



Climate Strategy

Climate Change potentially cause global warming, which impacts natural, economic, and social systems. This will affect food supplies, industry supply chains and human health. Mitr Phol is the largest sugar production company in Thailand which we may emit GHG from sugarcane plantations and production processes. The emission can cause harm to human health and impact to environment. Additionally, our customers are committed to be Net Zero and drive their organizations to reduce GHG emissions along the value chain. So low carbon products are essential to them for contribution on their GHG emissions reduction. To reduce the impacts to stakeholders, we develop programs to improve energy efficiency in production process, promote renewable energy, develop products and packaging that reduce GHG emissions, conduct reforestation, and collaborate with suppliers and customers to reduce GHG.

Output	Externality Impact	Quantitative Impact
Number of Carbon Footprint Reduction Products (In 2024, Mitr Phol has 8 CFR products)	Positive environmental externalities: Reducing environmental impact due to GHG emissions reduction in products	1.8 million baht
Biomass electricity sold to PEA and EGAT (approx. 2,236 million kWh sold in 2024)	Positive environmental externalities: Avoided GHG emissions for customers	37.88 million baht
Ethanol sold to customer to produce gasohol (approx. 277.4 million Litres in 2024)	Positive environmental externalities: Avoided GHG emissions for customers	725.24 million baht
GHG emissions scope 1&2 from operation in 2024 was 469,863.53 tCO2e.	Negative environmental externalities: Human health impact due to GHG emissions impact	718.15 million baht
In 2024, 666,516 trees were planted. (reduce 6,331.9 tCO2e)	Positive environmental externalities: Decrease human hospital fee from avoided emissions	9.68 million baht

Note: Carbon pricing and social cost of carbon are used in impact assessment.

Material Issues for External Stakeholders



Supply Chain Management – Development Program with Sugarcane Farmers

Sugarcane farmers are main suppliers to supply critical raw materials to Mitr Phol. They are directly influence to our operation and product availability to meet customer demand. Currently, we have more than 40,000 farmers that work with Mitr Phol Group. To retain the farmers to supply sugarcanes to us and help them to gain more income, we work closely with the farmers by providing farming advice, irrigation support, technological support, and financial assistance. Training is provided to educate farmers on agricultural best practices and how to operate machinery, equipping them with the knowledge about modern farming. Mitr Phol ModernFarm helps them to enhance farming efficiency, boost productivity, and minimize operational costs. This program also helps to increase volume of fresh cane cutting and reduce fuel consumption, which contribute to GHG emissions reduction. In case we have not promoted ModernFarm, Communities located near our contract farms may be impacted negatively on air pollution from burning cane activity and conflict of water availability.

Material Issues for External Stakeholders



Supply Chain Management – Development Program with Sugarcane Farmers

Regarding the implementation of development program with sugarcane farmers (main suppliers), we conducted impact valuation to measure social and environmental external impact as summarized as follows:

Output	Externality Impact	Quantitative Impact
Increase productivity from an average of 7-8 tons per rai to 10-15 tons per rai. This also uplifts profitability by around 3,000 – 5,000 baht per rai.	Positive social externality: Improved quality of life for sugarcane farmers to gain an income from increasing sugarcane productivity.	8,112.57 million baht
In 2024, Mitr Phol Group purchased 578,528 tons of sugarcane leaves for biomass fuel production to increase farmers' income, reduce sugarcane burning, and lessen environmental and community impacts.	Positive social externality: Increase sugarcane farmer's income	520.68 million baht
Promote to increase volume of fresh sugarcane cutting to reduce environmental impact. In 2024, the proportion of fresh sugarcanes was 13.09 million tons (72.22%) of total sugarcane and 27.78% was burnt sugarcanes.	<u>Positive environmental externalities:</u> Reducing GHG emissions due to reduction of burnt sugarcane cutting	4.35 million baht
	Positive social externality: Reduce people's health impact due to GHG emissions reduction to atmosphere from the activity of burnt sugarcane reduction	190.12 million baht
	Negative social externality: People's health impact due to air pollution from burning cane activity	265.64 million baht





Supply Chain Management – Development Program with Sugarcane Farmers

Output	Externality Impact	Quantitative Impact
Using drip irrigation system instead of normal irrigation. The drip irrigation system help to reduce 50% of water consumption	Positive environmental externalities: Reduce water consumption by using drip irrigation	409.5 million baht
	Negative environmental externalities: Limited water available for local community due to sugarcane plantations	4,638.32 million baht
In 2024, Mitr Phol constructed the Oasis Project, benefiting approximately 8,000 rai of farmland, helping reduce dependence on third-party water sources and increase farmers' incomes.	Positive environmental externalities: Reduce water consumption and cost from third party water	28 million baht
In 2024, Installing solar panel for water pumping in sugarcane farming in total 2,247 sets.	Positive environmental externalities: Avoided emissions to environment by reducing fossil fuel consumption	0.003 million baht
	Positive social externalities: Decrease human hospital fee from avoided emissions	0.151 million baht

Note: Increasing of farmer's income from increasing cane productivity and selling cane leaves, carbon pricing and social cost of carbon are used in impact assessment.