugar Mill

1. Mai Dat sub-districts, 2. Pho Sangkho sub-districts
Amphoe Khai Bang Rachan, Sing Buri Province

Mitr Phol Phu Kiao Sugar Mill

1.Khok Sa-at sub-districts, 2. Ban Kaeng sub-districts,
3.Nong Khon Thai sub-districts
Amphoe Phu Khiao, Chaiyaphum Province
4.Chum Phae sub-districts, 5. Chai So sub-districts
Amphoe Chum Phae, Chaiyaphum Province

Mitr Phol Phu Wiang Sugar Mill

1.Ban Meng sub-districts, 2. Kut Kwang sub-districts
3.Chorakhe sub-districts, 4. Non Sa-at sub-districts
Amphoe Nong Ruea, Khon Kaen Province

Mitr Phol Kalasin Sugar Mill

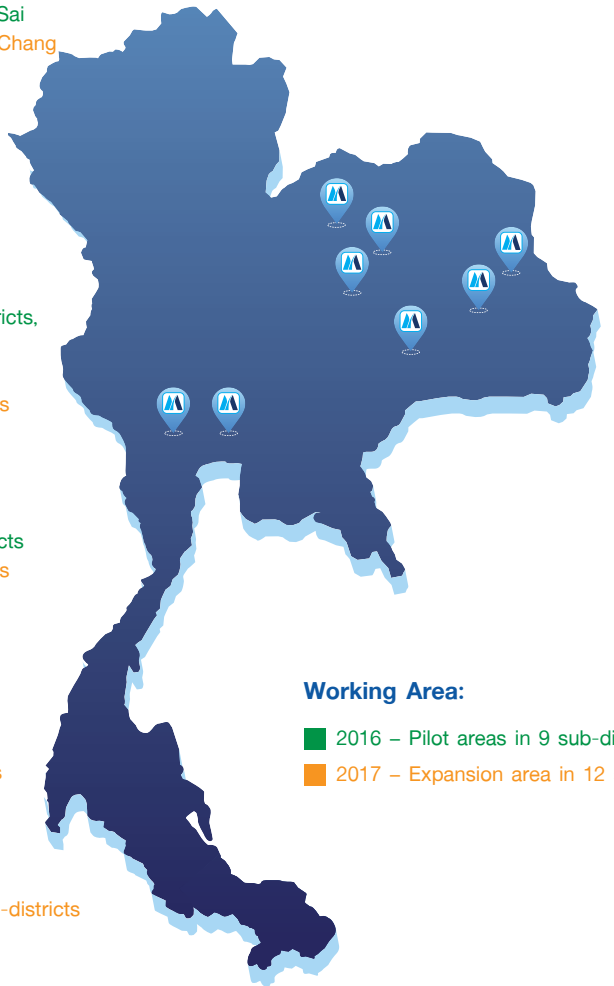
1.Nong Yai sub-districts, Amphoe Phon Thong,
Roi Et Province 2.Som Sa-at sub-districts,
3. Kut Khao sub-districts, 4. Chum Chang sub-districts
Amphoe Kuchinarai, Kalasin Province

Mitr Phol Phu Luang Sugar Mill

1.Khok Khamin sub-districts, 2. Si Songkhram sub-districts
Amphoe Wang Saphung, Loei Province

Mitr Phol Amnat Charoen Sugar Mill

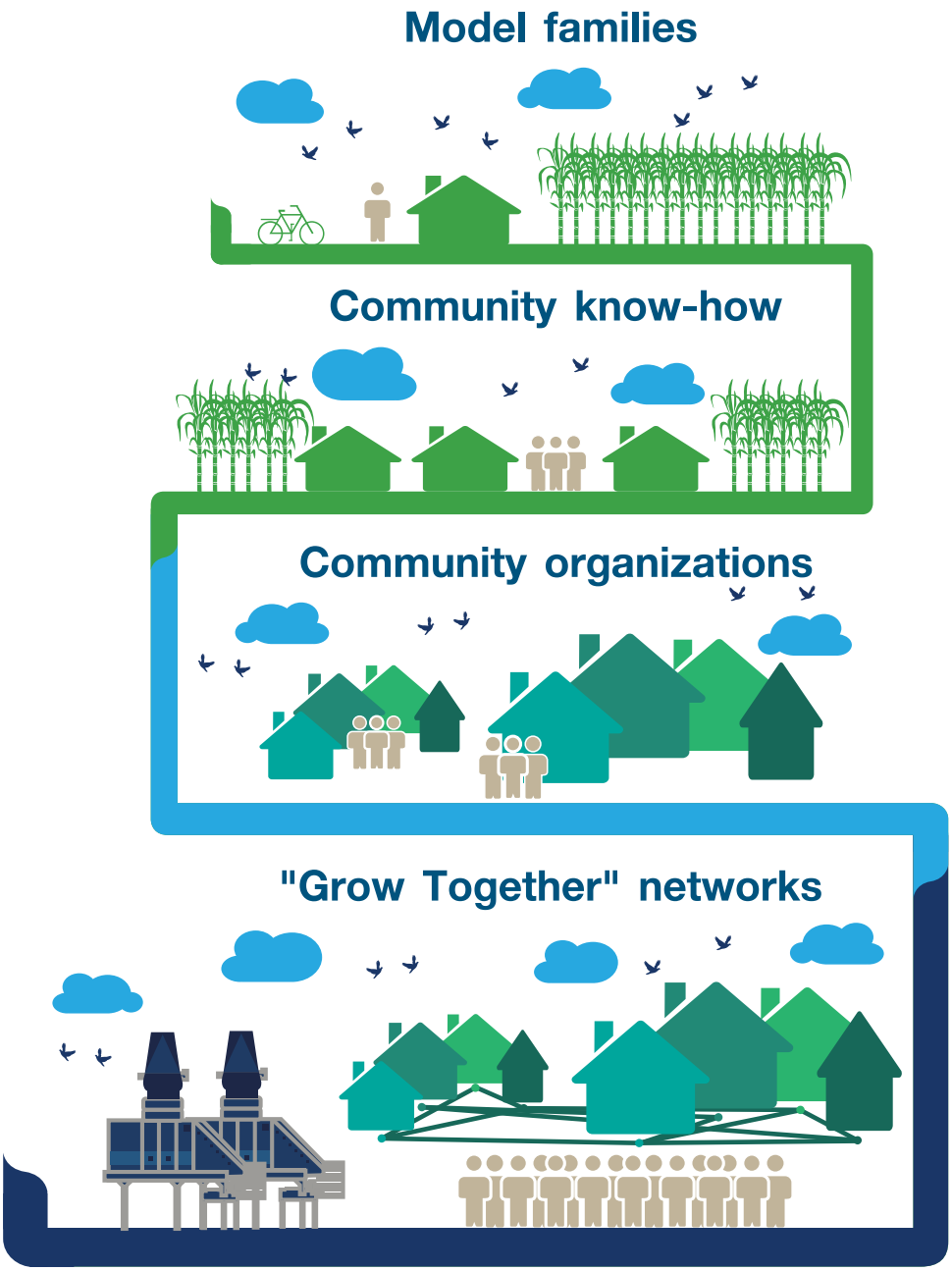
1. Nam Plik sub-districts, 2. Na Yom sub-districts
Amphoe Mueang Amnat Charoen, Amnat Charoen Province



Working Area:

- 2016 – Pilot areas in 9 sub-districts
- 2017 – Expansion area in 12 sub-districts

Community sustainable development strategy



1: Model families

Strategy

- Self-awareness
- Visionary
- Building role models
- Amplifying group activities

2: Community know-how

Strategy

- Expanding knowledge base
- Establishing local learning centers
- Elevating know-how into local policies

3: Community organizations

Strategy

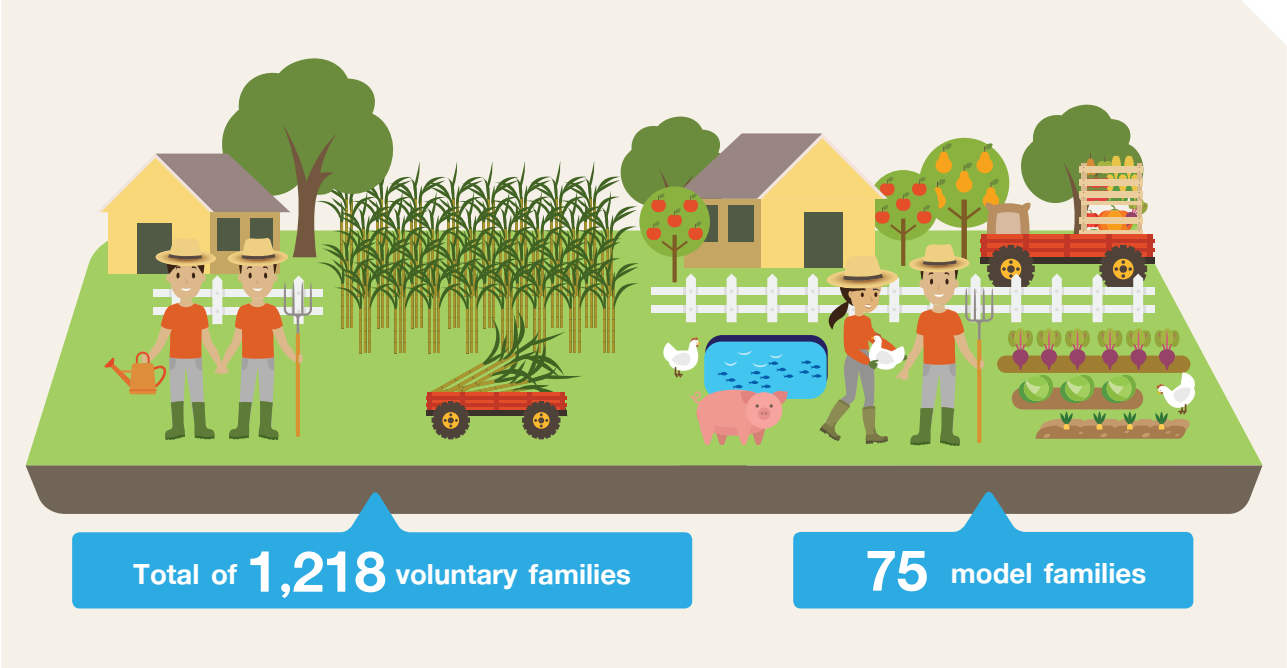
- Capability development for community leaders
- Establishing a local sub committee
- Working in collaboration with related government agencies

4: "Grow Together" networks

Strategy

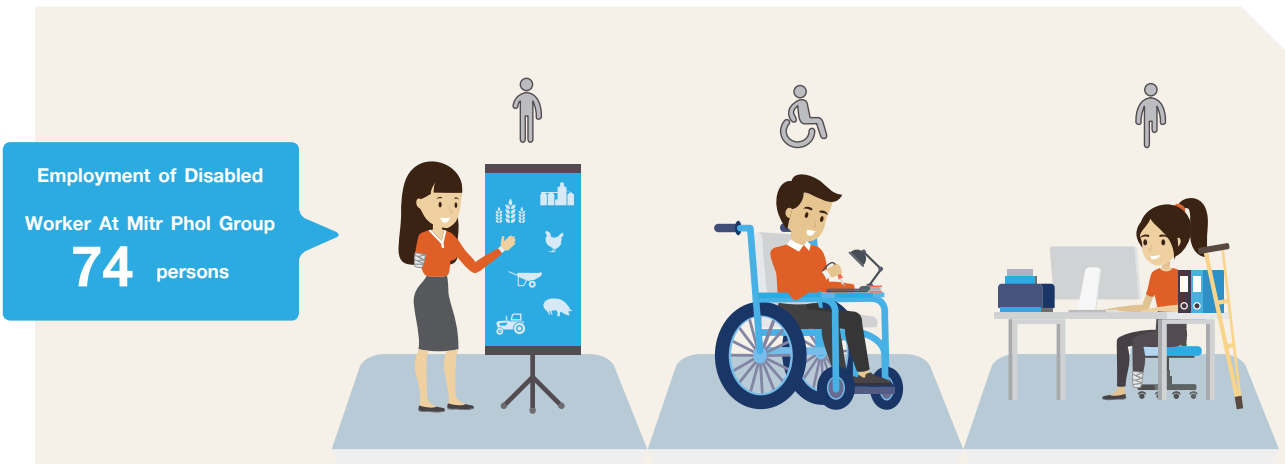
- Promoting network strength
- Expanding networks to exchange

Mitr Phol Group has helped a total of 1,218 voluntary families and 75 model families by promoting self-reliance through mixed-crop and livestock farming, encouraging them to grow a variety of crops and raise cattle. The program also promotes the acquisition of additional income through alternative jobs, via the establishment of 30 community enterprises focusing on businesses such as mushroom farming, growing pesticide-free vegetables, banana processing, making peanut snacks using sugar cane, rice farming, and selling goods at green markets.



In addition, Mitr Phol Group works with the Ministry of Labor, the Thai Health Promotion Foundation, and the Social Innovation Foundation, as part of the "Strong Community Driven by the Disabled" project. This collaboration encourages disabled people to take part in community development efforts and become self-reliant. The program helps disabled community members to acquire skills including craftsmanship, clerical work, and administrative work for jobs in local offices such as the children development center, the local health center, and the village headsman's office. The disabled are also encouraged to take part in spreading knowledge about mixed-crop farming. They also adopt the self-sufficiency economic philosophy in their everyday life by keeping track of their family income and expenses, saving money, and growing vegetables for household consumption. In addition, they are also encouraged to volunteer to become role models for other families in the community.

The project to promote community strength by inviting participation from the disabled not only helps to reduce social disparity and increase opportunities and income, but also helps to instill a sense of pride for being involved in improving their home town.



Corporate Social Responsible Project

Mitr Phol Group also has a community affairs department that is tasked with establishing and maintaining healthy relations between Mitr Phol Group sugar mills and the local communities. The department focuses on providing care for local communities through a variety of projects covering six key aspects: economic, socio-environmental, educational, health, sports, and cultural.

Economic aspect

The company regularly arranges skills training for local communities and employees as both a way to generate additional income, and to promote self-sufficiency for workers who are nearing retirement age. Employees can choose from a variety of courses such as making snacks, producing other household products, and growing vegetables. They can then sell their products at the community and green markets held in front of the local sugar mill.

In the Baan Pheu sub-district of the Nong Ruea district of Khon Kaen province, Mitr Phol Group set up a community enterprise that produces bio-fertilizers. A team of researchers was invited to cascade knowledge about the production of bio-fertilizers, how to get the products certified, and how to generate income from selling the products. The product can also be used to improve the community, by helping farmers to lower their usage of chemical fertilizers as well as saving a significant amount of money. Annually, the group produces 700 sacks of bio-fertilizers and generates a sales income of 175,000 Baht.

Environmental aspect

Thailand's severe droughts in 2016 had a widespread impact on farmers and local communities throughout the country. Mitr Phol Group saw an opportunity to help solve the problem by sharing knowledge about effective agricultural irrigation through the following projects:

- **Phu Long reforestation volunteer group**

Deforestation and burning contribute to water shortages in the Phu Long area of the Phu Khiao district in Chayaphum province. More than 3,000 rai of forest land was severely affected from illegal burning. Mitr Phol Group and sugar cane farmers in the surrounding communities comprising a group of more than 600 volunteers came together to plant 7,000 trees in the scorched forest. The group also donated money and other necessary items valued at more than 900,000 Baht to be used to prevent future fires, help affected communities, restore the forest, and build community water sources.

- **Dams**

Mitr Phol Group realizes the importance of natural resources as crucial to the success of agriculture. As a result, the group worked with several community groups to build water dams made from local materials such as bamboo, ropes, and sand, as well as recycled sugar sacks. In 2016, the group donated more than 50,000 sugar sacks and invited employees to volunteer in dam building projects.

In addition to fostering collaboration between several groups, a set of communal rules was established. The dams have a lifespan of 7-10 years and help to collect water from the rainy season for use in the dry season. They also help to improve groundwater and the ecosystems surrounding the dams, while instilling an awareness about the need for protecting natural resources among local members of the community.

- **"Sharing Water, Sharing Love, Fighting Drought" project**

Thailand went through the worst drought in 20 years in 2016, causing a widespread impact on people and farmers across the country. Mitr Phol Group initiated the **"Sharing Water, Sharing Love"** project with an aim of reducing water usage by 30% and saving water for the dry season. As part of the project, Mitr Phol promoted knowledge and awareness about how to prepare for droughts and the need for employees, farmers and other stakeholders to be mindful of water consumption habits. The project helped to reduce water usage within Mitr Phol Group sugar mills and cane plantations by as much as 30 percent, as planned. A caravan was also sent out to distribute potable water for communities nearby the sugar mills.

Educational aspect

- **Mitr Phol Group scholarships**

Mitr Phol Group focuses its efforts on building value and creating a brighter future for Thai youth. In 2016, the company awarded 455 scholarships to children of farmers under the Mitr Phol Career Camp project. Along with other scholarships, the program provided more than 11 million Baht for education about modern agriculture, and to encourage Thai students to use efficient and sustainable farming principles to drive the country's agricultural sector in the future.

- **Sustainable Education Leaders Development Project**

Mitr Phol Group worked with other leading private organizations in Thailand to drive educational development, in line with the national CONNEXT ED strategy. The goal of the project is to raise the country's educational standards and develop the next generation of leaders and visionaries. As part of the program, top-level management from Mitr Phol Group and other leading Thai organizations provide strategic advice and financial support to so-called "School Partners", which are stand-out students who have devoted themselves to improving their communities. In the first phase of the project in 2016, these young leaders were responsible for planning the program's development in 3,342 local schools, and will be tasked with rolling out the strategy to 7,424 schools throughout the country by the end of 2018. Program administrators focus on three key areas:

1. **Enabling** the management of the schools to be able to follow the strategic plan.
2. **Enhancing** the schools to request support from the private sector.
3. **Engaging** families and local communities to adopt the Thai government's 10 national strategies to promote leadership and raise the country's educational standards.

Health aspect

Mitr Phol Group continues to promote the health and well-being of local villagers and farmers, alongside creating value and building a future for communities and society. As part of this effort, Mitr Phol Group collaborates with local hospitals to arrange health check-ups twice a year in all six provinces where the company has business operations. Also, on the occasion of Mitr Phol Group's 60th anniversary, the company partnered with the Electricity Generating Authority of Thailand for a donation drive that raised 300,000 baht toward providing eye exams and glasses for more than 600 villagers and farmers. The project was operated under the royal patronage of Her Royal Highness Princess Maha Chakri Sirindhorn.

Sports aspect

- **"Mitr Phol Football Clinic" project**

Mitr Phol Group promotes the use of sports to help steer youth away from engaging in drugs and destructive activities. The efforts have also helped to elevate the standards of soccer training for Thai youth. Over the past five years, Mitr Phol Group has hosted football clinics for more than 2,000 young players in Suphanburi, Sing Buri, Loei, Chayaphum, Khon Kaen, and Kalasin provinces. The Football Clinic program brings professional players from the Ratchaburi Mitr Phol Football Club to teach aspiring youngsters useful skills and techniques. This year, the Football Clinic program was taken to the next level by holding tryouts for a football boot camp hosted by the professional players.

Arts and cultural aspect

- **The 3rd Mitr Phol Group Arts for Youth Camp**

Mitr Phol Group partnered with nationally-renowned artist Master Sangkom Tongmee to provide art classes for youngsters living nearby the company's sugar mills. At the camp, children learn about creating mixed-media art pieces from materials that would have otherwise been thrown away. To date, more than 1,300 children have participated in the program.

04 Human Resources Management

Human Resources Management

- Labor Practices
  - Employment
  - Welfare and benefits for permanent and temporary employees
- Employee Development
  - Employee development approach
- Safety, Occupational Health and Environmental
  - Ratio of employee representatives in the SHE Committee
  - Safety, Occupational Health and Environmental policies
  - Safety, Occupational Health and Environmental management performance
  - Promoting awareness of Safety, Occupational Health and Environmental
- Human Rights Performance

Human Resources Management

One of the goals of Mitr Phol Group is to become a world-class organization by focusing on six key aspects of corporate development.

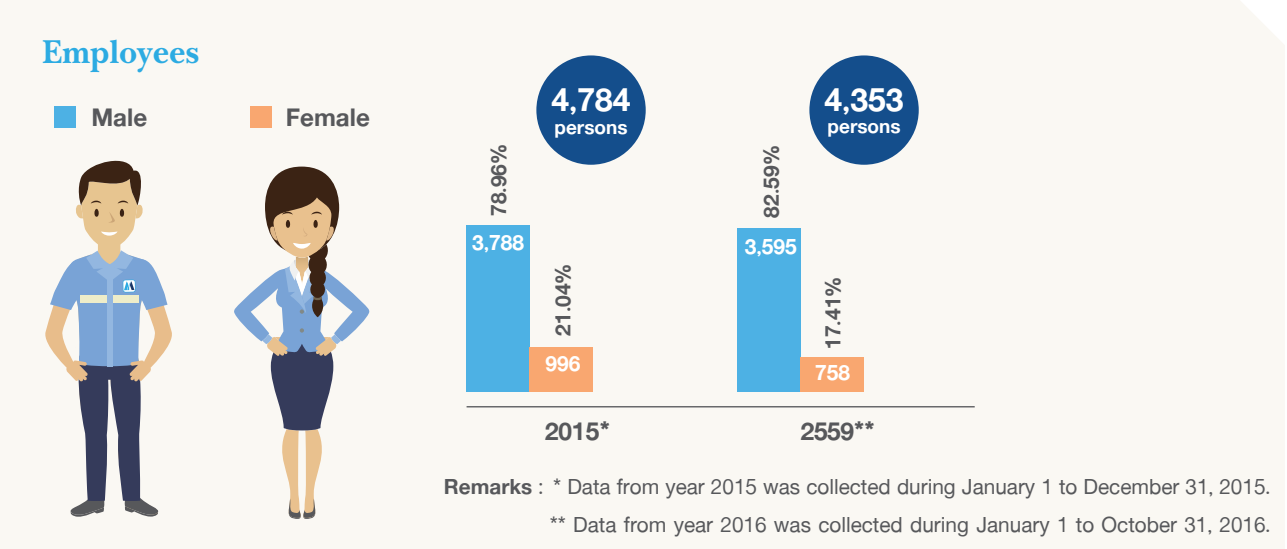
In order for Mitr Phol Group to achieve the status of a truly world-class organization, human resources management must be carried out in tandem with effective administration of all other aspects of the business. In our effort to become a high-performance organization, Mitr Phol Group has developed strategic approaches for several areas of the business to move on a path toward the new S-Curve industries. Through restructuring, work process integration, and the utilization of digital technology, the group has increased management efficiency and is achieving sustainable growth.

Labor Practices

One of the keys to being recognized as a world-class organization is human resources. Mitr Phol Group places great importance on the entire process, from recruitment, remuneration evaluation, fair performance reviews, skills and capability development, building a successful corporate culture, and sustainable development, through to ensuring quality of life, equality, and personal fulfillment according to the group's "Enhancing World Class Organization" strategy.

Employment (G4-9) (G4-10)

In 2016, Mitr Phol Group employed a total of 4,353 full-time workers, as shown in the below table.



As shown in the data above, male workers make up 82.59 percent of the total number of employees, while female staff account for 17.41 percent.

Mitr Phol Group creates employment opportunities for people in local communities surrounding the sugar mills, in addition to engaging in activities that promote self-reliance and an improved quality of life, particularly for the disabled. Aside from creating local jobs, Mitr Phol Group's compensation policy is in line with the standards required by law.

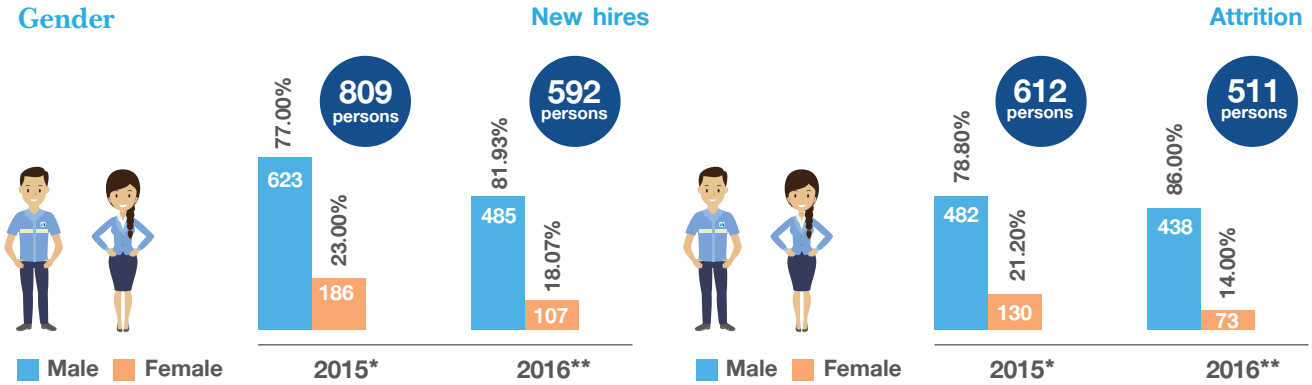
Mitr Phol Group's compensation policy is in line with the standards required by law

Sugar businesses	Basic entry level remuneration compared with the legal daily minimum wages	
	Year 2015	Year 2016
Head Office	No daily wages	No daily wages
MPDC	1.54	1.09
MPSB	1.56	1.09
MPPK	1.53	1.08
MPPV	1.56	1.08
MPKS	1.55	1.07
MPPL	1.56	1.06
Average	**1.55**	**1.08**

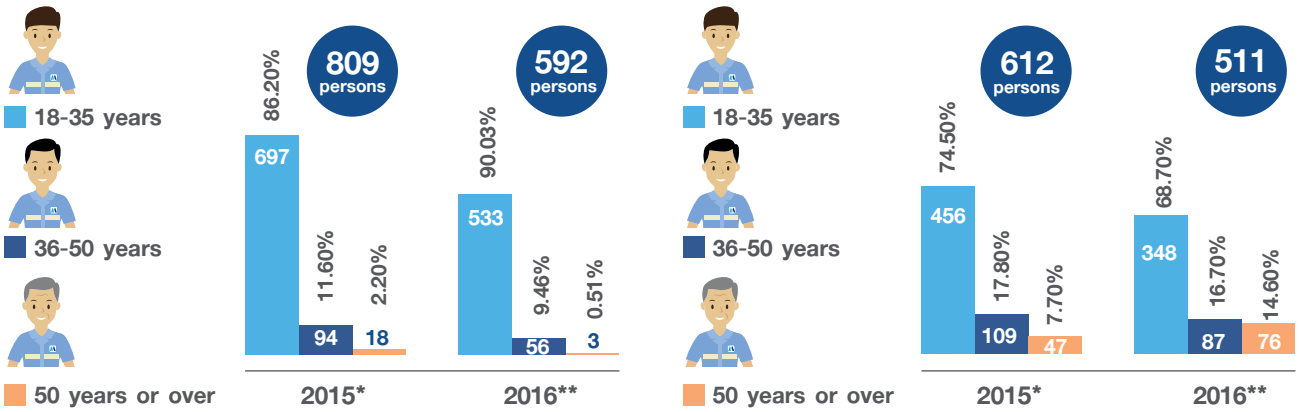
Shown in the table above, Mitr Phol Group's sugar businesses offer entry-level compensation at the rate of 1.08 when compared with the national minimum wages as required by the Ministry of Labor. Compared to the year 2015, the average entry-level compensation in 2016 against the national minimum wages was lower, due to the fact that the Ministry of Labor had increased the national minimum wages. However, Mitr Phol Group's compensation for local labor was still higher than the minimum wages, providing a steady income stream for communities surrounding the sugar mills.

New hires and attrition (G4-10)

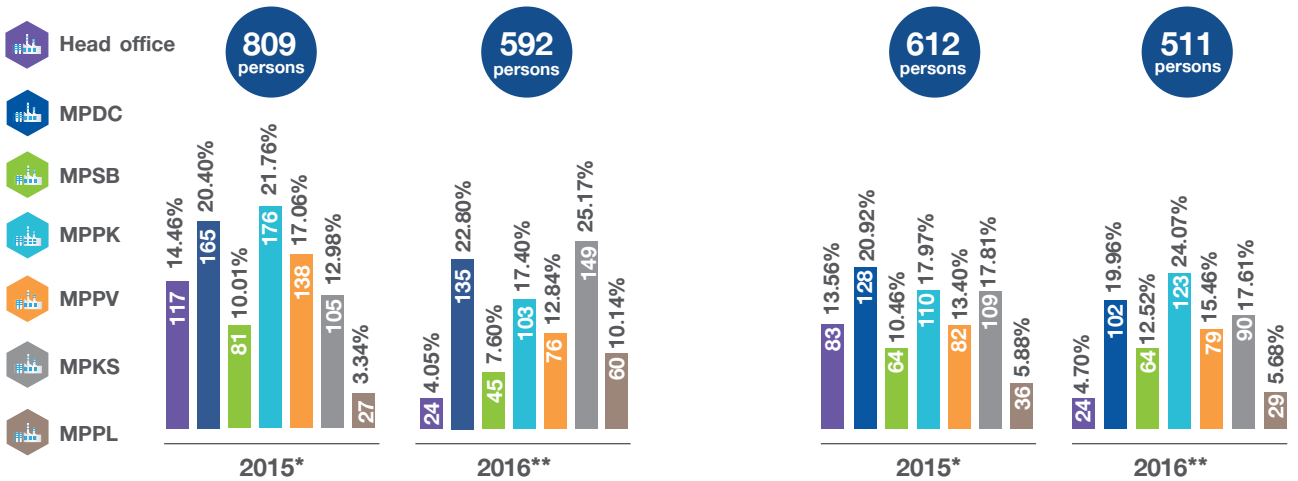
Gender



Age



Location



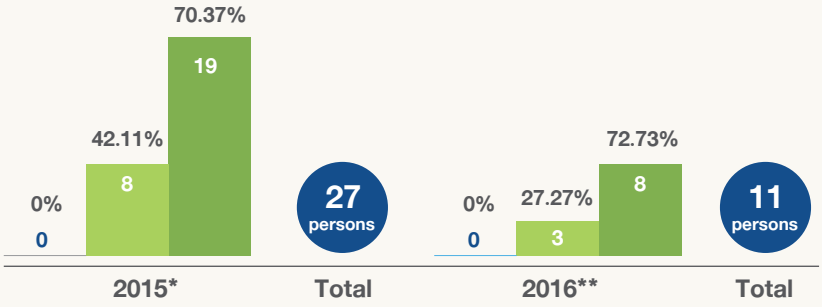
Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

Breakdown of Mitr Phol Group

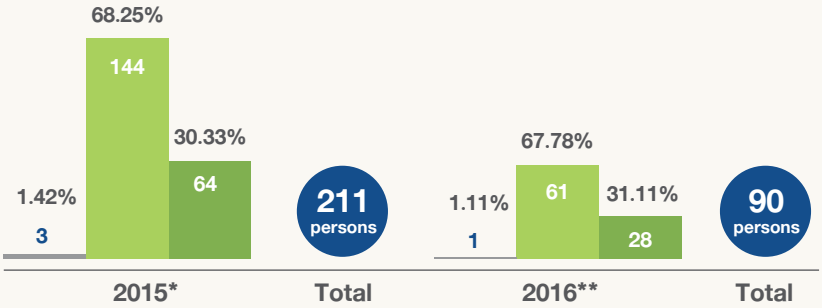
Top level management

- 18-35 years
- 36-50 years
- 50 years or over



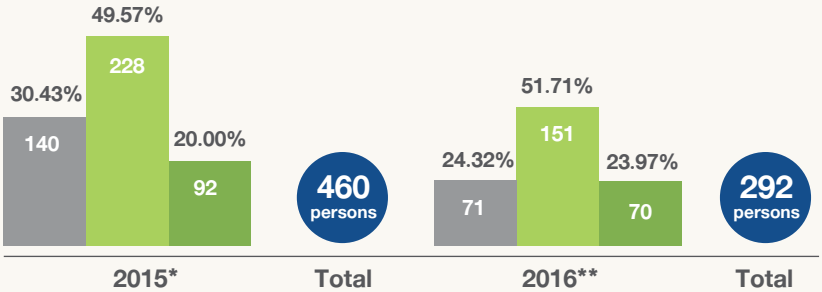
Middle level management

- 18-35 years
- 36-50 years
- 50 years or over



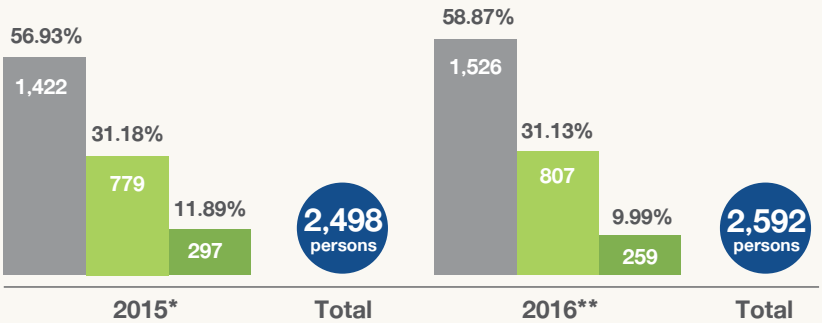
Line managers

- 18-35 years
- 36-50 years
- 50 years or over



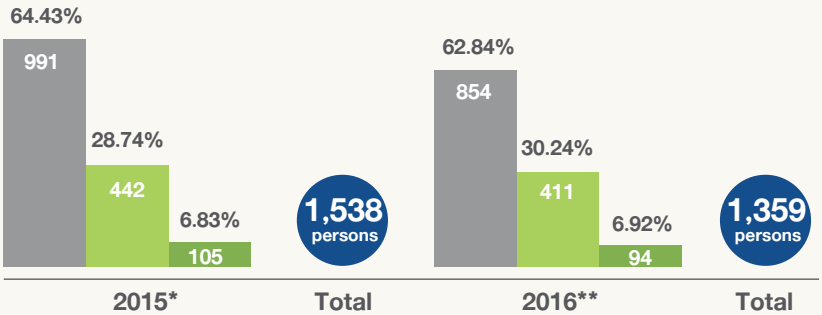
Officers

- 18-35 years
- 36-50 years
- 50 years or over



Operational level

- 18-35 years
- 36-50 years
- 50 years or over



Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

Welfare and benefits for permanent and temporary employees

The health, well-being and satisfaction of our employees is integral in helping Mitr Phol Group achieve our long-term goals. The below table shows employee welfare and benefits provided to all our employees.

Welfare and benefits		Permanent employees		Temporary employees
		Monthly	Daily	
Leave	Annual leave	✓	✓	✓
	Special leave	✓	✓	✓
	Ordination leave/religious leave	✓	✓	✓
	Maternity leave	✓	✓	✓
Benefits	Provident fund	✓	-	-
	Life and accident insurance	✓	✓	✓
	Medical treatment	✓	-	-
	Dental treatment	✓	-	-
	Annual health check-ups	✓	✓	✓
	Employee stock option scheme	✓	✓	✓
	Employee housing	✓	-	-
	Gift basket during illness	✓	✓	✓
	Uniforms	✓	✓	✓
	Food	✓	-	-
	Training and development program	✓	✓	✓
Financial aid	Wedding	✓	-	-
	Death of family member	✓	-	-
	Death of employee	✓	✓	✓
	Money for buying gifts to visit sick employees	✓	✓	✓
	Disaster relief financial aid	✓	✓	✓
	Mobile phone expenses	✓	-	-
	Transportation costs	✓	-	-
	Scholarships	✓	-	-
	Financial aid for employees' children's education	✓	-	-
Others	Employee clubs	✓	✓	✓
	Sports Day	✓	✓	✓
	Appreciation parties	✓	✓	✓

In addition to the basic welfare and benefits packages provided for employees, including paid leave, uniforms, medical and dental treatment, and financial support such as employee provident fund, scholarships for children and emergency loans, Mitr Phol Group has also established the "Happiness Committee." This employee-run group was created to ensure that the worker welfare and benefit packages meet the needs and lifestyles of employees. In 2016, 100 percentage of Mitr Phol's employees are covered by collective bargaining agreements such as employee clubs, Sport Day and Appreciation parties. (G4-11)

A formalized whistle-blowing system has also been set up for employees to anonymously report any illegal or unethical activity that may be damaging to workers or the company as a whole. A special taskforce keeps the information confidential to ensure justice for all involved.

Rate of returning to work for female employees after maternity leave

	Maternity leave incidents	Year 2015*	Year 2016**
	The number of female employees eligible for maternity leave (Persons)	996	758
	The number of female employees who took maternity leave (Persons)	66	43
	The number of female employees who returned to work after taking maternity leave (Persons)	66	42
	Percentage of female employees who returned to work after taking maternity leave	100	97.67

Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.
** Data from year 2016 was collected during January 1 to October 31, 2016.

In the past year, Mitr Phol Group initiated activities to strengthen relationships between workers and management, and foster employee engagement to make the organization a better place to work. These include CEO/COO Town Hall events to exchange ideas and bring people closer, the CEO SEE YOU project for Gen Y employees to engage with management, and other activities that allowed employees to express their opinions openly.

Mitr Phol Group also joined the Thai Future Network to promote sufficiency among employees and help them reduce personal debt in a systematic and sustainable way. The company's "Free Your Debt, Free Your Life" campaign encouraged employees to decrease expenses, increase income, and live in a sustainable way. Coaching was also provided for employees approaching retirement to prep them on how to plan for their lives after work, including managing their social security benefits and living a self-sufficient lifestyle.

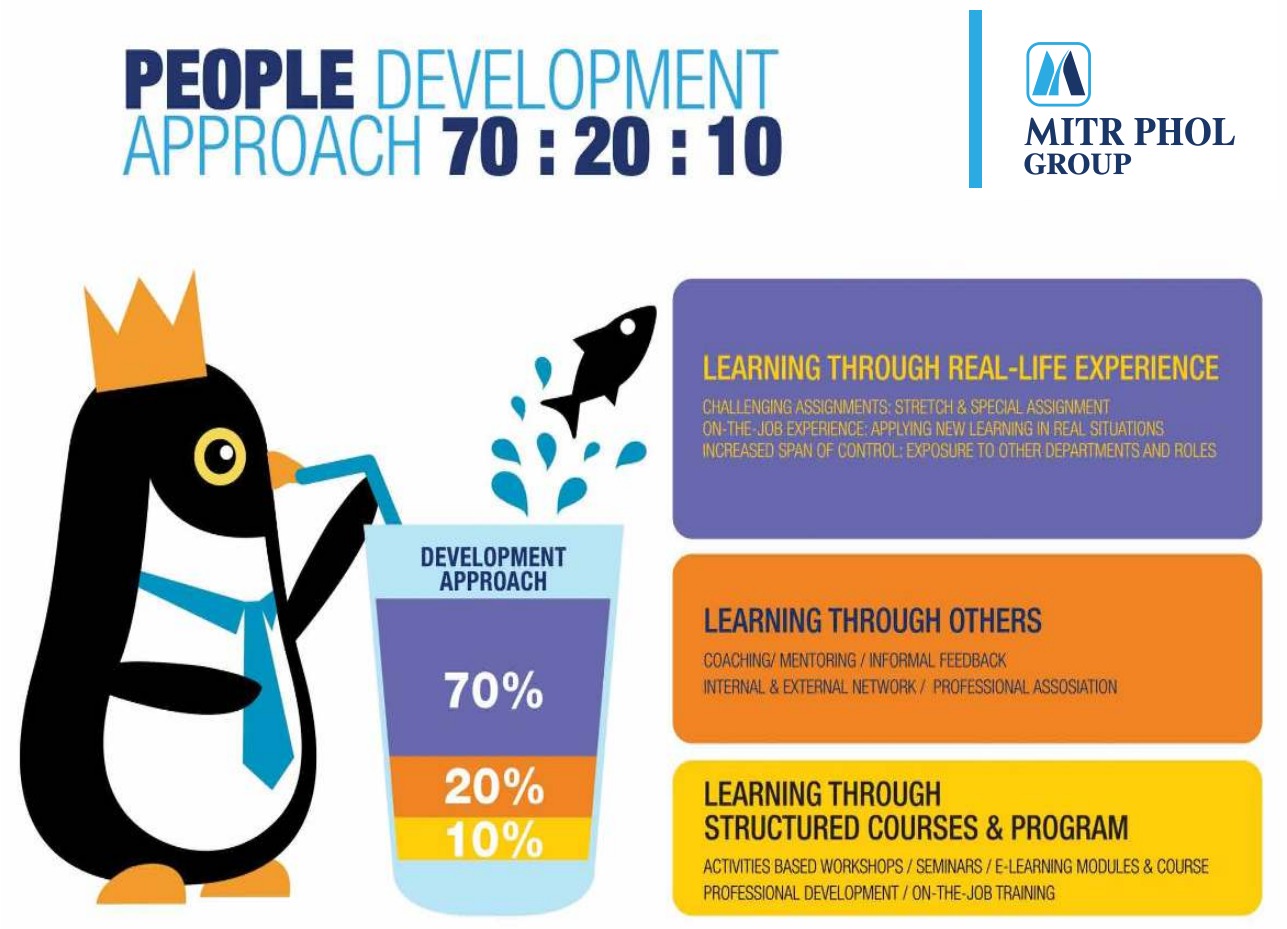
Stakeholder and partnership engagement is another area of focus for Mitr Phol Group. Several projects were carried out to promote a better life for farmers. The company was recognized by Human Resources firm Aon Hewitt's 2016 list of the best employers in Thailand, with Mitr Phol Group winning the award for "Best Employer".

Employee Development

Mitr Phol Group places great importance on developing the competency of its employees to be on par with global standards. Competency development programs help employees to achieve new skills and build upon their expertise in order to continue growing in their careers, while also increasing the group's competitive edge and sustainable growth as it strives toward becoming a world-class organization.

Employee development approach

Mitr Phol Group adopts a "70:20:10" approach, in that 70 percent of the competency development effort is dedicated to direct experiences from assignments and job rotation, 20 percent is devoted to coaching, and the remaining 10 percent comes from training and seminars. Line managers play an integral role in the success of the program, as they plan the development goals of their direct reports, encourage their progress, and act as good role models.



Mitr Phol Group's employee skills development program is competency-based and made up of the following components:

1. Functional Competency Development

Functional competency development helps to increase the skill sets of employees in order for them to work more efficiently. The program focuses on seven core functions:

1.1 Cane Academy

The academy provides knowledge about stakeholder relationship management, information technology, cane assessment and tracking, and agricultural machinery, with the goal being to maximize production efficiency and productivity.

1.2 Bio/Cassava Academy

The academy provides knowledge about cassava species, diseases and pests, and the tapioca flour production processes.

1.3 Production Academy

Mitr Phol Group partnered with educational institutes in Thailand and abroad, including Australia's Queensland University of Technology and King Mongkut's University of Technology in Thonburi province, to develop the High Level Design – Sugar Milling Technology program, which builds core competencies for employees who specialize

in sugar technology and sugar chemistry. Technical training centers were established at all sugar mills to provide instruction and practical expertise for factory employees in skills such as repairing valves, motors, and electrical circuits. The centers also provide individual assessments to help each employee progress effectively.

1.4 Energy Academy

The Energy Academy provides knowledge about energy management and water quality for electricity generation.

1.5 Marketing Academy

This academy provides knowledge about successful branding techniques and practices.

1.6 Financial / IT Academy

The academy provides knowledge about cost management, tax management, and financial analysis.

1.7 Safety & Productivity Academy

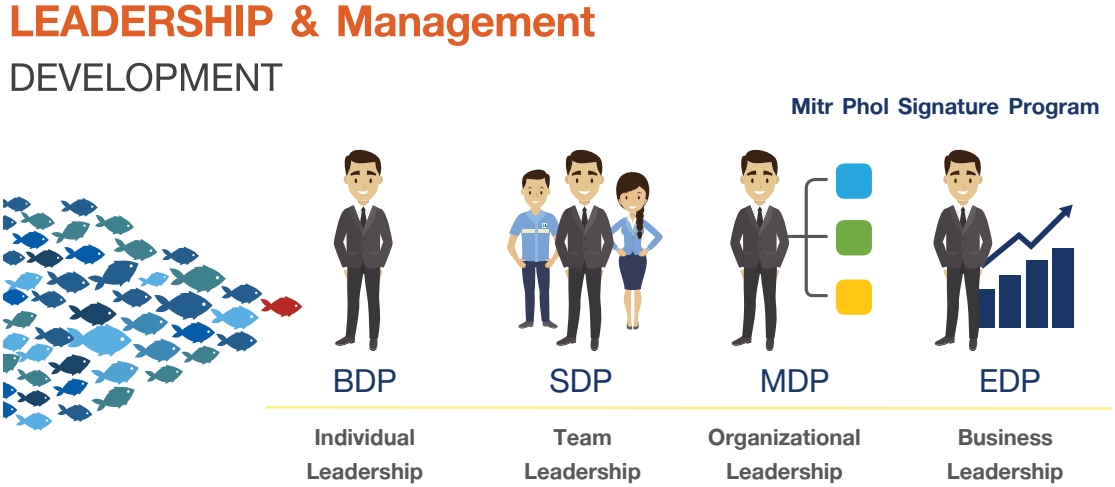
The academy provides knowledge about safety, occupational health, work environment, and occupational health and safety laws.

2. Leadership and Managerial Competency Development

Leadership and managerial competency development aims to increase competency and leadership skills, while promoting employee relations so they are able to work efficiently, enjoy a healthy work-life balance, and be ready for career advancements. Through two core programs, Mitr Phol Group focuses heavily on building leadership skills for employees across all levels:

2.1 Signature Development Program

This unique program was designed to help build leadership skills and networking by having employees work together in projects. The program focuses on a blend of learning techniques and includes information from business case studies, project-based learning, and knowledge sharing from top-level management, guest speakers and experts from several fields. Progress is tracked and measured, while the skills and knowledge learned can be used to help promote individual success and achieve business advantages. The curriculum is made up of four programs to serve the development needs of each employee level.



Leadership & Management Development

Program	Target group	Program objectives
Basic Development Program (BDP)	1. Operational employees who contribute in driving a team's targets, under the supervision of a manager.	1. Building basic leadership skills and adopting more efficient work practices. 2. Promoting an understanding about Mitr Phol Group's business strategies and operations to help the employee carry out his/her duties in line with the needs of the business. 3. Building communication and interpersonal skills to help the employee to work better with others.
Supervisor Development Program (SDP)	1. Supervisors, assistant managers or equivalent who are tasked with managing a team, setting team goals, delegating work, and overseeing the quality of work for an entire team. 2. Supervisors who have been promoted from operational positions to being in charge of other team members. They require training to give them new perspectives and build leadership skills.	1. Building management competency and effective supervisory skills. 2. Promoting knowledge about business administration that can be applied to daily work. 3. Developing interpersonal, social, and communication skills, in order to enhance professionalism and motivate their team.

Program	Target group	Program objectives
Management Development Program (MDP)	1. Management-level or equivalent who are responsible for planning and setting direction, and supervising and developing his/her team. 2. Managers who require training in strategic business administration and learning from business case studies.	1. Enhancing high-level leadership skills in order to effectively meet business targets. 2. Building knowledge and competency in strategic thinking, business administration, and corporate and resources management, to increase the group's competitive edge. 3. Developing communication, presentation, interpersonal, social, and motivational skills.
Executive Development Program (EDP)	1. Directors or equivalent who are responsible for setting the vision and direction for the business, leading the organization through change, and building the group's sustainable competitiveness on an international level.	1. Developing skills in change management, competency building for team members, and promoting brand engagement to steer the organization toward success. 2. Enhancing strategic thinking skills, promoting an understanding about international policies and management, and understanding paradigm shifts in business administration. 3. Developing interpersonal, social, communication, and leadership skills to motivate employees and steer them through change in order to grow with the organization.

In 2016, Mitr Phol Group successfully trained seven groups comprising 201 employees as part of its Signature Development Program. A total of 37 projects were presented as part of the programs.

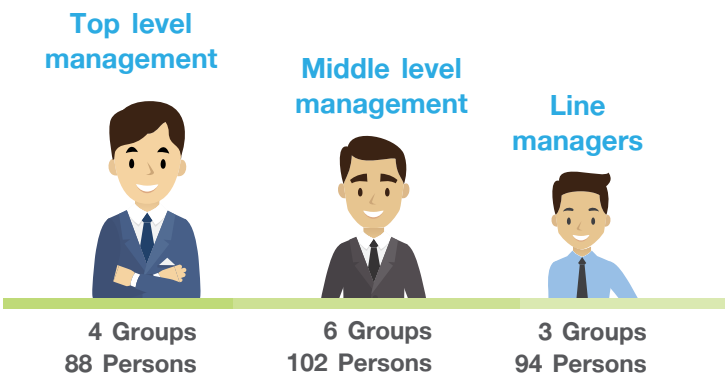
Program	Groups	Number of employees (Persons)	Number of projects presented (Projects)
Basic Development Program (BDP)	3	94	17
Supervisor Development Program (SDP)	2	57	10
Management Development Program (MDP)	1	31	6
Executive Development Program (EDP)	1	19	4

2.2 Coaching skills development program for supervisors

Mitr Phol Group provides continuous development programs for supervisors. This consists of:

- Top and middle level management development programs and one-on-one coaching for executives.
- Hands-on coaching for upper-level management (levels 10-11) through the Mitr Phol Coaching Certification Program. This included a total of 180 employees being coached on 1,080 topics. Also, a total of 85 managers were certified through the program.
- Mitr Phol Coaching Day gives awards to certified coaches, building pride and promoting an exchange of ideas among professional coaches and those participating in the program.

The number of employees participating in the coaching skills development program



2.3 Constructionism Empowerment – Mitr Phol Learning Camp Program

This program teaches employees the "constructionism" learning theory and project-based learning (PBL). This year, a total of 62 projects were run using the skills learned from this program.

CE-MITR PHOL LEARNING CAMP

Mr. Supachai Srichana
Crystallization Officer
Mitr Phol Phu Wiang Sugar Mill

A little step back from our belief to reach a common aim will made us to open-minded and build the learning society.

Ms. Pussaporn Chuaysri
Quality Management Officer
Mitr Phol Phu Wiang Sugar Mill

My system thinking skill is improved. I impressed the venerable person sayings, Have you touched the value of something what you would like to do?

Mr. Phonkit Tepsuwannakul
TPM Promoter
Mitr Phol Phu Wiang Sugar Mill

I had learnt the learning discipline from CE - Learning Camp and moreover I learned by doing and do to gain a greater understanding of myself. This learning bring about a paradigm shift in our understanding of system thinking too.

Mr. Yutthapong Kulmahong
Mills Officer
Mitr Phol Phu Wiang Sugar Mill

I had found that Learning resources have a variety, understand the extraordinary results from collaboration, planning and shared vision

Mitr Phol Group is committed to providing continuous competency development to equip employees with the skills they need to drive business expansion.

Safety, Occupational Health and Environmental

Mitr Phol Group strictly adheres to Safety, Occupational Health and Environmental policies, and operates its business within the SHE Framework. Safety, Occupational Health and Environmental protection targets are set for each company within the group, and all must comply with internationally-accepted standards including ISO14001 and OHSAS 18001. The board of directors, management, employees, partners, suppliers and communities are all encouraged to take part in holding up and adhering to Mitr Phol Group's SHE standards.

Ratio of employee representatives in the SHE Committee

The SHE Management Committee was established to ensure that working conditions are compliant with legal requirements and internationally-accepted standards. Each business unit has designated representatives that are involved in SHE management, and the number of representatives is on par with or above the legally required standards.

Business unit/sugar mill	Number of SHE's Committee (Persons)		SHE's representatives of operational level employees	
	Legal requirements	By Business unit/ sugar mill	Persons	Percentage
Head office	7	7	3	42.86
MPDC	11	11	5	45.45
MPSB	11	13	6	46.15
MPPK	11	21	10	47.62
MPPV	11	23	11	47.83
MPKS	11	23	11	48.83
MPPL	11	15	7	46.67
Total	**73**	**113**	**53**	**46.90**

The number of operational level employee representatives in the SHE Committee is more than is legally required, which reflects the level of involvement of operational workers in ensuring that the standards are met. It is the responsibility of employees of all levels to strictly adhere to SHE standards.

Safety, Occupational Health and Environmental policies

Mitr Phol Group employees adopt the group's safety, occupational health and environmental policies while carrying out their daily duties to ensure maximum effectiveness and efficiency. Mitr Phol Grouphas outlined and reviewed other relevant policies as follows:

1. The company continuously improves its safety, occupational health and environmental management to ensure the policies remain efficient, are in compliance with ISO 14001 and OHSAS 18001, and abide by all relevant laws, rules and regulations to protect consumers and communities. All of these requirements are taken into consideration to create policies and standards that govern the company's business operations.

2. The company shall make continuous improvements in the following areas: the efficient use of natural resources, environmental protection, the reduction, control and prevention of work-related injuries and illnesses, social responsibility, and the promotion of safety and occupational health for employees and all stakeholders.

3. The company provides resources to allow for efficient safety, occupational health, and environmental management, including personnel, time, budgeting, and appropriate and adequate training. The resources also provide for instilling awareness about the importance of environmental protection and effective health and safety management among the general public.

4. The company has issued policies for supervisors of all levels to be responsible for the security, safety, occupational health, and environmental protection of employees under their care. Such policies shall be strictly adhered to by all employees, as they are responsible for protecting the environment, and promoting safety and occupational health practices for themselves and their colleagues.

5. The company's security, safety, occupational health and environmental protection policies and guidelines also apply to those who operate on the company's premises, including suppliers, contractors, customers, and visitors to the company and/or sugar mills.

Mitr Phol Group has published the policies and distributed the documents to management, employees, contractors, and other stakeholders, so they can all be in compliance and help to reduce risks for Mitr Phol Group employees.

Safety, Occupational Health and Environmental management performance

Mitr Phol Group collects monthly data from the SHE Committee. The data is shown in the table below.

Workplace injuries, illness and fatality statistics*

	Year 2014**			Year 2015***			Year 2016****		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Occupational dieases (persons)	0	0	0	0	0	0	0	0	0
Injuries (persons)	42	4	46	25	1	26	56	4	60
Death (persons)	1	0	1	2	0	2	0	0	0
Total (persons)	**43**	**4**	**47**	**27**	**1**	**28**	**56**	**4**	**60**

Workplace injuries and illnesses by gender

Details	Year 2015***	Year 2016****
Injury Rate (IR) unit: person/200,000 hours worked		
• Male	0.30	0.71
• Female	0.04	0.25
Occupational Diseases Rate (ODR) unit: person/200,000 hours worked		
• Male	0	0
• Female	0	0

Details	Year 2015***	Year 2016****
Lost Day Rate (LDR) unit: person/200,000 hours worked		
• **Male**	135.13	3.44
• **Female**	0.12	2.49
Absentee Rate (AR) unit: person/200,000 hours worked		
• **Male**	0.10	0.03
• **Female**	0	0.02

Remarks : * This includes employees and contractors working on Mitr Phol Group's premises
** Data from year 2014 was collected from January 1 to December 31, 2014.
*** Data from year 2015 was collected from January 1 to December 31, 2015.
**** Data from year 2016 was collected during January 1 to October 31, 2016.

In 2016, there were no workplace fatalities at any Mitr Phol Group facilities. However, injuries, lost days, and absentees still persisted, and this was attributed to a lack of understanding about occupational health and safety. Also in 2016, Mitr Phol Group intensified its policies regarding serious accidents, fatalities, and property damage for employees, contractors and stakeholders, to promote safety, physical and emotional well-being. In order to prevent further serious accidents, fatalities and property damage, the following standards were implemented:

1. Safety standards for visitors, suppliers and contractors (see MP-QP-8002-012 for details)
2. Height permits must be obtained when working in high places (see MP-QP-8002-010 for details)
3. Permits must be obtained when working near high heat sources and sparks (see MP-QP-8002-007 for details)
4. Standards for working near high-voltage power lines, lockout/ tagout policy, and signs on machinery (see MP-QP-8002-003 and MP-QP-8002-006 for details)
5. Working in a poorly ventilated area (see MP-QP-8002-002 for details)
6. Fork lift operation (see MP-QP-8002-009 for details)
7. Safety standards when working near cane dumping areas
8. The prevention of explosions caused by dust, biogas and LPG

Promoting awareness about Safety, Occupational Health and Environmental

Building a corporate culture around occupational health and environmental protection is of the utmost importance to Mitr Phol Group. All stakeholders, from the board of directors and management to employees, suppliers, contractors and communities, must be aware of Mitr Phol Group's commitment to occupational health and environmental protection, and all can play a part in upholding the standards. The following activities help to promote knowledge and awareness about occupational health and environmental protection:

- Basic training about fire protection, including the conducting of fire drills.
- Safety training for work-related and non-work-related operations for employees and contractors on-site. Promoting safe behaviors for contractors.
- A knowledge management system on Mitr Phol Group's intranet.
- Appointing SHE Men – designated persons who are responsible for monitoring and reporting on safety operations when employees and contractors work in risky areas. Also, ERT Men, who are designated persons for emergency response, receive training about fire protection and emergency response procedures and are responsible for ensuring the readiness and viability of fire equipment at work sites.
- Other activities promoting safety, occupational health and environmental protection include:
  - Competitions for employees to submit stories about near misses, encouraging them to share their experiences, raise awareness and devise prevention techniques to lower the risk of future occurrences.
  - SHE Day events with activities for employees and contractors at each site, to promote safety, health and environmental protection.

"Safety starts with me"

Mr. Krisda Monthienvichienchai, CEO and President of Mitr Phol Group, reiterated the group's commitment to safety, health and environmental protection (SHE Commitment) on SHE Day.

Human Rights Performance

Mitr Phol Group values human rights protection, promotes equal treatment, supports gender equality, and is against all forms of child labor, slavery and corruption. We uphold the United Nations' Universal Declaration of Human Rights and operates its business with the strictest compliance to human rights protection laws. In addition, We mandated its own set of human rights protection policies in 2016.

Child labor and forced labor in sugar cane plantations are two areas of the highest priority, and Mitr Phol Group institutes continuous efforts to ensure that these illegal acts do not exist within the group's own operations or in the cane and sugar industries in Thailand as a whole. As part of this commitment, Mitr Phol Group has published a set of guidelines to prevent child labor and forced labor.

In 2016, Mitr Phol Group was one of 15 organizations that established the Global Compact Network Thailand (GCNT) with an aim to encourage Thai businesses do business responsibly cover human rights, labor standards, environmental protection, and anti-corruption practices. In 2016, the GCNT focused on two areas: human rights protection and driving UN SDGs in Thailand.

In addition, We also collaborated with the Thaipat Institute and the United Nations Children's Fund to exchange knowledge about UNICEF's Children's Rights and Business Principles, which guide companies on actions they can take in the workplace, marketplace and community to respect and support children's rights. Through its participation in the program, Mitr Phol Group was able to promote awareness and understanding among its employees about children's rights and the importance of incorporating these policies as part of the overall business culture.

The Children's Rights and Business Principles can be applied by other companies that wish to promote children's rights in their business operations and local communities. The 10 principles of the CRBP are as follows:

1. Meet their responsibility to respect children's rights and commit to supporting the human rights of children.
2. Contribute to the elimination of child labor, including in all business activities and business relationships.
3. Provide decent work for young workers, parents and caregivers.
4. Ensure the protection and safety of children in all business activities and facilities.
5. Ensure that products and services are safe, and seek to support children's rights through them.
6. Use marketing and advertising that respect and support children's rights.
7. Respect and support children's rights in relation to the environment and to land acquisition and use.
8. Respect and support children's rights in security arrangements.
9. Help protect children affected by emergencies.
10. Reinforce community and government efforts to protect and fulfil children's rights.

Mitr Phol Group's commitment to children's rights protection and the application of the CRBP principles have extended to the families of cane farmers. During cane juicing season, Mitr Phol Group partners with local children development centers to provide day care for farmers who are not able to look after their children due to the long working hours on the plantation. Currently, the day care service is available in two communities: the Dan Chang district in Suphanburi province and the Phu Khiao district in Chayaphum province. At each center, around 30 children regularly join the program. Providing a safe environment for a child is a key part of **Mitr Phol Group's commitment to children's rights protection and the fight against child labor**.

05 Environmental Performance

Environmental Performance

- Environmental Protection
  - Dust pollution management
  - Surplus and waste management
  - Waste water management
  - Noise pollution management
  - Cane transportation and traffic management
  - Promoting fresh cane cutting
  - Complaint process and channels
- Sustainable Resource Management
  - Raw materials management
  - Water resources management
  - Energy management

Environmental Performance (G4-14)

One of our main responsibilities as a citizen of the world is to protect the environment and use natural resources as efficiently as possible. Mitr Phol Group places great importance on effective resource management and environmental protection, ensuring that the organisation can co-exist with society and the environment.

Mitr Phol Group has sustainably protected the environment and prevented pollution caused by the manufacturing of the group's products and services. In addition, efforts have also been made by Mitr Phol Group to reduce climate change, and protect biodiversity and the ecosystem using ISO 14001 certified environmental management standards. The group also strictly complies with Thai and international environmental protection laws as part of its commitment to operating its business in an environmentally-friendly manner.

Mitr Phol's From Waste to Value model is one of several systems used by the group in its business operations, forming an important foundation for the entire supply chain. As part of this model, waste from all production processes is turned into valuable raw materials to make other products, significantly reducing the amount of waste and surpluses, as well as adding value to the sugar cane. Mitr Phol's From Waste to Value model involves the use of the following byproducts:

- **Molasses:** a byproduct of sugar production

  Adding value to molasses, the byproduct from sugar production, by using it as a raw material to make 99.5% ethanol, which is a key ingredient in gasohol – an environmentally-friendly alternative to benzene.

- **Bagasse:** leftovers from the cane juicing process

  Bagasse is utilised in the production of bio mass energy.

- **Filter Cake and vinasse:** waste from sugar and ethanol production

  The leftovers from sugar and ethanol production are full of nutrients for plants. Mitr Phol Group turns filter cake and vinasse into bio-fertilisers to be used in place of chemical fertilisers in cane fields. This helps to increase productivity while also decreasing operating costs for cane farmers.

- **Waste water:**

  waste water from the production processes is treated and reused in other non-food production processes.

In order to ensure that the group's business operations are not harmful to the environment, Mitr Phol Group also promotes other environmental protection efforts, such as reducing environmental impacts from production processes, using natural resources sustainably, and promoting other environmentally-friendly initiatives. These efforts are carried out consistently, with key initiatives in 2016 as follows:

Environmental Protection (G4-14)

Mitr Phol Group places great importance on environmental protection and the prevention of all forms of pollution caused by the group's production processes. Continued efforts have been made to improve upon existing solutions and develop new methods to reduce any environmental impact.

Dust pollution management

Sugar production typically causes dust pollution from furnace chimneys, conveyor belts, and bagasse piles. Mitr Phol Group has carried out dust pollution management at the sources where the dust occurs, using the following systems and measures:

Measures to reduce furnace chimney dust

- Wet scrubbers to remove dust and particles from burning
- Electrostatic precipitators

Measures to reduce conveyor belt dust

- Leakage inspection
- Installing conveyor belt covers
- Using mobile belts

Measures to reduce bagasse pile dust

- Training for employees to prevent bagasse pile dust
- Growing rows of pine trees to prevent dust dispersion
- Installing wind breaks to change wind directions and wind socks to detect wind directions
- Using Big Gun sprinklers to spray water and mist to control dust

Thanks to the above measures and initiatives, in 2016 all six Mitr Phol Group sugar mills were successful in controlling dust pollution levels to below the legal requirements. The average dust levels ranged between 0.01 – 0.23 mg/m^3, lower than the legal requirements of 0.33 mg/m^3. Details of air quality in the areas surrounding the six sugar mills are shown in the chart below:

Area	Air quality around sugar mills			
	NO_x (ppm)	SO_x (ppm)	TSP (mg/m^3)	PM^{10} (mg/m^3)
Standard levels	≤ 0.17	≤ 0.12	≤ 0.33	≤ 0.12
MPDC	0.0059	0.0041	0.0955	0.0511
MPSB	0.0042	0.0054	0.0043	0.0337
MPPK	0.0152	0.0099	0.1223	0.0677
MPPV	0.0094	0.0071	0.0461	0.0238
MPKS	0.0137	0.0080	0.0800	0.0500
MPPL	0.0019	0.0020	0.0478	0.0320
Average	0.0084	0.0061	0.0660	0.0437

Remark

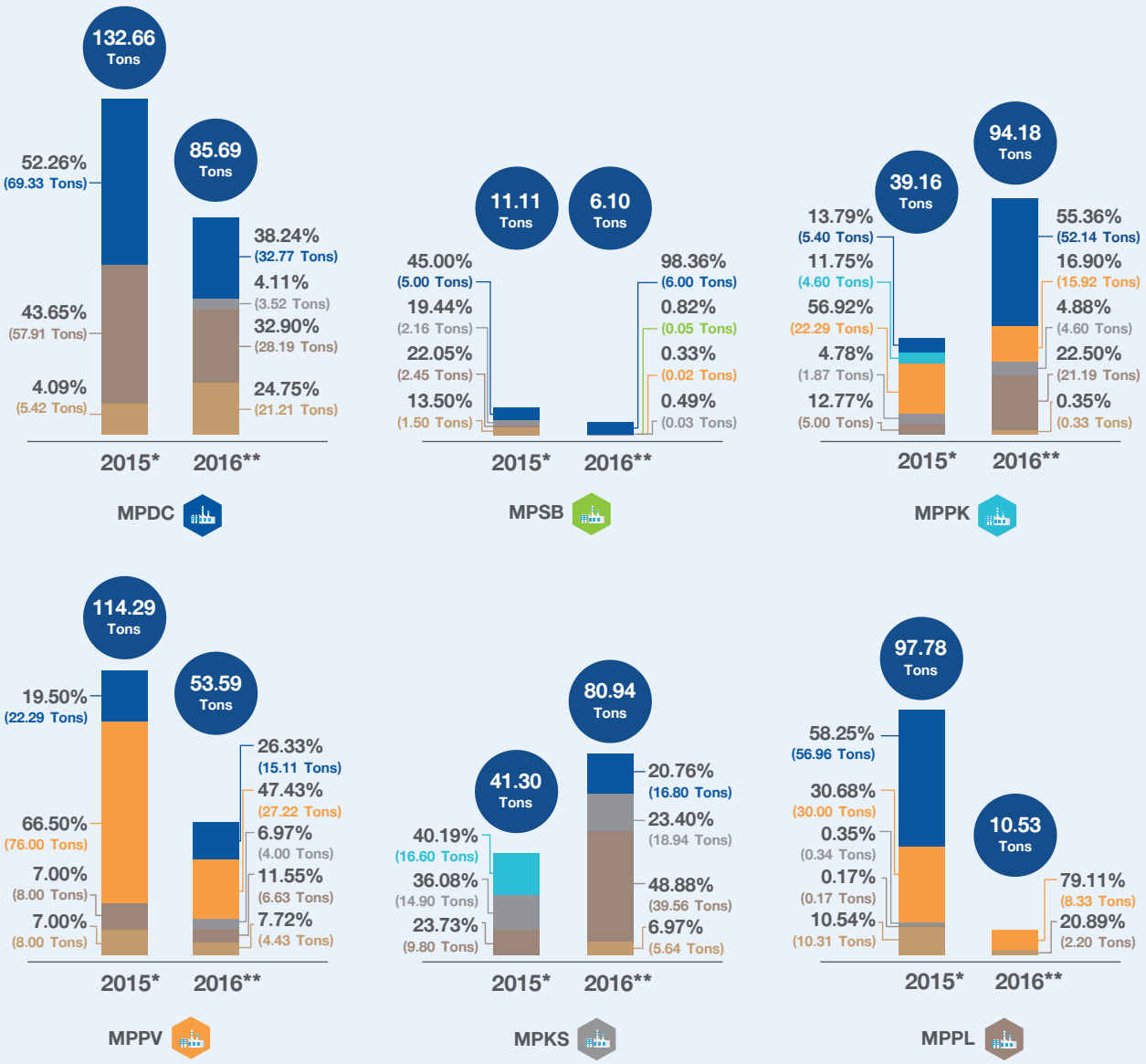
- NO_x refers to Nitrogen Oxides.
- TSP refers to total suspended particulates, a particular matter with diameter less than 100 micrometers, within 24 hours, must less than 0.33 mg/m^3.
- SO_x refers to Sulfur Oxides.
- PM^{10} refers to a particular matter with diameter less than 10 micrometers, within 24 hours, must less than 0.12 mg/m^3.

Surplus and waste management

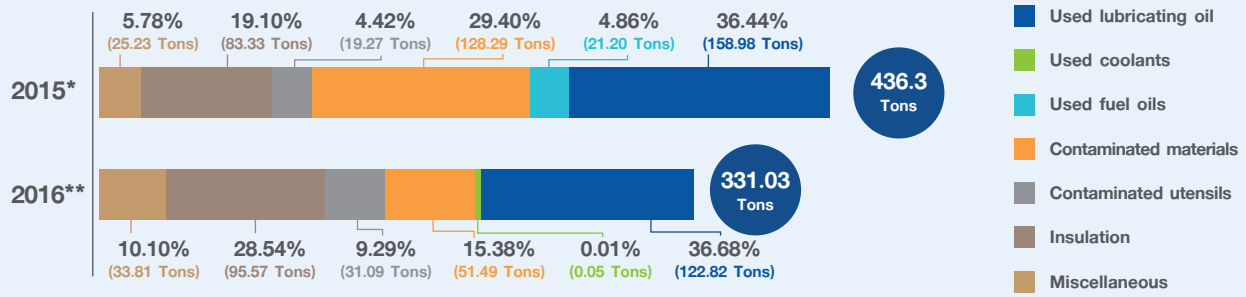
Mitr Phol Group operates its business using the philosophy “From Waste to Value”. However, there are certain types of waste from production processes that cannot be utilized. For these types of waste, Mitr Phol Group applies the principle of "3Rs" - Recycle, Reuse and Reduce. The volume of all unutilised waste, divided into hazardous and non-hazardous, for 2016 is shown in the chart below:

Statistics of hazardous leftovers and waste

Volume of hazardous leftovers and waste by sugar mill



Total combined weight of hazardous leftovers and waste



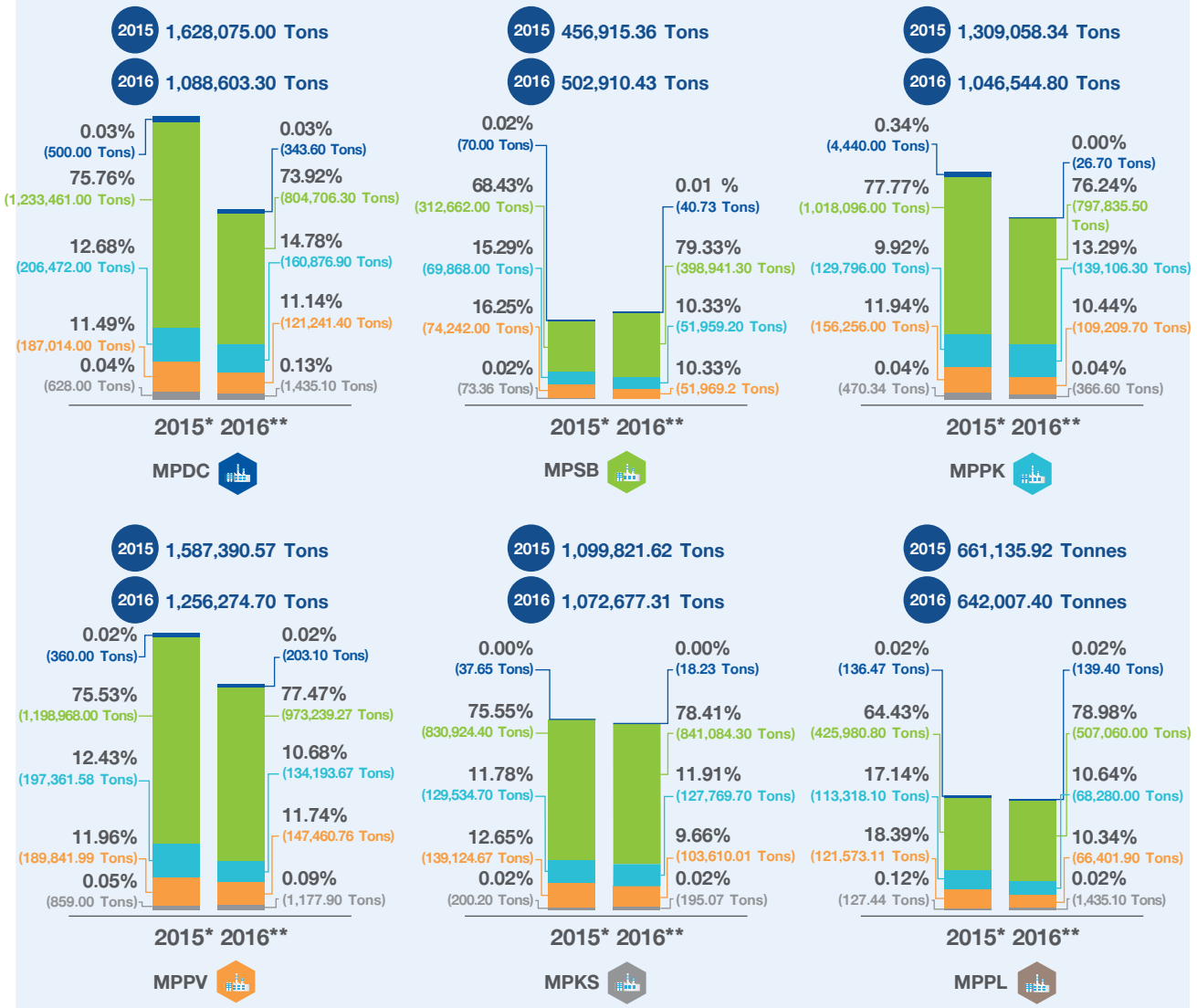
Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

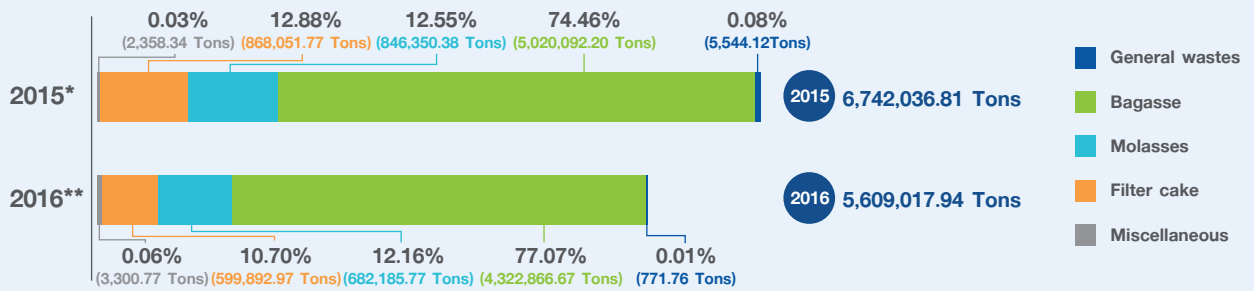
Mitr Phol Group uses the services of transportation and waste disposal companies certified by the Department of Industrial Works for the proper disposal of leftover and hazardous waste. The department is notified every time waste is transported outside of the sugar mills.

Non-hazardous leftovers and waste are treated so that they can be reused, in line with the From Waste to Value model. Bagasse, molasses, filter cake, distillery slop, and ashes are 100% utilized for purposes including bio-energy production, bio-fertilizer production, reusing in cane fields, and reusing in production processes.

Statistics of non-hazardous leftovers and waste



Total combined weight of hazardous leftovers and waste



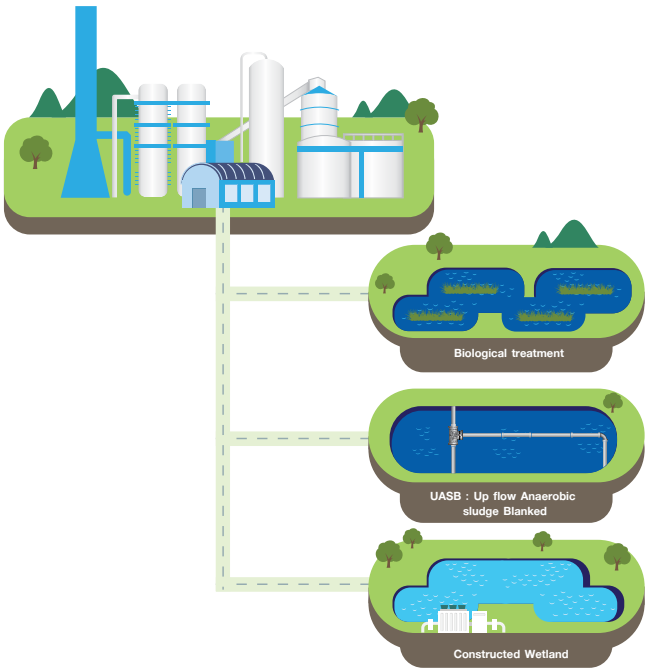
Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.
** Data from year 2016 was collected during January 1 to October 31, 2016.

Waste water management

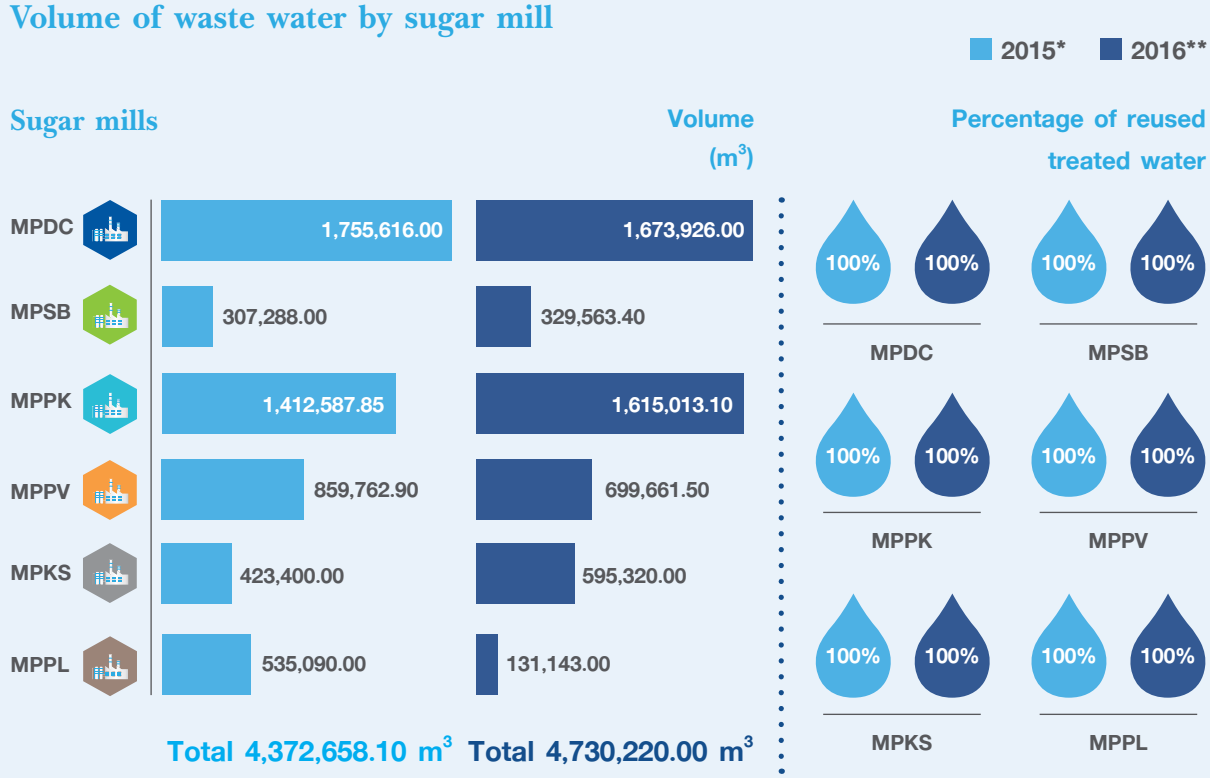
Mitr Phol Group ensures that all waste water from sugar production is properly treated in compliance with applicable laws and regulations. Waste water from sugar production is treated using the following waste water treatment systems:

1. **Biological treatment**
2. **UASB : Up flow Anaerobic sludge Blanked**
3. **Constructed Wetland**

All waste water from sugar production processes enters the aforementioned treatment systems. Treated water that meets the legal requirements for safety is then reused for other purposes throughout the sugar mills, such as for watering plants and cleaning.



Volume of waste water by sugar mill



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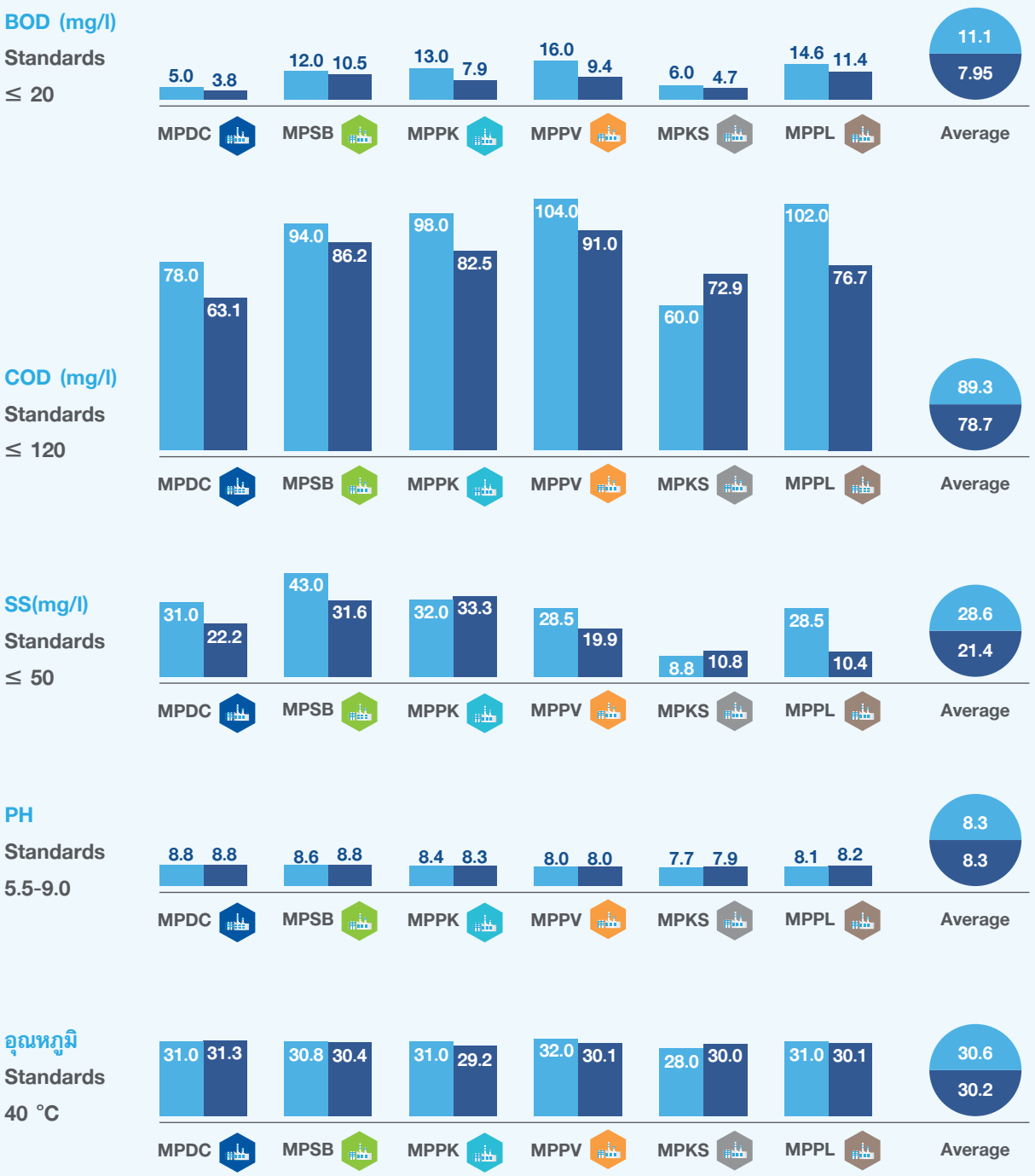
Water quality after treatments



Remarks : * Data from year 2015 was collected from January 1 to December 31, 2015.
** Data from year 2016 was collected from January 1 to October 31, 2016.

- BOD (Biochemical Oxygen Demand) is the amount of dissolved oxygen used by microorganisms in the biological process of metabolizing organic matter in water.
- COD (Chemical Oxygen Demand) is the amount of the oxygen required to oxidize soluble and particulate organic matter in water.
- SS (Suspended Solids) refers to small solid particles which remain in suspension in water.
- PH refers to the alkalinity or acidity of a growing media water solution.
- Temperature refers to the temperature of wastewater.

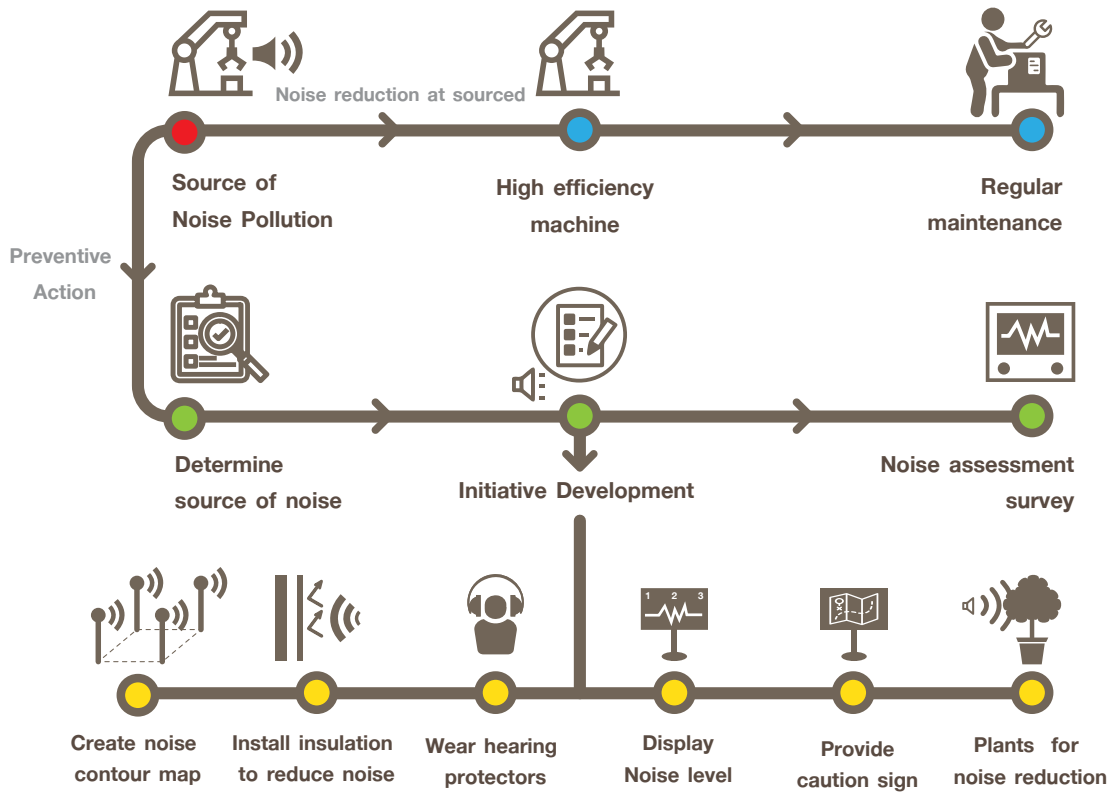
Noise pollution management

Noise pollution is an important problem in the industrial sector. If not properly controlled and prevented, noise pollution - especially from production processes - can have a significant impact on the health and safety of sugar mill employees and the surrounding communities.

Mitr Phol Group strives to minimise the impact of noise pollution and uses a systematic approach in managing noise pollution at the source and throughout the production line. After machinery maintenance, production line flushing is performed by using high-pressure steam. The following measures have been implemented to minimise noise pollution throughout the production line.

- **Preventative measures at the source:** using efficient machinery and ensuring proper maintenance and care of all machinery and equipment.
- **Preventative measures on the production line:** factory safety lines, soundproofing, installing noise-reduction equipment, displaying noise level and control zoning signage, planting trees to absorb noise, and conducting regular checks in problem areas to ensure noise levels do not exceed standards. The checks are performed during operation on the premise as well as in surrounding communities on an annual and bi-annual basis.

Overall machinery noise pollution management



To ensure optimal efficiency of noise pollution management, Mitr Phol Group participates in the Hearing Conservation Program. This program promotes safety for all employees, but particularly those who work in areas where noise exceeds 85 dB(A), which is the standard level required by the Department of Labor Protection and Welfare.

Cane transportation and traffic management

Traffic congestion caused by transporting sugar cane from fields to the sugar mills is a challenge in our industry. Cane harvesting season runs from November to April, during which time cane farmers must transport their sugar cane to the mills to be juiced as soon as possible. Failure to do so in a timely manner results in continually decreasing sweetness, which can in turn have an effect on cane prices.

The necessity to quickly move sugar canes to sugar mills has led to several problems, from overloading trucks to traffic congestions around the facilities. Mitr Phol Group has implemented the following measures and policies to lessen the impact from cane transportation:

Prevention and Mitigation of Impacts caused by Sugar cane Transportation

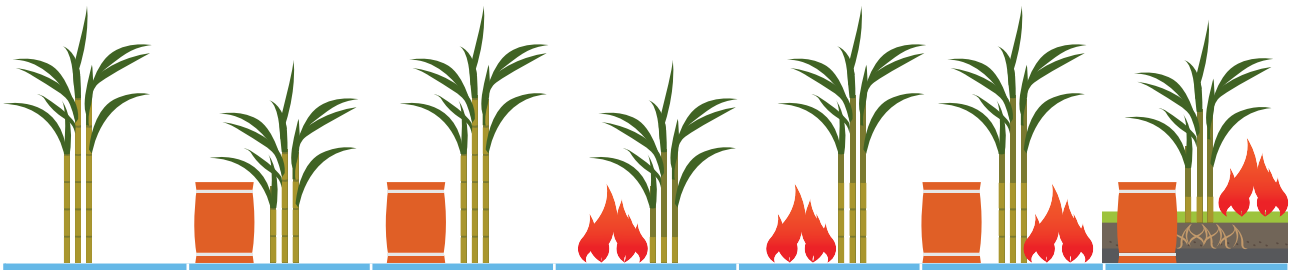
1. Designating responsible persons and communication channels to provide assistance.

2. Providing contracts for trucks with clearly-defined terms and conditions. Failure to adhere to these terms and conditions may result in withholding security deposits and termination of agreements.

3. Putting up signage and setting up a call center to facilitate cleaning up public roads where sugar cane has fallen. Sub-stations have also been established for cane farmers with smaller volumes.

4. Promoting the correct methods of transporting sugar cane. Controlling the height of the load on trucks to ensure the top does not exceed 4.2 meters from the ground. Using straps to tie down the sugar cane and hold the loads in place.

5. Setting purchase price deductions for different types of cut sugar cane.



Long fresh cut canes	Fresh cut canes with impurities	Long top Fresh canes with impurities	Burnt canes	Long top Burnt canes	Burnt canes with impurities	Burnt canes with impurities (sugarcane tops/ leaves/ roots/ dirt/ sand
Deduction of 20 Baht/ ton	Deduction of 20 Baht/ ton	Deduction of 40 Baht/ ton	Deduction of 20 Baht/ ton	Deduction of 40 Baht/ ton	Deduction of 40 Baht/ ton	Deduction of 60 Baht/ ton

Promoting fresh cane cutting

Cane farmers upstream of the sugar industry continue to be challenged by labor shortages in their local communities, resulting in delays in getting sugar cane to the mills. This has led famers to use cane burning, which reduces the harvest times by eliminating the need to cut the cane leaves. Despite the quicker harvesting process and lower labor costs, cane burning causes immense environmental damage including emissions of carbon dioxide and other greenhouse gases. Cane burning also has a negative effect on sugar quality.

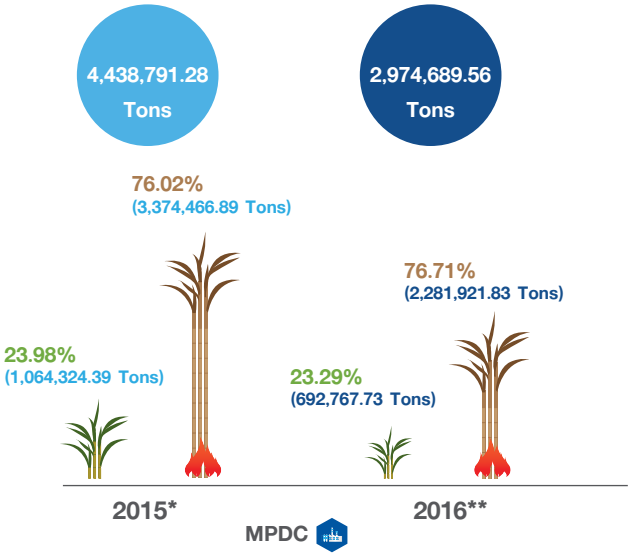
Mitr Phol Group actively encourages cane farmers to reduce burning and promotes fresh cut cane as a way for them to increase their income. The group has worked with the government sector on several measures:

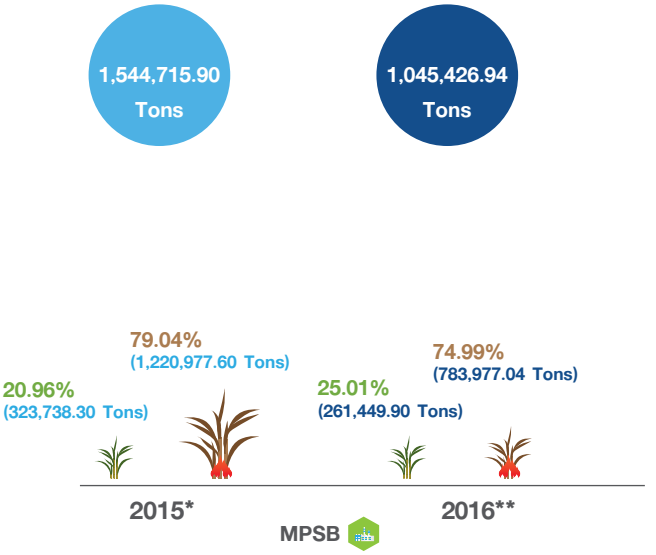
- Knowledge transfer about cane farming
- Providing financial incentives
- Purchase price deductions for burnt cane
- Promoting the use of machine harvesters
- Setting cane field as firebreaks
- Providing fire engines to local communities

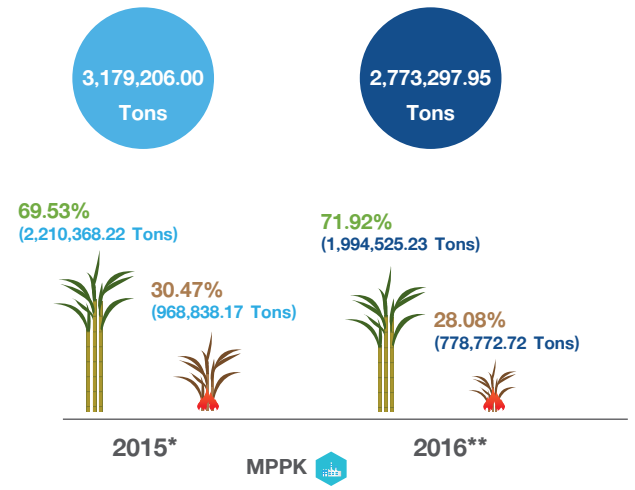
The above measures have proven effective in reducing cane burning, thereby helping to preserve natural ecosystems while also leading to a decrease in operational costs from fertilisers and pesticides. Mitr Phol Group also provides funding in research and development efforts to ensure optimum farming efficiency, from soil preparation and cane planting, to the improvement of cane species and harvesting. The goal is to yield high-quality, clean, and safe raw materials for sugar production.

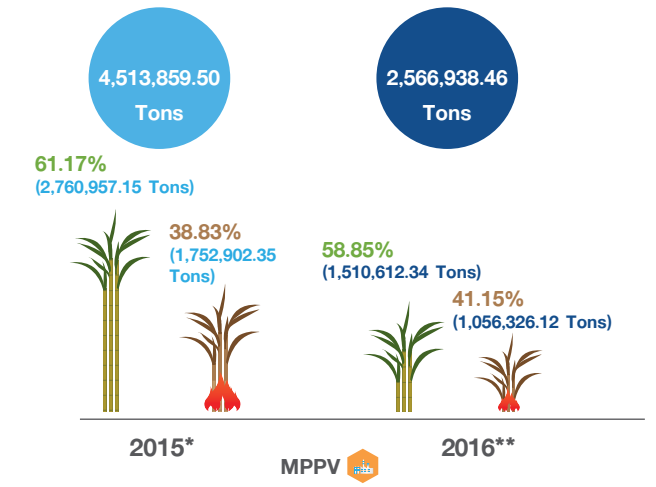
Mitr Phol Group's efforts resulted in fresh cut cane making up 43.93 percent of the total sugar cane purchased. The Mitr Phu Khiao and Mitr Phu Wiang sugar mills in northeastern Thailand ranked first and second among all sugar mills for the percentage of fresh cut cane purchased.

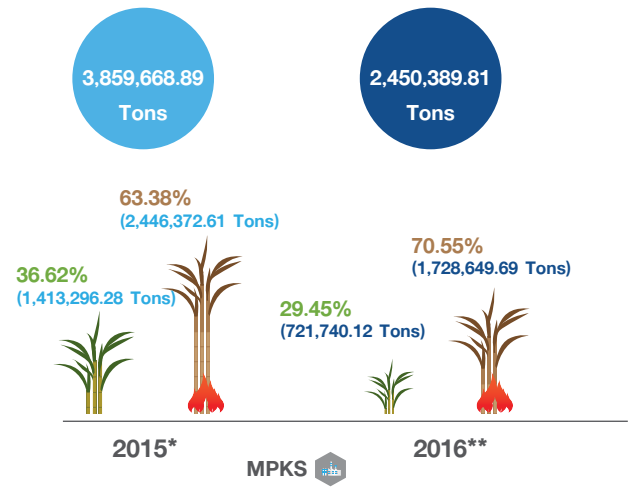
Volume of cane for juicing

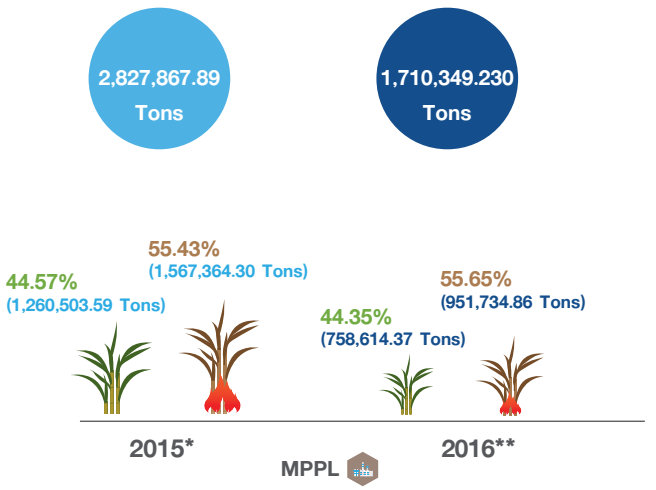






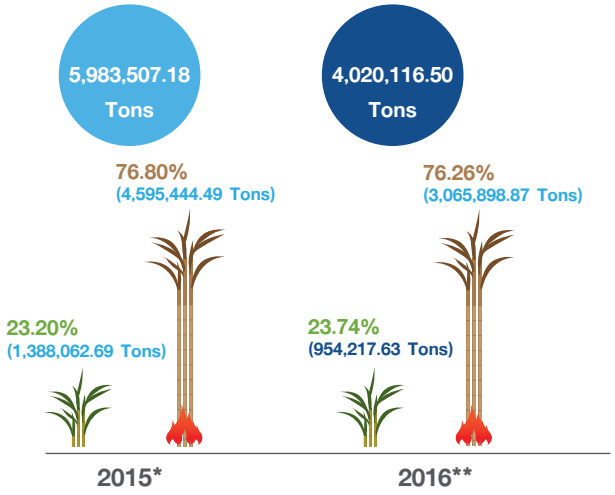




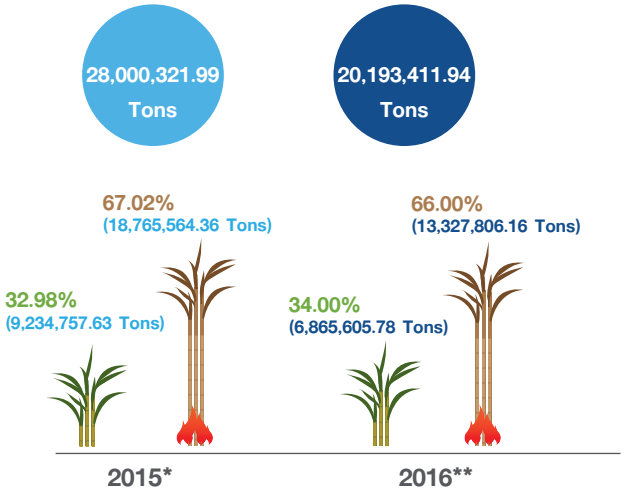


Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.
** Data from year 2016 was collected during January 1 to October 31, 2016.

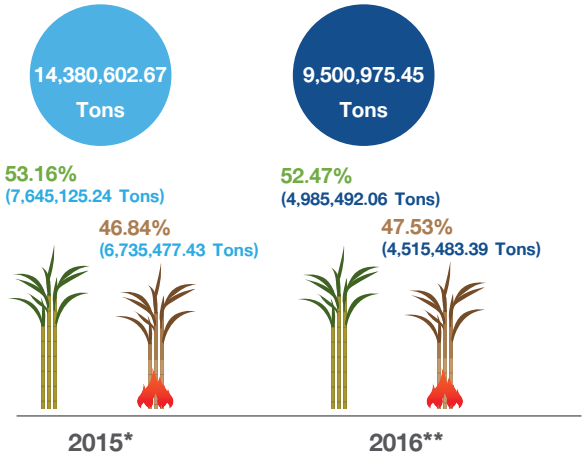
Total cane from Mitr Phol sugar mills in central region



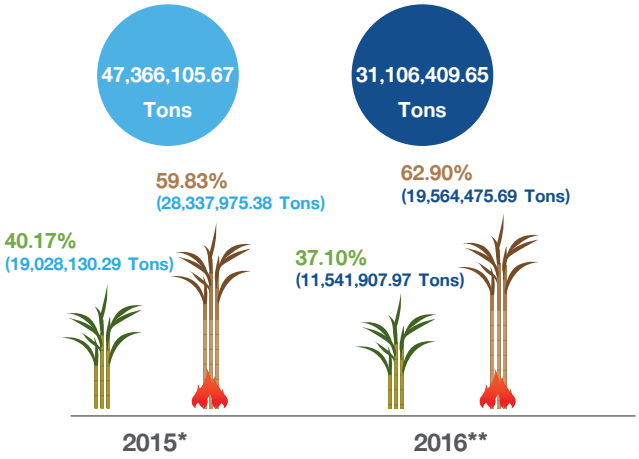
Volume of cane in central Thailand



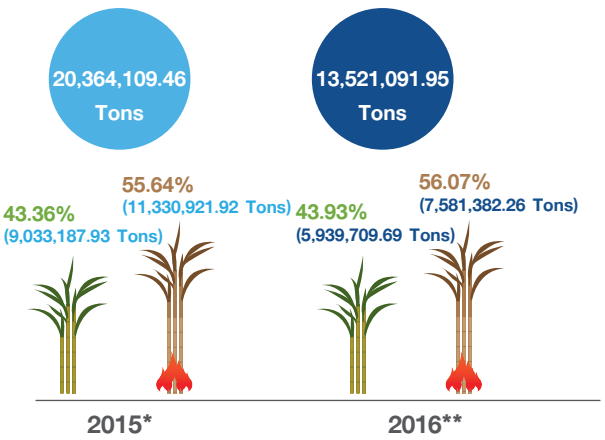
Total cane from Mitr Phol sugar mills in northeastern region



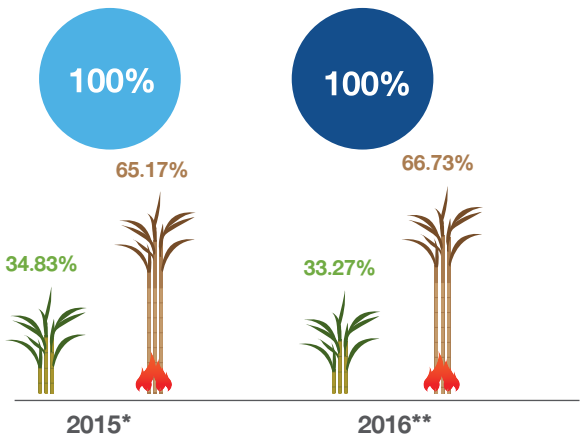
Volume of cane in northeastern Thailand



Total cane from all Mitr Phol sugar mills



Percentages of fresh cut and burnt cane in Thailand



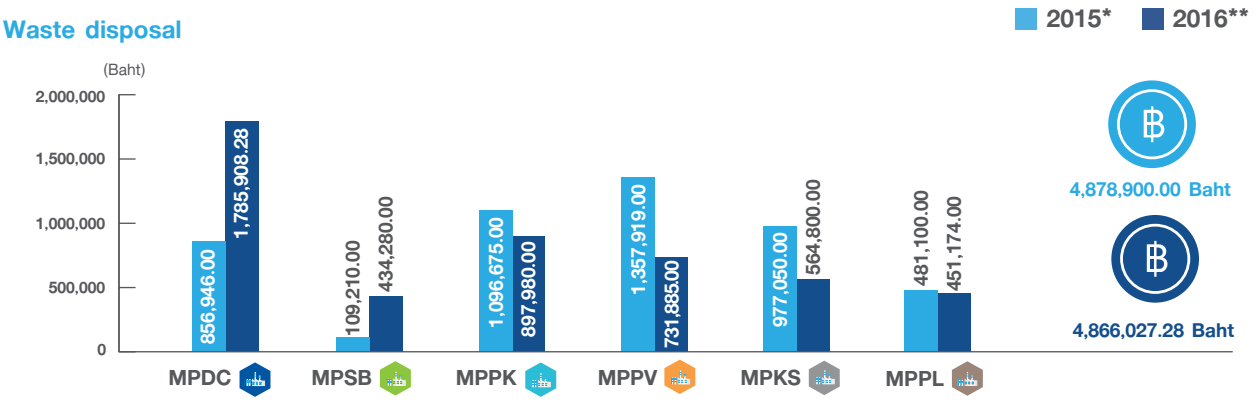
Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

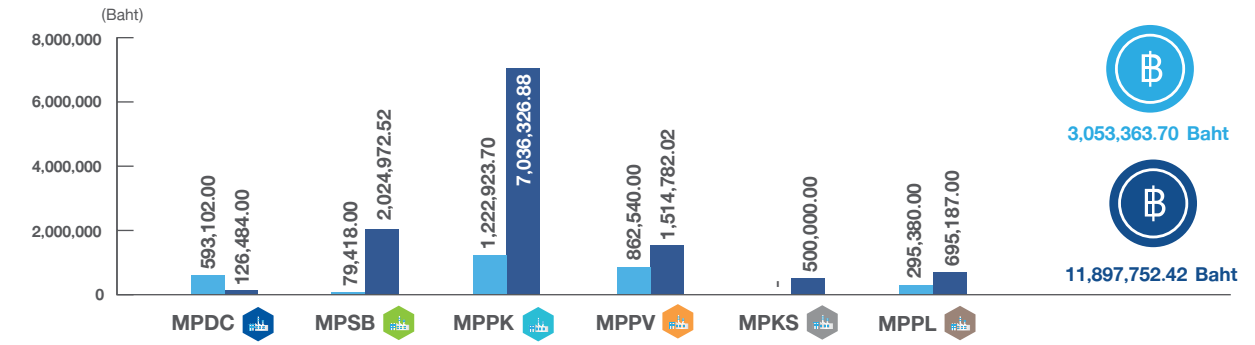
In 2016, Mitr Phol Group spent a total of 52,897,623.14 Baht on machinery improvements and maintenance, employee training, and environmental management programmes to reduce environmental impacts in all aspects. Details are in the below chart:

Expenses for environmental impact reduction efforts by sugar mill (Baht)

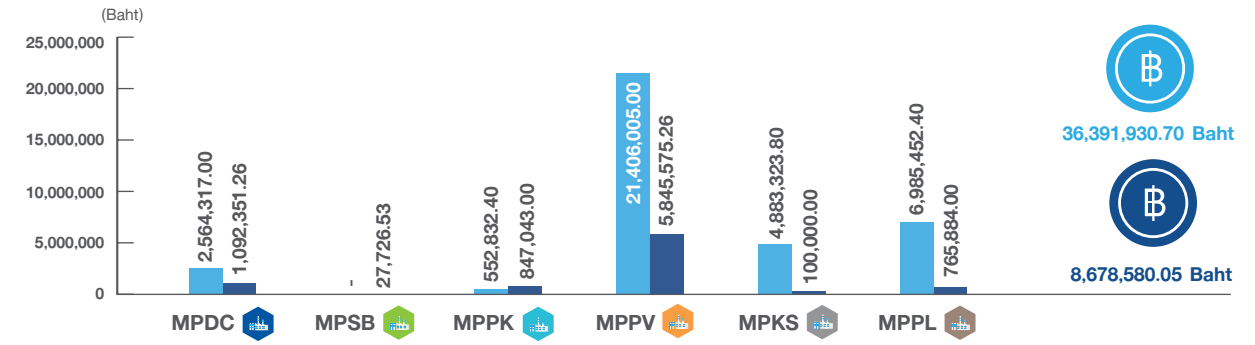
Waste disposal



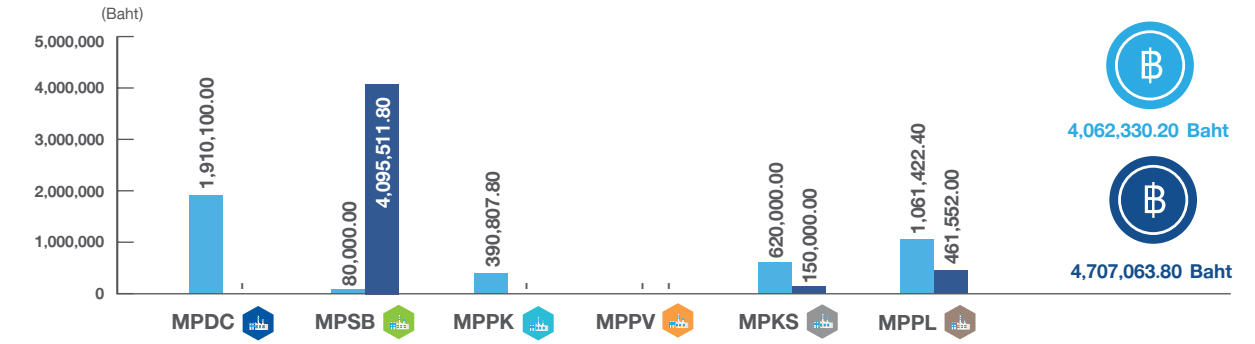
Pollution treatments (air and water)



Machinery and equipment maintenance

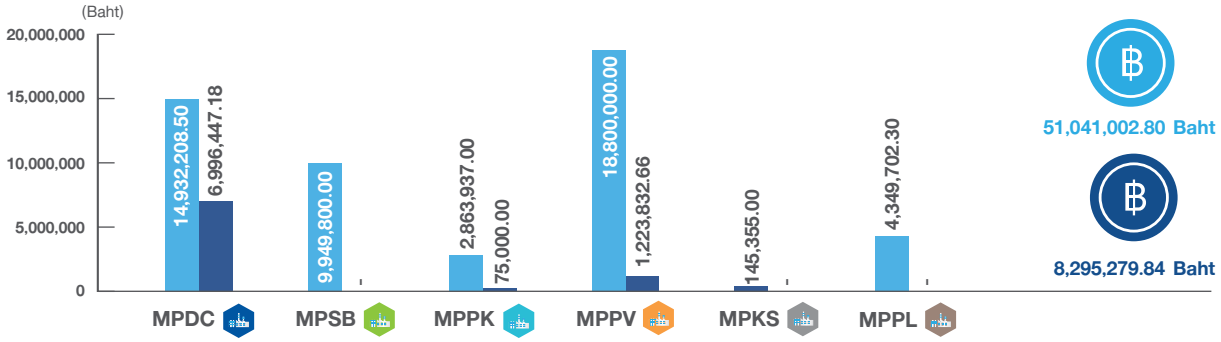


Cleaning

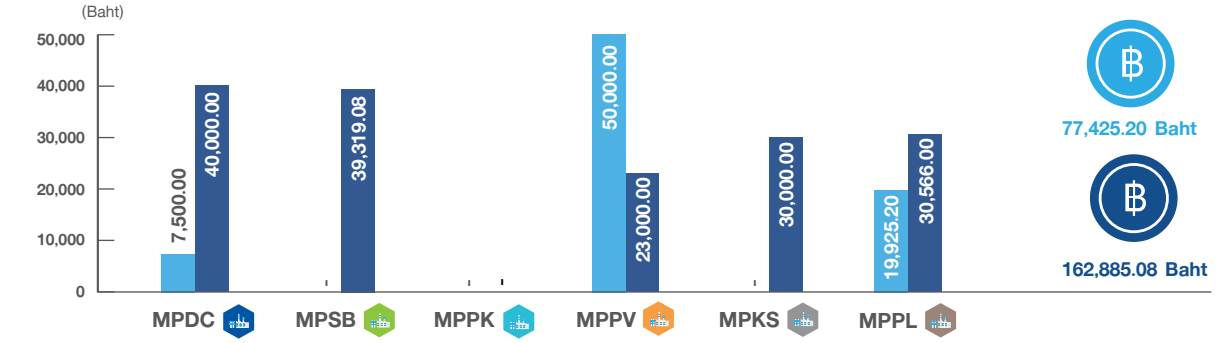


2015* 2016**

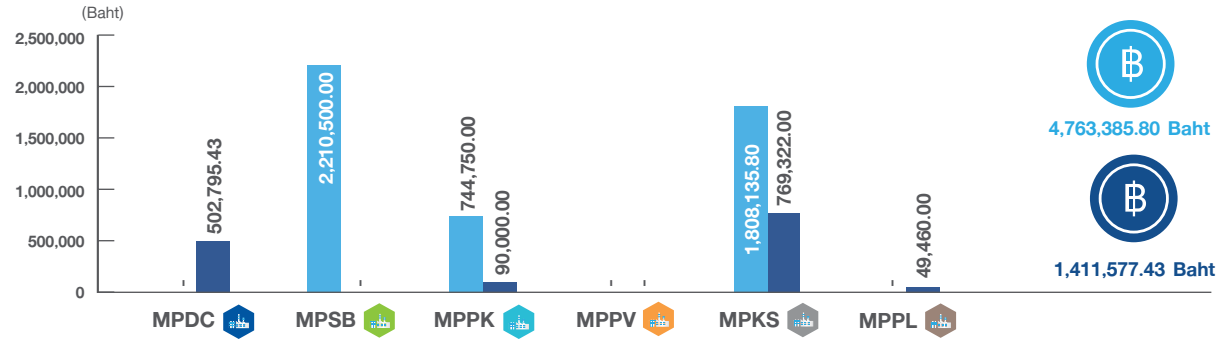
Environmental protection projects



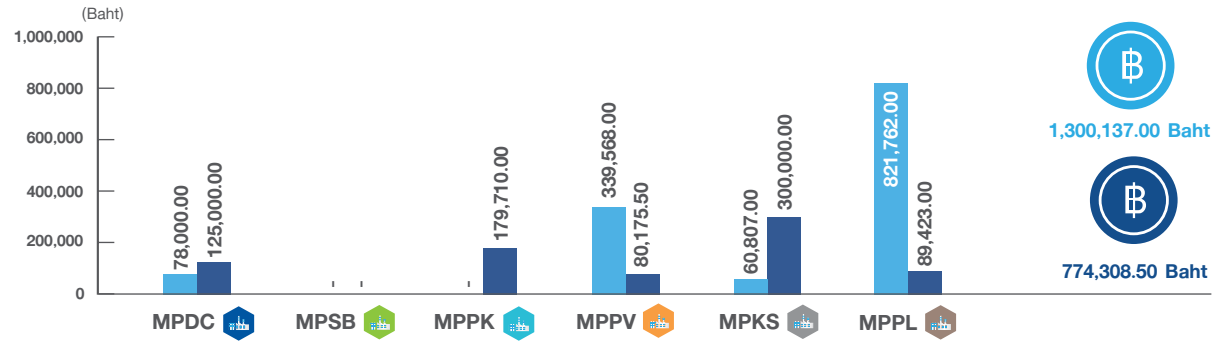
Training



Environmental management system service fees

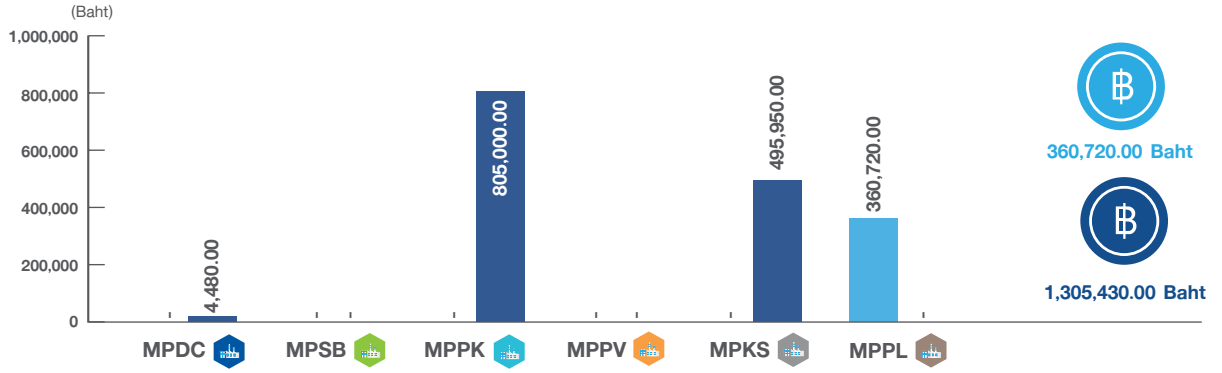


Environmental management certification by external parties

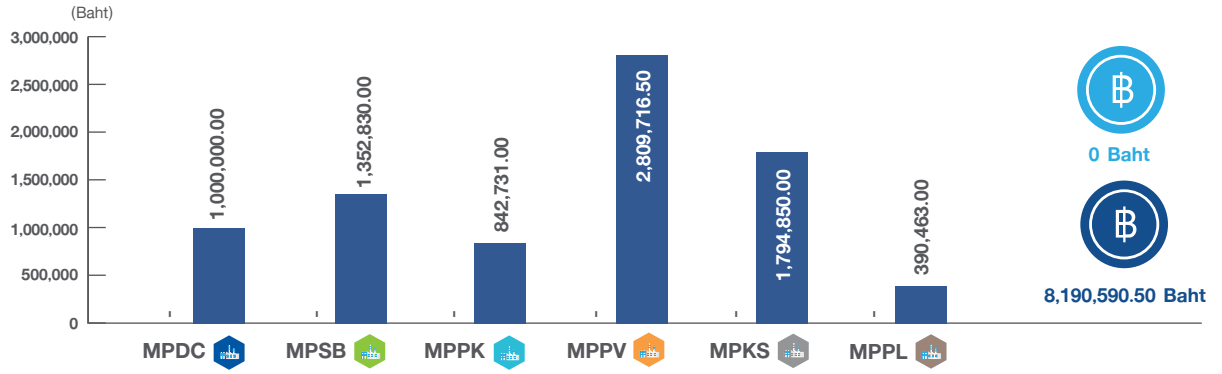


2015* 2016**

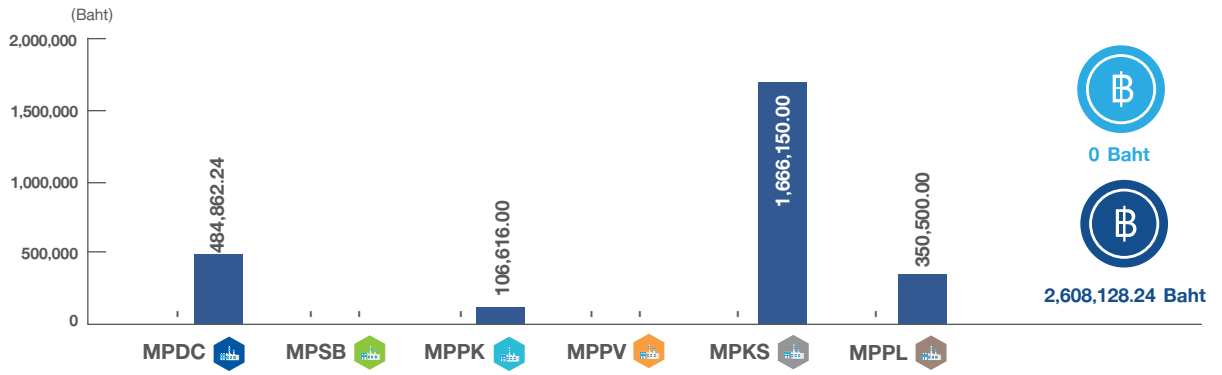
Environmental research & developments



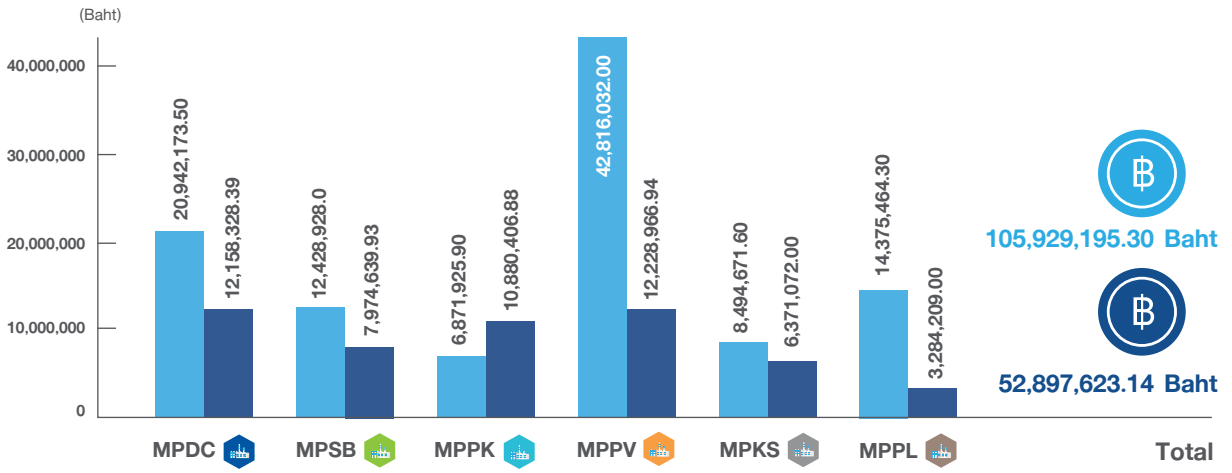
Environmental quality analyses



Other service fees



Total Expenses for environmental impact reduction efforts by sugar mill (Baht)



Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

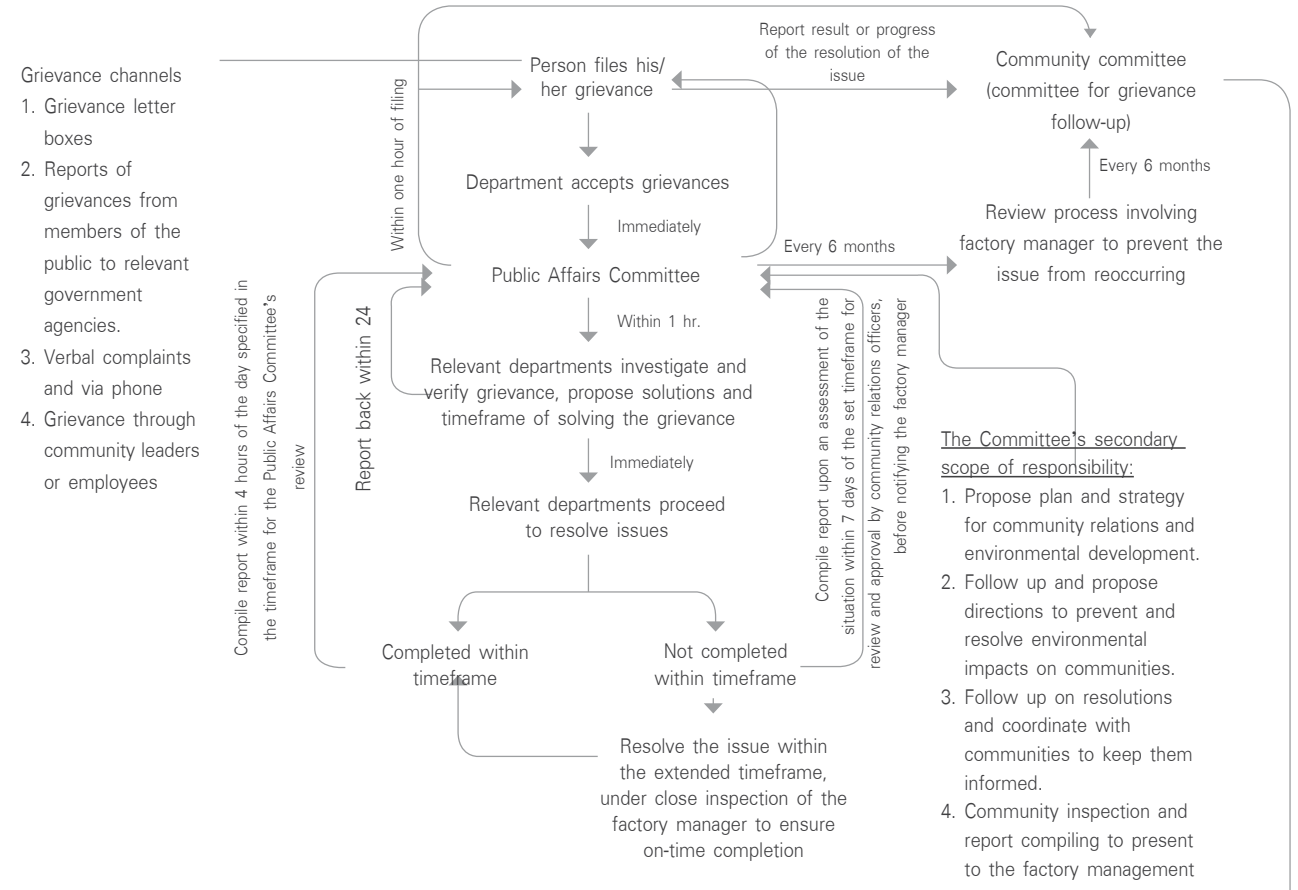
** Data from year 2016 was collected during January 1 to October 31, 2016.

Complaint process and channels

Mitr Phol Group has established channels of communication for stakeholders to provide suggestions or lodge complaints regarding environmental impacts as part of the complaint management system, with channels available by region:

Company/factory	Telephone number	Address
Mitr Phol Sugar Corporation (Head Office)	+66 2794 1000	2, 3rd floor, Ploenchit Center, Sukhumvit Road, Khlong Toei, Bangkok 10110
Mitr Phol Dan Chang Sugar Mill	+66 3541 8103-7	109, Moo 10, Nhong Ma Ka Mong Subdistrict, Dan Chang District, Suphan Buri 72180
Mitr Phol Sing Buri Sugar Mill	+66 3659 1475-6	24/2, Moo 2, Mai Dad Subdistrict, Bang Rajan District, Sing Buri 16130
Mitr Phu Khiao Sugar Mill	+66 4488 1111-4	99, Moo 10, Koke Sa-ad Subdistrict, Phu Khiao District, Chaiyaphum 36110
Mitr Phol Phu Wiang Sugar Mill	+66 4329 4202-4	365, Moo 1, Maliwan Road, Nhong Ruea Subdistrict, Nhong Ruea District, Khon Kaen 40210
Mitr Phol Kalasin Sugar Mill	+66 4313 4101-4	99, Moo 1, Bua Khao – Pone Thong Road, Som Sa-ad Subdistrict, Kuchinarai District, Kalasin 46110
Mitr Phol Phu Luang Sugar Mill	+66 4281 0921-3	199, Moo 1, Maliwan Road, Koke Kamin Subdistrict, Wang Sapung District, Loei 42130

Environmental/ social impact complaints management system



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.

Mitr Phol Group plans to apply information technology to improve the efficiency of the environmental/ social impact complaints management system. Complaints and suggestions are utilised to improve the group's accountability and responsibility.

Sustainable Resource Management

Mitr Phol Group has grown to become the world's fourth largest sugar exporter. The group has ensured sustainable use of natural resources and effective management in order to reduce the risks of shortages in the future.

A key component in the group's natural resources management is the implementation of environmentally-friendly procurement policies, which help to ensure that Mitr Phol Group's production processes are harmless to the environment from the upstream. The policies stipulate that employees in the procurement department must:

1. Utilize resources to their full potential and in an environmentally-friendly way.

2. Procure products and services that do not cause a negative impact on the environment throughout the life chain, including the sourcing of raw materials, production, transportation, usage, and disposal.

3. Promote the use of environmentally friendly products made from renewable resources such as green label products.

4. Select vendors and service providers with an emphasis placed on their certification of environmental standards.

5. Ensure that procurement processes are fair and equal for all organizations.

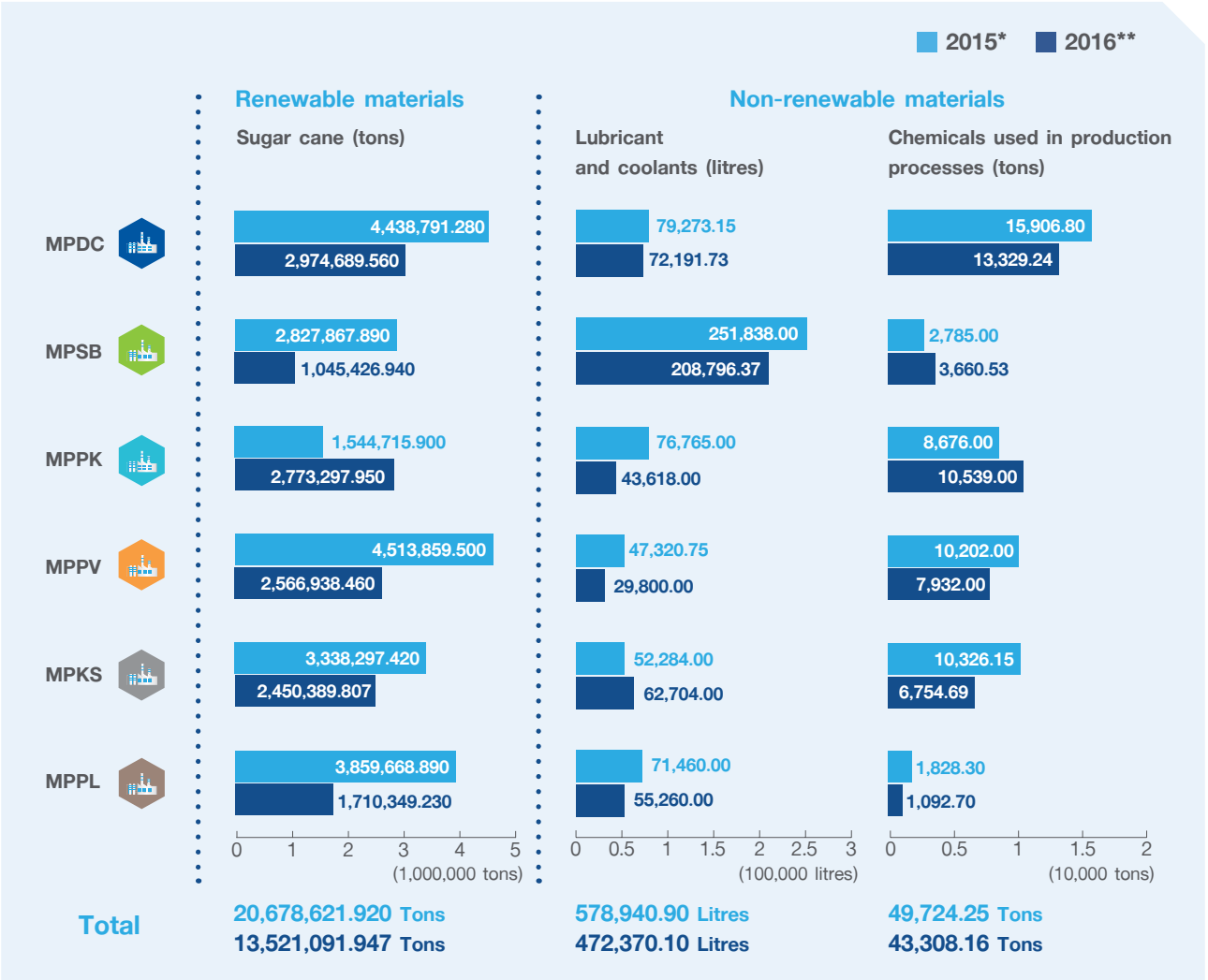
Mitr Phol Group's natural resources management ensures that raw materials, water and energy resources are utilized to their maximum efficiency.

Raw materials management

Mitr Phol Group's business has consistently evolved to cater to rising customer demands. This has resulted in an increase in the demand for raw materials - both renewable and non-renewable. Without an efficient management plan of raw materials in place, the production process may be compromised. Mitr Phol Group places great importance on natural resources management to ensure that they are used in the most efficient and effective way possible.

There are two main types of raw materials used for sugar production: non-renewable materials (fuels and chemicals) and non-renewable materials (sugar cane). In 2016, Mitr Phol Group's main raw materials consumption was as follows:

Main raw materials consumption in sugar production in 2016



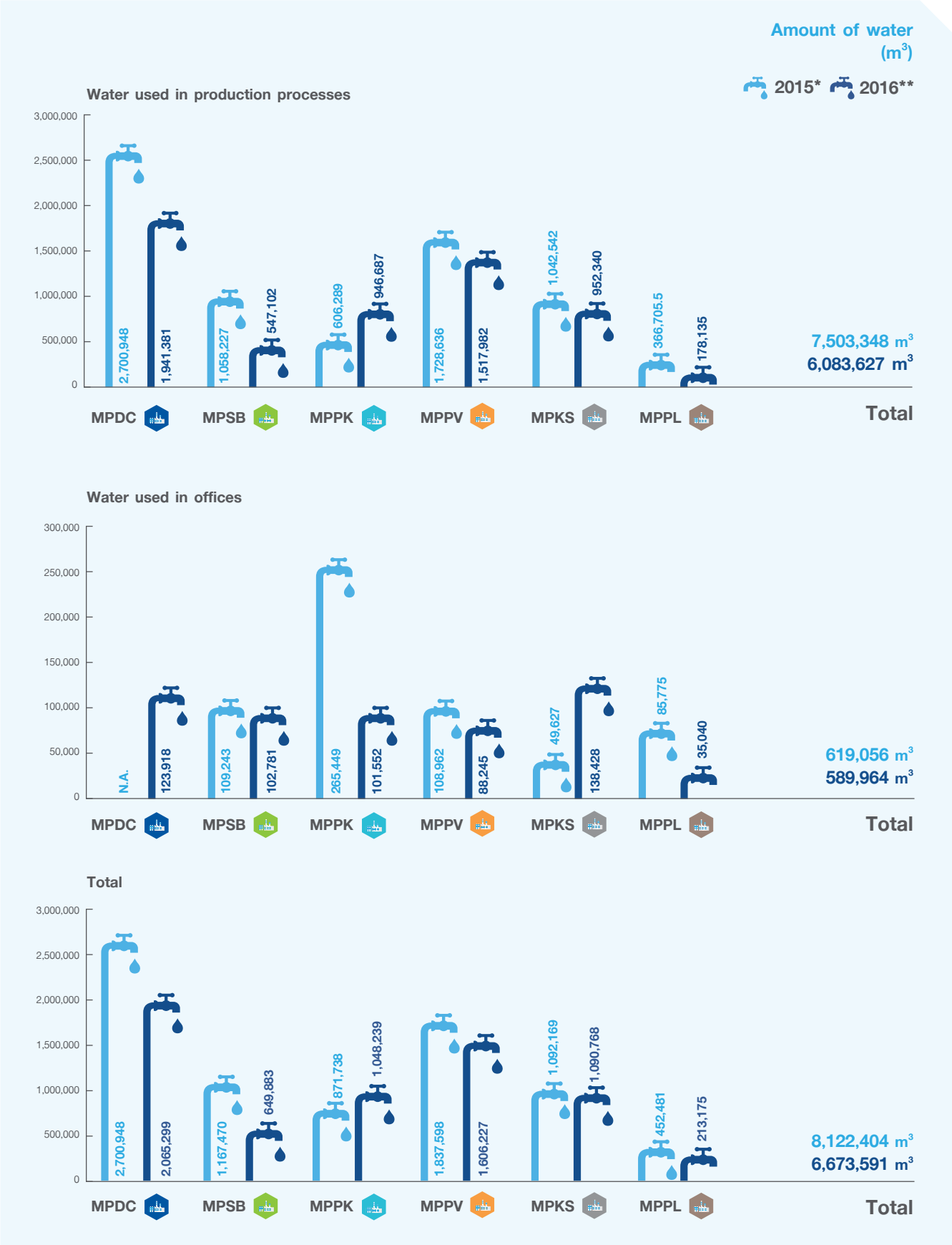
Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

Water resources management

Water is essential to life. Climate change has contributed to unpredictable and extreme weather patterns resulting in severe drought and other types of natural disasters. In response to this, Mitr Phol Group has implemented water resources management policies that focus on using less water and reusing water where possible, in order to achieve the most efficient water usage and minimize unnecessary losses across all sugar factories and offices. In 2016, the group's water consumption was as follows.

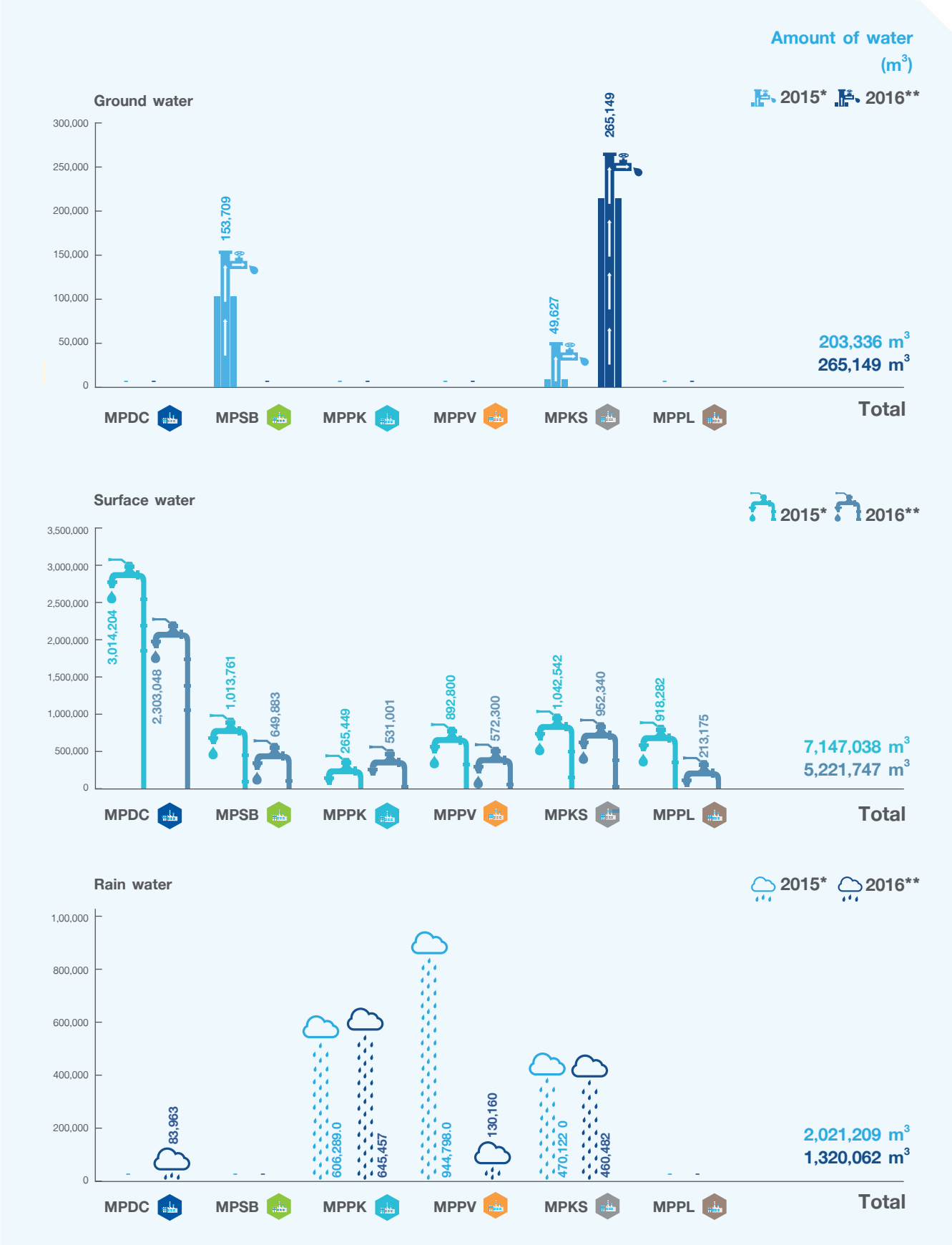
Water consumption data



Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

Water consumption data by source



Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

Mitr Phol Group's water consumption from natural sources is relatively high. The group works in close collaboration with relevant and responsible government offices to seek permission to use such water sources, including the Subdistrict Administrative Organisations, municipalities, and the Provincial Waterworks Authority. Upon request by governmental authorities due to droughts, Mitr Phol Group readily controls and limits the consumption of water from natural sources to ensure that local communities are not adversely affected by the group's sugar production.

Under the 3R initiative, Mitr Phol Group recycles water from sugar production for other non-food production processes and for use in offices, to ensure the natural resource is utilised to its maximum efficiency.

Energy management

Mitr Phol Group fully realizes its responsibility to the country and the world to conserve energy, as Thailand is faced with threatened energy security and climate change. Because Mitr Phol Group's sugar facilities are categorised by the Energy Ministry as controlled factories, it is of the utmost importance that the group strictly adheres to laws and regulations governing energy usage, implementing energy conservation policies, to establishing an energy conservation committee and publishing energy reports.

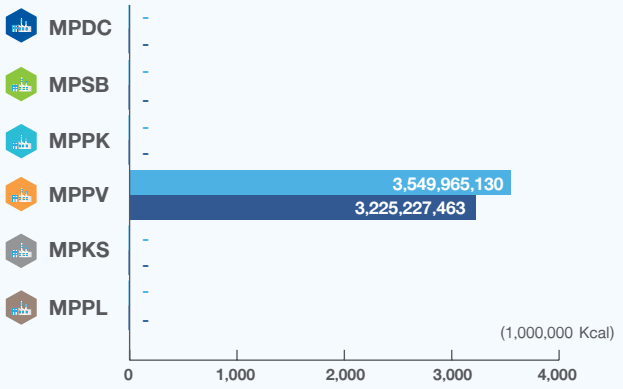
Mitr Phol Group focuses on improving energy efficiency in all areas of operation. The continued efforts have resulted in significant cost savings, thanks to the cooperation by employees of all levels across the company. Mitr Phol Group's energy consumption in 2016 was as follows.

Energy consumption data

2015* 2016**

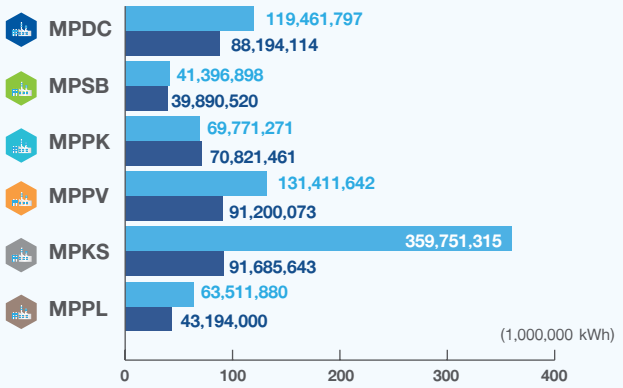
Renewable energy/ fuels

Biogas (Kcal)



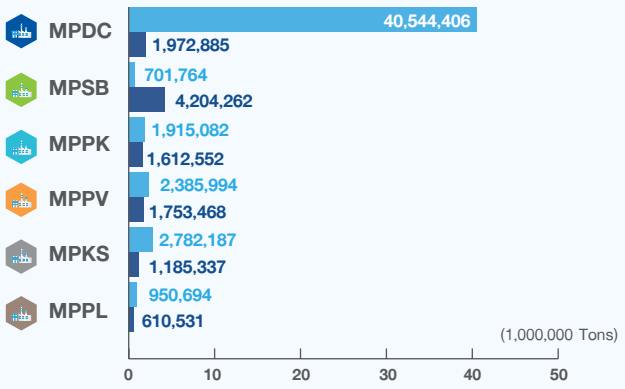
Total 3,549,965,130 Kcal
3,225,227,463 Kcal

Biomass electricity (kWh)



Total 785,304,803 kWh
424,985,811 kWh

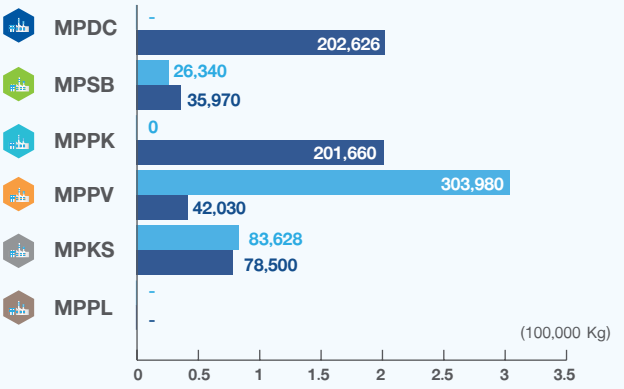
Steam (tons)



Total 49,280,127 Tons
11,339,035 Tons

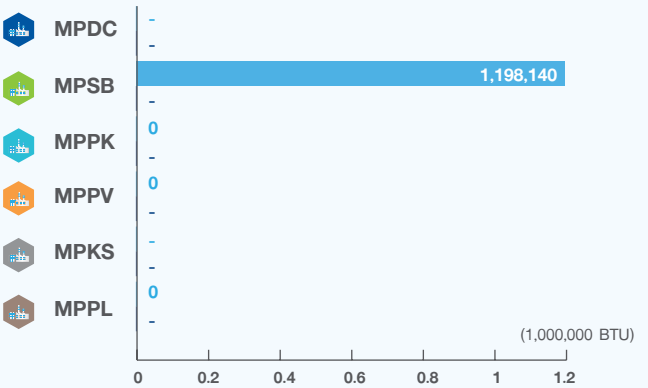
Non-renewable energy/ fuels

LPG (Kg)



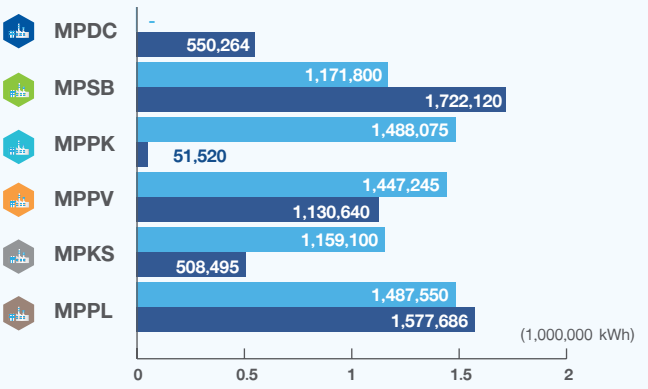
Total 413,948 Kg
560,786 Kg

Natural gas (BTU)



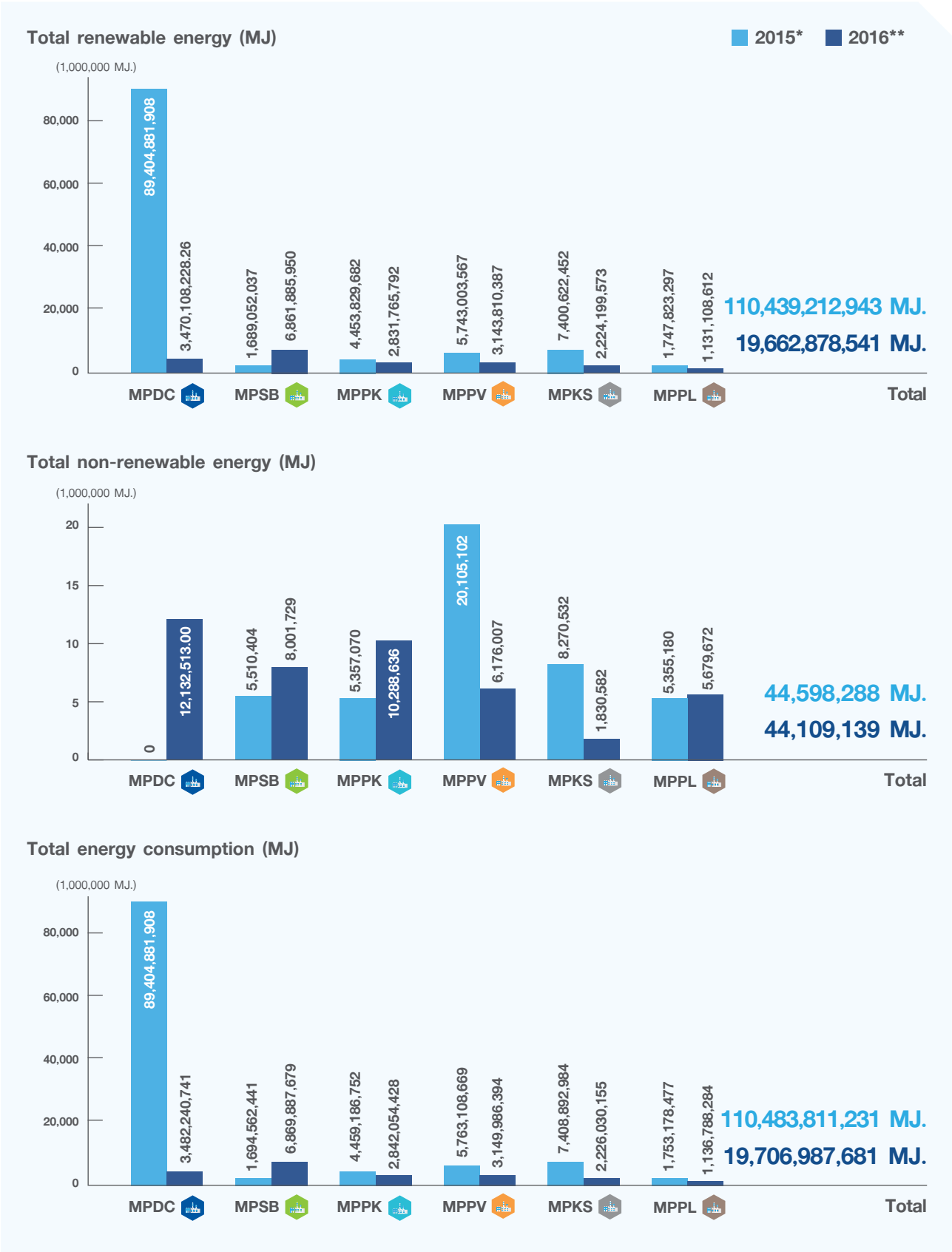
Total 1,198,140 BTU
- BTU

Imported electricity (kWh)



Total 6,753,770 kWh
5,540,725 kWh

Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.
** Data from year 2016 was collected during January 1 to October 31, 2016.



Remarks : * Data from year 2015 was collected during January 1 to December 31, 2015.

** Data from year 2016 was collected during January 1 to October 31, 2016.

In 2016, renewable energy made up 99.78 percent of the total energy consumption by Mitr Phol Group.

06 Growing Together with Customers

Growing Together with Customers

- Customer Satisfaction
- Customer Health and Safety
  - Types of sugar and product details
  - Product innovation for the health of consumers

Growing Together with Customers

Mitr Phol Group never ceases being innovating and creating new products to cater to the needs of different groups of customers. Our ultimate goal is to bring satisfaction for customers and consumers. We pay close attention to details within every process, from cane growing through to sugar production. The result of such care is pure and safe sugar under the Mitr Phol brand. In 2016, Mitr Phol Group continued to produce international-quality products to fulfill the needs of consumers.

Customer Satisfaction

With great care placed on every part of the production process, from sourcing raw materials to using innovation and advanced technology, Mitr Phol Group delivers customer satisfaction by offering a variety of products at the highest quality. Customer satisfaction surveys are conducted on an annual basis to help us continue to improve our offerings and maintain the trust of consumers in Thailand and abroad.

Mitr Phol Group uses the Net Promoter Score (NPS), an internationally accepted and widely-used tool to gauge customer satisfaction across industries. In 2016, Mitr Phol Group asked the question: "How likely is it that you would recommend our company/product/service to a friend or colleague?" to gauge consumer satisfaction. The surveys were conducted via phone, e-mail, fax, and online and covered a total of 417 respondents who represented all customer groups.

- Business-to-business groups
  - Domestic and international customers in CLMVS countries (throughout Southeast Asia)
  - International and regional customers
  - Molasses customers
- Business-to-customer groups
  - Lazada.com online retail customers
  - Customers who are Mitr Phol employees

From the survey, respondents were divided into three groups:

Detractors

Customers who are dissatisfied with the company's products or services.

This group of customers do not recommend the company's products or services. They may also tarnish the company's brand reputation. They may still purchase products and services from the company but only out of necessity.

Passives

Customers who are ready to switch to a new brand.

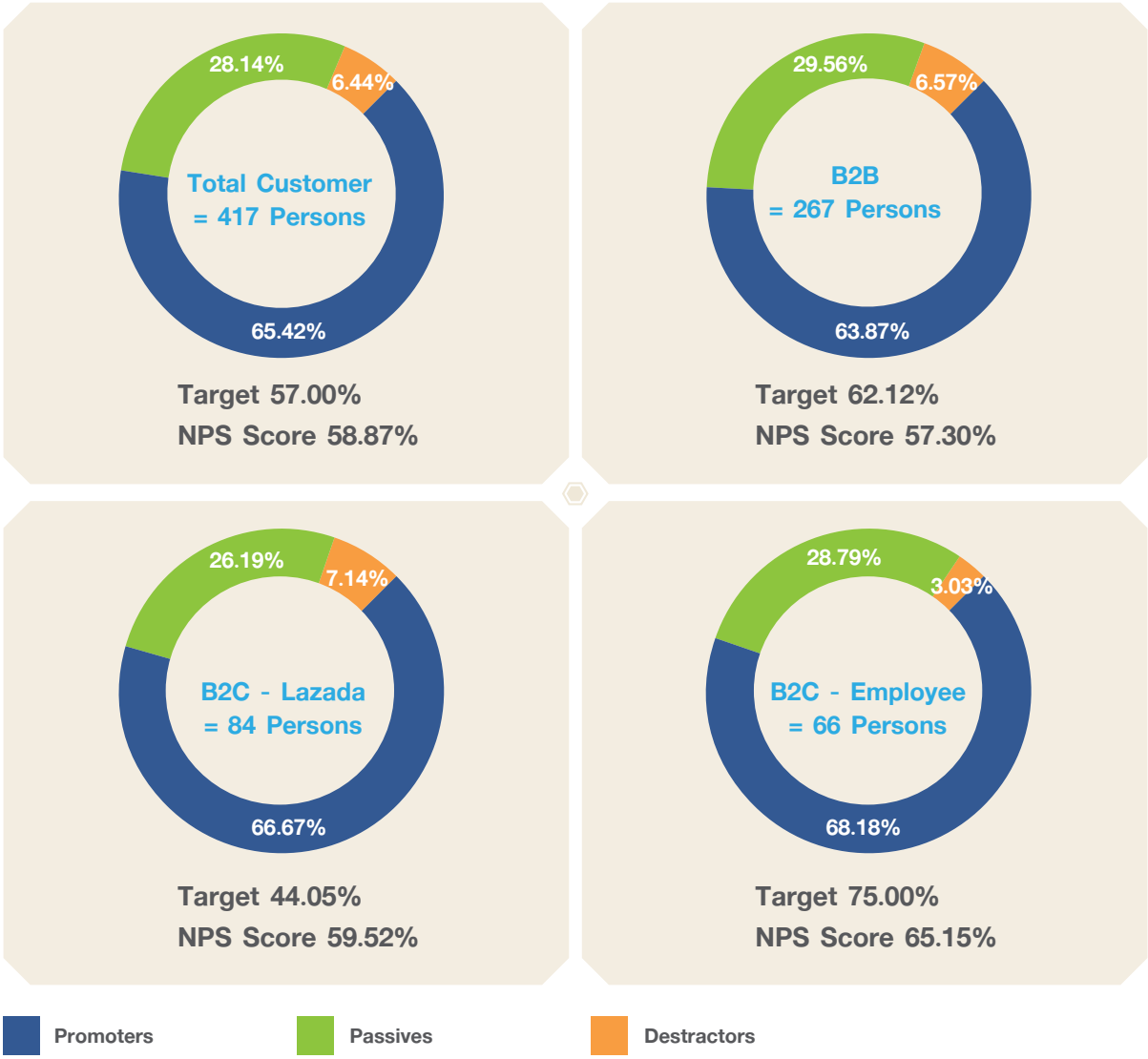
If they find better products or services, this group of customers may be easily persuaded by a competitor as their brand loyalty is not high.

Promoter

Customers who are supportive of the company.

This group of customers are loyal to the company. In addition to using or buying the company's products and services, they also recommend the company's products and services to others.

Mitr Phol Group's NPS Score in 2016.



Note : (NPS) Calculation method is performed by subtracting the percentage of promoters with the percentage of detractors

From the survey results, the Net Promoter Score for all customer groups in 2016 was 58.97%. Mitr Phol Group is using the survey results to make further improvements to its products and services in order to better cater to the needs of all customer groups.

A non-conformance reporting system is also used to send information directly to responsible departments, so any issues with product and service quality can be fixed quickly and accurately. The group also established new channels for sales distribution and product details, such as informative pages on the company website **http://www.mitrphol.com/sugar/services.php?type=eccf** so that consumers have access to the information they need.

Customer Health and Safety

Types of sugar and product details

In addition to customer satisfaction, Mitr Phol Group also places great importance on consumer safety. Attention to detail is given to every step of the production process to ensure that internationally-accepted standards of quality and safety are met. Product traceability provides the capacity to track any consumer item to its point of origin. We use several international standards and best practices for product safety, including:

- ISO 9001 Quality Management, ISO 22000 Food Safety Management System, and Good Manufacturing Practices (GMP)
- Food Safety System Certification 22000 (FSSC 22000) and Hazard Analysis and Critical Point System (HACCP)
- Halal Standards and Kosher Dietary Laws

In addition to international standards of safety for all sugar products, We have also adopted the Bonsucro Standard in the production process and throughout the supply chain. Multinational food manufacturers such as Coca-Cola, Pepsi, Nestle, Purac and Mars, as well as everyday consumers, can be certain that all Mitr Phol products are made from sustainably-sourced materials grown by farmers who are treated fairly. Strict controls ensure that the chemicals and fertilizers used are compliant with safety standards, the production process meets environmental protection requirements, and all products can be traced back to their origins.

We also places great importance on communicating product information through clear labeling that details ingredients and nutritional information, as part of the group's commitment to be responsible to customers and consumers alike.

Currently, Mitr Phol sugar products are divided into five groups, comprising 13 product SKUs.

Product type	Details
	Mitr Phol Refined Sugar is produced from top cane species in a production process that meets the standards of the sugar industry. It is free from contamination and bleach. The sugar undergoes a natural coloring and cleaning process to ensure every crystal is pure, white, clean and safe. Mitr Phol Refined Sugar is suitable for use in food and beverages.
	We never cease to create new products to serve the ever-evolving needs of consumers. The Mitr Phol Hygiene Pack was created for consumers' needs for enhanced hygiene, safety, and convenience.

Product type	Details
	Mitr Phol Syrup is 100% natural cane syrup - clean, clear and free from contamination and preservatives. The special production process separates the sugar to single molecules: 25% glucose, 25% fructose, and 50% sucrose (double bond). The product is convenient to use, helps save time, and gives drinks a great taste. It has a shelf life of one year.
	Mitte Flavored Syrup is divided into two groups: • Classic flavors: vanilla, caramel, and hazelnut. The syrup can enhance beverages, bakery products, and ice cream. • Fruity flavors: blueberry, citrus, lychee, strawberry, Japanese melon, mango, and tropical punch. They are perfect for enhancing not only the flavors, but also the colors of a variety of food and drink items, such as Italian soda, smoothies, mock tails, tea, desserts, and ice cream.
	Mitr Phol Coffee Sugar offers the classic sweetness of rock sugar with a blend of aromatic caramel. The amber-colored crystals are perfect, especially for coffee lovers.
	Mitr Phol Icing Sugar is a premium-grade product made from high-quality refined sugar and is free from bleach. The state-of-the-art production process results in super-fine, clean, fast-dissolving, and clump-free icing sugar. With its natural sweetness, the product is perfect for baked goods.
	Refined sugar in small sachets, perfect to meet your need for sweetness in style, anywhere and anytime.

Product type	Details
	Mitr Phol Calorie is a new product for health-conscious consumers. Made from sucralose and erythritol, it offers almost the same sweet taste as sugar, but with only 20% of the calories. It can be used for cooking and brewing of all types of food and beverages.
	Golden crystals offer a premium sweet taste. Mitr Phol Gold sugar is made from pure hygienic white sugar and touched with a sweet scent of caramel, making it a perfect addition to any food or beverages that requires a sweet taste and a great aroma.
	Mitr Phol Coconut Sugar is made by undergoing a high-quality production process, ensuring hygiene and safety. Free from bleach, the coconut sugar offers a well-blended sweet taste and the aroma of coconut. It is perfect for Thai desserts and savory dishes.
	Mitr Phol Rock Sugar is made from pure sugar that undergoes a slow crystalizing process, resulting in clean and clear sugar crystals. Mildly sweet, rock sugar has a distinctive taste. It is suitable for flavoring stocks and healthy dishes that require a mild level of sweetness.
	Made from real cane juice, **Mitr Phol Brown Sugar** undergoes a technologically-advanced production process that retains the naturally-occurring minerals including calcium, iron, potassium, and magnesium.

Product type	Details
	Natural cane sugar is made from 100% real cane. It has a natural sweet taste and aroma from cane, and adds color to any dish.

Product innovation for the health of consumers

Mitr Phol Group has always been committed to caring for the health of consumers. The "Tasty Healthy" product range was developed to cater to the needs of health-conscious customers. In an effort to support the government's initiative to promote responsible sugar consumption, We joined forces with the Thai Health Promotion Foundation for the "Perfect Sweetness at 4 Grams" campaign, which saw the serving size of sugar sachets reduced to four grams (or about 1.5 teaspoons). Mitr Phol refined sugar and cane sugar are now available in the new sachet size, providing a healthier option for consumers. Both products make up about 13.5 percent of our total sugar products.

We also collaborated in a research and development project with the Faculty of Dentristry at Mahidol University to create products that promote dental care. As a result of the project, bagasse fiber was used as an ingredient in chewing gum and jelly powder for the first time in Thailand. It offers a sweet taste and does not cause tooth decay. The products have been distributed to children in rural areas to promote oral hygiene. Bagasse fiber scrubs teeth and is safe for consumption. The development of both products showcases Mitr Phol Group's commitment to promoting better health for consumers and using innovation to create sustainable value.

07 Sustainable Business Development

Sustainable Business development

- Bio-mass Electricity Business
- Ethanol Business
- Wood Substitute Business
- Fertilizer Business

Sustainable Business development

Mitr Phol Group's "From waste to value" principle guides the company's business directions, extending from the cane and sugar business to other eco-friendly units that utilize cane and sugar byproducts. The following is information about Mitr Phol Group's eco-friendly businesses in 2016.

Bio-Mass Electricity Business

Electricity production using bio-mass alongside the primary business of cane and sugar production in Thailand is part of Mitr Phol Group's commitment to return value to society. Bagasse, a byproduct of sugar production, is used as a fuel source to generate steam and electricity, which is then used in sugar production and for other related businesses. Surplus electricity is sold to the Electricity Generating Authority of Thailand and the Provincial Electricity Authority to increase Thailand's energy security.

In addition to using bagasse as fuel, Mitr Phol Group also purchases other agricultural biomass, such as cane leaves from local farmers, to use in its biomass electricity plants. This not only generates additional income for local communities, but also helps to eradicate agricultural burning and the subsequent air pollution.

Mitr Phol Group's biomass electricity plants use state-of-the-art technology and produce high-quality electricity. In 2016, the group built an additional biomass power plant in Kalasin province, called Mitr Phol Bio-Power Kuchinarai. Currently, Mitr Phol Group operates a total of eight biomass power plants in Thailand, namely Mitr Phol Dan Chang, Sing Buri, Phu Khiao, Phu Wiang, Phu Luang, Kalasin, Kuchinarai, and Tak. The completion of the eighth power plant means total generating capacity has increased from 428MB to 526MW.

Domestic biomass electricity generating plants	Energy type (MW)	
	Generating Capacity	Capacity in Power Purchase Agreement
Mitr Phol Dan Chang Bio-Power Plant, Suphanburi province	115.6	62.8
Mitr Phol Sing Buri Bio-Power Plant, Sing Buri province	41	15.8
Mitr Phol Bio-Power Plant, Chaiyaphum province	103.4	45.2
Mitr Phol Phu Wiang Bio-Power Plant, Khon Kaen province	70	16
Mitr Phol Kalasin Bio-Power Plant, Kalasin province	68	28
Mitr Phol Phu Luang Bio-Power Plant, Leoi province	67	42
Mitr Phol Kuchinarai Bio-Power Plant, Kalasin province	45	16
Maesod Clean Energy Plant, Tak province	16	8
Total	**526**	**233.8**

Mitr Phol Group was recognized by the EIA Monitoring Awards 2016 for its outstanding performance in environmental management and environmental impact assessment reporting for its Mitr Phol Bio-Power (Phu Wiang) and Mitr Phol Bio-Power (Phu Khiao) subsidiaries. Mitr Phol Bio-Power (Phu Luang) also received a runner-up award. The recognition reflects Mitr Phol Group's commitment to employing environmentally-friendly business practices.

Ethanol Business

Mitr Phol Group uses technology to add value to molasses, a byproduct of sugar production. The company has established four ethanol plants that use molasses to create pure ethanol, which is used as fuel for vehicles. We are currently the largest producer of ethanol in Thailand, with a production capacity of 1.16 million liters per day, or about 400 million liters annually.

State-of-the-art ethanol production technology allows Mitr Phol Group to also control the quality of vinasse, which is a byproduct of the ethanol production process. Similar to other byproducts of sugar production such as filter cake, ash, and contaminants from sand separators Vinasse contains nutrients that can be used to improve soil quality in cane plantations. Ethanol byproducts are utilized in the making of bio fertilizers, helping to add value to an otherwise useless byproduct.

Wood Substitute Business

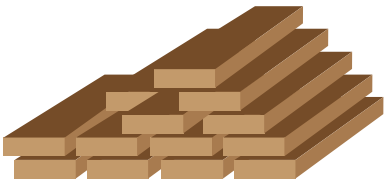
Demand for wood in Thailand continues to rise thanks to the growth of the real estate and home decor industries. Mitr Phol Group saw an opportunity to cater to this demand and to help protect Thailand's precious natural resources by developing wood substitute materials from byproducts of the group's production processes.

Panel Plus was established to manufacture wood particles, MDF boards, and melamine-coated products. In the beginning, bagasse was used as the primary raw material in the production of these wood substitutes. Later on, para rubber trees that no longer produced sap were also used in conjunction with the bagasse. The production process employs European technology to cut down on formaldehyde, thereby reducing odor pollution. The wood substitute materials receive the Super E-Zero rating, guaranteeing they are safe for consumers as well as the planet.

Types of wood substitute materials:

- Panel Plus particle wood for furniture
- Panel Plus MDF boards for spray painted and built-in furniture
- Panel Plus melamine-coated wood for interior decoration for homes, condominiums, offices, shops, and showrooms.

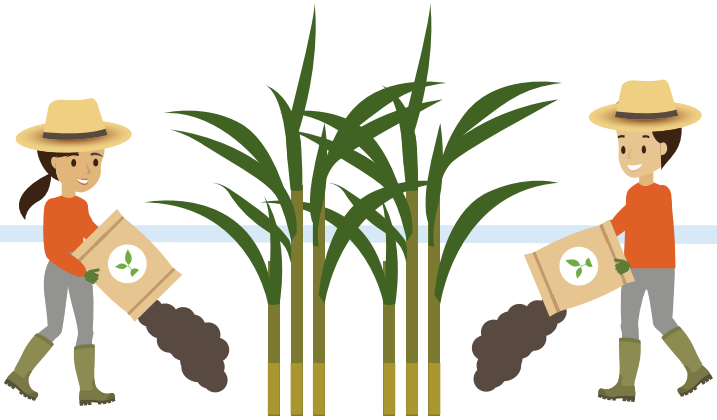
Current, the company produces 300,000 cubic meters of particle wood, 300,000 cubic meters of MDF boards, and 23.5 million square meters of the melamine-impregnated paper per year. The combined amount is equal to 45,000 rai of forest worth of real wood.



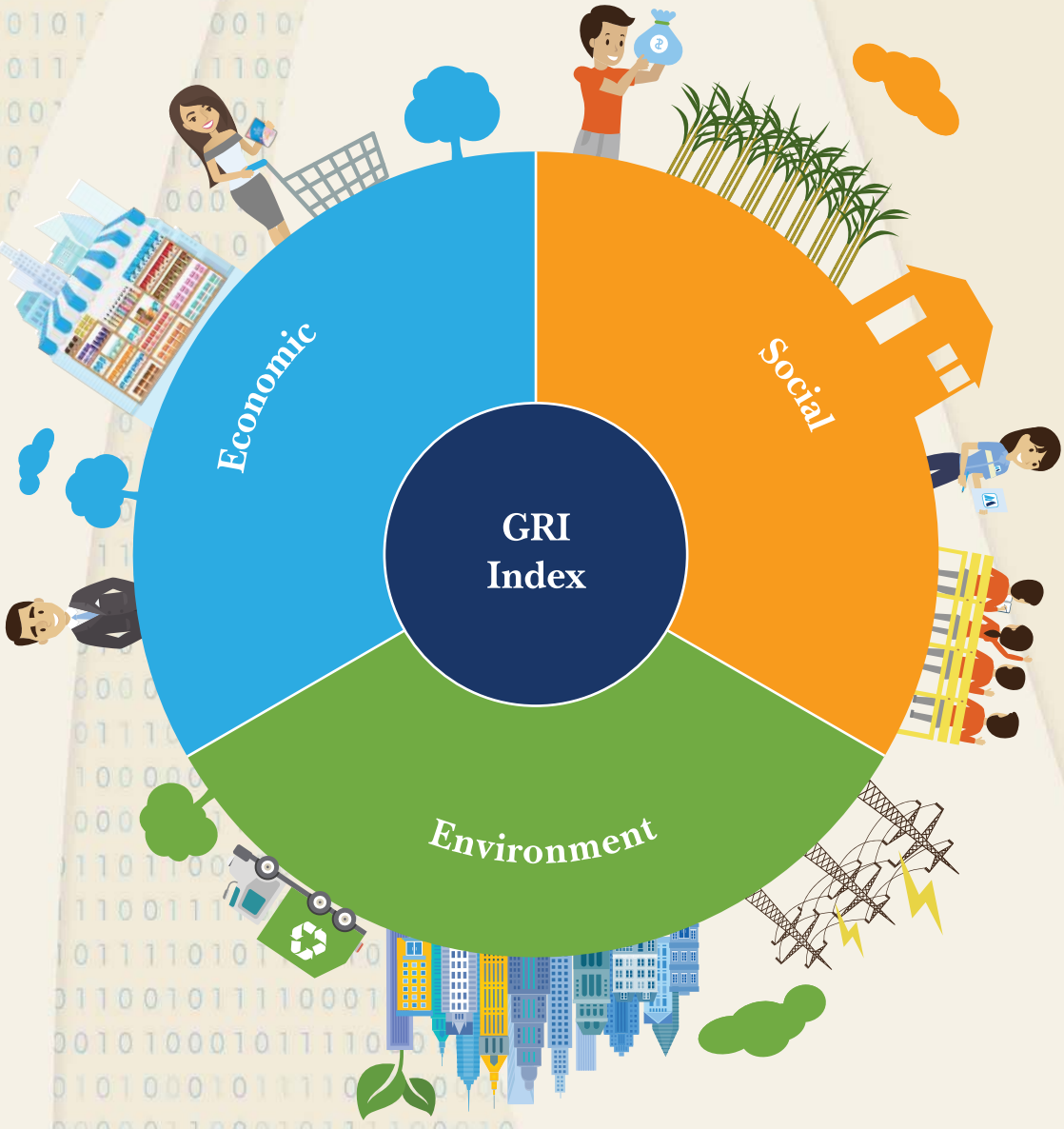
Fertilizer Business

Mitr Phol Group recognizes the value in byproducts such as filter cake (from sugar production) and vinasse (from ethanol production). With more than 60 years of experience in the cane and sugar industry, We saw an opportunity to turn these byproducts into fertilizers to enrich the soil of cane plantations.

The group's fertilizer business began with the establishment of Productivity Plus. The company analyzes soil quality and nutrients in each cane-growing region and develops appropriate fertilizer formulas for the specific needs of each area. The company currently produces about 6,000 tons of bio fertilizers per year at the organic fertilizer plant in the Phu Khiao district of Chayaphum province.



08 GRI Content Index



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