

Essence of Sustainable Growth

Sustainability Report Executive Summary 2018





Mitr Phol's performance throughout the past year shows our commitment to promoting sustainability in the economic, social and environmental dimensions, alongside good governance and strong stakeholder relations, which underpin our business operations and are our **“Essence of Sustainable Growth.”**

A handwritten signature in blue ink that reads "Krisda M.".

Krisda Monthienvichienchai
Chief Executive Officer and President
Mitr Phol Group

Vision and Philosophy

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



Strive for Leadership



Stand Tall in Fairness



Believe in the Value of Human Dignity

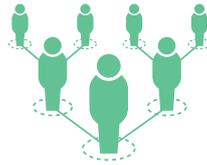


Responsible for Society

Strategic Directions



GROWTH



SUSTAINABILITY



COMPETITIVENESS



**HIGH PERFORMANCE
ORGANIZATION**



**MODERN FARMING AND
FARMING PRACTICES**



**WORLD CLASS
MANUFACTURING**

Business Units

Mitr Phol's separated lines of business in 11 lines are as follows:



1

Farming business



2

Domestic sugar business



3

Sugar business and related businesses in China



4

Sugar business in ASEAN



5

Sugar business in Australia



6

Sugar business in Indonesia



7

Renewable Energy business



8

Wood-substitute materials business



9

Fertilizer business



10

Logistics and warehouse business



11

Other business

Sales Revenue by Business Unit

Revenue (Percentage)

0.22

Other business

1.56

Logistics and
warehouse business

2.00

Fertilizer business

0.35

Farming business

66.43

Sugar business

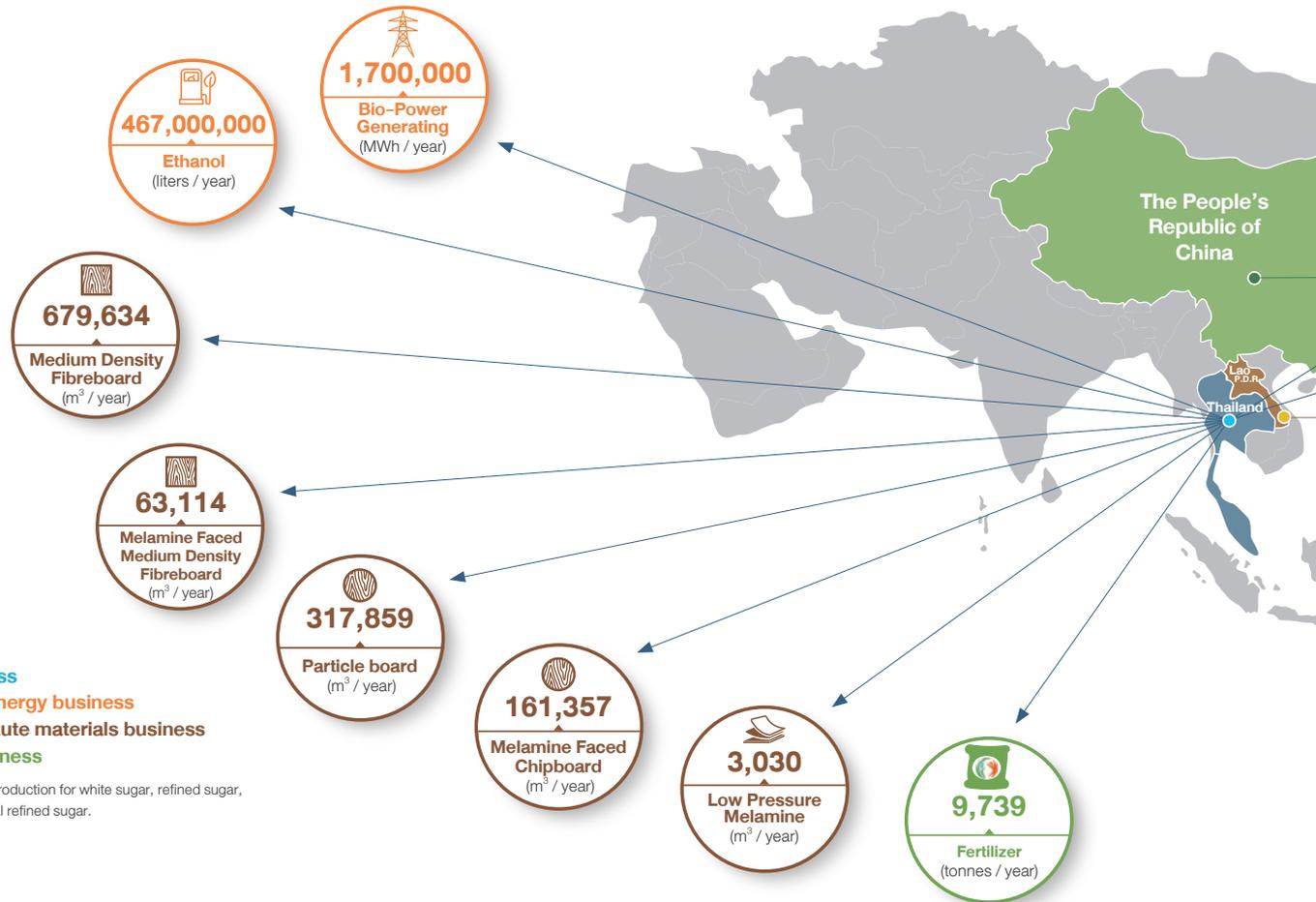
23.67

Renewable Energy
business

5.77

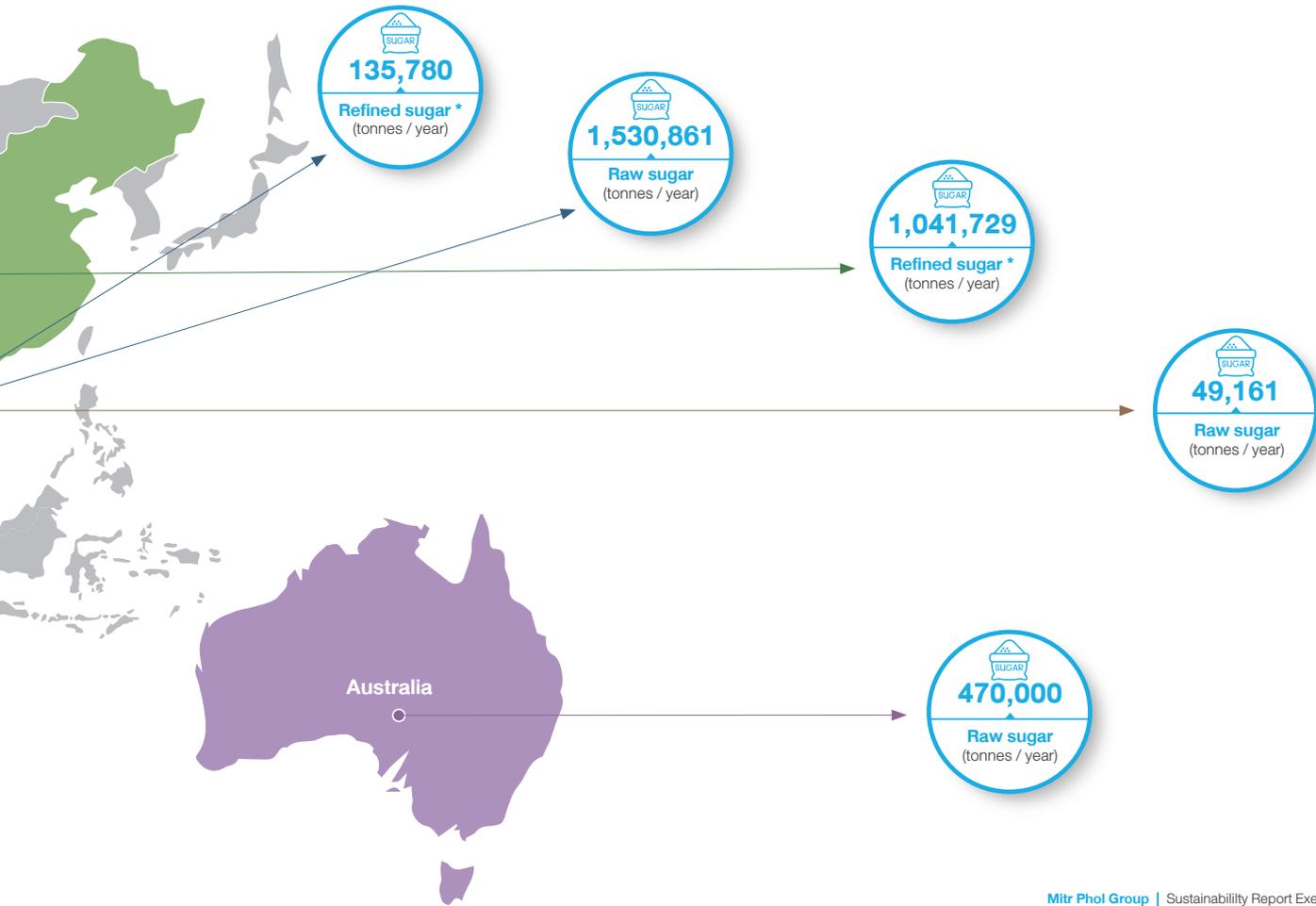
Wood-substitute materials
business

Production Volume of Thai and Overseas Operations



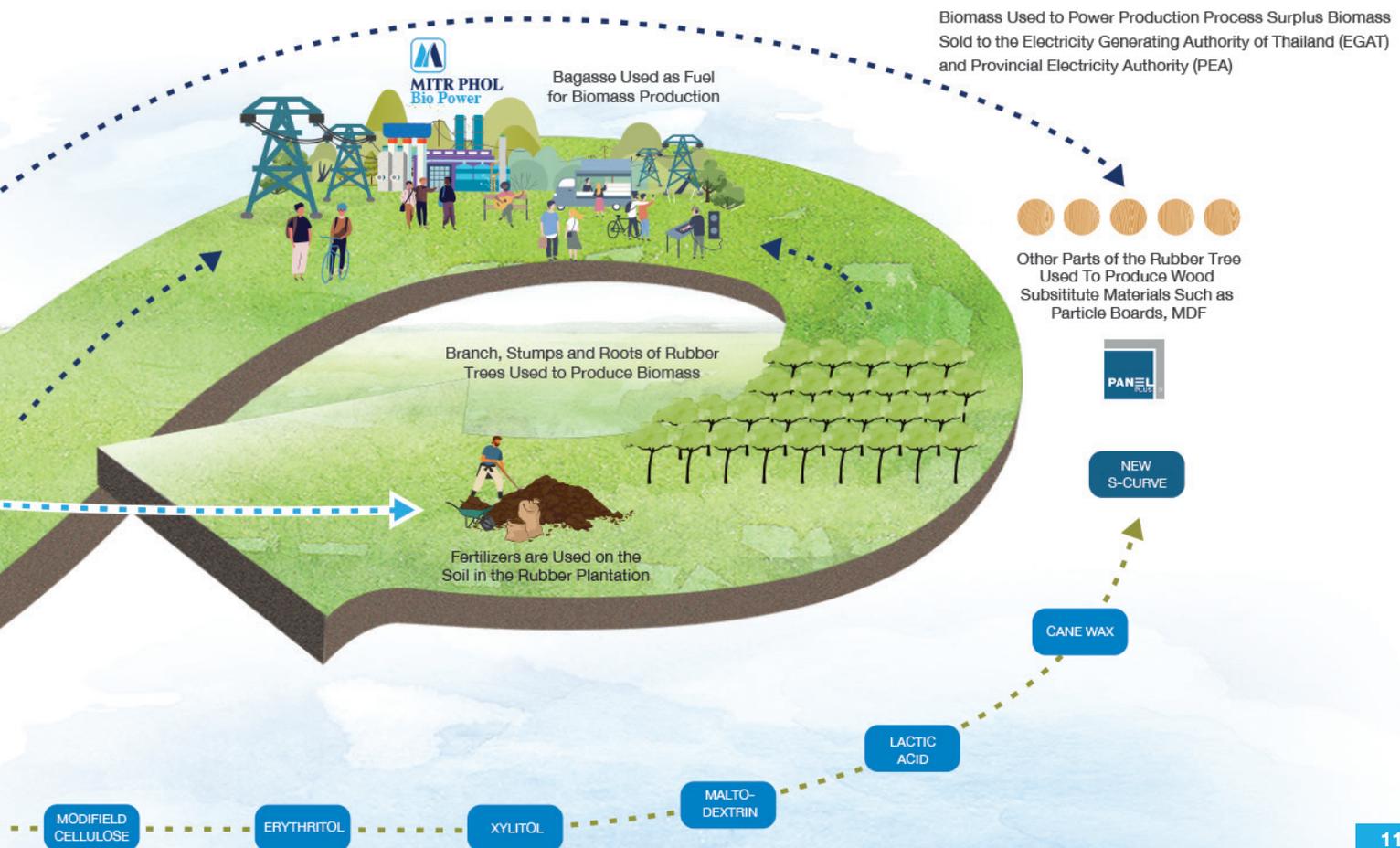
- Sugar business
- Renewable Energy business
- Wood-substitute materials business
- Fertilizer business

Remarks: * Includes Production for white sugar, refined sugar, and special refined sugar.



Mitr Phol Value Chain





Recognitions and Achievements



Sustainability



2018 Digital Transformer of The Year, Asia Pacific,
by the International Data Corporation (IDC)



2018 Digital Transformer of The Year, Country Level,
by the International Data Corporation (IDC)



**Thailand ICT Excellence Awards 2018,
Projects for Sustainable Businesses,
Recognizing The Success of Mitr Phol ModernFarm,**
by the Thailand Management Association



CSR-DIW Continuous Award 2018,
by the Department of Industrial Works,
Ministry of Industry



**Certificate of Membership of Thailand's
Private Sector Collective Action Coalition
Against Corruption (CAC) in 2018,**
by the Thai Institute of Directors



Economic



**Her Royal Highness Princess
Maha Chakri Sirindhorn Award for
Outstanding Overall Business Management,**
by the Thailand Management
Association and Sasin Graduate
Institute of Business Administration at
Chulalongkorn University



**Her Royal Highness Princess
Maha Chakri Sirindhorn Award for
Outstanding Human Resources Management,**
by the Thailand Management Association
and Sasin Graduate Institute of Business
Administration at Chulalongkorn University



**The 2018 Outstanding Industry
Award – Quality Management,**
by the Ministry of Industry



Sugar Mill Excellence,
by Office of the Cane and Sugar Board,
Ministry of Industry



Social



Best Workplace for Labor Relations and Welfare Award granted, by Department of Labor Protection and Welfare, the Ministry of Labor



The Excellence Company Awards for Safety, Occupational Health and Environment, National Level, by the Department of Labour Protection and Welfare, the Ministry of Labour



Building A Good Society Award, by Ministry of Social Development and Human Security



Award Recognizing Outstanding Work in Supporting the disabled in 2018, by National Office for Empowerment of Persons with Disabilities, Ministry of Social Development and Human Security



2018 Best Employer Award granted, by Aon Hewitt (Thailand)



HRH Princess Maha Chakri Sirindhorn Certificate of Excellence for Safety, by the Department of Labour Protection and Welfare, the Ministry of Labour



2018 Zero Accident Campaign Award, by Thailand Institute of Occupational Safety and Health (Public Organization)



Environment



Fresh Cane Award 2018, by Office of the cane and sugar board, Ministry of Industry



ASEAN Energy Awards 2018, by ASEAN Secretariat



Thailand Energy Awards 2018, by Department of Alternative Energy Development and Efficiency, Ministry of Energy



Green Industry Award from The Green Industry Program, by Department of Industrial Works, Ministry of Industry



Environmental Impact Assessment Monitoring Awards, by Division of Environmental Impact Assessment Development, Ministry of Natural Resources and Environment



Outstanding Award for Reducing Water Pollution at The Source 2018, by Department of Environmental Quality Promotion, Ministry of Natural Resources and Environment



2018 Environmental Governance Certificate, by Department of Industrial Works, Ministry of Industry



Certificate for taking part in the groundwater usage assessment through Water Footprint Project, by Department of Groundwater Resources, Ministry of Natural Resources and Environment

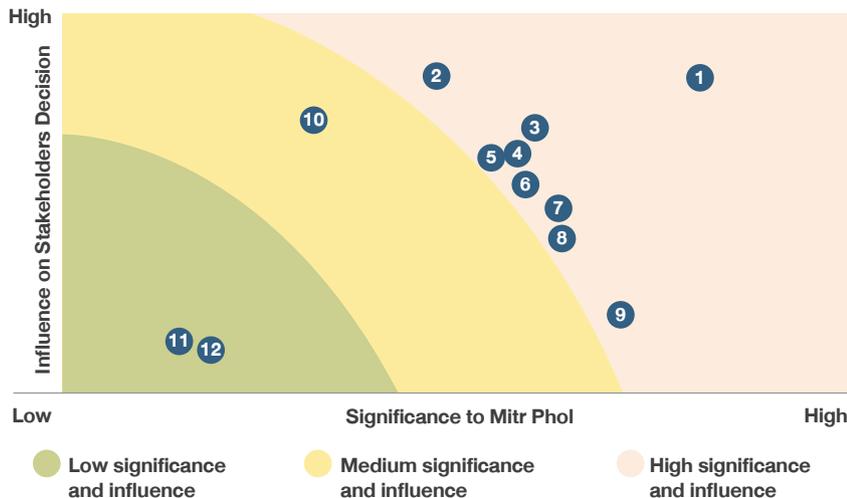
Process of selecting important issues and boundaries of impact

Step one: Identification

Step two: Prioritization

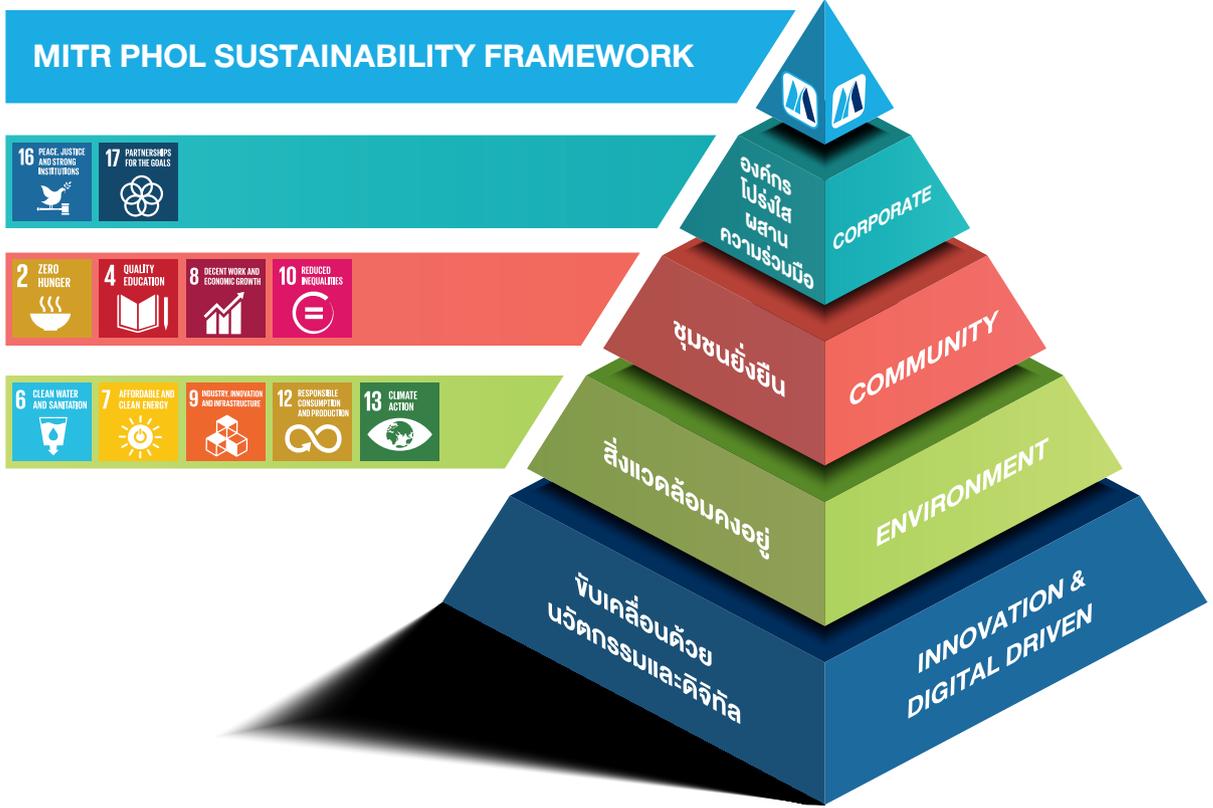
Step three: Scoping materiality

Step four: Verification



1. Climate change and water resources management
2. Human Rights
3. Safety, Occupational health, and Environmental management
4. Sustainable value chain management
5. Employee welfare and development
6. Corporate Governance and Risk Management
7. Innovation management
8. Contributions to society
9. Packaging
10. Health and nutrition
11. Stakeholder engagement
12. Customer relationship management

Alignment with UN Sustainable Development Goals (UN SDGs)



Complaint Channels

Written and Verbal Complaints:

(E-mail)
cg@mitrphol.com

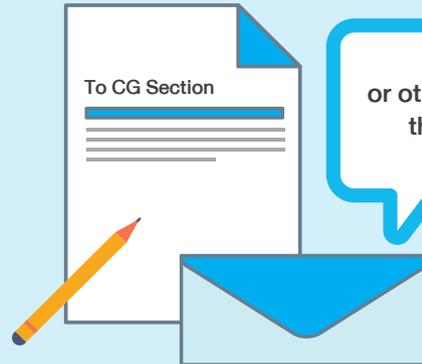


* The complainant may or may not include his / her name and contact channel when lodging a complaint.

Intranet : Mymitrphol
www.mitrphol.com/whistleblowing



Letter
or other appropriate channels
that are convenient for
the complainant





Emerging Risks



- Risks relating to the restructuring of the Thai sugar industry
- Risks from digital disruption

Corporate Risks



- Risks posed by climate change and the natural environment
- Risks from international investments and operations

Risks from Operations



- Risks concerning product quality and safety
- Environmental risk

Financial Risk



- Risks from commodity price fluctuations
- Risks from currency exchange rates
- Risks from non-performing loans to cane farmers

Legal and Regulatory Compliance Risk



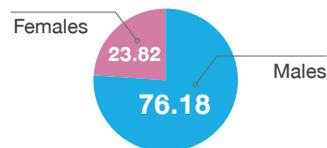
Employees

Mitr Phol Group Employees

 Total **7,892** people

 Male **6,012** people
76.18%

 Female **1,880** people
23.82%

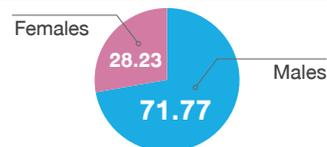


New hires of Mitr Phol Group Employees

 Total **829** people

 Male **595** people
71.77%

 Female **234** people
28.23%



Mitr Phol Group employs disabled

  **87** people
Mitr Phol Group employs disabled

 Males **52** people

 Females **35** people

 **30** people
Article 33: employment in factories

- Decent Work and Sufficient Income
- Decent Accommodations
- Self-worth awareness

 **54** people
Article 33: employment in local communities

- Decent Work and Sufficient Income
- Decent Accommodations
- Self-worth awareness

 **3** people
Article 35: training to become an entrepreneur

- Opportunity provision to be entrepreneurs
- Decent Work and Sufficient Income
- Self-worth awareness

Enhancing World Class Organization

- Effective Hi-Po & Successor Pipeline
- Mitr Phol Productivity Acceleration
- Effective Talent Acquisition
- Manpower Preparation

- Future Leader & Skill Development
- Coaching Culture
- Learning Organization

- Organization Redesign
- Integrated Digital HR System
- Strategic Reward Management



Factor to Raise the Employee Engagement

Advancement and Learning Opportunities

Corporate Directions and Performance

Leadership Skills and Team Building



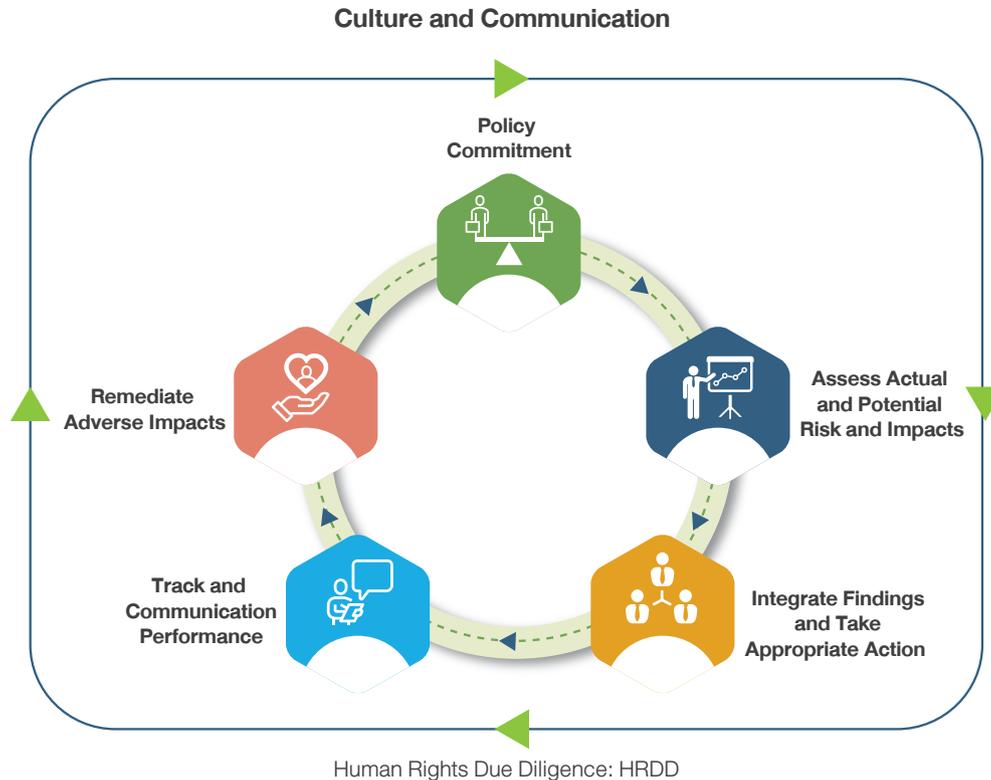
Challenging Work that Brings Pride to Employees

Reward and Compensation Schemes

Quality of Living and Work-Life Balance

Human Rights Due Diligence

Mitr Phol initiated to implement human rights due diligence under United Nations Guiding Principles on Business and Human Rights or UNGP as a framework for human rights management.



Lost Time Injury Frequency Rate - LTIFR



4 Must

1. Must



wear full-body safety harnesses

with double hooks and keep the hooks locked all the time when working at height greater than 2 meters.

2. Must



obtain work permits for risky tasks

(for example, work that involves heat or sparks, work at height greater than 2 meters, or work at spots with poor ventilation).

3. Must



switch off electric, air and hydraulic machinery and hang the “stop machinery”

sign every time before carrying out machinery maintenance or cleaning tasks.

4. Must



fasten safety belts (driver and all passengers)

prior to moving vehicles from parking lots and keep safety belts fastened throughout the journey. Factory vehicles are included.

3 Must not

5. Must not



smoke in factory except in provided areas

and must throw cigarette butts only to the provided trash.

6. Must not



modify machinery and equipment

or bypass safety interlocks without permission from supervisors (manager level or higher).

7. Must not



use telephone (no call / photo taking / typing / listening) in areas prone to fires and explosions

while operating machine and driving all types of vehicles.

Climate Change Initiatives

Mitr Phol Group's efforts to lower the impact of climate change by reducing greenhouse gas emissions from our business operations are as follows:

1. Promoting a Low-Carbon Society

By joining Thailand Voluntary Emission Reduction Program (T-VER). We are one of the largest carbon credit sellers in Thailand, with 489,000 tonnes of CO₂ equivalent certified. Since joining T-VER, we have sold carbon credits to 26 organizations, with a total of volume of 190,000 tonnes of CO₂ equivalent, or around 90% of the Thai carbon market.



Mr. Isara Vongkusolkit, Chairman of Mitr Phol Group, and other executives at the T-VER carbon credit signing ceremony with the Thailand Greenhouse Gas Management Organization (Public Organization), represented by its director Mrs. Prasertsuk Chamornmarn, on October 29, 2018.

2. The Mitr Phol Bio-Power (Danchang) Company Limited Project

This involves the construction of a thermal (steam) and electricity power plant that will use biomass from bagasse as the main source of fuel. This part of the power plant is called “Block 2”. Around 1,400 tonnes of bagasse from the adjacent Mitr Phol sugar mill per day will be used as the main source of fuel, along with other supplementary types of bio-energy. Mitr Phol Bio-Power (Danchang) – Block 2 helps to reduce GHG emissions by 489,000 tonnes of CO₂e, using biomass as the main source of fuel in place of natural gas.



Mitr Phol Bio-Power (Dan Chang) – Block 2 in Dan Chang District,
Suphan Buri Province

3. Solar Rooftop

Created a combined generating capacity of 989 kW. Save on energy costs and sell more than 1.3 million units of electricity to the Provincial Electricity Authority, equivalent to more than 100 tonnes of crude oil per year, while helping to reduce GHG emissions by 700 tonnes CO₂e per year.



The Solar Rooftop Project at the ethanol plant in Phu Khieo District, Chaiyaphum Province

4. Solar Farm

This involved using land that is not suitable for farming or waste and converting it into a 2 MW solar farm. The project has helped to reduce carbon emissions by more than 1,500 tonnes CO₂e per year.



Solar farm in Dan Chang District, Suphan Buri Province

5. Mitr Phol ModernFarm

The Mitr Phol ModernFarm comprises four key pillars: Legume Fallow, Cotrolled Traffic, Minimum Tillage and Trash Blanket.

- reduce operating costs by more than 25%, going from 8,000 baht per rai to just between 5,000 – 6,000 baht per rai.
- Carbon emissions are reduced by 0.012 tonnes of CO₂e per one tonne of fresh cut cane.
- Mitr Phol ModernFarm project totaled more than 4.2 million tonnes, which helped to reduce CO₂ emissions by 50,459.11 tonnes CO₂e.



Mitr Phol ModernFarm management in Phu Khieo District, Chaiyaphum Province

Critical Suppliers Management Criteria:

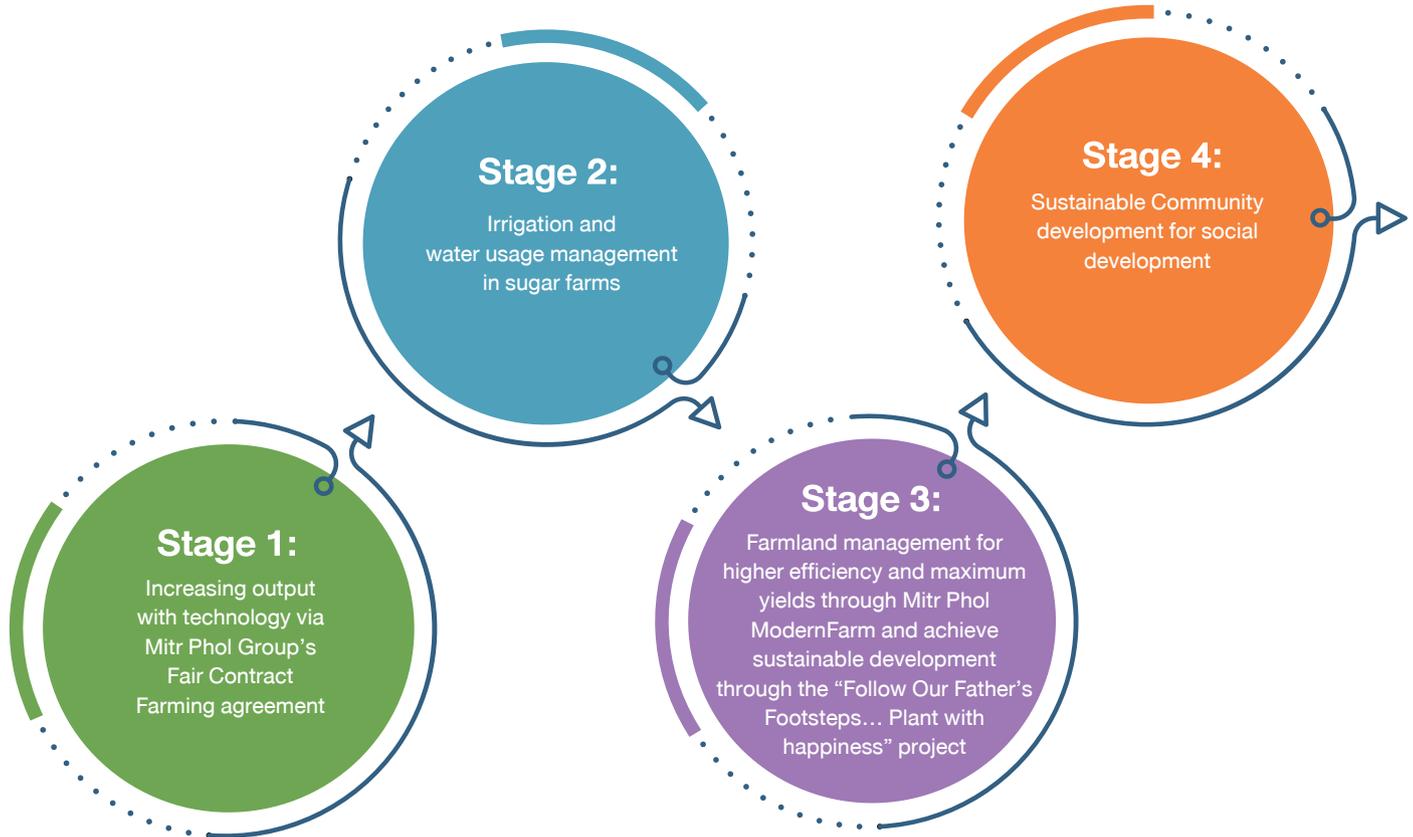
1 They provide special products that are manufactured specifically to Mitr Phol Group's requirements, in particular food contact products such as chemicals used in production processes and packaging.

2 There are only a few suppliers with the right level of expertise and operating technology as required by Mitr Phol Group.

3 They provide supplies valued at more than 5 million baht per year.

4 They are the main providers of raw materials, such as sugarcane farmers.

Sugarcane Farmers Development for Sustainability



Customer Satisfaction Survey



Sugar Business:

	2015	2016	2017	2018
 % of satisfied customers	71.04	64.51	66.14	71.04
 % of total customer surveyed	40.55	47.01	53.35	55.38



Bio-Mass Business:

	2015	2016	2017	2018
 % of satisfied customers	98.33	98.33	99	99
 % of total customer surveyed	100	100	100	100



Ethanol Business:

	2015	2016	2017	2018
 % of satisfied customers	100	100	100	100
 % of total customer surveyed	100	100	100	100



Wood-Substitute Materials Business:



% of satisfied customers

2015

2016

2017

2018

80

81

80

80



% of total customer surveyed

88

83

100

100



Logistics and Warehouse Business:



% of satisfied customers

2015

2016

2017

2018

83.94

88.39

91.10

92.23



% of total customer surveyed

88.88

75.00

70.00

84.80

Sustainable Community Development

Type of contribution



35.37

Million baht

Cash contributions



26.57

Million baht

Time
(employee volunteering
during paid working hours)



14.73

Million baht

In-kind giving
(product or service donation,
projects / partnerships
or similar)



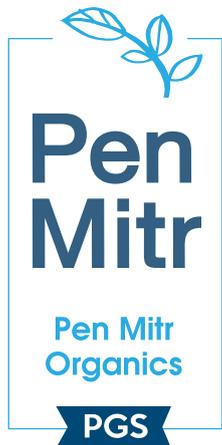
8.93

Million baht

Management overheads

Production system development and sales of Organic Vegetable

Working with the Sampran Model, the project helped vegetable farmers switch to organic production. Farmers were encouraged to form groups and exchange knowledge on organic farming and developing community products, with Participatory Guarantee System (PGS) certification or so-called “Pen Mitr Organics PGS”.



Participatory Guarantee Systems (PGS)

The International Federation of Organic Agriculture Movements (IFOAM) has defined PGS (Participatory Guarantee Systems) as locally focused quality assurance systems that certify producers based on the active participation of stakeholders, and are built upon a foundation of trust, social networks and knowledge exchange.

Year	Vegetable farming (groups)	Members (people)	Markets (place)	Sales revenue (baht / year)
2014	2	68	2	60,000
2015	5	84	4	291,860
2016	11	254	9	814,378
2017	16	267	14	1,896,894
2018	16	294	17	2,808,214

Performance Summary of vegetable farming groups

“Follow Our Father’s Footsteps... Plant with happiness” Project



The New Theory Agriculture Project was launched to celebrate Mitr Phol Group’s 60th anniversary, adopting the late King Bhumibhol Adulyadej’s sufficiency economy philosophy. The project’s goal is to encourage sugarcane farmers to use the integrated farming model to grow several types of crops suitable for their land, thereby improving their quality of life by helping them reduce expenses and increase income.

The project’s objectives
and time frame

2019

Expanding the project to cover at least 7,000 farmers, who practice New Theory Agriculture in their farming

2018

Expanding the project to cover at least 700 farmers, who practice New Theory Agriculture in their farming

2017

Developing Mitr Phol Group’s sugarcane farmers to educate others at 70 modern agriculture learning centres



Currently,
1,112 sugarcane
farmers are part
of the project



They provide
knowledge at
78 learning
centers



across
17
Provinces



Developed community products

Herbal inhalant



50 baht

80 baht

Soap



65 baht

90 baht

Herbal balm



50 baht

80 baht

Shampoo



120 baht

180 baht



Community products under the brand
“Cheunjai by Mitr Phol”

Partnership School

Mitr Phol Group's focus is to develop the partnership school into a center for community development and a school of the future, where teachers are equipped with modern teaching techniques. The project also helps narrow the inequality gap and promotes more opportunities for local children to gain access to quality education.



Chairman of Mitr Phol Group and CEO and President of Mitr Phol Group, attended the Memorandum of Understanding signing ceremony for the Partnership School Project



Khun Isara Vongkusolkit
Chairman and Executive of Mitr Phol Group
visit school of the Partnership School Project



Human Resources Development Innovation

Mitr Phol Innovation Awards have been held for 17 consecutive years, with an aim of encouraging every employee seeks out new innovative ideas that will bring about change, improvements, value, and sustainability.

In 2018, there were 230 teams to participate in innovation contest and 24 teams were awards. The 8 winners are categorized in Kaizen category, 9 winners in Best Process Improvement, 5 winners in New Product / Service Development, and 2 winners in New Business Excellence.



Process Innovation

The partnership with the Thailand Research Fund, 14 researchers have taken part in the programme (9 graduate students and 5 doctorate students).

The research funded by the programme focuses on four key topics:

- Cane varieties development
- Processing technology to add value to cane and sugar products
- Using bio-refinery methods to add value to byproducts
- Logistics and raw materials storage management systems

Partnership with the Bio Technology Department, Kasetsart University, which the researchers can teach employees while at the same time conducting their own research. Thus, the programme brings the university to the work place.



Business Innovation

Business innovation performance

- New cane varieties

Successfully developed a new cane species – the Phu Khieo 1 to be suitable for the use of harvesters. It yields on average 20-22 tonnes of cane per rai and has an average sweetness level of 13-14 CCS. They sprout well, accumulate sugar quickly, stand tall without breaking or falling, and are resistant to smut and yellow spot diseases.

- Develop Portable NIR Detector (Cane Quality Detector)

Capable of checking cane components quickly without destroying the sample. Such as sucrose quantity, dry mass weight, amount of fiber, and water-soluble solids.



Product Innovation

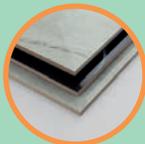


In 2018, the following new products were developed:

The “Golden Syrup”, unique color and flavor make the syrup a fantastic choice for drinks and desserts that require a hint of yellow, a mildly sweet taste and natural aroma.



Synchronous panels, wood patterns are mimicked on paper, with deep engraving on a plate. Give the panels a texture that is similar to real wood.



High gloss lacquered wood panels, the reflective surface of the panels is the result of advanced technology, applying a polyurethane coating, which gives the boards a lacquered finish and enhances resistance for scratches and bumps.



**Essence
of Sustainable
Growth**

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