



SUSTAINABILITY REPORT



KSL GROUP



SUSTAINABILITY REPORT

Khon Kaen Sugar Industry PLC has been in business since 1945. At present, the registered capital amounts 2,205 million baht. On 7 March 2005, the Company became a listed company in the Securities Exchange of Thailand with its trading symbol "KSL".

The Sustainability Report 2019 covers the period 1 November 2018 to 31 October 2019. The making of this report is based on the Global Report Initiative (Standard) regarding the following aspects.

Environment



Energy

Aggregated Energy consists of heat energy and electricity energy used in the area of the Company or the factory. The data of heat energy is collected from quantity of fuel recorded in accounting or from meter multiplied with heat conversion. Data of electricity usage is collected from electricity invoice submitted by the provider.

Greenhouse Gas

The amount of GHG means the released quantity of GHG in the operation that is calculated according to the guideline for evaluating carbon footprint provided by the Greenhouse Gas Management Organization (Public Organization) revised the first time on 1 October with the following scope of report

- GHG with direct occurrence (Scope 1) is generated from activities within the Company's control e.g., boiler, vehicles used in Company transportation.
- GHG with indirect occurrence (Scope 2) is generated from the purchase of electricity from external sources.

The report of quantity of GHG (Scope 1) and GHG (Scope 2) uses the quantity of used fuel multiplied with the parameter of released GHG based on the Greenhouse Gas Management Organization (Public Organization).

Emissions

Dust, Sulphur Oxide and Nitrogen Oxide are calculated by using the concentration measured pursuant to the law multiplied with the flow rate of wind and working hours of machinery.

Water Withdrawal

The volume of water withdrawal is the withdrawal of water from various sources to be used in the Company's activities. The data is collected from invoices. The water sources consist of surface water and underground water.

Waste

Waste is divided into two types, namely, hazardous waste and non-hazardous waste pursuant to the Notification of the Ministry of Industry on the management of waste or non-used materials B.E. 2548. The quantity of waster is reported from the weighing of waste.

Safety

Information regarding employees and business partners which is collected from company's staff, outsourced workers and contractors.

The recording of safety data consists of

1. Aggregated accident rate means the number of accidents which occur in each 200,000 hours per person.
2. Accident rate resulting in stoppage of work means the number of accidents which results in stoppage of work which occur in each 200,000 hours per person
3. Rate of Stoppage of work from accident means the number of stoppage day resulting from accidents which occur in each 200,000 hours per person.
4. Rate of Leave means the number of days of leave resulting from accidents and sick leave due to work, not including leave for rest and leave to give birth which occur in each 200,000 hours per person.



Procedures of reporting issues of sustainability materiality (GRI102-46)

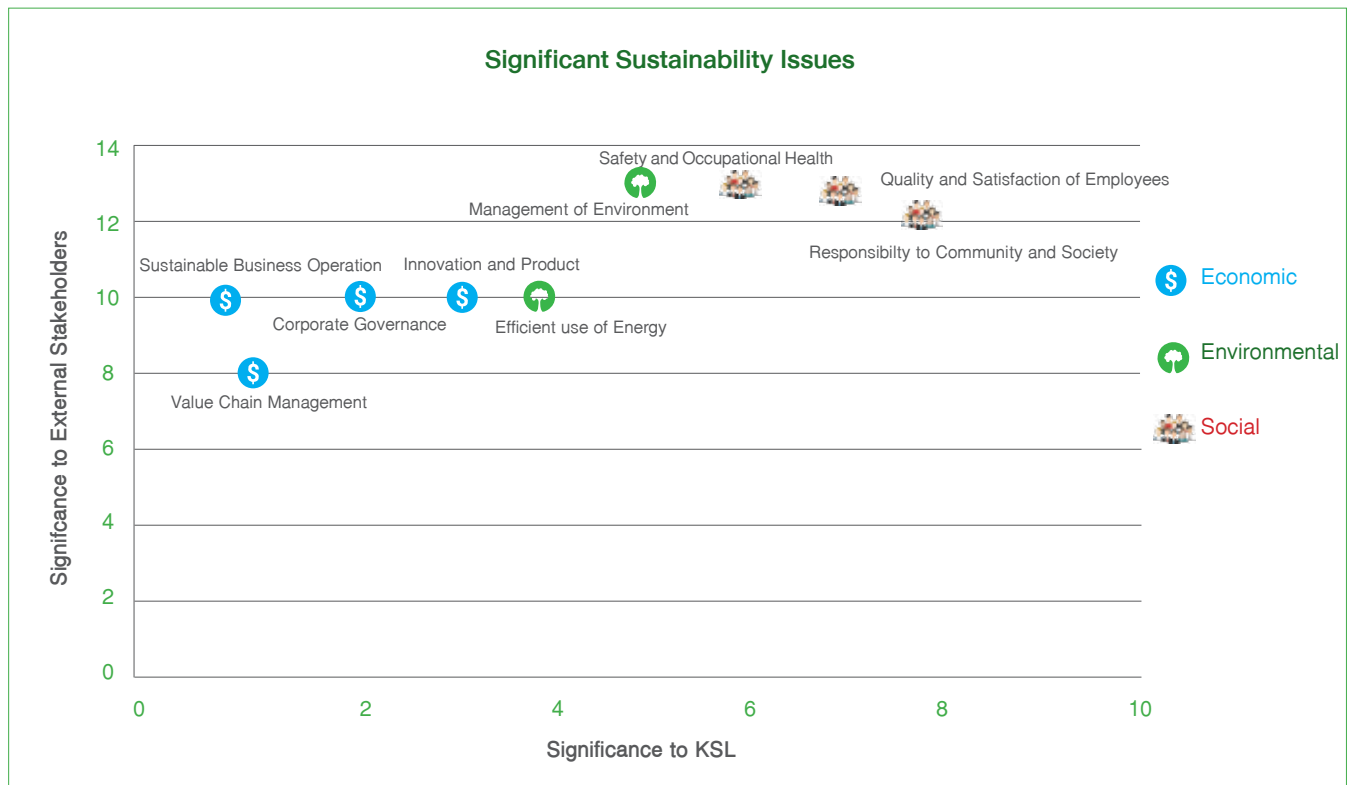
The group of companies has prescribed three significant issues on sustainability for the first time this year (between the fiscal year starting from 1 November 2018 to 31 October 2019), namely, economic, social and environmental issues and has prescribed important sub-issues together with the hearing form stakeholders with these steps.


Step 1 Important issues are prescribed to be consistent with the Company’s vision, mission, strategies, risks and the stakeholders’ perspectives in accordance with the standard indicators used in Global Reporting Initiative (GRI).

Step 2 Prioritize the materiality of the issues obtained in Step 1 by assigning the relevant units to select the important issues within the framework which requires the priority of issues pursuant to the sustainable development of the group of companies and the benefits of the stakeholders

Step 3 Re-check the materiality of the issues obtained in Step 2 by assigning the relevant units to present the issues which are reviewed in Step 3 to the Executive Board for approval the reporting of these sustainability issues to public.

Step 4 The Company assigns the internal audit office to recheck the procedures of evaluating material issues, collection and processing of data, participation of stakeholders, operation in respect of society, safety and environment so that the information is correct and complete.



- Economic** 
- Sustainable Business Operation
 - Management of Value Chain
 - Corporate Governance

- Environmental** 
- Efficient use of Energy
 - Management of Environment

- Social** 
- Safety and Occupational Health
 - Quality and Satisfaction of Employees
 - Responsibility to Communities and Society



Scope of the Report (GRI102-46)

The information regarding sustainability as hereby reported belongs to the group of companies which are value-chain related to each other, namely, the companies that operate sugar business, biomass electricity business and bio-fuel, dividing by branches where the factories are located.

Company	Environment					Safety	Human Resources
	Energy	Green-house Gas	Emission	Water With-drawal	Waste	Accident	Training
Khon Kaen Sugar Industry PLC (Nampong Branch)	●	●		●	●	●	●
Khon Kaen Sugar Industry PLC (Wangsapung Branch)	●	●		●	●	●	●
Tamaka Sugar Industry Co., Ltd.	●	●	●	●	●	●	●
New Krung Thai Sugar Factory Co., Ltd.	●	●		●	●		●
New Kwang Soon Lee Sugar Factory Co., Ltd.	●	●	●	●	●	●	●
Khon Kaen Sugar Power Plant Co., Ltd. (Nampong Branch)	●	●	●	●	●	●	●
Khon Kaen Sugar Power Plant Co., Ltd. (Wangsapung Branch)	●	●	●	●	●	●	●
Khon Kaen Sugar Power Plant Co., Ltd. (Boploy Branch)	●	●	●	●	●	●	●

Corporate Governance Structure (GRI102-18)

The Corporate Governance Committee is the body which has roles and duties as reported in topic 25, 70 The mentioned roles and duties include the mission to supervise the Company to implement the policy regarding environment and society because apart from the good corporate governance to steer the operation with transparency, integrity, accountability and conscience, the policy also requires the Company to take into account the protection of environment and social development, risk assessment and impact on environment and safety before investment, compliance with laws concerning environment and natural resources, production management to minimize impact on environment and natural resources.

Material Issues and Scope of impact inside and outside the Company (GRI102-47,103-1)

Sustainability Issues of the group of Companies		Sustainability Issues pursuant to GRI102-47	Scope of Impact		
			on internal units of the Company	on stakeholders outside the Company	related external stakeholders
1. Sustainable business operation	<ul style="list-style-type: none"> proper strategies risk management and internal control 	<ul style="list-style-type: none"> strategy making process corporate governance 	●	●	shareholders, creditors, farmers
2. value-chain management	<ul style="list-style-type: none"> raw materials procurement procurement of goods and contractors 	<ul style="list-style-type: none"> evaluation of farmers and suppliers regarding environment aspects, labor protection and human rights 		●	farmers, suppliers, contractors
3. Corporate governance	<ul style="list-style-type: none"> corporate governance business ethics measures against fraud and corruption 	<ul style="list-style-type: none"> implementation of corporate governance policy and Manual on measures against fraud and corruption recognition of integrity corporate culture formulation 	●	●	shareholders, staff, farmers, suppliers, customers, society
4. Efficient use of energy	<ul style="list-style-type: none"> reduction of energy use optimization of energy use 	<ul style="list-style-type: none"> measurement of used energy energy management 	●	●	Community, government units
5. Environmental management	<ul style="list-style-type: none"> reduction of emission management of industrial waste 	<ul style="list-style-type: none"> environment standard community grievances 	●	●	Community, government units, customers
6. Occupational Health and Safety	<ul style="list-style-type: none"> safety of staff safety of machinery and equipment emergency management 	<ul style="list-style-type: none"> occupational health and safety checking of machinery and equipment safety manual compliance handling emergency 	●	●	Staff, suppliers, government units
7. Personnel Development	<ul style="list-style-type: none"> Personnel Development Keeping of personnel and recruitment benefits and welfare 	<ul style="list-style-type: none"> training staff recruitment succession plan for high ranking staff relationship management between employer and employee 	●		Staff, customers
8. Responsibility to community and society	<ul style="list-style-type: none"> good relationship with community solution of problems to community 	<ul style="list-style-type: none"> Steady relationship building Increase of quality of life to community 	●	●	Farmers, community, government units, customers
9. Innovation and Product Development	<ul style="list-style-type: none"> Quality and Products 	<ul style="list-style-type: none"> Production of goods with standard 	●		shareholders, staff, farmers, suppliers, customers, society, government units

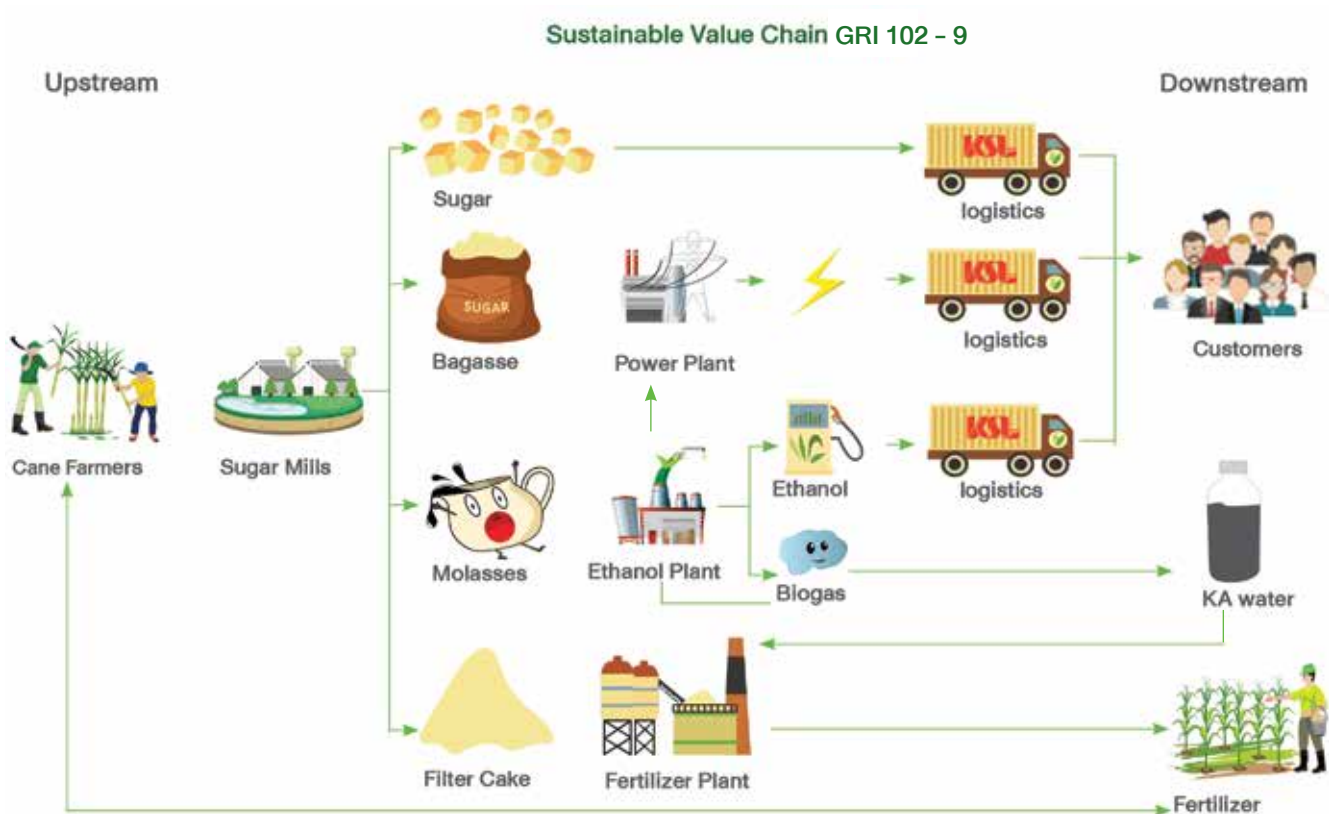


Stakeholders related to the group of companies

Each group of stakeholders has different expectation and receives different impact from the operation of the companies

Table of Stakeholders GRI102-40,42,43,44

Groups of Stakeholders	Behavior/incidents of interest	Issues received form the stakeholders
cane farmers 	<ol style="list-style-type: none"> farmer visit farmer meeting invitation to company ceremony or activities 	<ol style="list-style-type: none"> more promotion in terms of technology and revolving fund rapid discharge of sugar cane at the factory farmers' cooperation
shareholders 	<ol style="list-style-type: none"> Annual General Meeting Annual Report disclosure of information to Stock Exchange of Thailand Quarterly meeting with analysts (Opportunity Day for investors) communication to various channels e.g., telephone, emails, website inquiry or complaints through provided channels 	<ol style="list-style-type: none"> appropriate and steady return of investment prudent investment transparency and accountability
Suppliers / contractors 	<ol style="list-style-type: none"> meeting and seminars communication to various channels e.g., telephone, emails, website complaints through provided channels attending activities of the companies 	<ol style="list-style-type: none"> fair and transparent procurement timeliness of job reception timeliness of payment for goods /fee work safety
Customers 	<ol style="list-style-type: none"> visiting customers inviting customers to visit factories survey of customers' satisfaction communication to various channels e.g., telephone, emails, website complaints through provided channels 	<ol style="list-style-type: none"> acknowledgment of customers' need quality improvement of products improvement of delivery - improvement of after sale service compliance with human rights principles, environment standard and labor standard
Financial institution creditors 	<ol style="list-style-type: none"> Annual Report Financial statements disclosure of information for credit analysis 	<ol style="list-style-type: none"> timeliness of payment use of appropriate financial service
staff 	<ol style="list-style-type: none"> Newsletter intranet, video-conference meeting / seminar / training annual division meeting meeting between supervisors and staff annual employee evaluation 	<ol style="list-style-type: none"> competitive benefit and remuneration promotion through career path self- development recognition from supervisor and colleagues
Community / society 	<ol style="list-style-type: none"> regular interaction with community attending community's activities advice on occupational opportunity to community 	<ol style="list-style-type: none"> reduction of impact form factory to community support to community's activities elevation of community's living standard
Local administration / government units 	<ol style="list-style-type: none"> attending and supporting activities coordination with government agencies permission or license seeking as required by law 	<ol style="list-style-type: none"> compliance with laws cooperation with government agencies for local development abolition or reduction of environmental impact on community



Economy Aspects

1. Sustainable Business Operation.

The Company is well aware that, in doing business sustainably, there must be a good balance between business stability (including yearly profit and long-term growth of business) and care of environment, society and corporate governance.

As for business stability, the Company has operated its business in line with the vision and strategies and reviewed or solved the problems to respond to the goals within the framework of corporate governance. The Policy has set a clear path that the Company’s business process must not create environmental and social problems and shall promote activities that help protect environment and develop society simultaneously.

2. Value-chain management

The group of companies produces sugar from Value-chain picture main raw material - sugar cane. The Companies regard cane farmers very important stakeholder. Project iCane consists of four sub-projects. Project iFarm iMap iForm iCash. The project is meant to develop quality and efficiency of promotion for farmers and cane growing by applying information technology innovation to improve the process so as to be able to respond the farmers’ need and to enhance the efficiency of service for the farmers.

iFarm project was aimed to change the large scale sugar-planting method to precision farming in the western region at Bo Ploy, Kanchanaburi. The KLS planting advisory team at Tamaka, Kanchanaburi, so - called KSL Ranger, was assigned to supervise the planting in the area by using appropriate GPS (Guidance and Auto Steering System) technology. The application of appropriate technology and machinery together with sustainable and efficient management helped develop the planting process, maintenance and harvesting. As such, the increase of productivity and decrease of production cost regarding the use of chemicals, labour, burning, soil suppressing, drought, excessive water in the field and obstructed materials in the field.

iForm project is an innovation bringing technology to develop the work process of staff by reducing working steps and increasing convenience to farmers.

Previous pattern

1. Use paper forms for farmers
2. Bring papers to process in office
3. 5-14 days for total work process

New pattern

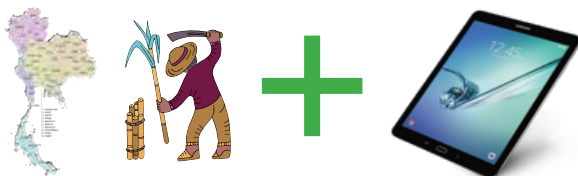
1. Input farmers’ information to tablets
2. Upload information for consideration
3. 2-6 days for total work process



iMap project concerns the use of similar technology to iForm but focuses on the management of cane farm information, ranging from planting areas, maintenance, harvesting, logistics, monitoring as well as anticipation the time to harvest. It helps manage the cane farms more effectively by reducing the waiting time to load sugar cane at the mills. The sugar cane is thus of better quality. Apart from the above-mentioned, the group has renders organic cane project and CCS project.

The Advantages of Using Technology

1. Specify sugarcane plantation’s coordinate and monitoring sugarcane growth.
2. Forecast the sugarcane harvest date for each field and improve quality in sugarcane.
3. Reduce wait time in sugar cane queue in front of a sugar factory



Sustainable Sugar Cane Planting Project was aimed at changing to organic sugarcane by using organic fertilizer in the planting field to harvest 100% natural sugar cane. The period of the project would last three years. The use of organic fertilizer helped reduced production cost and top soil loss. The pilot project was done at Bo Ploy, Kanchanaburi. The participating farmers would get advice from the technical term of KSL throughout the project.

CCS Study Project This project was to experiment the increase of CCS, the indicator of sweetness, in sugar cane. The original experiment was a cooperation with a Yamaha company, which had experimented the spraying of sweetness accelerating matter since 2018. In 2019, Kacha Agricultural Chemicals joined the project to further explore the experiment of the matter and weed abolition.



KSL Junior Farmer 2019 - new generation of sugar cane farmers, year 2.

The project had an objective to deliver sugar cane planting business to the next generation. The Company developed a curriculum “New Gen of Farmers” with the main purpose to have the trainees use the knowledge to apply to their parents’ farming with the hope that these new generation would succeed the business and supply sugar cane to KSL as their alliance. Another purpose was to create good relationship between the farmers and the factories and to share knowledge regarding the sugar cane planting and other relevant matters in each region.

The project is focused at the new farmers who are interested in sugar cane business and wish to sustain their business for their future and to maintain the occupation with stability and sustainability.

The activities for the new farmers in 2019 is held at KSL River Kwai Park and Resort during 7-9 November 2019. The topics to be discussed includes 1) the knowledge in sugar cane business emphasizing on the analysis for investment 2) the increase of productivity by modern farm management and appropriate application of technology and 3) the applied Sufficiency Economy in business.

Fertilizer embedding Equipment in the Sugar Cane Filed Project

KSL Material Supplies Co., Ltd., which normally provided organic fertilizer to cane farmers, had developed an innovative fertilizer embedding equipment so as to solve the problem of ineffective equipment. Two types of equipment were developed to serve this purpose.

1. Mini-Combine was an equipment to prepare the soil for fertilizer embedding. This equipment helped embed fertilizer for more effectiveness and reduce the steps of soil preparation by farmers.
2. Fertilizer embedding equipment with twin tanks and boom spray to separate organic fertilizer from chemical fertilizer, which solved the breakdown flow of fertilizer feeding. The use of such equipment helped reduce work burden for farmers.

Quality Policy

“Quality Sugar with highest efficiency, on-time delivery, customer’s confidence, consumer’s safety”

Manufacturing Standards and Customers’ Need

Manufacturing Standard

Manufacturing standard includes accepted manufacturing process in the mills. As all of customers are industrial customers, the companies deem manufacturing standard as high priority. The products must comply with the customers’ standards or internationally or domestically accepted standards.

The group of companies have corporate governance policy and guidelines in respect of customers in a Chapter on Roles of Stakeholders such as the use of international standard, quality management, TIS 56-2552.

Apart from the said corporate governance policy, the group emphasizes on sustainable business operation throughout the value chain. The world class standard regarding sustainable production of agricultural goods in cane and sugar industry, namely, Bonsucro, is adopted. The standard applies to the production process, starting from the growing of sugar cane in the farm, the production of sugar in the mills to the delivery of goods to customers. As such, the standard integrates sustainability of the economic, social and environmental aspects. It helps reduce cost, develop quality and quantity of production, comply with labor standard and human right protection and conserve environmental balance as well as develop the cane farmers’ quality of life.

At present, buyers in the world market accept Bonsucro standard in respect of sustainability ranging from upstream to downstream and have procurement policy to use raw materials that pass the production process under certified sustainability standard. This is a further step of the Company to build up sustainability and to increase competitive edge in the world market.

Customers’ need

To respond to customers’ highest satisfaction regarding quality and product standard, the Company deems very important to deliver the goods on time, to extend international standard service and to maintain customers’ confidential information as well as to exercise business ethics in respect of responsibility and relationship with the customers in the long run.

The Company communicates with customers through various channels and makes customer visits to acknowledge customers’ needs and to convey useful information to customers.

By the same token, the Company invites customers to visit and to audit the work process of the Company and the factories so that the customers can consider the Company’s potential and capacity to supply the products as per the customers’ standard. The Company also surveys the customers’ satisfaction annually and takes into consideration the customers’ comments to improve the Company’s service and production process.

Factory’s Standard of Quality

The companies continually improve the quality of factories. In 2019, the companies are granted with the following quality systems: ISO9001:2015, GMP, HACCP, ISO22000, FSSC22000, Halal, Kosher, Bonsucro and good governance in environment.

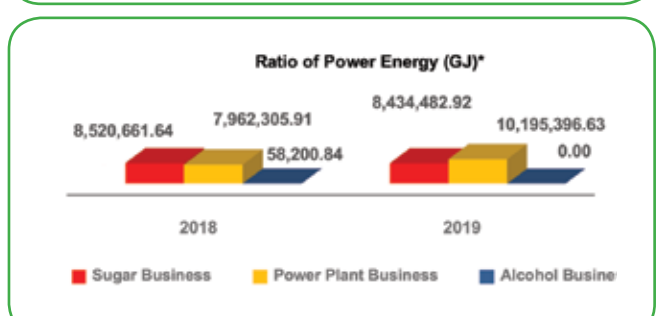
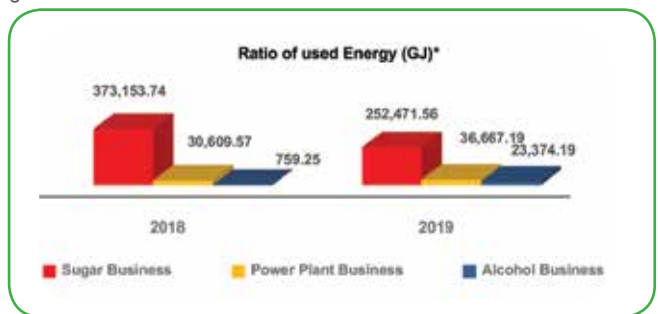
3. Corporate Governance

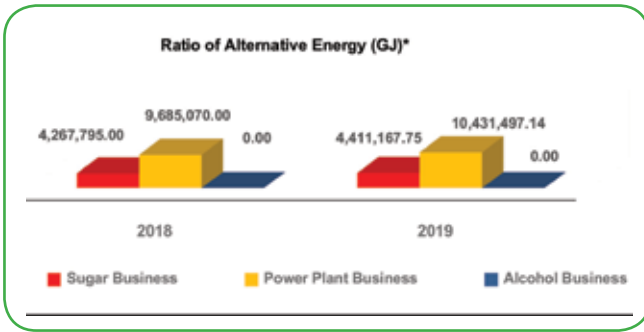
The Company considers the corporate governance an essential mechanism for the Company to administer a good relationship with all stakeholders, namely, shareholders, staff, farmers, suppliers, customers, community and government agencies. The Company therefore has a clear policy of corporate governance regarding each group of stakeholders so that the operation shall be subject to transparency, accountability, efficiency and responsibility to society and environment.

This report alludes to the Corporate Governance Policy and the governance at page 55

4. Efficiency in Energy Use (GRI302-1)

The group of companies regards the management of energy and climate change as important matters to prevent any effect to community, environment and cost-saving related to energy. Furthermore, the stakeholders also emphasize in issues related to climate change and global warming caused by greenhouse gas emission.



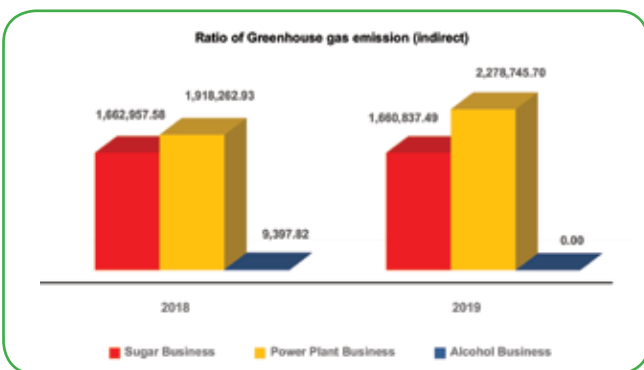
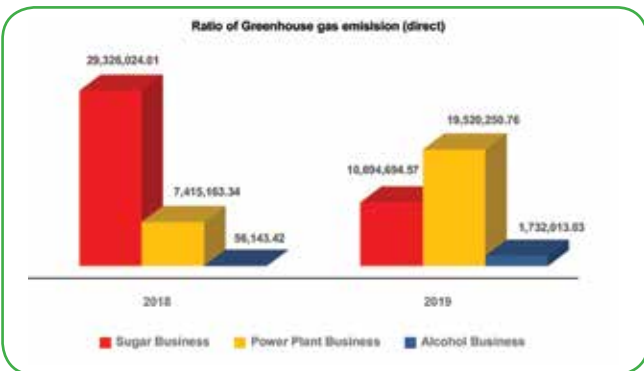


Note

- *Alternative Energy is bagasse derived from sugar production process
- *Diesel/Benzene (Litre) × Conversion rate (Megajoule)
1000
- *Bagasse (Ton) × Low heating value
0.004186

Greenhouse Gas Management (GRI305-1,GRI305-2)

The group of companies conducts measures to reduce greenhouse gas, both direct and indirect, to reduce energy use in sugar manufacturing process and in office. Also, there is a promotion to reduce energy use along with increasing area for containing greenhouse gas by increasing green area in factory, reforestation and to promote activities related to community forest across country by cooperation with government agencies and other organizations.



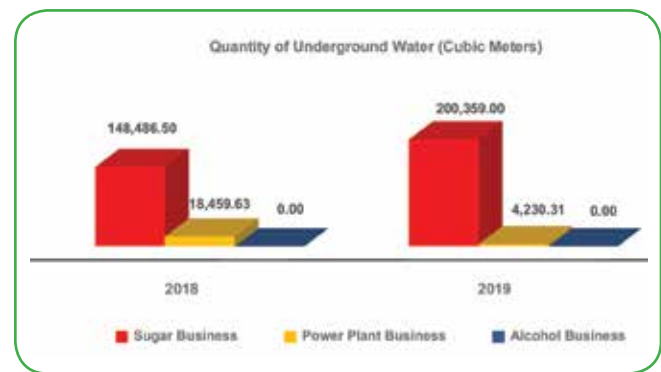
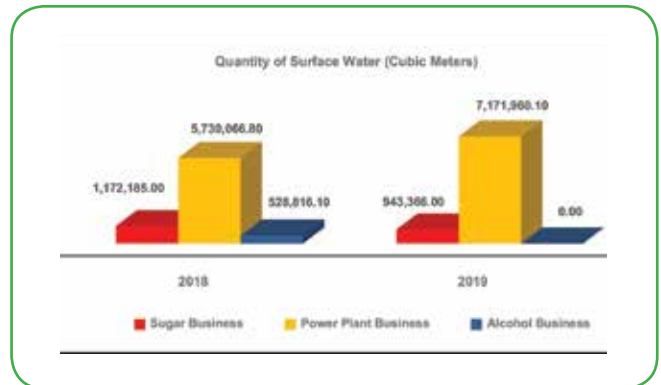
Note

- * Direct Greenhouse Gas Emission is the volume of diesel/benzene/LPC (litre) × Emission factor = Ton carbon dioxide
- * Indirect Greenhouse Gas Emission is the volume of electricity bought from external source (Megawatt / Hour) X Emission factor = Ton carbon dioxide
- * Emission Factor is referred to Thailand Greenhouse Gas Management Organization (Public Organization)

5. Environment Management

Water Management (GRI303-1)

Water pumping from raw water source is classified into 2 portions, namely water in manufacturing process and water in office. Wastewater from sugar manufacturing process is mainly water from cooling system used in exchanging temperature. Wastewater will be transmitted into treatment system by sedimentation and deposition and then reduced temperature approximate with nature, before emission from factory, in order to ensure water quality as emitted in line with required standard such as standards of Royal Irrigation Department and Ministry of Industry. The process is meant to prevent adverse effect to biological diversity of water source. For water used in office, after standard treatment, the treated water will be used in watering system, agriculture demonstration plot and wetlands.





The group of companies has measures to control quantity of water for best utilization by applying with 3R as follows;

Reduce Reducing quantity of using water in factory during crushing period, by using condensate water (water derived from condensed steam) in manufacturing process to reduce the use of soft water, controlling proper blow down rate of steam boiler and controlling the use as necessary of soft water to reduce using chemical/water.

Reuse Reusing water/using water effectively; water from cooling system (condenser water) will be used with water system to get rid of ash from steam boiler, to wash boiler, to clean floor of factory; reusing water from cooling system of operating room; taking blow down water from cooling tower to blend with condenser water system.

Recycle used water will be treated and used in condenser cooling system, fire protection system, spraying bagasse, spraying truck parking ground to prevent dust and watering trees and green areas to ensure limitation of quantity of drainage out into environment as necessary, The group of companies installs treatment system suitable with wastewater in each type to be effective in treatment system and to get post-treatment quality water in order to prevent effect to water source and utilization by the community.

Submerge Aerated Fixed Film Project for Water Reuse

Each year, there is condensate water of approximately 400,000 - 600,000 cubic meter (varying to the crushed sugar cane volume). The group of companies are aware of this waste and attempt to treat the waste water so that it can be reused for utmost benefit and shall not cause adverse effect to community and environment. The project is accordingly desinged.

The Objectives of the project are

1. To treat and to reduce the sugar which is mixed in the condensate water and to reuse the water.
2. To reduce the shortage of raw water to be used in the mills.
3. To reduce environmental impact.

Goals of the project

Control sugar before release to raw water pond to be at 0 ppm and increase raw water volume to be 100% used in the mills.

Control sugar before release o raw water pond to be at



Benefits from the project

1. 100 % reuse of water.
2. Reduce the discharge of waste water to environment to zero waste which no effect to community and environment.

Note

The Information as to Submerge Aerated Fixed Film (SAF) belongs to New Krung Thai Sugar Factory Co., Ltd.

Garbage Disposal Project with the Community

KSL Green Innovation PLC at Bo Ploy Branch, Kanchanaburi initiated this project to promote participation to separate garbage at the beginning. In this respect, Wat Lum Rang, Bo Ploy, Kanchanaburi was a center of activity with support from both government agencies and private sectors in Kanchanaburi.

Moreover, New Kwang Soon Lee Sugar Factory Co., Ltd. was certified Green Industry, Level 2, Green Activity from the Department of Industrial Works, Ministry of Industry in 2019 to show that the company had achieved the target of conducting activities that reduced environment impact.

The Company had measures to prevent and solve environment impact as follows

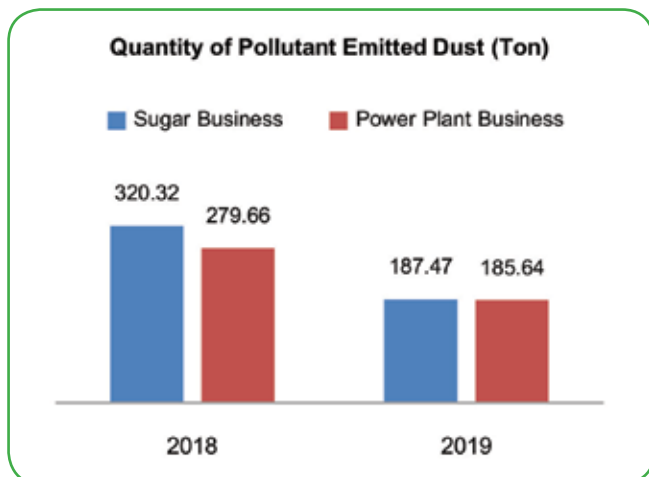
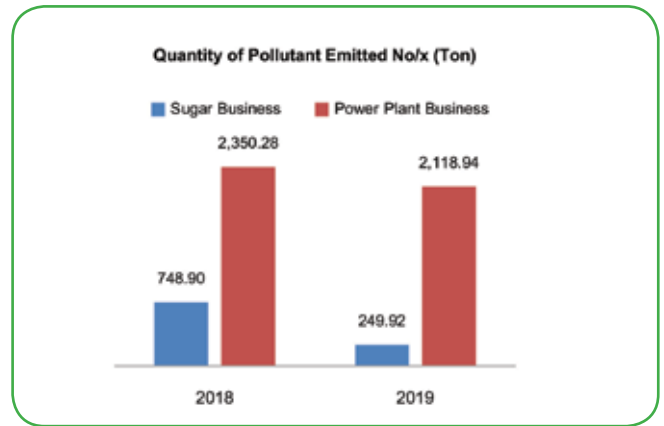
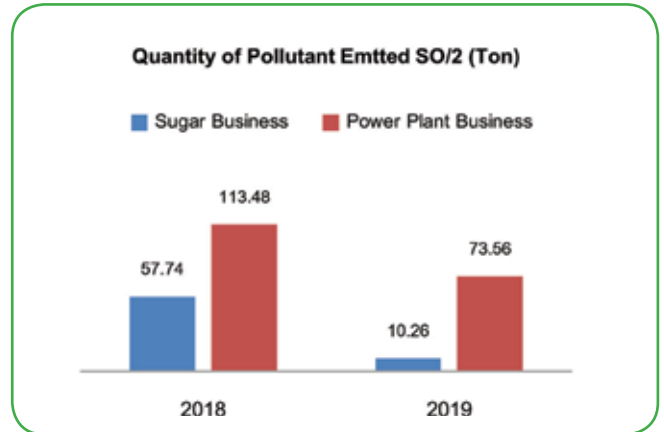
- **Reducing Cane burning** with a campaign to buy fresh sugar cane with higher price than the burn one and to disseminate the knowledge about the adverse impact of sugar cane burning
- **Reducing dust from trucks** by setting up cleaning points before entering and after leaving the factory
- **Transporting bagasse to power plant** by closed conveyor to reduce diffusion of bagasse
- **Reducing particles from storing calcium oxide** by keeping in building having electric shutter
- **Cleaning road in front of factory** regularly and, particularly in crushing season, collecting fallen sugar cane on the road to factory daily
- **Water spraying parking lot for trucks**, road in front of factory and roads in the villages as requested to reduce the spread of dust
- **Visiting villages around the factory** during crushing season to receive complaints and information and to conduct community relationship activities



- **Disposing general garbage** by preparing enough litter bins in the factory and separating types of garbage before collecting and sending for disposal at the municipality
- **Storing molasse** in steel tanks for delivery to customers and giving filter cake derived from production process to farmers for use as an ingredient of fertilizer
- **Managing used lubricants** by keeping the usable oil in closed 200 litre barrel to sell to legitimate buyers and keeping the un-usable one in tightly closed barrels for disposal
- **Keeping filter paper contaminated with lead** from laboratory, approximately 3 tons per year, in tightly closed 200 liter barrel at a specified place to send for disposal by licensed entity
- **Managing noise** reduction by using machinery that was designed to generate noise in accordance with international standard and installing the machines in closed building to lower noise level and planting trees around the factory to absorb noise
- **Measuring water quality** before and after treatment on monthly basis
- **Treating waste water** by using the treatment system within the factory and reusing the treated water for appropriate purpose

Air Pollution Reduction (GRI305-7)

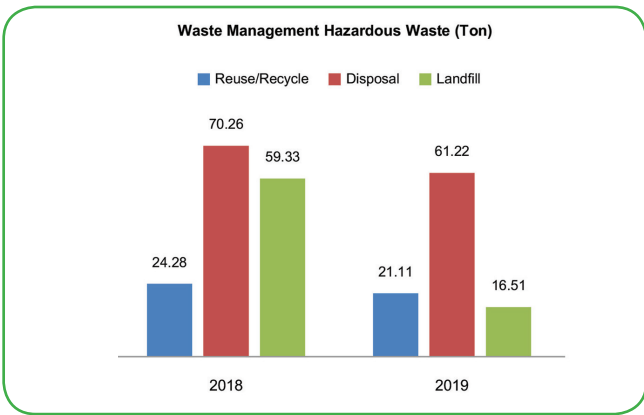
The group of companies materializes the reduction of impact occurring from operation and also realizes the importance of being with community surrounding the factory by closely measuring the amount of gas emission as required by law, inspecting operation related to environment aspects to be in line with plan and target to ensure that the impact on the surrounding community shall be minimized and the operation shall be respectively improved.



Industrial Solid Waste Management (GRI306-2)

To ensure least quantity of remains from manufacturing and maintenance process to be disposed, the group of companies controls the use of raw materials and equipment for maintenance effectively and selects the method of disposing remains with minimal effect against environment. Each factory is careful about selecting the waste management provider and its careful disposal method which must be in compliance with the laws. Furthermore, the factory keeps monitoring the disposal of the waste management provider to ensure that the waste will be managed correctly and properly, in accordance with standard Ministry of Industry.

In sugar manufacturing process, there is organic residue called filter cake, that is the mixture of soil, sand and organic matters from sugar cane. The sugar factories usually use this filter cake as raw material for producing natural fertilizer or soil improvement element or deploy it in the sugar cane field to help increase the soil quality.



Remark

Reuse/Recycle: for some hazardous waste that can be reused as containers, such as oil barrels or used to mix with other products.

Landfill: In manufacturing process, there is organic residue called filter cake, that is the mixture of soil, sand and organic matters from sugar cane, and ash. Filter cake and/ or ash are used as raw materials for producing natural fertilizer or soil improvement element or deployed in the sugar cane field to help increase the soil quality.



Social Aspects



6. Safety and Occupational Health (GRI403-2)

The Company regards the importance of safety and hygienic conditions in the workplace both at the office and factories and sets up a Committee on Safety, Occupational Health and Environment in the factories to take care of the safety and hygienic conditions of the employees by examining the safety in the workplace regularly, installing alarm system within the premises, providing fire extinguishers and fire exit, scheduling annual fire evacuation. The factories additionally build work environment which is safe for employees, contractors and visitors with controlling measures as well as provide training for security staff to build confidence to the stakeholders.

Safety is priority. The group of companies, therefore, sets a target to be the organization without any accident to employees, contractors and all interested parties to prevent any losses to life and property.

Kiken Yoshi Training (KYT) activities- Training for Alert

KYT activity is a training for awareness of hazard. It is a group activity to encourage work safety by training the anticipation of hazard with the concept of quick and accurate cooperation by pointing fingers and verbal repeat. The training covers technical knowledge, sensitivity of hazard awareness including concentration, enthusiasm, unity building and all in one coordination.

KYT activity emphasizes on self-problem fixing by promoting the un-compelled activity by the staff. The activity is important to build discipline, unity, enthusiasm that are all useful in the workplace.

KYT activity keeps the staff alert of human error before start working as the accident may happen at any time and may cause unpredictable damage.

It is the activity that the operating staff shall participate by thinking of imminent danger in the work and warn themselves by applying “finger pointing and keep saying” method.



The conditions of KYT activity is that everyone must speak out with sincerity and must listen to opinions of others. It needs serious co-thinking or brainstorming. It is well aware that the order for safety of the supervisors is not enough because the staff would practice only when they get the order which sometimes does not match with the on-site problems.

Safety, Health and Environment Activity (SHE Day)

SHE day activities were organized to promote work safety for employees by New Kwang Soon Lee Sugar Factory Co., Ltd. at Panusnikom, Chonburi in June 2019 and Khon Kaen Sugar Industry PLC, Wang Saphung Branch, Loei in August 2019. The activity focuses on educating the staff in respect of using safety equipment. The expert in each field shall be invited to teach the employees. There is a monthly safety check in each section in the factory so that the staff shall be repeatedly warned of work safety with a valuation by giving marks to employees. The employee who gets the highest mark shall be awarded and complimented as a good example for other employees.



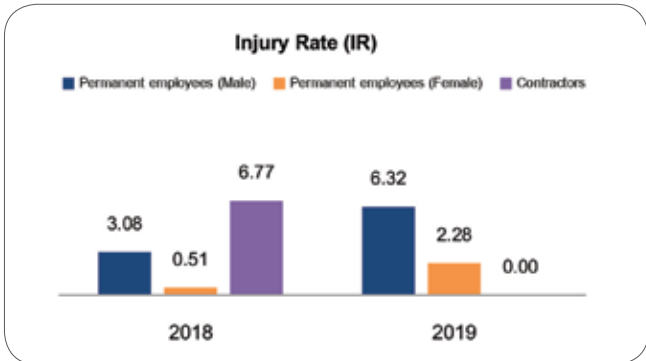
Photos showing SHE Day activities of Khon Kaen Sugar Industry PLC, Wang Saphung, Loei

Photos showing SHE day activities of New Kwang Soon Lee Sugar Factory Co., Ltd



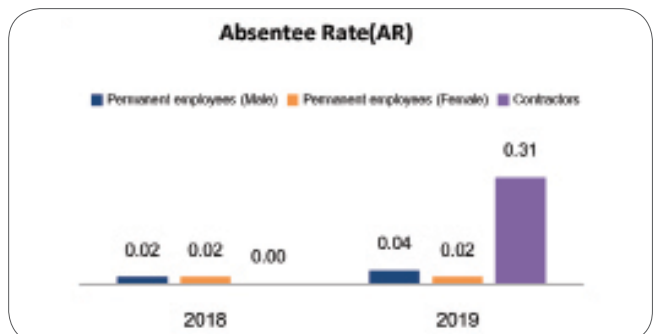
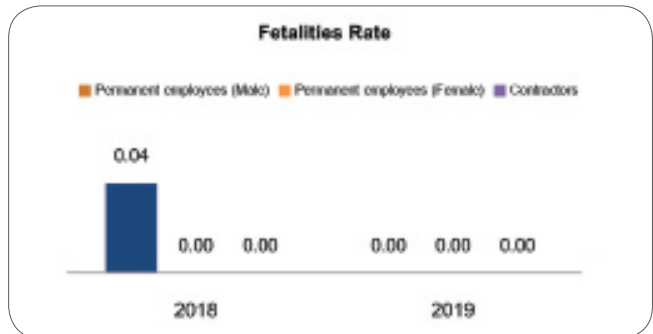
Zero Accident Project

The Zero Accident Project or Zero Accident in 1,000,000 working hours was initiated by Khon Kaen Sugar Power Plant Co., Ltd. at Wangsaphung, Loei and conducted by the factory's Committee on Safety, Occupational Health and Work Environment so as to promote safety in the workplace to achieve the level that there was no serious accident in work that caused a minimum three-day leave



Note

- Accident Frequency Rate is the index to measure accident in the organization which is calculated from the number of persons who would incur accident
- Comparing with the standard of 100 employees, working 8 hours a day in 250 days per year which is equivalent to 200,000 man-hour per year



- Information regarding contractors are from two companies - Khon Kaen Sugar Industry PLC (Wangsapung Branch) and Khon Kaen Sugar Power Plant (Wangsapung Branch)



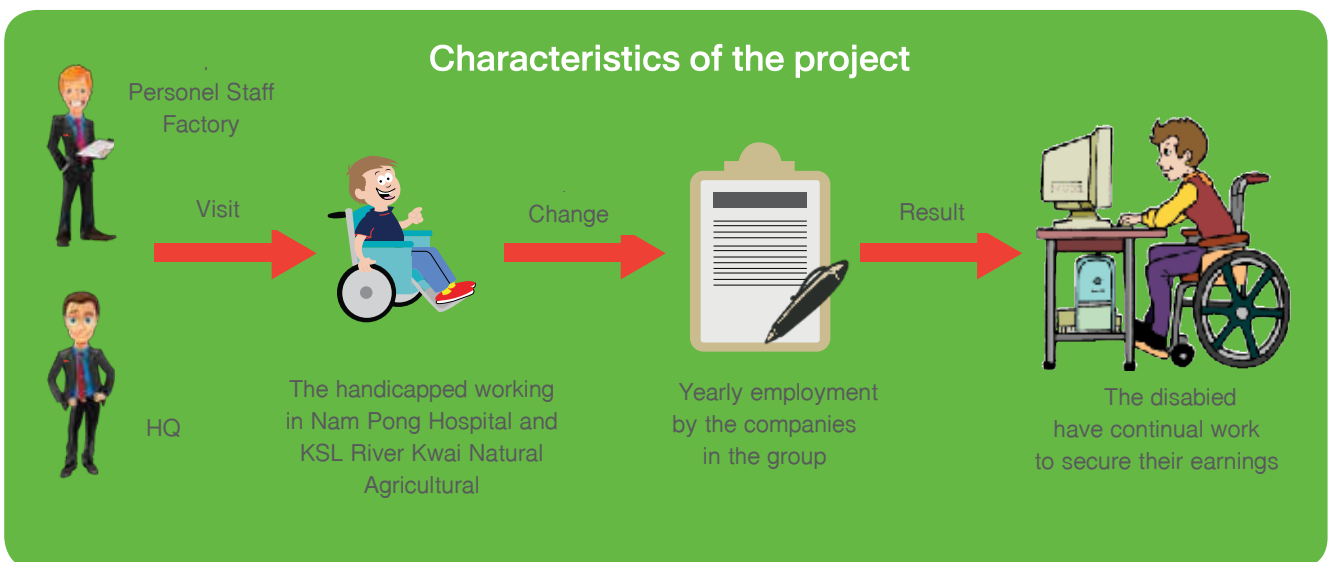
7. Quality and Satisfaction of Employees (GRI401-2)

Employee is a starting point to drive business towards success. Therefore, the group of companies adheres for human resource management by promoting employee potential throughout working period including active recruitment for qualified employees ready to help propel the organization to sustainable growth. The group of companies also focuses on management and personnel development to make the group of companies the organizations at the top ranking which people want to work with.

The group of Companies uses recruitment channels to solicit both insiders and outsiders by appropriate testing and interviewing to ensure that the companies would have persons

suitable to the jobs on the basis of capability and right qualifications and non-discrimination against race, nationality, tribes, religion, social status, gender, age, disability, political thought and marital status.

In 2019, the Company plans to hire more disabled as employees by increasing the number from 41 employees to 21 employees. The Company has a memorandum with the Nampong Hospital to hire the disabled to work in the hospital and may assign additional work if they feel convenient to commute to the factory. In addition, the Company cooperates with the Natural Agriculture Center at KSL River Kwai to hire the disabled to work in several learning centers.



The change from fee payment to the Disabled Supporting Fund to direct employment is a way to create human value to the disabled so that they can have their own earning to rely on themselves and live among others with dignity. The adaptation of selection process and potential development to decrease social inequality are deemed a creation of social value that is consistent with the Sufficiency Economy Principles of the late King Rama IX.

It is an opportunity to expand corporate social responsibility in the coming years. In case an employee becomes crippled due to sickness or accident and is not able to do the normal work and dismissed, he could be further supported by doing this yearly work instead. This could be an extension of the project to benefit the members of KSL family.

The Company and all related parties put effort to render policy and implement various practices to help develop the employees' quality of life and, at the same time, to build a better standard of corporate social responsibility.

The group of companies provide welfare and service in addition to those required by law to all levels of employees to promote quality of life and to stabilize their future such as provident fund, life insurance and accident insurance, housing welfare with low interest rate, loans and monetary assistance including the promotion the employees' work-life balance by providing period for leave according to the years of work.

In 2019, Khon Kaen Sugar Industry PLC received a bronze level award from the Securities Exchange Commission (SEC) in the Happy Retirement Project organized with its alliances. The project promoted the listed companies to establish provident funds as mechanism to support their employee's saving to reach sufficient fund at their retirement, Employers were deemed an important factor to make their employees aware of saving through the provident funds.

As for right and liberty, the group of companies communicates to employees through intranet so that the employees shall get useful information and updated operation of the companies thoroughly and rapidly. The employees are encouraged to express their opinion or to negotiate various matters and take into account their opinions and suggestions which are useful for the employees and the companies.

Employees of all levels are important to the companies no matter of race, religion, gender. All employees are equal and are treated equally. They are entitled to welfare without discrimination. The promotion is done by a committee which consists of executives from different units to ensure transparency and fairness. Besides, the Company encourages the acquisition of knowledge through internal and external trainings so as to cope the future growth. The Company establishes a provident fund for employees.

The group pays serious attention to the Thai labor standard because the compliance with the standard is the respect to basic human rights and is well accepted by all stakeholders. The result also benefits the employers, employees and the nation.

Employers' benefits

1. Goods and services are accepted that they are generated from a source that is reliable and trustworthy as to fair management of labor and social responsibility regarding labor standard
2. Marketing mechanism for competition in both domestic and international markets
3. Good image that fosters creative public relations
4. Support and respect internationally-declared human rights
5. Good relationship between employers and employees

Employees' benefits

1. Good morale and work security through human right protection
2. Protection of employees' rights not less than that provided by law
3. Freedom to collective bargaining
4. No employment discrimination due to differences in nationality, race, religion, age, gender, attitude and disability
5. Safety, occupational health and good working environment

Nation's benefits

1. Competitive edge to develop economy with equality to integrate with world economy
2. Elevation of the country's image regarding quality of goods and services under standard criteria, fair labor management and corporate social responsibility

The commitment of the Company to maintain its Thai labor standard has been recognized by being awarded Thailand Labor Management Excellence Award in 2017 as it kept maintaining the standard for 10 consecutive years.





Management and Personnel Development (GRI404-1)

The Company sets target to have personnel trained in line with the directions and strategies of the Company so that the employees have potential and efficiency in handling the work and have opportunity to progress in their career paths. The internal training by internal or external facilitators covers matters which are related to the work as well as ethics. The employees may attend external training or seminars to enhance their knowledge. The Company establishes training plan and budget each year and encourages the transfer of knowledge among employees in the group of companies.

The Company regards that an important part of personnel development is to create courses that are necessary for the employees which consist of mandatory courses and courses for potential development.

Mandatory course is either the course that requires all employees to attend or the course that is specially designed for specific group of employees.

New Employee Orientation

This course provides basic knowledge about sugar cane industry and the Company's history, culture, structure, management system, and products. With this knowledge, new employees can understand the KSL's work environment and begin to work with their colleague smoothly.

Work Place Safety

This course provides knowledge on workplace safety. It will make employees aware of hazardous areas in the workplace and learn how to work safely and prevent dangerous accidents. The Company also created a committee to ensure health and environmental safety according to the required standard of 2543.

Quality Management System (ISO 9001: 2015)

This course provides relevant employees with knowledge and understanding of the ISO 9001:2015 quality management system. Employees shall learn to master their assigned tasks and responsibilities and follows the required production and quality standard so that customers can have confidence in our products that are managed and produced under internationally accepted standards.

Food Safety System (FSSC 22000)

This course provides relevant employees with knowledge and understanding of Food Safety according to the FSSC 22000 standard. Employees shall learn and plan to prevent food contamination to ensure customer's confidence in our products.

Thai Labor Standard (TLS 8001-2553)

This course is to provide employees with knowledge and understanding of Thai Labor laws and standard such as freedom of expression, non-discrimination practice, respect for human rights, and workplace health and safety regulations.

Training curriculum : Increase Potential with the King's Disciplines for 2019

The workshop on "The King's Discipline towards Leadership Development for 2019", Class 1 was organized for the employees of Khon Kaen Sugar Industry PLC, Nam Pong Branch and Wang Saphung Branch on 10-12 October 2019, Class 2 for the employees of Tamaka Sugar Industry Co., Ltd., New Krung Thai Sugar Factory Co., Ltd., New Kwang Soon Lee Sugar Factory Co., Ltd. and Thai Fermentation Co., Ltd. at KSL River Kwai Natural Agricultural Center during 17-19 October 2019. The curriculum was designed to develop the potential of employees in doing their work and the leadership by referring to the 23 royal working principles. Also, the employees had suitable the opportunity to learn the Sufficiency Economy Principles of the Late King Bhumiphol Adulayadej for self-reliance. With the Sufficiency Economy to Employees Project, the employees could do suitable agricultural work in their leisure time to reduce their expense and to increase their family income.

The Company put much importance to environment aspect.

The problem regarding environment mostly occurred because of lack of knowledge and understanding about environment. The approach, therefore, was to create awareness and to train employees in respect of environment by providing relevant curriculum for directors, executives and staff who were related to the matter and those who were interested in. In 2019, there were curriculum as follows.

1. Sustainable sugar cane production under changing policy and environment
2. Controller of industrial waste management
3. Controller of water pollution treatment system
4. Controller of air pollution treatment system
5. Sustainability Reporting Workshop: GRI Standards Class 1-2

Courses for Potential Development

The Company recognized the importance of continuous improvement of its employees' skills and knowledge and therefore provides training courses to enhance those skills and knowledge so that the Company can increase work effectiveness and efficiency of employees at all level.

Executive Level

The development courses and training for executive level focuses on new management knowledge and techniques so that the executives can set future direction for the Company, make strategic plan to achieve future goals and in time for the rapid changes in the competitive environment. Examples of courses are: Strategic Thinking and Executives, Directors Strategic Workshop, and Risk Management Workshop.

Management Level

The development courses and training for management level emphasizes on general management to make better and more efficient management plan and leadership development for sustainable growth. Examples of courses are: Mini MBA for KSL, HR For Non-HR, The Leader as Coach, Competency for Executive Management, Effective Performance Management System, and Business Continuity Management System.

Supervisor Level

The development courses and training for supervisor level focuses on increasing their personal skill sets, knowledge of the job operation, art of communication, and team work to improve work effectiveness and efficiency as well as to create positive attitude towards the Company. Examples of courses are: Effective Presentation Technique, Negotiation for Results, KSL Excellence Team, and writing courses for reports and for formal correspondence with government agencies and other businesses.

Operation Level

The development courses and training for operation level emphasizes on increasing employee’s knowledge of their skills and work responsibilities as well as the tools that can help them increase their efficiency. Examples of courses and activities are: 5 Sor, QCC, Workplace Safety, Anti-Corruption and Anti-Bribery Policy, etc.

One Point Knowledge (OPK) and One Point Lesson (OPL) and One Point Sharing (OPS) Programs

OPK, OPL, and OPS programs are the Company’s knowledge management tools. The employees share knowledge in different areas of operations as they learn them through their jobs and outside meetings, conference, and seminars. The written reports submitted by each employee are stored and shared with colleagues within the department and when relevant, shared with the entire organization. These tools are implemented to encourage learning and sustainable organizational improvement that would help the Company’s realize its goals more efficiently.

The Company requires all managers to plan a budget and training courses for employees under their supervision as well as to monitor and to make assessment after each course.

Average Hours of Training per year/per person

Classified by Sex

Male Hour (s) 12.68
Female Hour (s) 13.76



Classified by Level



Executive Hours (s) 6.88



Management Hour (s) 19.06



Staff Hour (s) 12.79



Human Right

Human Rights and Ethical Treatment to Labour

KSL group respects human rights and legitimate treatment to people and providing this issue in the Corporate Governance Policy covering a fair treatment to shareholders and other stakeholders including staff, customers, supplies, creditors and the society as a whole.

The Company establishes guidelines for practice regarding the employees' rights and provides the business ethics to be consistent with the basic rights and standards including healthcare, occupational health and work safety. Moreover, the employees may submit suggestions or opinions to the management or in case of complaints or clues of misconduct to Chairman of Audit Committee or Internal Audit Office. The informants are safeguarded from punishment or disclosure of his identity to warrant that they will be protected from abuse of power.

The Company regards its workforce as significant resource. The promotion of skills and work quality will benefit both the staff and the Company to achieve mutual development, growth and success

Respect and Fair Treatment to Employee

Important principles of this matter include

1. Respect to privacy. Personal information shall not be disclosed to outsiders or irrelevant person except the disclosure is required by law
2. Equal treatment to all. Discrimination that causes deprivation of rights or benefits due to similarity or difference, e.g. physical condition, mind, race, nationality, religion, gender, age, education, status, etc., in any way shall be prohibited.
3. Respect to dignity, status or opinion.

Building corporate culture for growth with sustainability

The group commits to achieve its vision with sustainable growth. Core values of desired characteristics are established and communicated to all employees so that they know, understand and practice continuously with the expectation that the core values shall soon be developed to the corporate culture

The core values are D-I-S-C, consisting of:

D – DYNAMIC

which is broadly defined as energetic and prompt to changes for the better. The meaning is elaborated to include the following characters.

- Ability to change and to adapt including to evaluate strategies, plans and work process to cope with the change of surrounding circumstances.
- Ability to obtain knowledge in the work and the business, to develop skills and expertise as necessary for the future.
- Ability to decide in appropriate time and on sufficient information.

I – INTEGRITY

means, in the broad sense, honesty, keeping one’s words and doing the right things. The meaning is elaborated to include the following characters.

- Commitment to honesty, accountability and promise keeping.
- Treating people with equality, non-discrimination and respect to others’s dignity
- Adherence to good governance, business ethics and social responsibility.
- Punctuality and communication with correct information at the right time with no distortion or concealing the facts that should be disclosed including expression of useful opinions.

S – SYNERGY

means coordination, combination of strength to make multiple impacts. The meaning is elaborated as the following characters.

- Co-thinking, co-working and sharing of knowledge
- Clear communication of duties, responsibility and expectation
- Creative conclusion and recommendations

C – CREATIVITY

is meant to include development and application of new things to reality. The meaning is elaborated as the following characters.

- Development of work methodology, new products or services.
- Making decision and implementation subject to acceptable risk level through risk assessment, monitoring the success and failure for further improvement.

The group of companies put much emphasis on sustainable growth with the Company’s core values to lead the work environment continually until they become corporate culture, In 2019, KSL Virtual Run 2019 was an activities with the main purpose to promote behavior consistent with the core values of all personnel in the head office, factories and subsidiary companies.

KSL Virtual Run 2019 was a synergy within KSL to achieve the 300,000 kilometers target within 4 months. The distance was converted to donation at 5 baht per kilometer to Ramathibodi Foundation to buy medical equipment. As such, the donation was jointly made by the Company and its subsidiaries, Thai Fermentation Co., Ltd. and Racha Ceramics Co., Ltd.

The runners were the group of companies’ personnel and outsiders, total 1,867 persons. The target distance was achieved with the total distance of 314,116 kilometers. Accordingly, the donation was more than expected as the distance was converted to 1,570,580 baht with additional donation from external persons of 15,800 baht.

KSL Virtual Run 2019 was an activity with the project slogan “Yes We Can”. The achievement reflected the truth that if people dedicated to something whichever for themselves or for others, they could finally achieve.





Innovation

In 2019, the Company continued the KSL Innovation Award Project to promote creativity, which is one of the Company's core values and to achieve the Company's vision. The project was a competition of innovative work, both software and hardware, submitted by the personnel of group of companies. A requirement was that the work would be practical for today or future to support the business. Each type of work was divided into three levels, i.e., conceptual, prototype and commercial.

There were 17 contested innovative works which were awarded. **Eleven of them were hardware type as follows.**

1. **Conceptual level:** The awarded projects were Value-added product with Molasses Sugar; Heat Recovery Blowdown; Electricity generated with water flow.
2. **Prototype level:** The awarded projects were Low GI Sugar Production; White sugar sifter system, Diffuser Pitch 1250; Cooling Crystallizer; Reclaim rubber belt; Coconut Shredders
3. **Commercial level:** The awarded projects were Continuous Conditioning Silo; Control system of sugar level in A-Horizontal Crystallizer on Centrifugal using semi-auto control valve.

Six awarded software projects were as follows.

1. **Conceptual level:** The awarded projects were Control system of C-seed pan automation; Modified People Smart for HRM
2. **Prototype level:** The awarded projects were Process Stock for the Future; Control system of turbine using DCS; Auto C-seed
3. **Commercial level:** The awarded projects was Queue Lock Program

RESPONSIBILITY TOWARDS COMMUNITY AND SOCIETY

Activities conducted in 2019 for sustainable value by tracing the King’s guidelines.

Sugar cane the origin of natural energy and also alludes to the cane farmers.

Bundle of cane unity reflecting trust between farmers and factories to coordinately produce full cycle of natural energy.

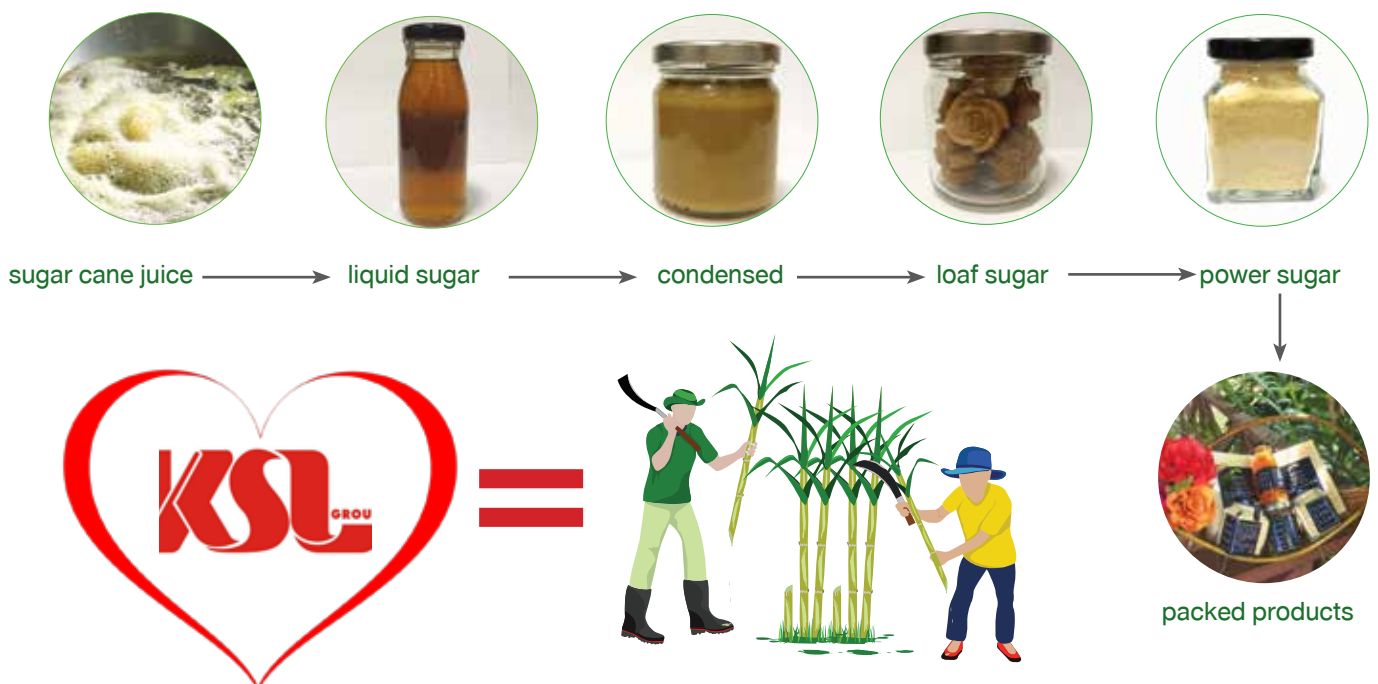
Local cloth with national flag colors the application of Thainess to current economy to preserve farming career, kindness and sharing.

Soil restoring life to land, meaning sustainable agriculture, reduction, abandonment of chemicals in a right way to preserve the fertility of land.



Khon Kaen Sugar Industry PLC or KSL Group is a sugar business that has long conducted social activities to create benefits and sustainable happiness to community and society by applying the Sufficiency Economy Principles among the group of companies and all stakeholders, including cane farmers, suppliers, communities surrounding the factories, external entities for happy living together and for sustainability of farming career.

The focus of KSL on the cane farmers and increase of farmers’ income leads to the product hand-made sugar.





KSL Group made an alternative career for the farmers through KSL River Kwai Natural Agriculture Center, by selecting Sufficiency Economy Center Pa Rak Nam in Nong Bua Lumpoo Province, a KSL learning center network of KSL Wang Sapung as an example of income increment with agriculture by promoting the knowledge of changing organic sugar cane to natural cane sugar. The activity was well accepted by the Province. This was also another aspect of allocating the land previously used to grow sugar cane only to increase income to farmers and to disseminate the knowledge to those interested.



Reduction of expense

Raw Material Supply nominated a group of cane farmers who systematically managed their sugar fields to reduce cost and increase productivity in the area of New Krung Thai Sugar Factory Co., Ltd. for the Excellent Cane Farmers Award of 2019 organized by the Cane and Sugar Office. The farmers who got the award were

1. Mr. Kongseng Sae Heng received the award for the cane farmer who efficiently managed the production factors in respect of water management (Group 3- 200 rais of farm land and more)
2. Mr. Sakda Sae Heng received the first runner-up award in respect of soil and fertilizer management.
3. Mr. Wasant Trakulosot received award for outstanding organic cane farm.



The photos below showed activities that encouraged farmers to reduce household expense by doing mixed agriculture pursuant to the Sufficiency Economy Principles by allocating part of land for growing seasonal vegetables and feeding animals to produce household food and reduce food expense.



Participation of employees

Workshop curriculum on The King's Disciplines towards Leadership Development in 2018 Project was the training course that all employees were entitled to enroll. The course included the working method of King Rama IX focusing on the principles of Sufficiency Economy which consisted of modesty, reasonableness, immunity, knowledge and morality. The knowledge obtained from the training was meant to be applied to the work and daily living. After the training, the Company supported materials to employees to practice immediately after the training as an example of mixed agriculture within the area of sugar cane transport center and the company's sugar cane field.



Youth Model in Sufficiency Economy

This activity was the support of Youth Model in Sufficiency Economy in elementary and secondary schools. KSL group of companies intended to disseminate the King's Disciplines and self-dependence to the students by conducting training activities to extend the knowledge base for making food supply and reducing expenses of the schools.





Participation of external agencies

The Natural Agriculture Center KSL River Kwai on behalf of Khon Kaen Sugar Industry PLC and the group of companies was proud to support the 17th Army District to display the knowledge base on Thai kitchen and to give a breeding buffalo as a learning media for the military's project and those who were interested in.



On 9 August 2019, Her Royal Highness Princess Maha Chakri Sirindhorn went to conduct her royal mission at Kanchanaburi Province and saw the Good Soldier Project at the 17th Military District where Mr. Jirakiat Poomswasdi- Governor, Lieutenant General Wasu Jiamsuk- Commander and other head of government agencies with people greeted the royal visit.

In this occasion, Miss Watcharin Bunyawinit, Manager for Social Activities and Vice Director of KSL River Kwai Natural Agricultural Center on behalf of Khon Kaen Sugar Industry PLC and the group of companies greeted the visit and received a commemorative medal.



Developing Wat Mor Thao community

The group of companies took part in the public park Project at Bann Mor Thao Community by supporting water pumps used to maintain the area in the occasion of the Royal Coronation Ceremony of His Majesty the King Rama X. The activity also linked the knowledge base to the community which was located near the Natural Agriculture Center.

The Company paved the way for community's involvement with the KSL Natural Agriculture Center by becoming speakers at the Center to convey knowledge to visitors and converted the community to be selling point of local products that were supported by the Company so that the community could increase income and develop community members



Dissemination of knowledge through observation visit

Conveyance of the King's Disciplines and Principles of Sufficiency Economy to those interested who observed and received training at 18 knowledge bases to apply the knowledge in their daily life.



Networking

The group of KSL companies and KSL River Kwai Natural Agriculture Center cooperated with Natural Agriculture Foundation every year to organize the events Restoring life to Land and Merit as Profit as a venue for exchanging and sharing the resources among networks and exhibits gratitude to teachers of the network. The revenue from the events were given to the network for its activities.



Handicapped persons to work at the River Kwai Natural Agriculture Center

The KSL group of companies had hired a number of handicapped persons to work at the River Kwai Natural Agriculture Center pursuant to his/her skills by being assistant lecturers at each knowledge base

The objective of employment was to show the handicapped persons' ability to those who were interested in the activities at the Center and other related associations for the handicapped. Each employee gained additional income from working at the assigned base.



Caring environment by using waste materials from factories

The activity was done by the factories by using waste materials from the production to optimize the benefits for farmers and communities around the factories, such as

1. Molasses as food for microbes to make bio-fertilizer
2. 200 litre plastic barrel to ferment liquid bio-fertilizer and grow mushroom
3. 200 litre metal barrel to make furnace for burning high quality charcoal which also gives smoke vinegar as by-products
4. Filter cake to increase organic material in planting soil and to be an ingredient in bio-fertilizer

Besides, the companies produce ready-made organic fertilizer for the farmers.



Sustainability news follow at
Facebook : CSR KSL



KSL GROUP ACTIVITIES IN 2019

Shareholders Site Visit 2019



On March 15, 2019, Khon Kaen Sugar Industry Public Company Limited invited shareholders for a company visit. On this occasion, 61 shareholders attended the site visit at New Krung Thai Sugar Factory Co., Ltd. located in Bo Ploy District, Kanchanaburi Province (Bo Ploy Bio- Refinery Complex) and got a briefing from the factory executives as well as the visit to KSL River Kwai Natural Agricultural Center to conceptualize the operation of the Center, being an arm to handle social activities of the group of companies through the dissemination and training in accordance with the Sufficiency Economy Principles. The visitors also had a good opportunity to pay homage to a local highly-respected Buddhist statue - Phra Buddha Metta Prachathai Trilokanart Kandharat Anusorn, at Wat Thipsukontharam. Don Salaeb sub-District, Huay Krajae District, Kanchanaburi.

KSL Virtual Run 2019 to raise fund for donation to Ramathibodi Foundation for medical equipment and appliances

Khon Kaen Sugar Industry PLC organized KSL Virtual Run 2019 to raise fund for donation to Ramathibodi Foundation for medical equipment and appliances and to promote health and physical exercise of the executives and the staff so that the personnel have good health that benefits their work and their living quality.

On 1 April 2019, Mr. Chamroon Chinthammit - Chief Executive Officer and President of the Company, presided over the opening of KSL Virtual Run 2019 at Sriayudhaya School where executives and staff of the Company, Thai Fermentation Co., Ltd. and Racha Ceramic Co., Ltd. attended the ceremony.

The objective of KSL Virtual Run 2019 was to promote the health awareness of executives and staff by running to accumulate distance to meet each individual target within the period of four months, from 1 April to 31 July 2019 for personnel at the head office and from 1 May to 31 August 2019 for those at the factories. The total target in this project was 300,000 kilometers. The acquired distance would be converted to five baht per kilometer for donating to the Ramathibodi Foundation to procure medical equipment and appliances.

At the closing of the project, executives and staff at both the head office and the factories could accumulate the total distance of 314,116 kilometers which was turned to 1,570,580 Baht of donation. Apart from this amount, the runners who were not KSL staff also donated 15,800 Baht in addition.



On 17 September 2019, the closing event of the KSL Virtual Run 2019 was held at KSL Tower. The representative of Ramathibodi Foundation, Assistant Professor Thongchai Pongmakapat, M.D., the executive director and treasurer of the Foundation, attended the event and received the donation from Mr. Chamroon Chinthammit, CEO & President of Khon Kaen Sugar Industry PLC.



Khon Kaen Sugar Industry PLC received bronze level award in the Happy Retirement Project from SEC

On 16 October 2019, Khon Kaen Sugar Industry PLC received a bronze level award in the Happy Retirement Project from the Securities and Exchange Commission. In this event, Miss Ruenvadee Suwanmongkol, Secretary - General of SEC, reported to the audience of the project and presented the awards to eligible companies.

Mr. Dhajjai Subhapholsiri, as Chairman of the Company's Provident Fund Committee, represented the Company to receive the award which was judged under the established criteria. Moreover, Mr. Dhajjai Subhapholsiri was invited to be a speaker in the seminar "Being a role model employer with support of Provident Fund" in the same event.



The Company had objectives to support employee's saving through the provident fund and to educate employees of saving money for future and the fund's benefit for retirement.

The Happy Retirement Project operated on the cooperation of SEC and their alliances, namely, the Securities Exchange of Thailand, Association of Provident Fund, Association of Investment Management Companies and the fund management companies. The project promoted the saving for enough expenditure after retirement using provident fund as a mechanism by the concept that employers were vital to create awareness and knowledge on their employees.

New Krung Thai Co., Ltd. received Carbon Footprint Award from the Greenhouse Gas Management Organization (Public Organization)

New Krung Thai Sugar Factory Co., Ltd. (Bo Ploy Factory) had a control system for sugar production to reduce the greenhouse gas emission to standard level. The system involved sugar production process, water production process, steam production process, electricity production process, waste water treatment process, transportation of sugar with less fuel and less emission of exhausted gas. The system was audited as fulfilling the standard by the Greenhouse Gas Management Organization (Public Organization) (TGO).

On 19 September 2019, the representative of New Krung Thai Sugar Factory Co., Ltd., Mr. Thitipongse Chaiyathap, Acting Head of Safety and Occupational Health and Environment, received Certificate of Standard for Carbon Footprint of Products and Carbon Footprint Reduction in the annual event of 2019 organized by the



Greenhouse Gas Management Organization (Public Organization) (TGO) at Mayfair Grand Ballroom, the Berkeley Hotel, Pratunam, Bangkok. The award was aimed to promote the cooperation among government, private sectors and communities to reduce domestic greenhouse gas with support from TGO. In this event, Mr. Dhanetpol Dhanaboonyawat, Secretary to the Ministry of Natural Resources and Environment, presided over the event and awarded certificates and plaques to governmental units and private sectors that participated in the reduction of greenhouse gas emission.

The statistics showed that more than entrepreneurs and various entities helped reduce greenhouse gas and the reduction amounted to 3,419,849.29 ton-carbon dioxide.



Khon Kaen Sugar Industry PLC’s corporate governance in 2019 was assessed at the level excellent for the second consecutive year

In 2019, Khon Kaen Sugar Industry PLC was assessed a listed company having corporate governance as excellent for the second consecutive year. The Thai Director Institute conducted the survey pursuant to the project on corporate governance survey on listed companies for the year 2019 to survey and monitor development of corporate governance of the Thai listed companies by applying the assessment criteria developed from the major five principles

laid down by the Organization for Economic Cooperation and Development (OECD), namely, (1) rights of shareholders (2) Equal treatment to shareholders (3) Roles of Stakeholders (4) Disclosure and Transparency and (5) Responsibilities of Directors. The survey resulted was presented to general public so that the listed companies would use as guidelines to develop their corporate governance.

Khon Kaen Sugar Industry PLC received Sustainability Disclosure Acknowledgement Certificate 2019 from Thaipat Institute

On 11 December 2019 at the Securities Exchange Commission - Room 601, Khon Kaen Sugar Industry PLC was granted a certificate acknowledging its disclosure of sustainability for 2019 from Thaipat Institute. Miss Watcharin Boonyavinij, Division Manager-Corporate Social Activities, represented the Company in this event where Mr. Woranut Piendham, Thaipat Institute Director informed the audience of the objectives of the Sustainability Disclosure Project 2019 and Dr. Pipat Yuprutikarn, Chairman of Thaipat Institute reported the audience about encouraging the concerned parties for sustainability disclosure in 2019.

Thaipat Institute had established the Sustainability Disclosure Community (SDC) to help elevate the disclosure of sustainability by assessing the disclosure of the community’s member to grant three types of awards, i.e., Sustainability Disclosure Award, Sustainability Disclosure Recognition and Sustainability Disclosure Acknowledgement in order to promote the long-term development of community’ members to sustainability and to respond to the sustainability target.





GRI CONTENT INDEX

GRI STANDARD	DISCLOSURE	PAGE / WEBSITE	SDGs	EXTERNAL ASSURANCE
GRI 101 : Foundation 2016				
General Disclosures				
ORGANIZATIONAL PROFILE				
102-1	Name of the organization	4	SDG 8 - Employment	-
102-2	Activities, brands, products, and services	4		-
102-3	Location of headquarters	4		-
102-4	Location of operations	4		-
102-5	Ownership and legal form	13,23-24		-
102-6	Markets served	16-19		-
102-7	Scale of the organization	186,4-5,8,16-19		-
102-8	Information on employees and other workers	54		-
102-9	Supply chain	11		-
102-11	Precautionary Principle or approach	20-22,77-78		-
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GRI 103 Economic Performance	201-1	Direct economic value generated and distributed	8,98	SDG 2 /SDG 5 /SDG 7 /SDG 9 Infrastructure investments SDG 8 - Economic performance SDG 9 - Research and development	-
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GRI 103 Management Approach 2016	EMISSIONS				
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GRI 305 Emissions	305-1	Direct (Scope 1) GHG emissions	179	SDG 3/ SDG 12 - Air quality SDG 13 - GHG emissions	Yes
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	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	181	SDG 3/ SDG 12 - Air quality SDG 13 - GHG emissions	Yes
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EMPLOYMENT					
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	103-2	The management approach and its components			-
	103-3	Evaluation of the management approach			-
GRI 401 Employment	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	185-186	SDG 8 - Earnings, wages and benefits	-
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GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	182-183		-
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GRI 403 Occupational Health and Safety	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	182-184	SDG 3 /SDG 8 - Occupational health and safety	Yes
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GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	185		-
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GRI 404 Training and Education	404-1	Average hours of training per year employee	185	SDG 4 / SDG 8 - Employee training and education	-
	404-2	Programs for upgrading employee skills and transition assistance programs	185	SDG 8 - Earnings, wages and benefits	-