



“Farmer are **Life Partner**”



Sustainability Report 2020

Charoen Pokphand Produce Co.,Ltd.
and subsidiaries in Crop Integration (Maize) Business Group
Charoen Pokphand Group





100 Years

Charoen Pokphand Group

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Message from the Senior Vice Chairman Charoen Pokphand Group

(GRI 102-14)



Today I am very grateful to the organization. I will tell him what I received from the organization. How good. I must repay as much as I can to the best that I can. That is to say, it must be a good person first. What does a good person interpret? Diligence, patience, honesty, etc. are the things that make us behave as good people

“ In order to be grateful,
you must start with yourself
as a good person or not. If a
good person must be grateful.
If a good person
can not be grateful. ”

Mr. Eam Ngamdarnonk
Senior Vice Chairman
Charoen Pokphand Group

Message from CEO

Crop Integration (Maize) Business Group

Charoen Pokphand Group

“ **Integrated agribusiness is** the real answer to the **3 benefits** for the nation, for the people, for the business partners and the company. ”

“ **Crop Integration (Maize) Business Group**

is committed to conducting a comprehensive agricultural business in conjunction with continuing to care for farmers and society. Of the Charoen Pokphand Group is to benefit the countries that do business, benefit people in all countries that invest and make a final benefit to the organization, in line with the sustainable and sustainable development goals of the world, **Sustainable Development Goals (SDGs)** ”



Mr. Sumeth Pinyosnit

Chief Executive Officer

Charoen Pokphand Produce Co., Ltd.
Crop Integration (Maize) Business Group
Charoen Pokphand Group



CHAROEN POKPHAND PRODUCE CO.,LTD



CP for good deeds

100 YEARS OF CHAROEN POKPHAND GROUP

On the occasion of Charoen Pokphand Group stepping into its 100 years, the executives and employees of Crop Integration (Maize) Business Group show pride and is part of the organization by adhering to 6 core values, joining forces with C.P. people to create love and unity for the organization to grow sustainability through the activity

“CP for Good Deeds”



“ ภูมิใจที่ได้ร่วมงานกับเครือเจริญโภคภัณฑ์ ซึ่งกำลังจะก้าวเข้าสู่ ศตวรรษที่สอง ภายใต้การทำธุรกิจต้นน้ำที่ทำให้เกษตรกร และครอบครัวมีความสุข 365 วัน ค่านิยมองค์กร 6 ประการเป็นสิ่งที่ ยึดมั่นตลอดการปฏิบัติงาน บนพื้นฐาน ความกตัญญู และแรงศรัทธาที่จะนำพาความยั่งยืนมาสู่องค์กรของพวกเราและเครือเจริญโภคภัณฑ์ในศตวรรษที่สองนี้ ”

เจลิม บุญประเชิญ
ธุรกิจครบวงจร



“ เครือซีพี ปลุกฝังให้เราเป็นทั้งคนดี และคนเก่ง โดยยึดหลักค่านิยม 6 ประการ เพื่อสร้างความยั่งยืนให้กับธุรกิจและองค์กร ”

นิพนธ์ กสิพร็อง
โรงงานปรับสภาพเมล็ดพันธุ์



“ เครือเจริญโภคภัณฑ์เป็นองค์กรที่สร้างสรรค์สิ่งดีๆ ให้กับประเทศชาติ ประชาชน ชุมชน สังคม และมุ่งมั่นที่จะพัฒนาต่อไป อย่างไม่หยุดนิ่ง โดยคำนึงถึง 3 ประโยชน์เป็นหลัก นั่นคือความประทับใจที่มีสืบเนื่อง ”

ก้ารณ มงคลสกุลกุลฤทธิ์
ทรัพยากรบุคคล โรงงานปุ๋ย

“ เมล็ดพันธุ์ที่หลากหลาย หลอมรวมเป็นหนึ่ง สร้างสรรค์ประโยชน์สู่ประเทศชาติ ประชาชน และองค์กรร้อยเรียงความดี 100 ปี เครือซีพี ความสำเร็จของเกษตรกร คือหน้าของเรา ”



กิตติพงษ์ พูนทิพย์
นักบริหารธุรกิจเกษตรครบวงจร



“ เราเป็นเพียงเมล็ดพันธุ์ เมล็ดเล็กๆ ของเครือซีพี ที่ถูกบ่มเพาะด้วย คุณธรรมความซื่อสัตย์ และเปี่ยมด้วยจรรยาบรรณแห่งวิชาชีพพร้อมเจริญงอกงาม นำความภาคภูมิใจ มาสู่ตนเอง ครอบครัว องค์กร ประเทศชาติ และเป็นที่ยอมรับของสังคมโลก ”



แผ่นฟ้า พันธุ์สว่าง
สายงานผลิตเมล็ดพันธุ์ขยาย

“ ยินดีและภูมิใจที่ได้เป็นส่วนหนึ่งของซีพี ซึ่งเป็นองค์กรที่ปลูกฝังคุณธรรมและความซื่อสัตย์ ในการทำงานรวมทั้งสร้างประโยชน์ต่อสังคม และประเทศอย่างมั่นคง ยั่งยืน ”



ชาติชาย กวีผล
โรงงานปรับสภาพเมล็ดพันธุ์

“ ผมภูมิใจในตัวเอง ที่เลือกองค์กรไม่ผิด ในวันที่ประเทศประสบปัญหาภาวะเศรษฐกิจจากโควิด-19 เครือซีพีไม่ทอดทิ้งพนักงาน...แม้แต่คนเดียวผมอาจไม่ใช่คนที่มียารายได้สูงที่สุด แต่ผมเป็นคนที่มีโชคที่สุด ที่ได้อยู่ในเครือเจริญโภคภัณฑ์ องค์กรที่มองเห็นคุณค่าของทุกคน ”



โยธิน สัตย์ชื่อ
นักบริหารธุรกิจเกษตรครบวงจร

“ ภูมิใจเมื่อครั้งได้รับโอกาสร่วมงานกับเครือซีพีตั้งแต่วันแรก วันนี้ 10 กว่าปี ที่เดินร่วมทางกันมายังรู้สึกรักและผูกพันมากขึ้น ด้วยหลักของ CP Core values มองเห็นได้ว่าเราทำเพื่อประเทศชาติ ประชาชน และองค์กร ให้เติบโต ก้าวหน้าไปพร้อมๆกัน ”



พนมกร ชาติไทย
งานธุรกิจปัจจัยทางการเกษตร

“ ต้นกล้าแห่งความหวัง สร้างพลัง ด้วยแรงใจ ก้าวไกลสู่ การเปลี่ยนแปลง พร้อมร้อยเรียงความดี ก้าวสู่ 100 ปี เครือเจริญโภคภัณฑ์ ”



ศิริพร มิ่งศิริ
กิจการโรงงานผลิตปุ๋ย

“ ที่สุดของความภูมิใจ คือได้เป็นส่วนหนึ่งของการรับประกัน คุณภาพเมล็ดพันธุ์ จากการเริ่มต้นดำเนินธุรกิจของเครือเจริญโภคภัณฑ์ที่ยึดมั่น และคำนึงถึงความซื่อสัตย์ ยุติธรรม เคียงตรงให้มีความสำคัญกับคุณภาพ คุณธรรม และเทคโนโลยี มุ่งมั่น เพื่อสร้างประโยชน์ให้กับประเทศชาติ ประชาชน และองค์กรอย่างยั่งยืน ”



ศิริประภา นาสารีย์
ศูนย์ประกันคุณภาพและพัฒนาเทคโนโลยีเมล็ดพันธุ์

“ ขอขอบคุณเป็นอย่างยิ่ง ที่เครือเจริญโภคภัณฑ์ ได้มอบทุนการศึกษาและยังมอบโอกาสให้เข้ามาเป็นส่วนหนึ่งขององค์กร ที่ดำเนินธุรกิจอย่างมั่นคงยาวนาน ก้าวเข้าสู่ 100 ปี และก้าวต่อไปบนพื้นฐานหลัก 3 ประโยชน์ เพื่อความยั่งยืนของทุกภาคส่วนเสมอมา ”



สุวิมล ลิ้มโพลย์
สำนักสื่อสารองค์กร

“ ได้ทำงานร่วมกับเครือเจริญโภคภัณฑ์เปรียบเสมือนกับเมล็ดพันธุ์ที่ได้คิด พัฒนา เรียนรู้ เพื่อที่จะเติบโตไปพร้อมกับองค์กร ที่มีความมั่นคง น่าเชื่อถือและยั่งยืนตลอดไป ”



สาริต บัวรอด
สายงานผลิตเมล็ดพันธุ์หลัก

2020 Highlights

(GRI 102-7)

ECONOMICS



Total Sale Revenue

4,289.81
Million Baht



Employee Benefits

553.77
Million Baht



Tax Paid to Governance

69.57
Million Baht



Employee's Training Expenses

14.36
Million Baht



Community and Social Contribution

15.30
Million Baht





HEART : LIVING RIGHT



Number of Employees 1,012 Persons

4 Countries : Thailand, Myanmar, Vietnam and India

Employees

828 Persons

Contractors

184 Persons

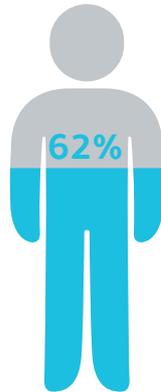
New hires

70 Persons

Employee proportion :

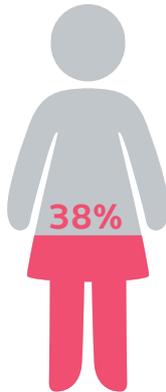
Male

627 Persons



Female

385 Persons



100%
of Employees completed
sustainability Training



**Human Capital
Development**
7.3 Hours
of average training
hours of all employees



Safety : Lost time injury rate

0 case Per 1,000,000
working hours



**Evaluate and identify key human
rights issues at the chain level**

5 Issues

**Announcement of the use of ethics in
Operate the business of the group**

“Code of Conduct of
the Group, our practice”



HEALTH : LIVING WELL



Supported farmers, SMEs, and People in vulnerable groups

2,836 Persons



Supported access to education and knowledge

9,546 Persons



Donate

5.42 million baht to 88 hospitals throughout Thailand through "Give More" Year 2

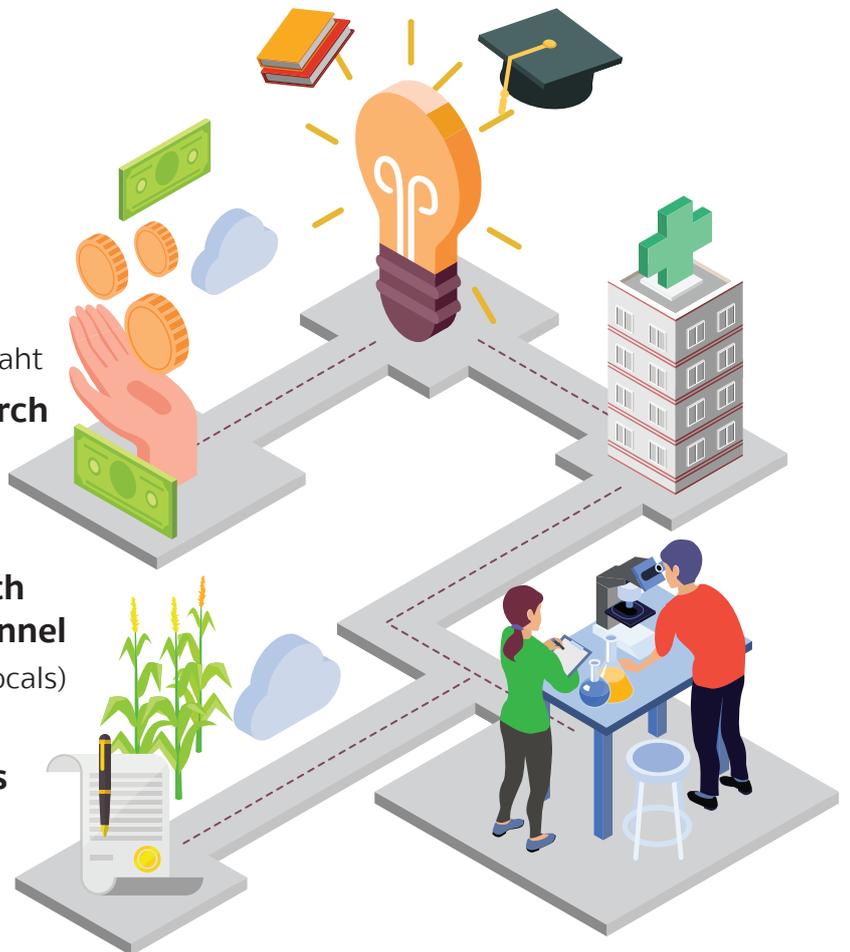


75.05 million baht Investing in research and development

228 Persons

Number of research and develop personnel (Including Thai and Locals)

188 Innovators and Assistant Innovators



16 Number of Registered Plant protection varieties in Thailand and India



Savings from the Cost Productivity Improvement Program And Innovation

71.9 Million Baht



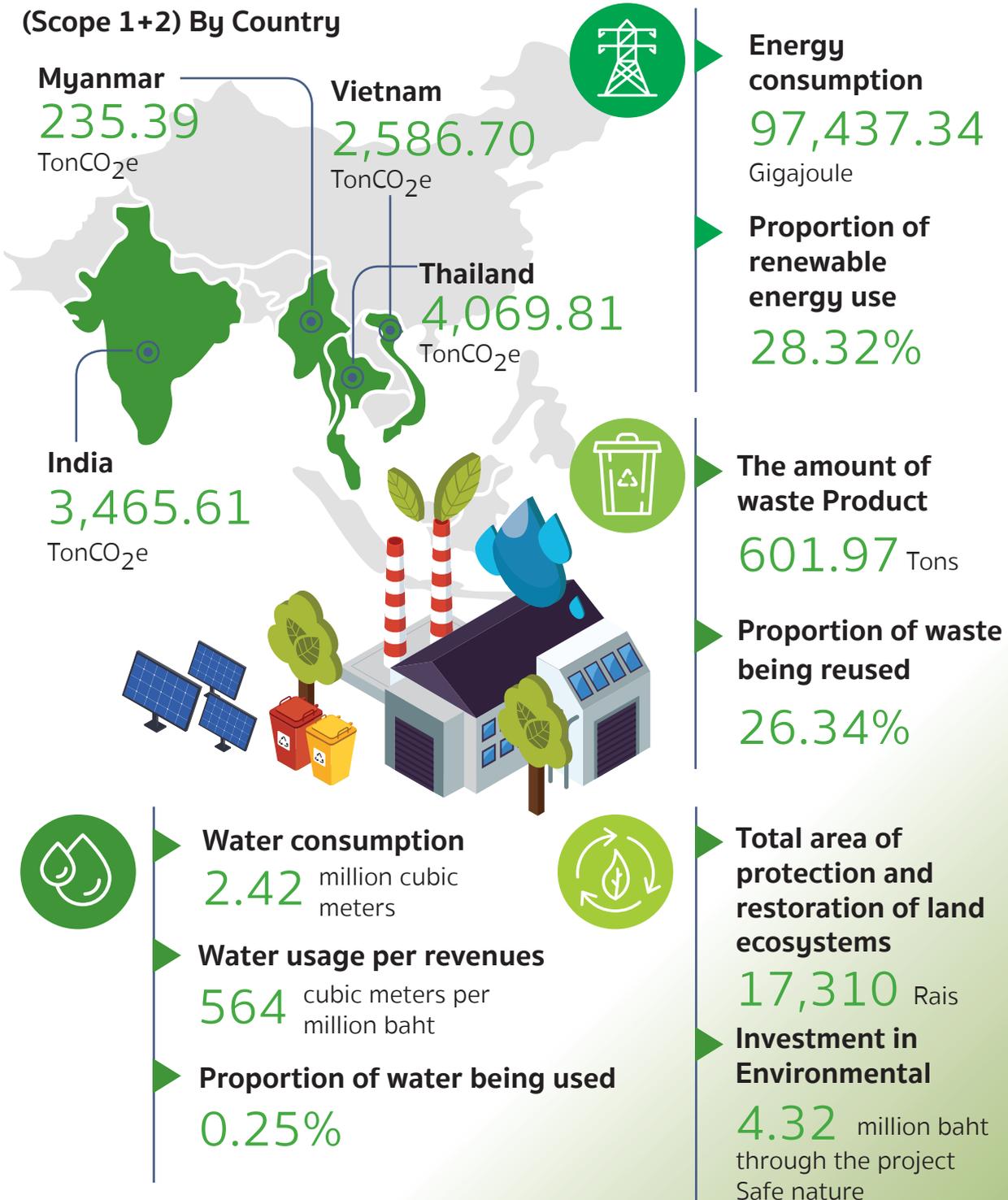
HOME: LIVING TOGETHER



Total Greenhouse gas emissions (Scope 1+2)

10,357.50 TonCO₂e

Greenhouse gas emissions (Scope 1+2) By Country



100% Achievement

- CORPORATE GOVERNANCE
- HUMAN RIGHTS & LABOUR PRACTICES
- LEADERSHIP & HUMAN CAPITAL DEV.
- EDUCATION



HEART
Living Right

100%



100%

HEALTH
Living Well

- SOCIAL IMPACT
- HEALTH & WELL-BEING
- STAKEHOLDER ENGAGEMENT
- INNOVATION

- CLIMATE CHANGE MANAGEMENT
- WATER STEWARDSHIP
- ECOSYSTEM & BIODIVERSITY PROTECTION
- RESPONSIBLE SUPPLY CHAIN MGT.



HOME
Living Together

100%



Sustainability Report 2019

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group

in finalist of Category : Asia's Best Sustainability Reporting (First Time) by 2020 Asia Sustainability Reporting Awards (ASRA)

Awards and Standard Systems

Safety Health and Environment Management

Outstanding Model Establishment Award

Occupational safety and working environment

- Seed Processing Plant Soi 19 (National Level 18th years)
- Seed Processing Plant Soi 12 (National Level 14th years)
- Organic Fertilizer Plant (National Level 5th years)
- Chemical Fertilizer Packing and Mixing Plant (Provincial Level 2nd years)



Zero Accident Campaign Award

(Zero Accident Campaign Activity)

- Seed Processing Plant Soi 19 (5th years Bronze Level and 2nd years Silver Level)
- Seed Processing Plant Soi 12 (4th years Beginning Level)
- Organic Fertilizer Plant (1st years Beginning Level)



Protection standard award and Solve drug problems (TSRI)

- Seed Processing Plant Soi 19
- Seed Processing Plant Soi 12
- Organic Fertilizer Plant
- Chemical Fertilizer Packing and Mixing Plant



Energy Management

Thailand Energy Award 2020 : Person Responsible Energy for Designated Factory

- Miss Sawaros Kittisopa
Senior Energy Manager
Seed Processing Plant



Corporate Social Responsibility (CSR)

CSR-DIW Award

- Seed Processing Plant Soi 19
(Continuous award 4th years)
- Seed Processing Plant Soi 12
(Continuous award 4th years)
- Chemical Fertilizer Packing and Mixing
Plant (1st years)

International Standard Systems and Certification

ISO 9001: 2015 (Quality Management)

- Seed Processing Plant Soi 19
- Seed Processing Plant Soi 12
- Organic Fertilizer Plant
- Chemical Fertilizer mixing and packing plant
- Seed Processing Plant (Vietnam)

ISO 14001: 2015 (Environmental Management)

- Seed Processing Plant Soi 19
- Seed Processing Plant Soi 12

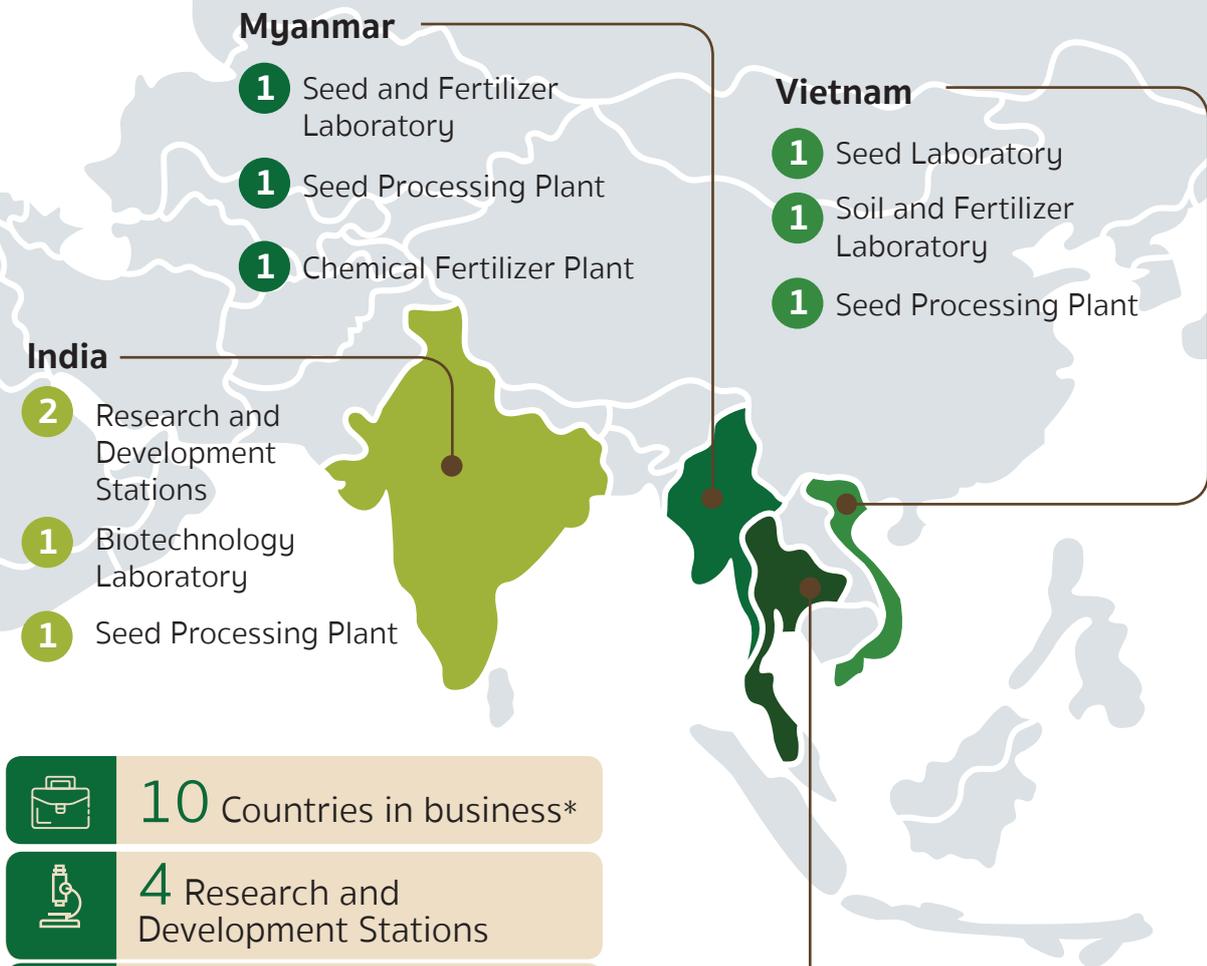
ISO/IEC 17025 : 2017 (Laboratory International Standard)

- Soil and fertilizer service Laboratory
- Chemical fertilizer Laboratory has certified testing laboratory accreditation by Department of Agriculture, Ministry of Agriculture and Cooperatives.



Business base of Crop Integration (Maize) Business Group

(GRI 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-16, 102-45)



-  **10** Countries in business*
-  **4** Research and Development Stations
-  **8** Laboratories
-  **5** Seed Processing Plants
-  **3** Fertilizer Plants

 **Number of Employees**
828 Persons
 (4 Countries : Thailand, Myanmar, Vietnam and India)

 **970,000** Corn farmers
 estimated number of corn farmers covering countries in business

- Thailand**
- 2** Research and Development Stations
 - 1** Biotechnology Laboratory
 - 1** Seed Laboratory
 - 1** Plant and Microbial Laboratory
 - 1** Soil and Fertilizer Laboratory
 - 2** Seed Processing Plant
 - 1** Chemical Fertilizer Plant
 - 1** Organic Fertilizer Plant

Remark : * 10 Countries in business : Thailand, Lao PDR, Cambodia, Vietnam, Myanmar, India, Bangladesh, Pakistan, Nepal and Sri Lanka

Crop Integration (Maize) Business Group Charoen Pokphand Group

Main Business

From the fact that the Charoen Pokphand Group operates an integrated agricultural business and animal feed production for domestic and international, corn being one of the crucial raw materials due to its high protein content. Therefore, to support the production shortfall of corn with stable and good quality for raising animals, Crop Integration (Maize) Business Group plays an important role in the upstream production consisting of R&D of corn hybrids to be suitable to climate change and cultivation behavior of growers as well as seed production without contamination through controlled seed production facilities to produced corn hybrid seeds that meet the quality requirement of growers. In addition, the company provides and transfers knowledge about cultivation technology, know how to apply fertilizer to increase production or adding organic fertilizer to improve the soil fertility to member farmers. Last but the most crucial factor is water resources management and irrigation to enable all year round planting which will result in increasing income and famers' standard of living according to CP's Three Benefits Principle : Farmers, Countries and Organization.

Main Company

Charoen Pokphand Produce Co., Ltd.		Thailand
C.P. Seeds (Vietnam) Co.,Ltd.		Vietnam
Charoen Pokphand Seeds (India) Pvt., Ltd.		India
Charoen Pokphand Produce Myanmar Co.,Ltd.		Myanmar
Charoen Plantation Co.,Ltd.		Cambodia
Charoen Pokphand Produce (Lao) Co., Ltd.		Lao PDR

Business Opportunities and Challenges



Economic Dimension

- Governance and Business Ethics
- Customer Relationship Management
- Health & Well-Being
- Supply Chain Management
- Risk Management



Social Dimension

- Social Impact on Community
- Human Rights
- Occupational Health and Safety
- Human Capital Development
- Talent Attraction and Retention



Environmental Dimension

- Operational Eco-Efficiency
- Ecosystem and Biodiversity
- Raw Material Sourcing

Vision

To be a leader in **B2C** integrated agriculture on sustainable irrigated agricultural areas

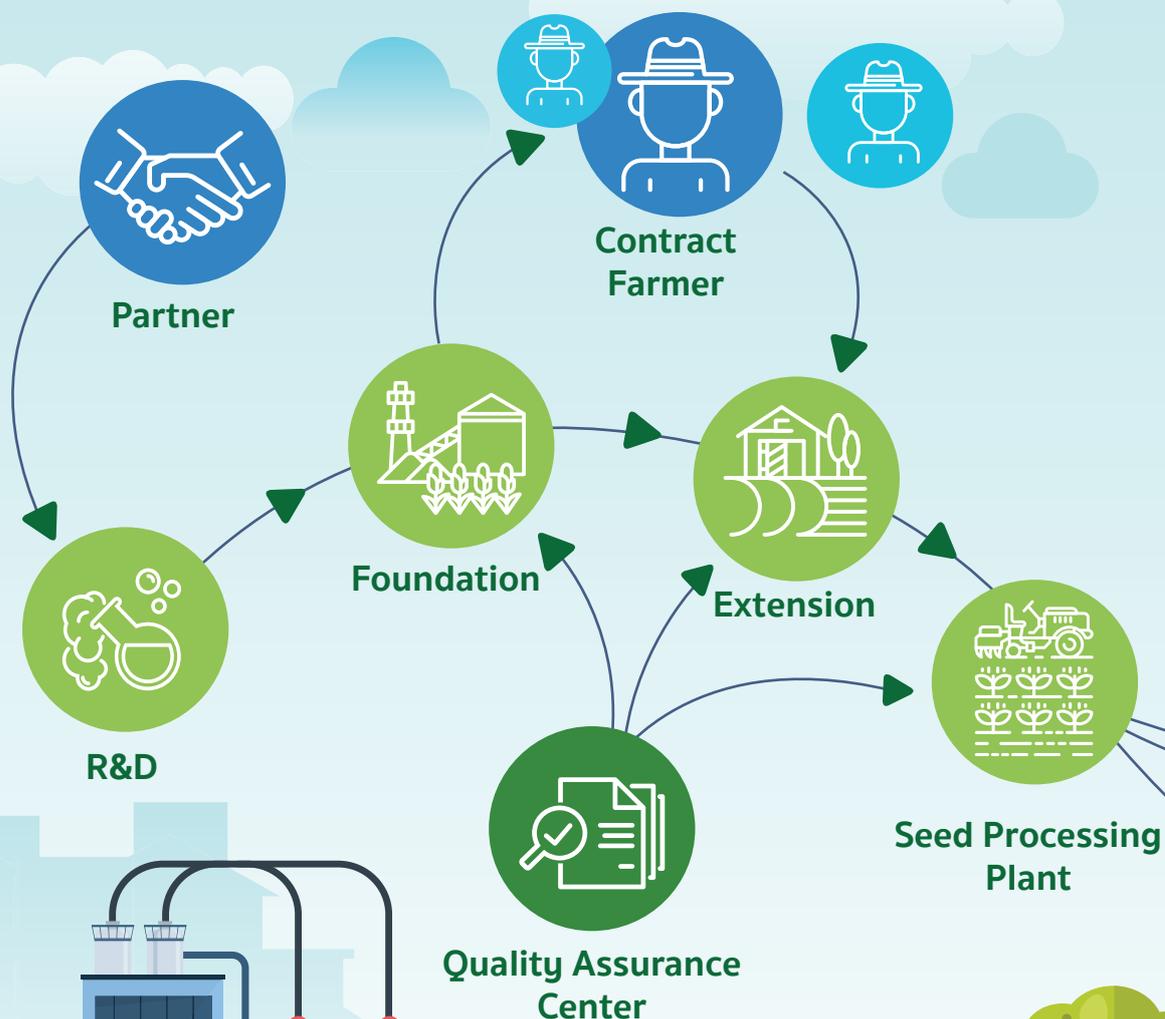


Mission

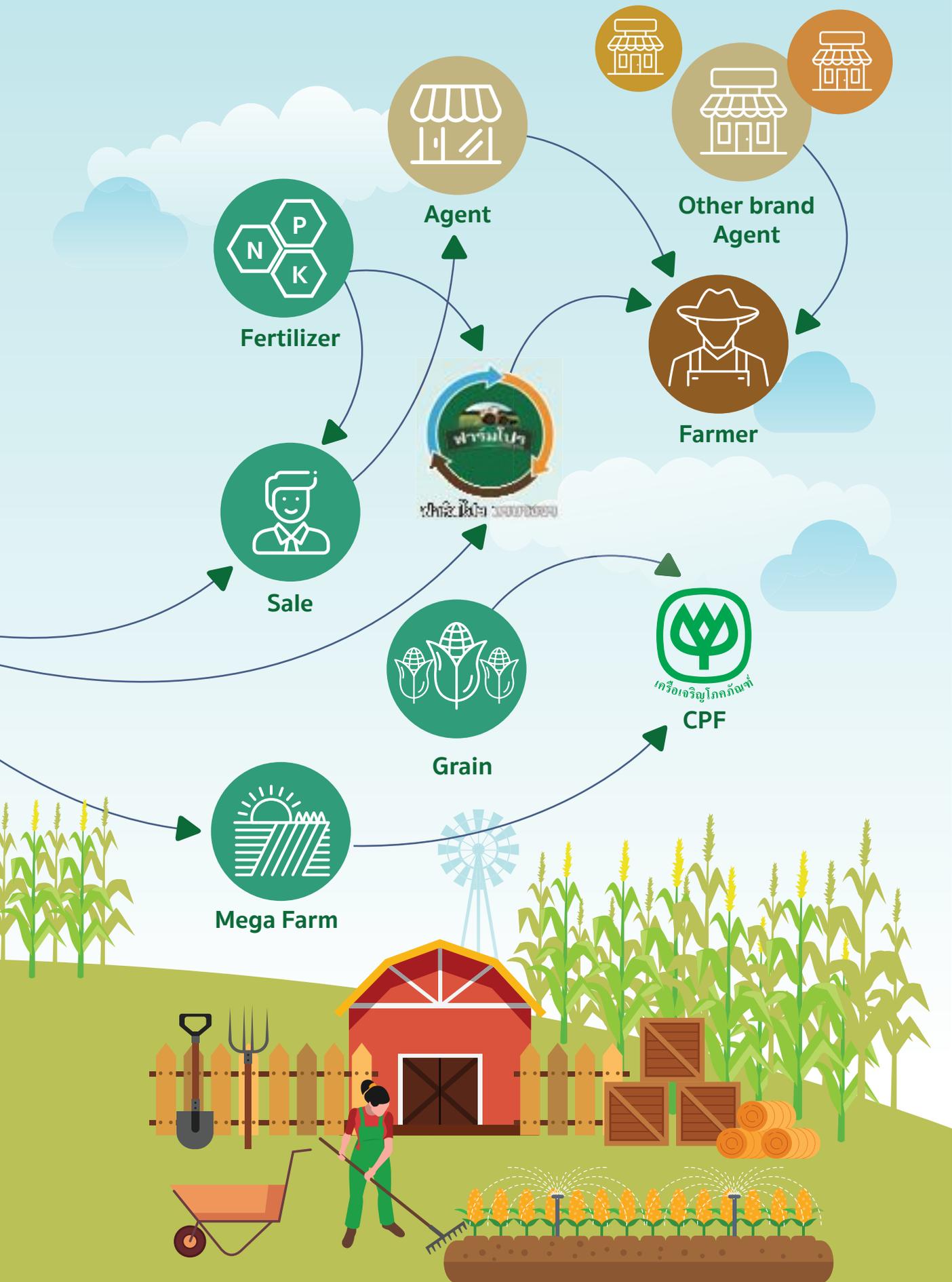
“Farmers are **Life Partner**”

Maintain farmers to earn 12 months per year, develop small-scale farmers until they become large plots or partnerships with companies and must be sustainable

Supply chain of Crop Integration (Maize) Business Group



Charoen Pokphand Produce Co., Ltd. was established in 1967, one of the companies under the Charoen Pokphand Group. Be a creative organization what are the benefits to the agricultural society with Innovation Product Management that improves progress and food security, energy plants for the global society CPP has developed its business into 5 main businesses as follows: Crop Integrated Business, Seed Business, Fertilizer Business, Mega Farm Business and Advanced Vegetable Business on the basis of social responsibility towards sustainability support solving environment problems and promote safe coexistence with nature



B2C Business Direction

Agriculture, which is a vital foundation of the country’s economy, is inundated with many risk factors including weather volatility, uncertain of prices of agricultural commodities, aging society, lack of labor, export dependency and government policies and requires cooperation from all sectors to tackle these issues together. This is an **“Opportunity”** of CPP, as a member of the agriculture industry, to provide support to farmers to ensure sustainable agricultural practices. CPP will help reduce various risks through the implementations of technological advancements and innovations to allow farmers to increase their production efficiency and yield while deducing overall risks of the sector. Core strategies to propel the initiative include **“Water resources”** development, which is considered a vital lifeline of agriculture.

CPP also aims to uplift livelihood and earnings of farmers, **“Life partners”**, by ensuring consistent stream of income 12 months a year. To accomplish this, by elevating former business model of B2B to

B2C (C being farmers) to establish a more direct relationships with our partners. A more intimate interaction with farmers allows the company to bring critical issues and needs to study, develop, and raise production capability to be disseminated back to farmers. Such process affirms that farmers are the company’s **“Life partners”** who are also an essential part of the business and grow together sustainably.

In addition CPP also gives importance to environment and natural resources conservations in order to diminish risks from weather volatility that may inhibit opportunities to sow crops. The approach is also inline with the goal of Charoen Pokphand Group to become a carbon neutral organization by 2030. As such members should not only support the expansion of dry-season feed corn program to ensure sufficient quantity of raw materials for animal feed production. CPP continues to plant perennial trees within company’s properties to increase green space and reduce emission of carbon dioxide.



C.P. Six Core Values



To be a leader in B2C integrated agriculture on sustainable irrigated agricultural areas



Three Benefits

CPP has always operated our business by adhering to the Three-Benefit Principle. This states that our business should benefit not just our Company and our employees but also the communities we engage with and the countries we operate in.



Speed with Quality

Modern businesses must be fast moving, without compromising on quality. We must be able to adapt to new circumstances, adopt the latest technologies, respond to changing consumer tastes and preferences, all the while responding to evolving regulatory systems.



Simplification

We are therefore committed to implementing technology and innovation to streamline our systems and operations across the entire Business Group, which leads to improved efficiency and greater effectiveness.



Accept Change

Our key strategy is to embrace change. This allows us to manage our response to evolving circumstances across all our markets. To ensure this, we encourage all our employees to stay informed about new opportunities so that we can deliver more to our customers



Innovation

We actively encourage innovation in our employees and our goal is to foster innovation across all our businesses to enable us to deliver the best products and services to our customers.



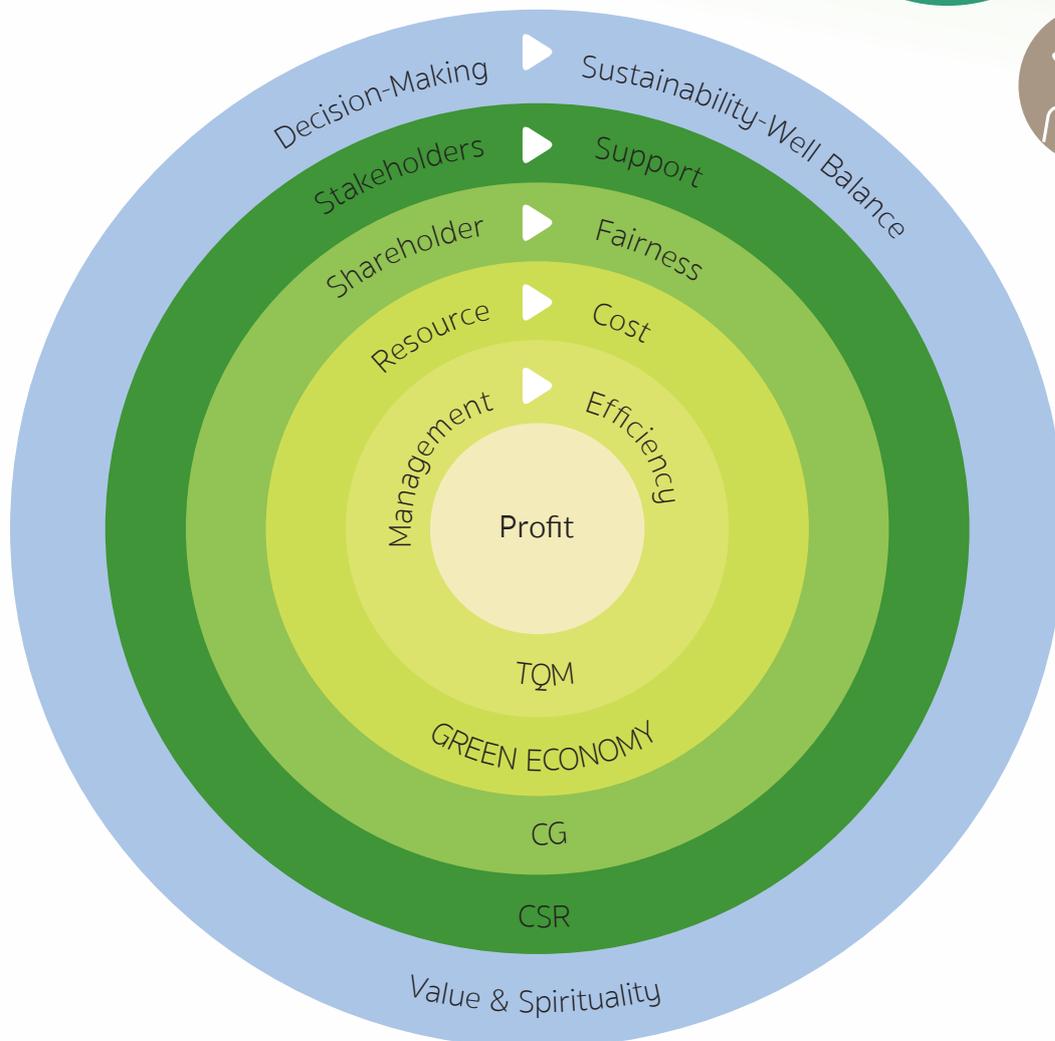
Integrity

Since the day we were founded, we have operated our business with integrity, and this applies to every action we take, whether large or small.

We firmly believe that a business that focuses solely on enriching itself without regard to these values will ultimately erode the trust of all its stakeholders and will not be able to operate in the long term.

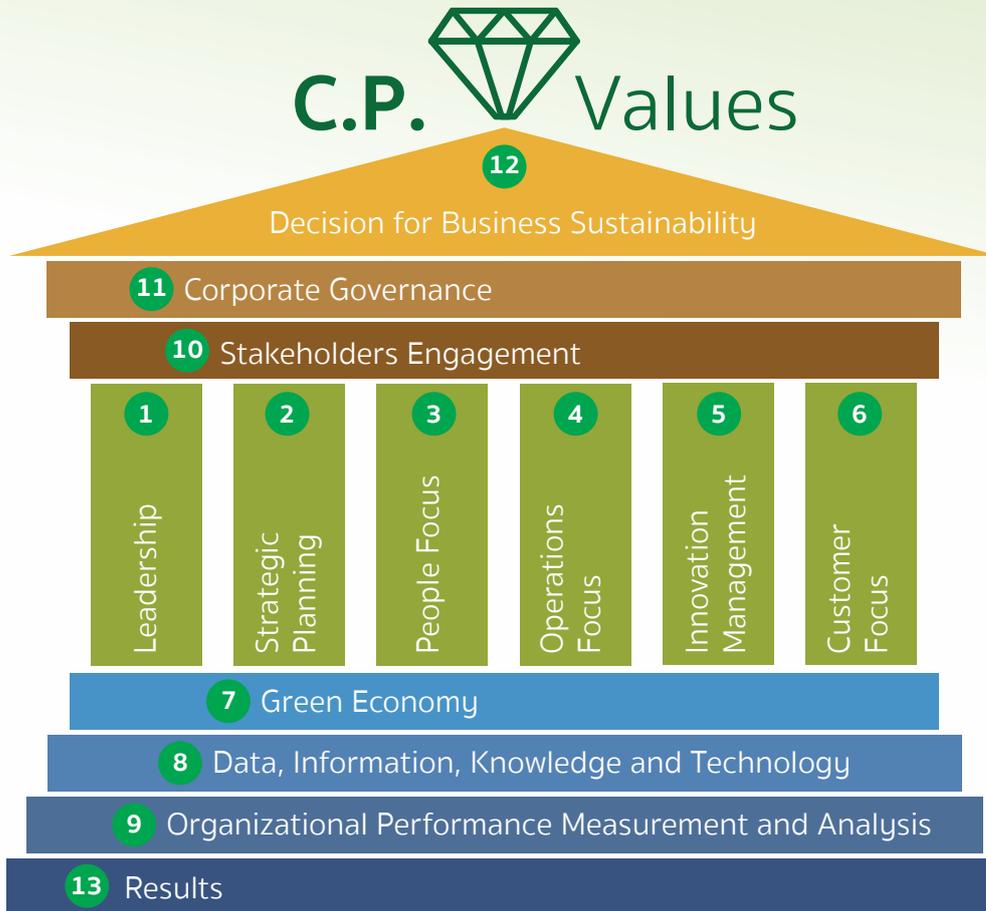
C.P. Excellence Management

From the management concept which is the unique characteristic of the Charoen Pokphand Group. Therefore, it was born into the C.P. Excellence Management System to achieve business administration is a consistent system. People in the organization have the same understanding of management and, most importantly, it is a management system that supports the synergies in the Charoen Pokphand Group. both in business, human and psychological aspects



C.P. Excellence Management

The C.P. Excellence Management Approach is based on the internationally-recognized management principles outlined in the criteria for the Malcolm Baldrige National Quality Award (MBNQA) from the United States, combined with Charoen Pokphand Group’s management style. Born into 13 elements, showing a house, divided into 3 parts:



The features of the C.P. Excellence Management System include:

- 13 elements that cover the management of the C.P. Group and integrate CP 6 Core Values
- Each element of management is related to each other. is the process harmonize in a systematic way
- Each element follows the principle of Plan-Do-Check-Action (PDCA)
- Have tools/principles/guidelines in operation
- Promote participatory work or cross functional in company

In 2020, Charoen Pokphand Produce Co., Ltd., Seed Processing Plant 2, Lopburi Province, was a representative of the Crop Integration Business (Maize) get an audit the “C.P. Excellence” award with the objective of Praise and commend organizations within the Charoen Pokphand Group in management according to C.P. Excellence guidelines and to enhance sustainable competitiveness

C.P. Excellence Overall Excellence Award Silver

Good Practice



COMPANY
CHAROEN POKPHAND
PRODUCE CO.,LTD.
SEED PROCESSING PLANT 2



COUNTRY
THAILAND



CLASSIFY
C.P. Excellence
Overall Excellence Award



LEVEL
SILVER



การถ่ายทอดสู่คนในองค์กร



3 Best Performance of Management



1

Visionary Leadership

CPP has a visionary leadership system. Good Governance corporate, Company Culture, Leadership communication and Corporate governance system.



2

Process Management

Standardized design and process control Improve the process according to the direction of the Charoen Pokphand Group. Determine a practical project management model.



3

Corporate Social Responsibility (CSR)

There are guidelines for CSR actions. by driving the Governance and Corporate Social Responsibility of the leaders and Environmental Management that responding to stakeholders

SUSTAINABILITY

MANAGEMENT



SUSTAINABILITY MANAGEMENT

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) believe in delivering value through quality products and services that meet according to the Sufficiency Economy Philosophy, customers and consumers want the business to operate sustainably on the basis of social and environmental responsibility. This can be seen from the adherence to the 3 benefit philosophy that always focuses on creating benefits for the nation, society and the company, as well as applying the C.P. Excellence approach to business operations for human development.

In addition, CPP is also committed to conducting business sustainably beyond complying with the rules, regulations and standards of the countries in which it operates by adhering to international principles of sustainability, such as the UN Global Compact, Principle. UN Guiding Principles on Business and Human Rights (UNGP) and the UN Sustainable Development Goals (UN SDGs) practice.



Sustainability Strategy



Materiality Assessment



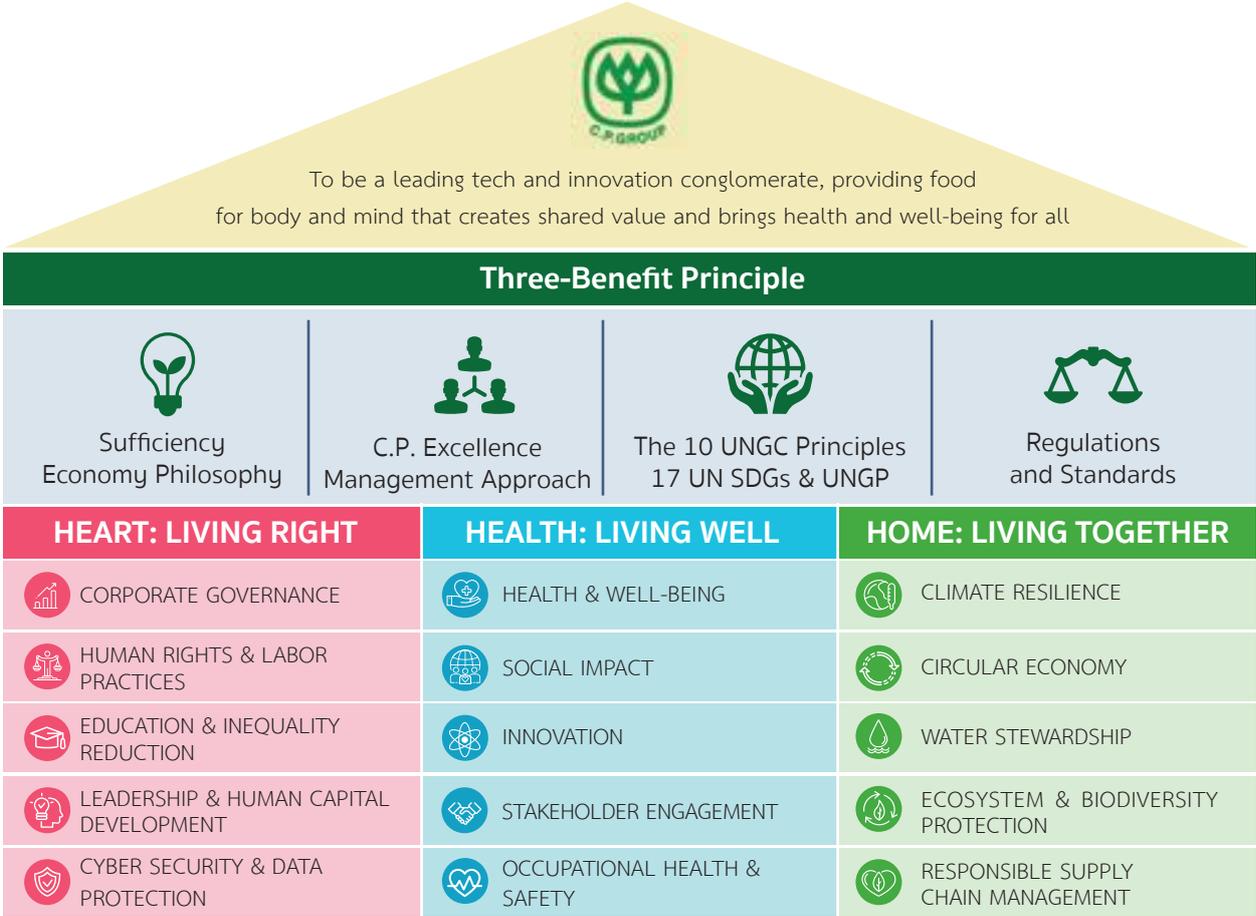
Sustainability Governance



About this Report



Sustainability Strategy Framework 2021-2030



In 2016 Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) developed the Sustainability Strategy and the 2020 Goals under the 3Hs Framework, which includes HEART - Commitment to Sustainable Business, HEALTH - Commitment to Sustainable Society, and HOME - Commitment to Sustainable Environment. The Sustainability Strategy is based on the 4 elements which are reflected from the “**Three-Benefit Principle,**” the core of our businesses and our sustainability foundation. The Principle aims to create benefits toward the country, the people, and the company.

More importantly, CPP focuses on operating our businesses based on good governance, transparency, accountability, and social and environmental responsibility, which is demonstrated throughout our operations. The goal is for long-term sustainability, and the highest benefits for all stakeholders.

This is to ensure that sustainability management cover all issues of sustainability. Which is in line with the strategy of the Charoen Pokphand Group by CPP received 3 additional policies, strategies and sustainability goals to 2030, namely:



Sustainability Action Concept

(GRI 102-12, 103-2)

Material Issue	Corporate Governance	 
2020 Goal	100% of Business Line within CPP publicly discloses their corporate governance and sustainability performance through the Group's Report.	
2030 Goal	100 % of Business Line within CPP implement a corporate governance impact scoring assessment	
Material Issue	Human Rights and Labor Practices	  
2020 Goal	100% of Business Line within CPP conducts human rights due diligence.	
2030 Goal	100% of Business Line within CPP periodically conduct human rights impact assessment in high risk own operations and tier 1 suppliers	
Material Issue	Leadership & Human Capital	  
2020 Goal	All leaders and employees are provided with the training necessary to create business sustainability.	
2030 Goal	100% employees engaged in sustainability training and initiatives	
Material Issue	Education	  
2020 Goal	5,000 children, youth, and adults will be provided with access to education and necessary skills development.	
2030 Goal	100,000 people supported through educational support, lifelong learning, and upskilling	
Material Issue	Cyber Security & Data Protection	
2020 Goal	-	
2030 Goal	100% of Business Line within CPP certified on international standard of data security and data privacy	



Material Issue Social Impact

2020 Goal Improve employment prospects and quality of life for 1,000 farmers, SMEs, and vulnerable groups.

2030 Goal Supported to generate incomes for 100,000 farmers, SMEs and vulnerable groups along our supply chain

Material Issue Health & Well-Being

2020 Goal -

2030 Goal -



Material Issue Innovation

2020 Goal More than 10 Number of Registered Plant protection varieties

2030 Goal More than 50 Number of Registered Plant protection varieties



Material Issue Stakeholder Engagement

2020 Goal 100% of Business Line within CPP will develop a stakeholder engagement process.

2030 Goal 80% of multi-stakeholder engagement surveys score positively

Material Issue Occupational Health & Safety

2020 Goal -

2030 Goal Zero Accident : Zero lost time injury frequency rate

Material Issue **Climate Change Management**



2020 Goal Reduce greenhouse gas emissions (Scopes 1 and 2) per unit of revenue by 10% by 2020, compared to the 2015 baseline

2030 Goal Net Zero carbon emissions of Business Line within CPP

Material Issue **Circular Economy**

2020 Goal -

2030 Goal Zero food waste from Business Line within CPP’s activities and use of sustainable packaging

Material Issue **Water Stewardship**



2020 Goal Reduce water withdrawal per unit of revenue by 10%, compared to the 2015 baseline.

2030 Goal Reduce water withdrawal per unit of revenue by 30%, compared to the 2020 baseline.

Material Issue **Ecosystem & Biodiversity Protection**



2020 Goal 100% of key raw materials comes from responsible sources without contributing to the depletion of forests and marine resources.

2030 Goal 100% of Business Line within CPP having or participating in projects with a relevant international partner to establish biodiversity management and monitoring programs in their operations

Material Issue **Responsible Supply Chain Management**

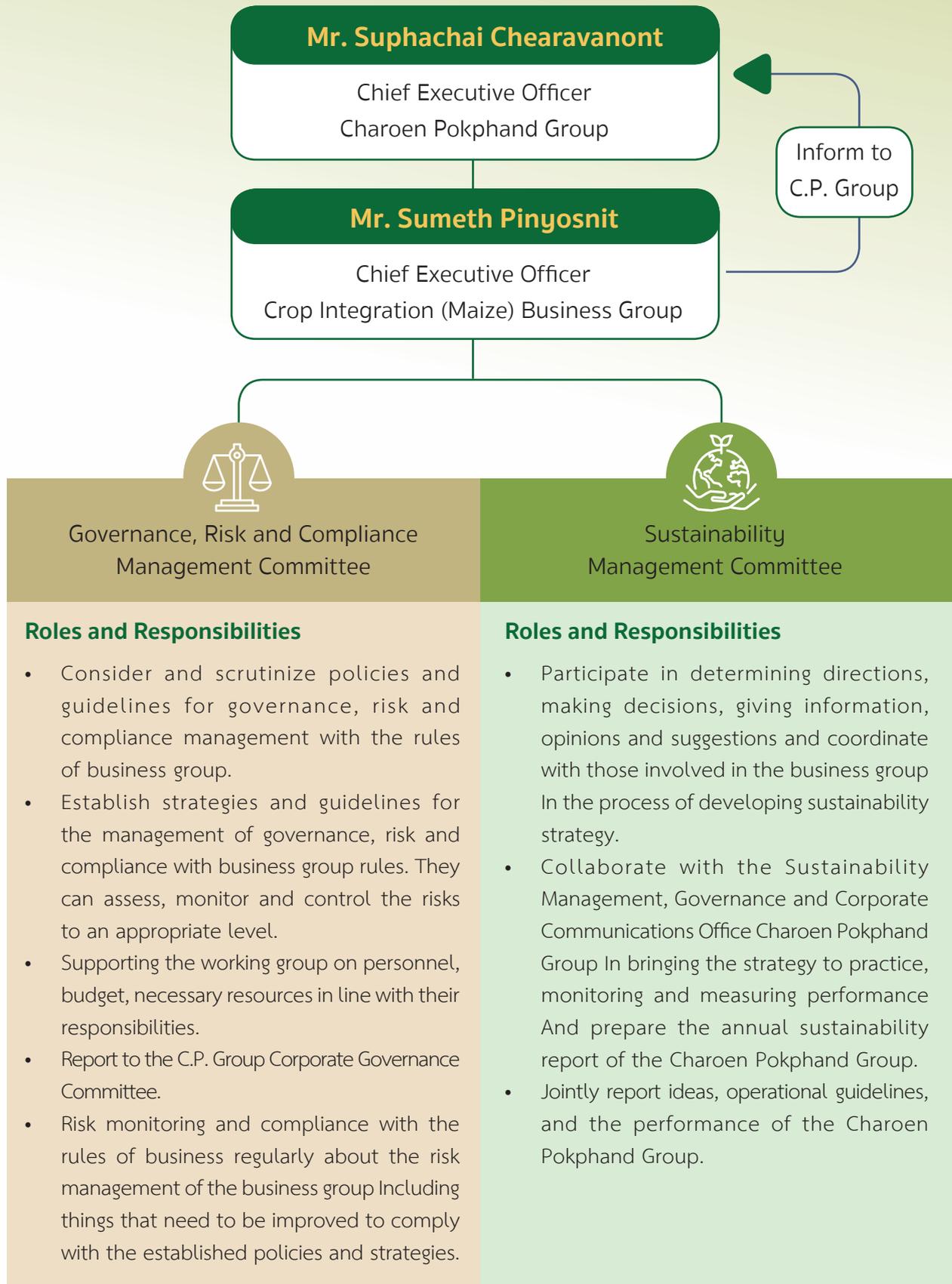


2020 Goal 100% of critical suppliers has been assessed for sustainability.

2030 Goal 100% of high-risk raw materials are traceable and high-risk suppliers audited

SUSTAINABILITY GOVERNANCE STRUCTURES

(GRI 102-19, 102-20, 102-23, 102-29, 102-31, 102-32, 103-2)



MATERIALITY ASSESSMENT PROCESS

(GRI 102-2, 102-15, 102-32, 102-46, 102-47, 102-54, 103-1)



The content and quality of this report has been determined by considering Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) as a foundation as well as the material issues impacting the economy, society, and environment, from the perspective of both internal and external stakeholders. Through this process, CPP is able to communicate to its stakeholders on its commitments and performance, in line with the strategic sustainability framework. Furthermore, CPP has adopted the Global Reporting Initiative (GRI) Sustainability Reporting Standards in accordance with ‘Core’ option as the framework for report preparation.

Both internal and external factors relevant to the CPP’s operations have been considered for inclusion in the materiality assessment.

In conducting the assessment, CPP carries out various processes and steps in accordance with the 10 GRI Standards’ principles for defining report content, which consist of Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness; and for defining report quality, which consists of Accuracy, Balance, Clarity, Comparability, Reliability, and Timeliness. The key processes and stages of the materiality assessment are discussed below.

MATERIALITY ASSESSMENT PROCESS

1

IDENTIFICATION

Identify sustainability issues that are relevant to our business by taking into consideration the scope expansion of this Report to our global operations across different industries relevant to ours. The Identification process went through different stages as shown below:

- The key issues from the sustainability workshop in 2016 jointly between the executives. Including gathering information from partners for consideration, Then there is a review every year
- The results of the 2020 review of significant issues of the C.P. Group and Crop Integration (Maize) Business Group are the information for the preparation of this report.
- Comparing the sustainability issues of companies in industries related to Crop Integration (Maize) Business Group, including the Sustainable Development Goals (SDGs), the United Nations Global Compact , World Business Council for Sustainable Development (WBCSD), Dow Jones Sustainability Index (DJSI).
- Identify stakeholder groups from partner survey data. Group of stakeholders of the Group and information on groups of stakeholders from the Social Responsibility Standards (CSR) into 14 groups.
- Gather important issues of the companies in the group with sustainability reports and set up a forum to hear opinions with additional stakeholders from the survey questionnaire.

2

PRIORITIZATION

- Sustainability Management Committee meeting to consider and classified by stakeholder group from the survey results and important issues of the C.P. Group and CPP
- Employee survey and online stakeholder representatives.
- Prioritized material issues that were identified in Step 1 by our internal and external stakeholders. as shown below:
 - Set the weight of the business group.
 - Determine the weights for each stakeholder group.
 - Calculate the importance score to stakeholders and Business Critical Score.
 - Create a Materiality Matrix.

3 VALIDATION

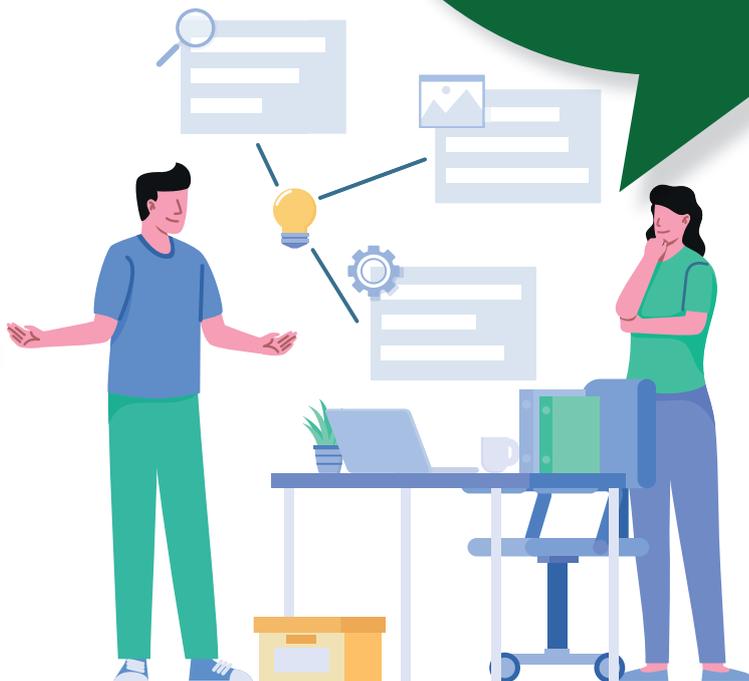
Validated sustainability reporting process in line with the GRI Standards, and its 4 principles. The Validation process went through different stages as shown below

- Interviewing external stakeholders with regard to material issues of the Group, feedback and opinion to improve our sustainability reporting process
- Considering and approving the prioritized materiality issues by executives Verifying.
- Assuring the accuracy and completeness of our sustainability reporting process by an independent third party.

4

CONTINUOUS IMPROVEMENT

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group is open to feedback and suggestions from all, to continuously improve our future Sustainability Reports to meet the expectations of all stakeholders, through various communication channels.



MATERIALITY ASSESSMENT RESULTS OF CROP INTEGRATION (MAIZE) BUSINESS GROUP

Material Issue	Topic	Business Line		
		Crop Integrated Business	Seed Business	Fertilizer Business
Corporate Governance	Governance and Business Ethics	●	●	●
	Risk and Crisis Management	●	●	●
	Cyber Security & Data Protection	●	●	●
Human Rights and Labor Practices	Labor Practices and Human Rights (excluding Occupational Health & Safety)	●	●	●
	Safety, occupational health and working environment	●	●	●
Leadership & Human Capital Development	Human Resource Management	●	●	●
Stakeholder Engagement	Stakeholder Engagement	●	●	●
	Customer Relationship Management	●	●	●
Social Impact	Corporate Citizenship and Philanthropy (excluding education activities)	●	●	●
	Social Impacts from Operations, Products, and Services	●	●	●
Health & Well-being	Health and Well-being	●	●	●
	Animal Welfare	●	●	●
Education	Social Inclusion in Education	●	●	●
Innovation	Innovation Management	●	●	●
Climate Change Management	Climate Change Impact	●	●	●
	Effluent and Waste Management	●	●	●
	Resource Efficiency	●	●	●
Water Stewardship	Water Management	●	●	●
Ecosystem & Biodiversity Protection	Raw Material Sourcing / Biodiversity and Ecosystems	●	●	●
	Packaging	●	●	●
Responsible Supply Chain	Management Responsible Supply Chain Management	●	●	●

● Very High Impact
● Middle Impact
● No Impact

● High Impact
● Little impact

MATERIALITY ASSESSMENT RESULTS OF CROP INTEGRATION (MAIZE) BUSINESS GROUP



HEART

- 1** Corporate Governance
- 2** Human Rights and Labor Practices
- 3** Leadership and Human Capital Development
- 4** Stakeholder Engagement

HEALTH

- 5** Social Impact
- 6** Health and Well-Being
- 7** Education
- 8** Innovation

HOME

- 9** Climate Change Management
- 10** Water Stewardship
- 11** Ecosystem & Biodiversity Protection
- 12** Responsible Supply Chain Management

Note :

Results of a review of key sustainability issues in 2020, Committee Meeting on 18th July 2020, no significant changes were made. The process of stakeholder engagement channels remains the same and as a result no changes were considered.

About this Report

(GRI 102-45, 102-46, 102-48, 102-49, 102-50, 102-51, 102-52, 102-53, 102-54)

Sustainability Reporting

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group, C.P. Group has published our Sustainability Report for the 2nd Sustainability Report 2020 which was published in December 2021. The Sustainability Report will be published annually.



Objective of this Report

The objective of this report is to communicate the Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group, C.P. Group's commitments to driving our business toward economic, social and environmental sustainability.



Reporting Scope

This report discloses overall performances of our 4 countries, from 1st January to 31st December 2020.



Reporting Framework

This report has been prepared in accordance with the GRI Standards:Core option.



Third-party Assurance

Accuracy and completeness of our data in this Sustainability Report was verified by TUV NORD (Thailand) Ltd., a reliable and internationally recognized independent assurer. Data validated include GRI 101, GRI 102, GRI302-1, GRI 303-3, GRI 305-1, GRI 306-2 and GRI 403-9 (Details can be found on page 195-197)



Communication On Progress (CoP)

Communication on Progress to the United Nations Global Compact (UN Global Compact) has been reported consecutively since 2019.

In 2019, the Group enhanced our transparency by committing to the 21 Principles of the UN Global Compact at the Advanced level



UN Sustainable

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group, C.P. Group is committed to consistently operating our business in accordance with the 17 Sustainable Development Goals (SDGs). (Details can be found on page 194)



Reporting Boundary

Human resources data cover 100% Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group, C.P. Group Data on energy, water, waste, air quality, and occupational health and safety cover 4 countries under Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group, C.P. Group



Contact Us

For more information of this Sustainability Report, please contact: Sustainability Governance and Compliance (SGC) Office

 AIA Capital Center Building 29th floor.
89 Ratchadapisek Road, Din Daeng, Bangkok 10400

 Tel: +66 (0) 2746-7000

 E-mail: sgc.cpp@cptg.co.th

 Website: <https://www.cpp-worldwide.com>
<https://www.sgc.cptg.co.th>

FEEL ART



CORPORATE GOVERNANCE

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) awares of the important foundation for achieving sustainable growth in a business.

CPP has implemented a corporate governance system to promote and ensure compliance in the following areas: Corporate Governance Principles, Business Code of Conduct, Policies and Ethical Best Practices, and Supplier Code of Conduct, all of which are related to laws, social norms, and corporate regulations.

The entire value chain. These principles also respect human rights and labor practices within our organization. We also focus on human capital and leadership development, as well as stakeholder engagement to promote efficiency within our organization. Such activities are crucial to our success and for continually building the level of trust in the CPP.



**CORPORATE
GOVERNANCE**



**LEADERSHIP AND
HUMAN CAPITAL
DEVELOPMENT**



**HUMAN RIGHTS
AND LABOR
PRACTICES**



EDUCATION

CORPORATE GOVERNANCE

**(GRI 102-12, 102-13, 102-16, 102-17, 102-18,
102-19, 103-1, 103-2, 103-3, 205-2, 205-3)**

The Directors of Company believes that good corporate governance is a significant aspect to increasing the Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) competitiveness and to ensure long-term sustainable growth, as well as to add value for stakeholders over the long term. Having good corporate governance is reflective of an efficient, transparent, and accountable management system that has the ability to build stakeholder trust across the value chain. However, to achieve these substantial results, corporate governance ultimately relies on the determination and cooperation of employees at all levels, starting with the Board of Directors and executives who support implementing corporate governance initiatives.

The challenge in CPP is to establish a cohesive understanding regarding the importance of good corporate governance. This will help create and instill a workplace culture that promotes responsibility and standardized practices across the company.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



All companies within Crop Integration (Maize) Business Group performance results in good governance and sustainability are disclosed through the Charoen Pokphand Group Sustainability report.



Anti-corruption Policy announcement of all companies within Crop Integration (Maize) Business Group



2020 Goal



100% of Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group will publicly disclose their corporate governance and sustainability performance through the Charoen Pokphand Group Sustainability report

Performance in Comparison with

2020 Goal

	2017	2018	2019	2020	Achieve Goal 2020
Total of companies	6	6	6	6	100%
Total of companies operating in Corporate Governance	6	6	6	6	100%

CORPORATE GOVERNANCE

Management Approach

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) believes that good governance business, risk management and compliance with relevant regulations and laws (Governance, Risk Management and Compliance – GRC) GRC is the cornerstone of the organization’s sustainable success and confidence in management and stakeholders. With organizational governance structure policy communication to effective monitoring of performance reports and risk issues, systematically linking information of the entire organization, with the management and the board being the key drivers for good corporate governance and be a good role model for employee.

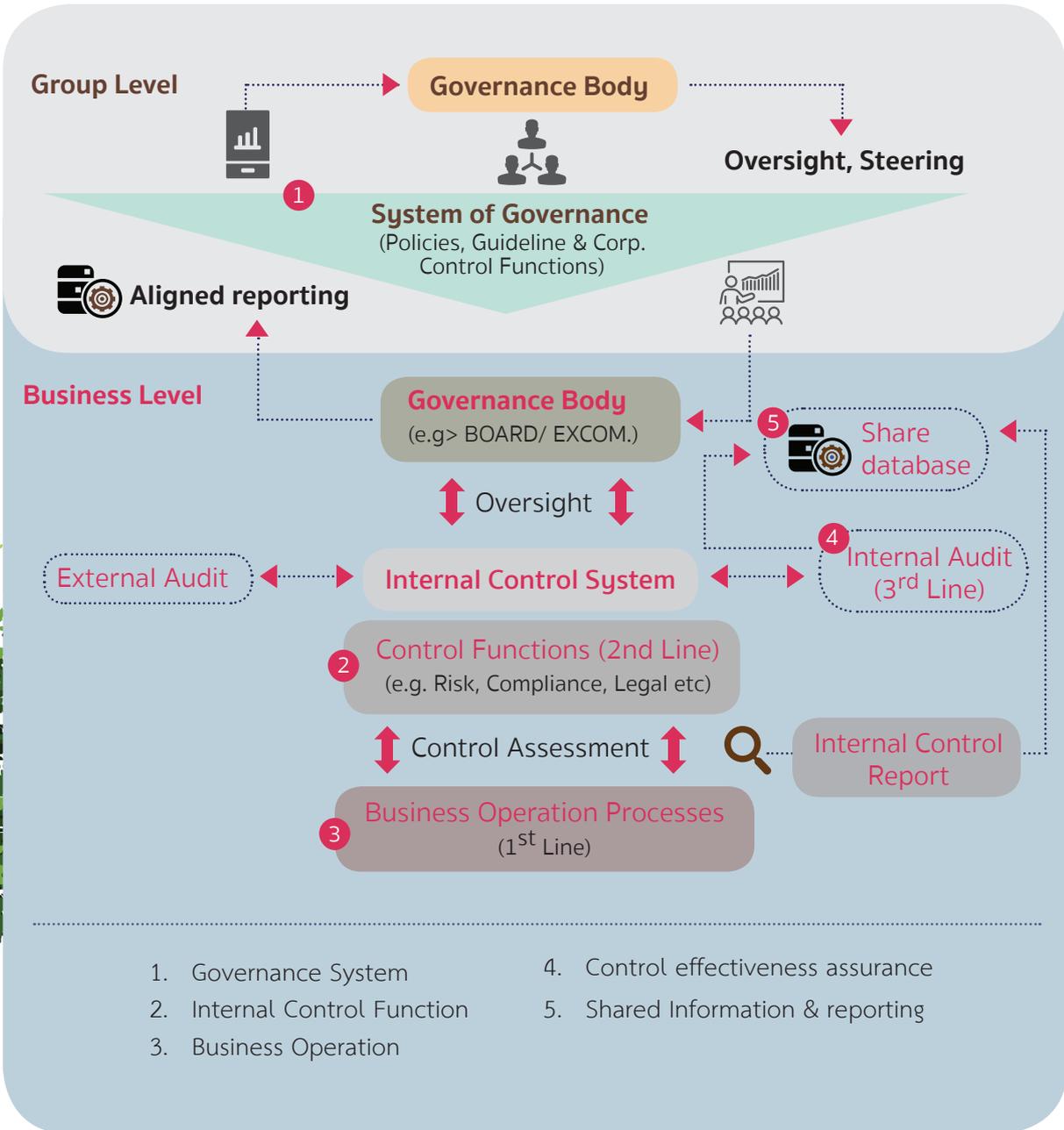
The practice guidelines are consistent with the corporate values on morality and honesty, CPP has announced policies and guidelines to raise awareness of everyone in the organization, adhere to the same practice to create a corporate culture with the following policies.

- 1** Compliance Management Policy and Guidelines
- 2** Risk Management Policy and Guidelines
- 3** Human Rights and Labor Practices Policy and Guidelines
- 4** Safety, Occupational Health and Workplace Policy and Guidelines
- 5** Supply Chain Management Policy and Guidelines





GRC – Framework



CODE OF CONDUCT



Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) adheres to conducting business according to corporate governance principles and

conducts business with fairness with all groups of stakeholders, enhances the corporate governance principles and announces policies and guidelines including ongoing training courses and activities.



In 2018, Charoen Pokphand Group (“C.P. Group”) announced the use of the Corporate Governance Manual that Good and business ethics (CP Code of Conduct) including the promulgation of various sub-policies to cover all of companies in the C.P. Group

The Corporate Governance, Risk and Compliance (GRC) Committee is responsible for promoting and enforcing and monitoring, supervising and reviewing the Code of Conduct. However, it is the responsibility of all directors and personnel work together to make the Code of Conduct not just a document, but to be applied to work in daily life.

In 2020, CPP has audit and assessment in The Code of Conduct Audit and Assessment by auditors from Corporate Compliance Office (CCO) of C.P. Group

Performance in 2020



ANTI-CORRUPTION



Management Approach

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) is committed to conducting business with transparency and Against all forms of corruption in work Follow the Code of Conduct However, company directors, executives and employees will not commit or accept any form of corruption under any circumstances. Established guidelines Operational measures and roles of responsibility. And to regularly verify and review the implementation of this

anti-corruption policy in order to corresponds to changes in business, regulations and applicable laws. Which is one of the company’s most popular words In addition, in order to completely prevent fraud.

CPP has announced the Supplier Code of Conduct including Suppliers, Partners, Procurement Companies, Distributors and Subcontractors must strictly adhere to the anti-corruption practices It is strictly communicated and specified as the terms of the business contract.



Performance in 2020

In 2020, CPP participated in the National Anti-Corruption Day Activity hosted by the Anti-Corruption Organization of Thailand in collaboration with partners from the government sector, the private sector, the civic sector, and the media under the theme “Power of Data” It was meant to announce commitment to transparent business operations against all forms of corruption.



RISK MANAGEMENT

(GRI 102-11, 102-15, 102-20, 102-29, 102-30, 103-1, 103-2)

Management Approach

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) has supervised risk management and compliance through the Corporate Governance, Risk and Compliance Committee. (GRC) with continuous review and monitoring. Including reporting results to the C.P. Group’s Risk Management Committee, having a risk management framework used as a common standard within In line with internationally accepted management principles (COSO - Enterprise Risk Management 2017). It is also committed to managing risks by making a risk management plan that will lead to a crisis event and communicate the awareness risk awareness to executive and management levels (Risk Owners)

GRC Committee identifying risk from each unit in the CPP , prepared risk mitigation measures and control risks report and monitor risk management results from all departments as well as communicate the process in every step to executives and employees for acknowledgment And review the risks twice a year, including training to create a culture of organizational risk management for employees on an ongoing basis.

In addition, CPP has proactively planned for potential critical conditions and prevent the potential impact of business interruption through Business Continuity Management (Business Continuity Plan: BCP), which is consistent with the business continuity policy



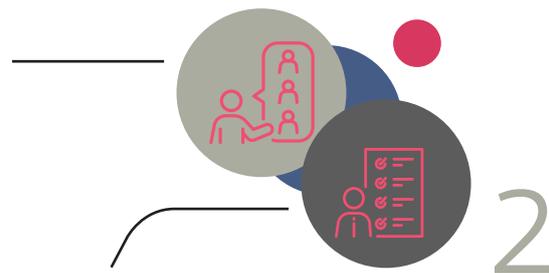
Performance 2020

Enterprise Risk Management (ERM) Self assessment

Governance and Culture

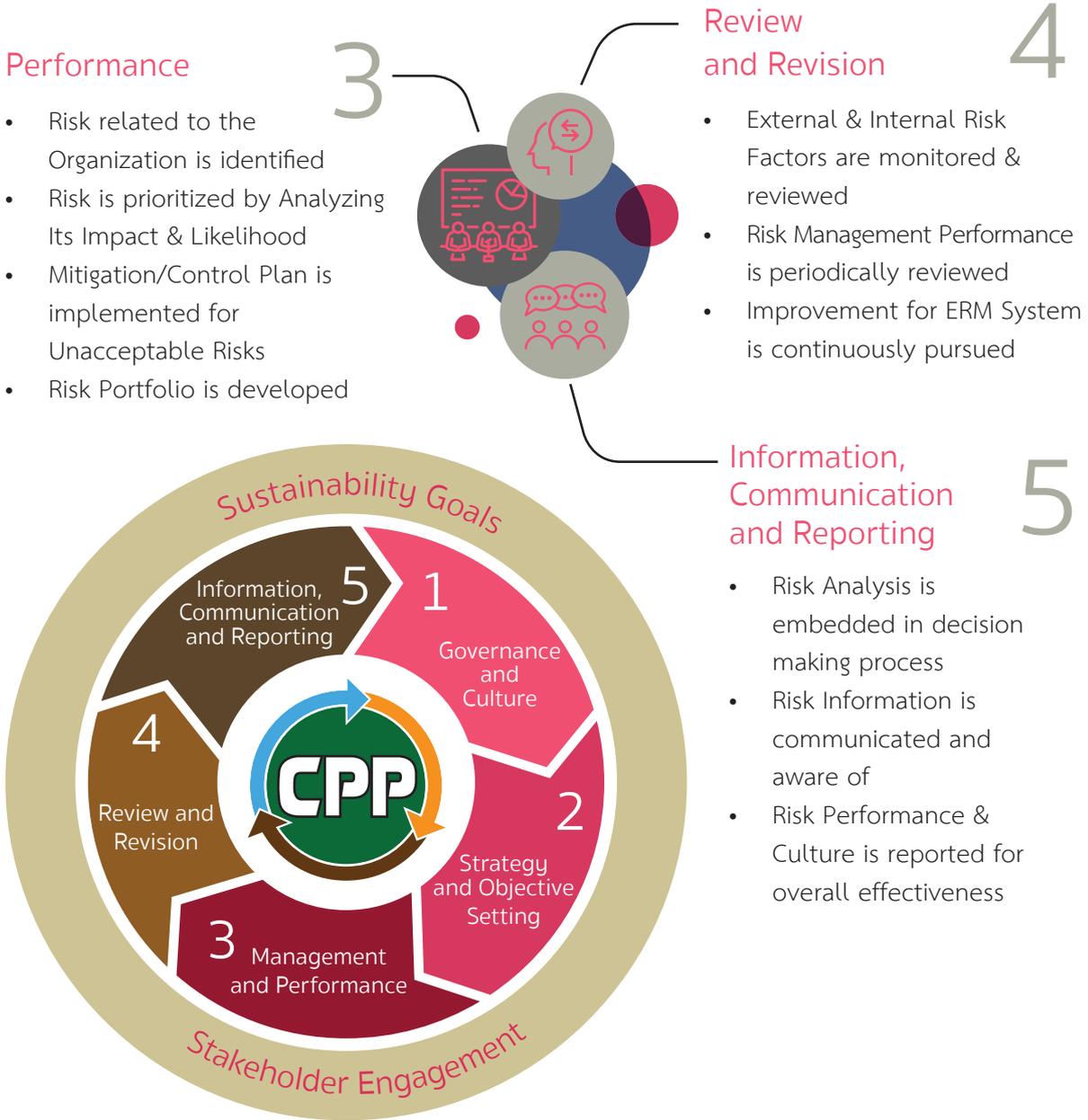
- Board/ExCom exercises Risk Oversight
- Risk Governance Structures & Personnel is established
- Related Organizational Roles & Responsibilities is established
- Risk Management Culture is embedded in Core Value
- Risk Management Performance is embedded in Human Resource Development & Appraisal Program

1



Strategy and Objective Setting

- Risk Management is aligned with Business Strategies Setting
- Organization’s Risk Appetite is defined
- Goals/Targets is set by considering Risk Acceptable Level



Risk Matrix 2020

			1 Natural disaster	
			2 Exchange Rate	
				3 Debt collection

Risk Levels	Color Code
C: Critical	Red
H: High	Orange
M: Moderate	Yellow
L: Low	Green

↓
Acceptable Levels

COMPLIANCE MANAGEMENT

Today's changes are happening rapidly in terms of laws, rules, regulations and standards has significantly increased the concentration. Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group ("CPP") are required to regularly evaluate their performance. to manage issues that are inconsistent with corporate and international directions as well as preparing for operations in 2 areas as follows:

- 1) 1) Announcement of Conflicts of Interest (COI) policies and guidelines which covers all companies in CPP both in Thailand and Overseas
- 2) Establishment of the management structure of the Compliance Department responsible for overseeing compliance with policies and guidelines as well as to find ways to develop and improve for more efficient implementation Including reporting on the performance according to the policies, practices and regulations.

In addition to developing responses to assessment results, CPP plans to achieve compliance governance objectives effectively

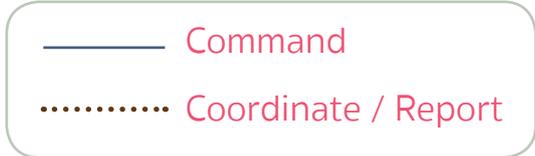
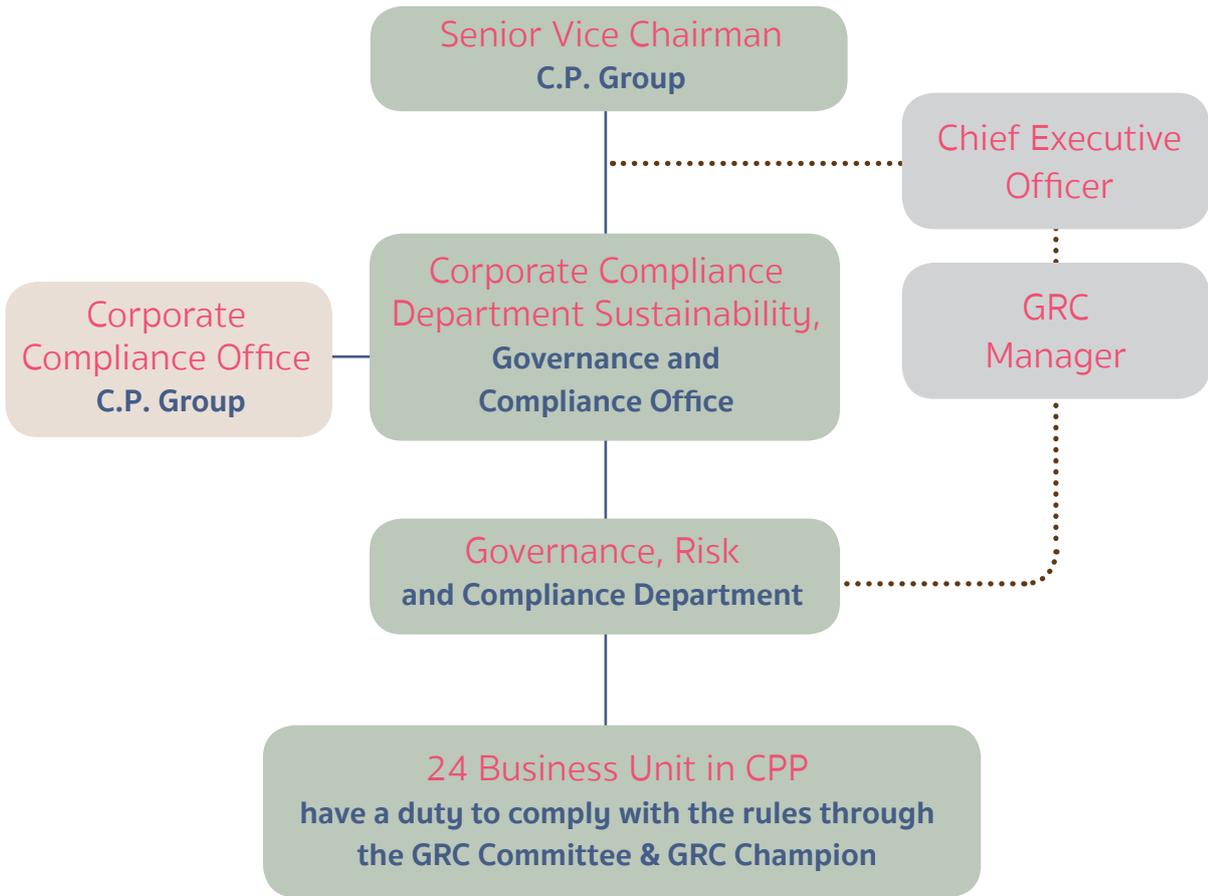
within company. This will be accomplished through projects such as the Compliance Ecosystem, collaboration among C.P. Group companies to prepare for the inclusion of compliance governance into operational processes in a systematic way, where integration will be encouraged between each unit. CPP's efforts in this area have received the '**Tone at the top**' and the support of executives from Group companies, who have mandated that there be a "**Compliance Network**". That will take on a coordinating role in this Network to liaise with C.P. Group and create awareness, oversee compliance, and establish a system to report performance data to executives.

In 2020, C.P. Group organized workshops on compliance governance for management and relevant employees. These workshops helped build their knowledge and understanding of how to operate according to compliance governance guidelines. C.P. Group also arranged trainings on the topics of Compliance & Compliance Audit, Ethical Audit, and Control Self-Assessment Introduction.





Corporate Compliance Structure



CASE STUDY 01

Risk Management in situation of the COVID-19 virus

Under the situation of the COVID-19 virus that occurred in early 2020 affecting all industries and lifestyles of people around the world It is therefore very important to make decisions or consider various issues of the management team, affecting the operations of the organization under such circumstances. It also requires consideration of the expectations of different stakeholder groups for the organization’s rapid response and minimal impact.

CPP has implemented measures to prevent the spread of COVID-19. Including setting measures for employees to work from home, measures for flexible working hours and supported welfare to take care of employees and employees’ families affected by the epidemic situation of the COVID-19 virus.



Guidelines for management

Committee Management Plan



CASE STUDY

02

Code of Conduct Audit and Assessment by auditors from Corporate Compliance Office (CCO) C.P. Group

As Charoen Pokphand Group (“C.P. Group”) has driven the implementation of Corporate Governance in accordance with the principles of good governance by promulgating Business ethics in doing business, which Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) have already implemented. To ensure that the CP Code of Conduct is used, as prescribed including to bring Improve and review the enforcement of the CP code of conduct. Therefore, CPP has been an audit and assessment of the Code of Conduct Audit and Assessment by auditor from Corporate Compliance Office (CCO) C.P. Group during the year 2019 - 2020 as follows

1. The organization has/ promulgated the CP’s Code of Conduct as a guideline for its business operations.
2. The organization supervises CP’s Code of Conduct by Senior Management and has delegated duties and responsibilities, appropriately and adequately
3. The organization communicates and trains CP’s Code of Conduct, thoroughly and efficiently (including related policies such as giving/receiving gifts conflicts of interest, etc.)
4. The organization has monitoring, review, audit and reporting, such as collecting and reporting in accordance with relevant policies.
5. The organization has measures to promote whistleblowing, and penalties in case of violation of rules and Code of Conduct, including root cause analysis and establishing measures to prevent violations/infringements



Result

31

Question



13

Areas For
Improvement

Corrective Action

100%

CASE STUDY 03

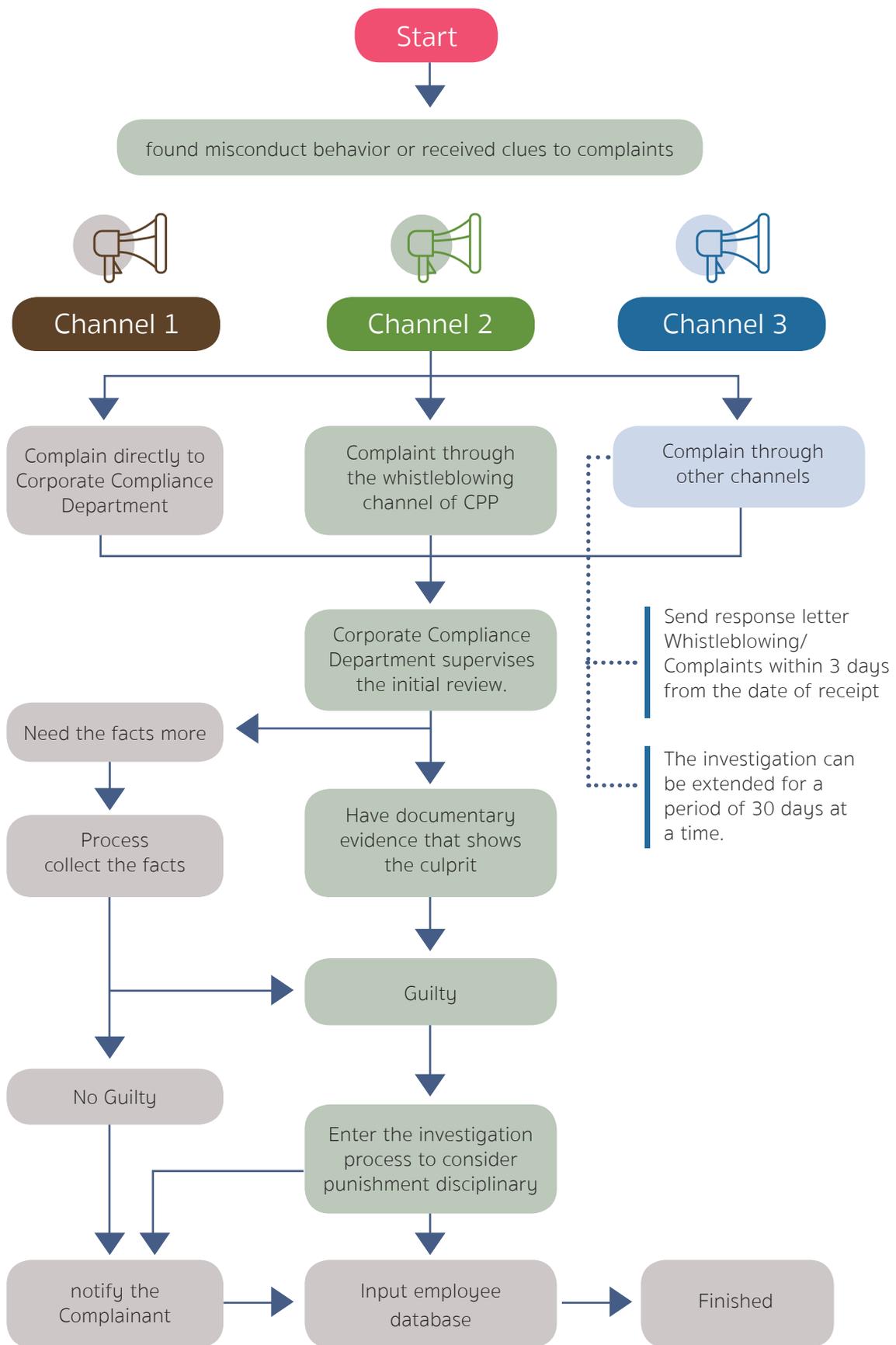
Whistleblowing System

Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) recognize the importance of providing effective whistleblowing and complaint channels. To listen to opinions, suggestions or complaints from all groups of stakeholders, including personnel of the business group such as executives, employees at all levels and third parties such as business partners, business partners that are affected or are at risk of being affected by the business operations of the Business Group or from illegal actions or the Code of Business Conduct including behaviors that are corruption, including the wrongful performance of the personnel of the business group and to prevent risks and damages that may occur to stakeholders as well as a tool for surveillance track business And it is a database for improving the management and service of the business group. to be more concise and efficiency.





Whistleblowing Process





HUMAN RIGHTS

AND LABOR PRACTICES

(GRI 103-1, 103-2, 103-3, 406-1, 408-1, 409-1, 411-1, 412-1)

Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), focuses on promoting the human rights of the foundation of grayness, rights, freedom and equality of ideas. , Acts that can not be offensive and must respect the local laws of each country in order to comply with the way of life, traditions, culture and the practice of good Governance. By avoiding involvement in all forms of human rights violations

The challenge in CPP is the expectation of equal treatment in the labor force of companies, partners or other stakeholders of the supply chain in all dimensions related to human rights. This includes periodic human rights risk assessments



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



All departments
Impact assessment Human rights



All Employees
828 Employees
training “CP Code of Conduct”



Announcement Human rights and labor practices Policy and Guideline
at the business group level

2020 Goal



100% of Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group conducts human rights due diligence.

Performance in Comparison with 2020 Goal

	2017	2018	2019	2020	Achieve Goal 2020
Total of companies	6	6	6	6	100%
Total of companies conduct Human Rights Due Diligence	6	6	6	6	100%

HUMAN RIGHTS AND LABOR PRACTICES



Management Approach



Policy Commitment

- Announce Human Rights and Labor Practices Policy
- Announce Code of Conduct
- In the process of developing specific policies, such as a Migrant Workers Employment Policy



Embedding

- Conduct awareness training on human rights, encompassing employees at all levels
- In the process of developing an e-learning curriculum to more efficiently educate employees



Impact Assessing

- Identify and assess the severity of human rights risks during all current and future activities
- Indicate salient human rights risks in countries where the CPP has invested



Integrating and Taking Action

- Integrate human rights into the organization's risk assessment and regular business processes
- Develop and communicate protocols, such as responsible supply chains

Remedies and Receive Complaints

- In the process of developing CPP whistleblowing channel



Stakeholder Engagement

- Meeting and Surveying the needs and expectations of all stakeholder groups
- Became a member of the United Nations Global Compact (UNGC) Thailand in 2021



Communicating Performance

- Report Human Rights Due Diligence progress through the CPP's Sustainability Report



Tracking Performance

- Develop human rights indicators
- Monitor progress on human rights at the group and business Level





HUMAN RIGHTS PERFORMANCE

Occupational Health



Approach

- Occupational Health and Safety Policy
- Zero Accident Target
- Organize trainings for executives and employees of all levels to help them understand the importance of good governance throughout the supply chain.
- Safety assessment project of business group level
- Automotive management

Results

- Management staffs and employees of every organization are aware of the importance and contributions to efforts on safety
- In 2020 Lost time injury rate
Employees : Zero Accident
Contractor : 5.68 no. per1,000,000 working hours (2 people)

Forced Labor and Foreign workers



Approach

- Human rights and labor practices Policy and Guideline
- Assessment of compliance with labor laws, certified by Thai Labor Standards
- Responsible Supply Chain Management Policy and encouraging key business partners to self-assess their sustainability

Results

- Established operating and governance standards on foreign workers Ethical Recruitment

Discrimination



Approach

- Code of Conduct.
- Training to educate employees about rights, equality and coexistence practices.

Results

- Communicated through an e-learning system to every employee in all business groups to raise awareness and verify
- Employed 21 people with disabilities in the CPP

Environmental Impact



Approach

- Policy and Target on Environmental Management
- Environmental Plan
- Raising awareness And environmental knowledge
- Surveys to identify community opinion and concerns

Results

- Performed according to policy and standards
- Developed action plans to respond to community concerns
- No environment-related grievances reported

CARING EMPLOYEES



Management Approach

“People are the souls that bring the organization to life” Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), respect and appreciate the values of all people in the organization. Cultivate and develop to be a good person which will be a role model for those around them at work, family and society overall lead to love ties to the countries, communities and lastly the company according to the three benefits, with guidelines Operations as follows



Building a working society

- Attention to ability and Assign valuable and challenging tasks.
- Make people in the CPP understand their roles, treat colleagues with respect understand the difference Respect and build good relationships with each other in the team.
- Support for the creation of interest-based clubs to create good relationship
- Encourage people in CPP to be considerate, caring, and caring each other both at work and outside of work, including sharing knowledge, experience, etc. to those who need it. appropriately, creating a feeling of belonging to one family.



Mind and soul care

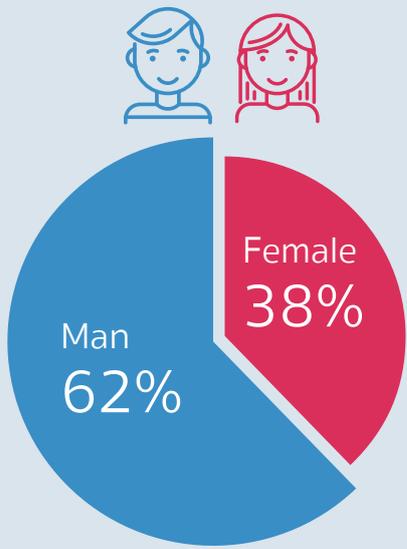
- Promote morality in the mind.
- Promote a mindfulness.
- Promote Gratitude.



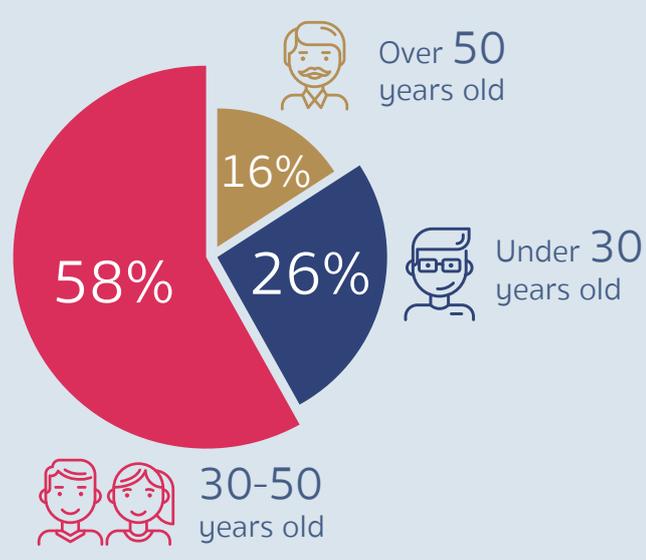
Building stability in life

- Encourage employees to have good physical and mental health
- Encourage employees to use “**Rationality, Moderation, Immunity, use of knowledge Virtue couple**” to create stability in life and family.
- Extending the way of building security in life to the family and community of people in the CPP.

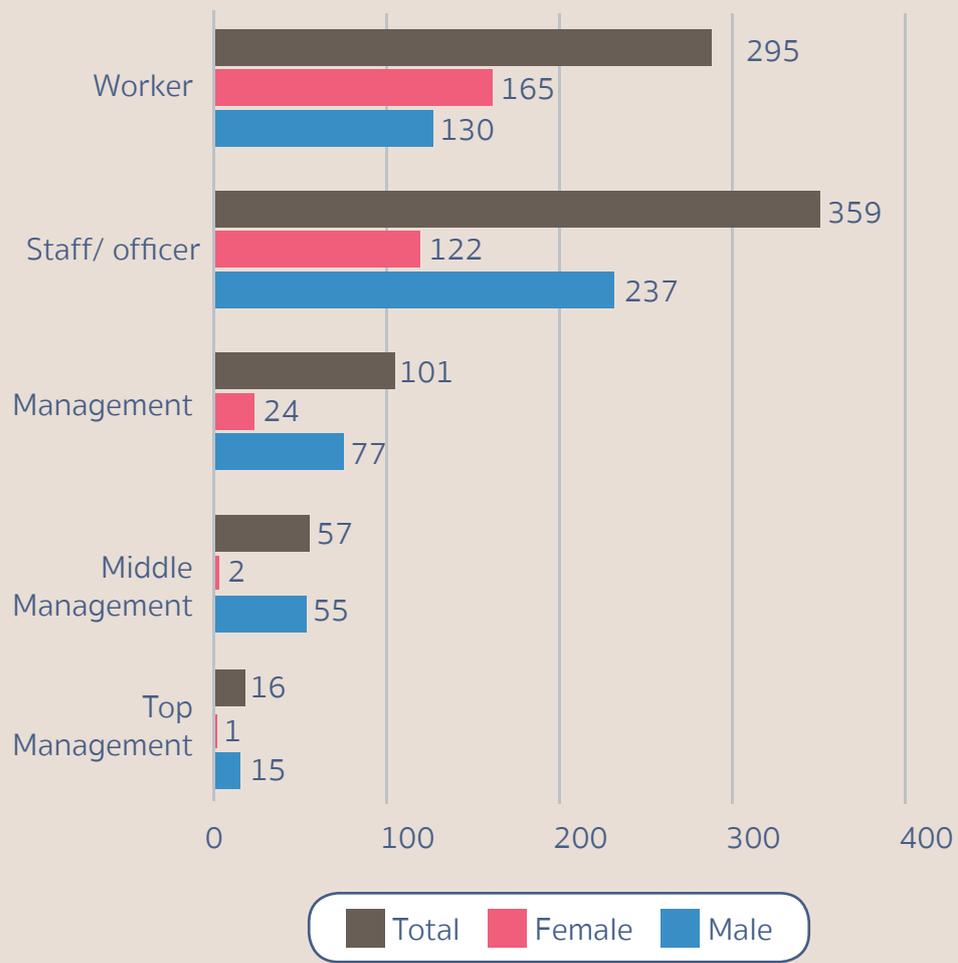
Employee Diversity by Gender



Employee Diversity by Age



Employee Diversity by Level





CASE STUDY 05

Engagement Activities

CPP focuses on employees as especially the importance of employee health. Therefore, it is encouraged to Employees are aware of their health care through activities. such as Office Syndrome Activities, Annual Health Check, This Stepping Gives Luck Activity : Walk 10,000 steps and CP Goody The IDOL.



CASE STUDY 06

Provident Fund

CPP focus and give the importance of saving money for employees therefore set up a Provident Fund to encourage employees to save money while they are still working. to keep for retirement or when leaving work which employees can apply for the provident fund as voluntarily. with TISCO Asset Management Co., Ltd. is the fund manager of the provident fund. Residency in the Company's Articles of Association are as follows:



Item	Details
1. Contribution rate from employees	3% / 5% / 10% / 15% Can be change once a year according to the specified cycle.
2. Contribution rate from CPP	3%
3. Investment Plan	Can choose investment plans according to your needs. appropriate
4. Investment Plan	Can choose investment plans according to your needs. appropriate

OCCUPATIONAL HEALTH, SAFETY AND WORK ENVIRONMENT MANAGEMENT



Management Approach

Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), focus on safety at work by adhering to taking care of employees, contractors and visitors as well as stakeholders in business operations and the chain supply, thus establishing on Safety, Occupational Health and Working Environment (“H.S.E.”) policy to be a guideline and enhance the safety operations of the organization The guidelines are as follows.

1. Stipulates that the S.H.E. as a duty and the regular responsibilities of the management; and employees at all levels and is part of the evaluation performance.
2. CPP supports budget and resources. various for the development of operations in H.S.E and communication Inform relevant persons to acknowledge the results of the operation
3. Provide training for employees at all levels knowledge, ability to work as in accordance with H.S.E. Standards at work to realize the importance of having a system good safety to be involved engage in efficient use of resources is to create a culture of H.S.E
4. To have Crisis Management with international standards by integrating with All activities of business operations at all levels work throughout the supply chain To prevent and reduce the impact of harm, reduce injuries of employees and related persons including damage to reputation and property and does not affect the outside community

5. Comply with the laws related to H.S.E. in working both Nationally Level, International Standards, Requirements of Customers
6. Monitor and report H.S.E. effectiveness to executives at all levels to bring continuous improvement in accordance with international standards

Zero Accident Operations Strategy



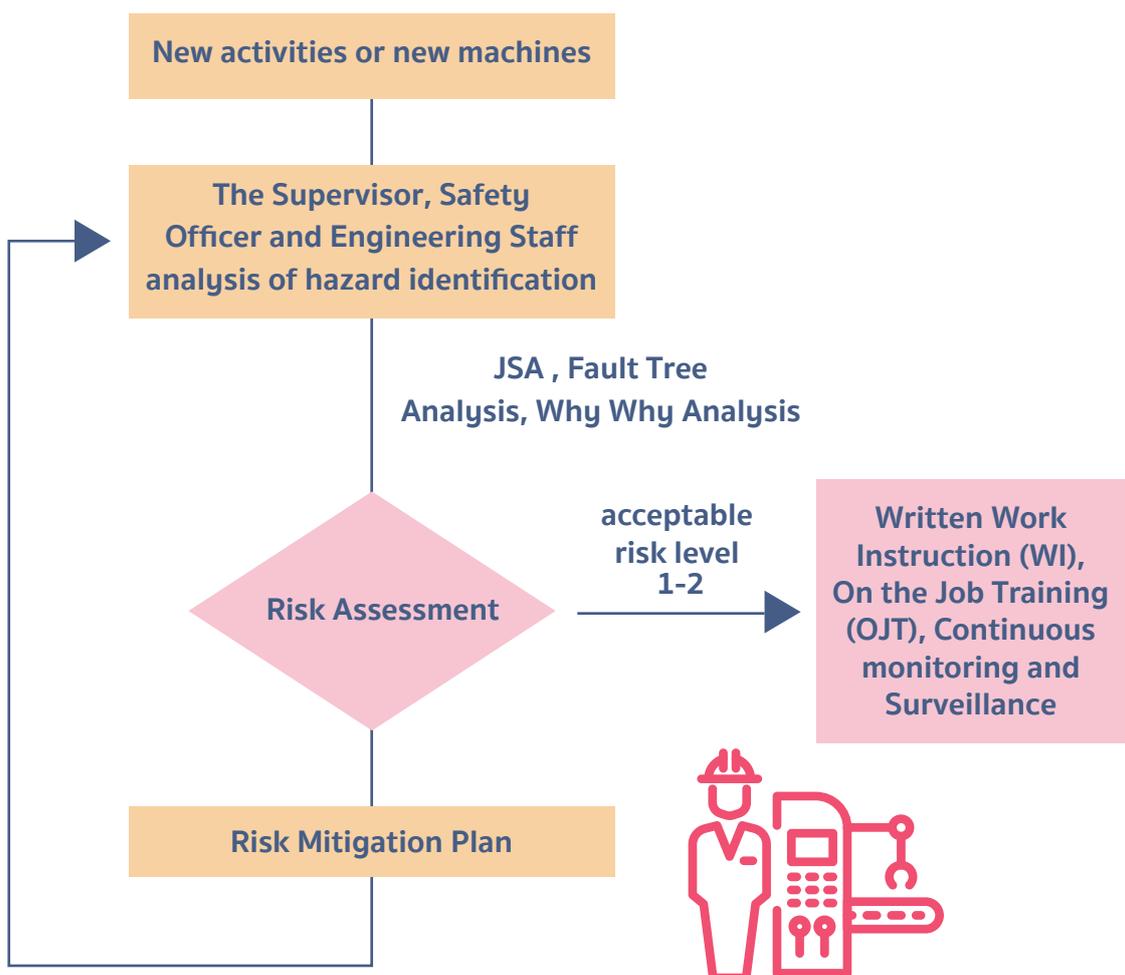
1. Raising the H.S.E. Standard in all countries to the same standard
2. Assessment of H.S.E Management through the CEO AWARDS project
3. Participate in the Outstanding Model Establishment Award Occupational Health, Safety and Working Environment (National Level)
4. Participate in the Zero Accident Campaign Award (Zero Accident Campaign Activity)



HAZARD IDENTIFICATION PROCESS AND RISK MANAGEMENT

CPP attaches great importance to H.S.E Management. Therefore, every process must be safe. does not affect the health of employees and does not environmental impact. Therefore, there is a process for hazard identification and risk assessment of all activities, including when there are new activities or new machines Hazard identification and risk assessment must be carried out prior to commencement of work. In order to know the dangers that will occur along with finding ways to improve and prevent.

1. All Department Manager are required to hazard identification and risk assessment in all activities
2. Join with the Supervisor, Safety Officer and Engineering Staff analysis of hazard identification using JSA Tools , Fault Tree Analysis and Why Why Analysis
3. Join with the Supervisor, Safety Officer and Engineering Staff analysis risk assessment according to criteria standard
4. The risk is at an acceptable level must written Work Instruction (WI), On the Job Training (OJT) for operators and Supervisors review daily operations.
5. The risk is at an unacceptable level. The supervisor must prepare a risk mitigation plan to reduce the risk to an acceptable level.





INCIDENT REPORTING AND INVESTIGATION PROCESS

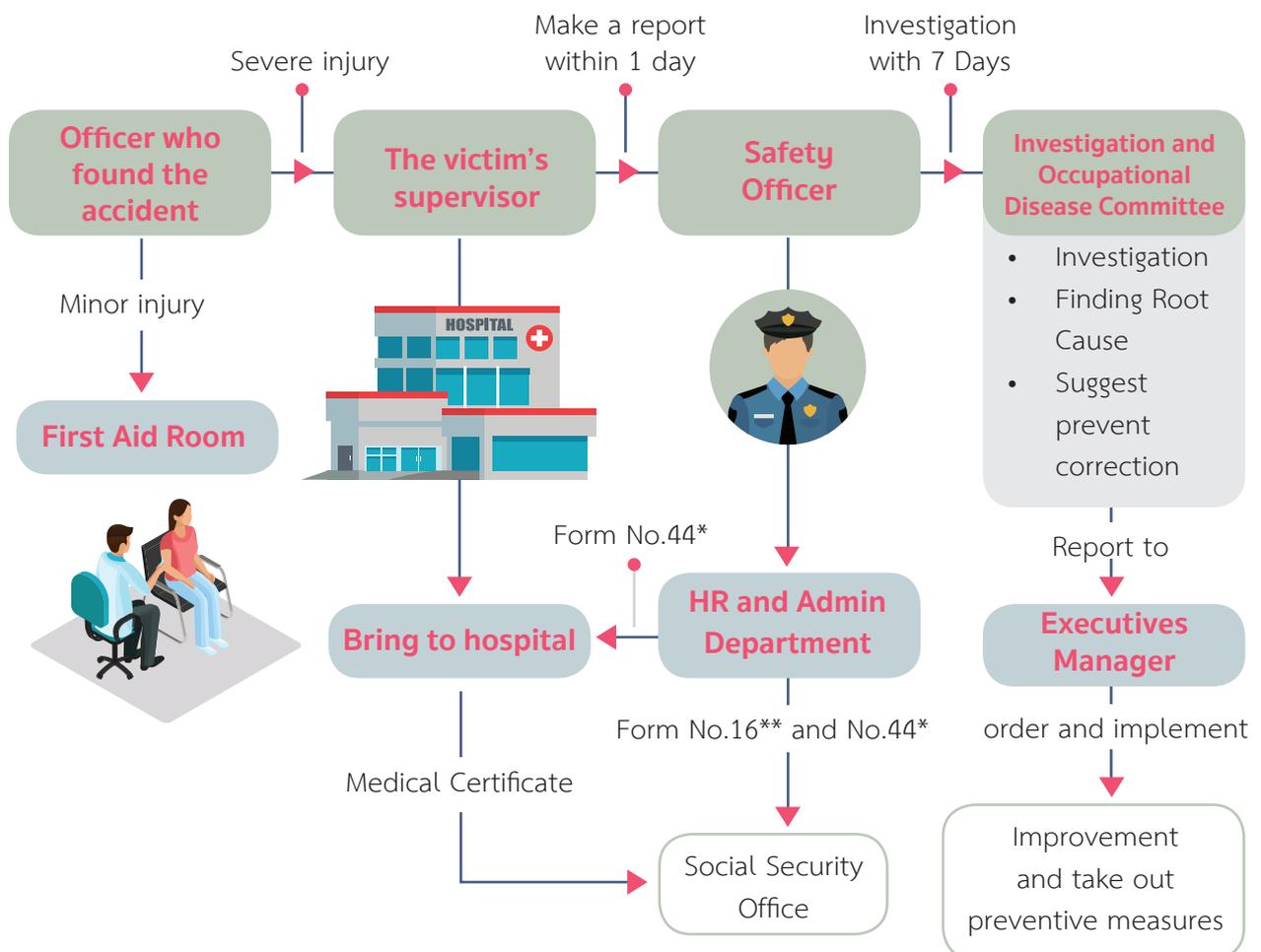
CPP attaches great importance to H.S.E. management, therefore Employees at all levels must report incidents and accidents. through Photo Safety, Kaizen or Suggestion Activities, H.S.E. committee and 5S committee with reporting procedures as follows:

1. When an accident is found to the victim or The victim's supervisor carries out the recording into the accident report form or property accident report form or automotive accident report according to the case and send it to the Safety Officer
2. Investigation and Occupational Disease Committee (IODC) analysis of accidents

using Fishbone Diagram, WhyWhy Analysis conduct an inquiry and record the details into the report analysis of accidents and report to Executives Manager

3. Executives Manager consider to proceed with orders or suggest at the discretion and details to continue and notify to The chairman of the IODC prepared a summary of the investigation report
4. Safety Officer follow up Progress in improving suggestions until it is completed analysis of the accident.

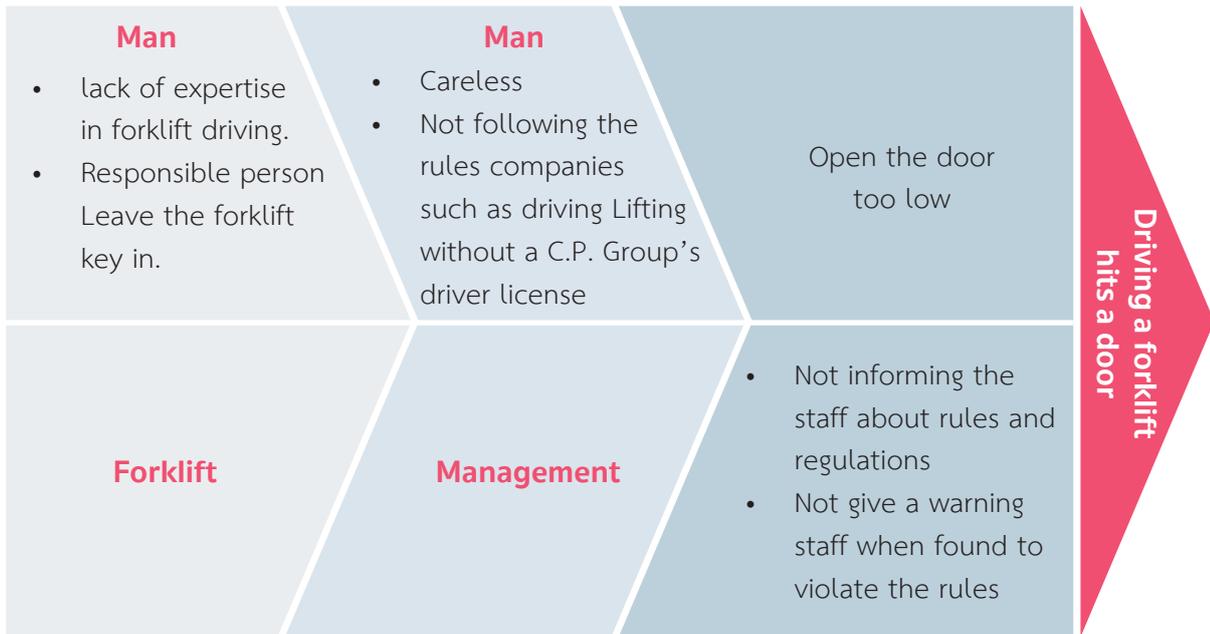
Procedures in case of accidents at work



Note : * Form No.44 means Referral form for employees to receive medical treatment

** Form No.16 means Danger, Sickness or Disappearance Report and Request for Compensation

Example : Incident Reporting and Investigation Process



To be improved urgently :

1. Training on how to drive a forklift safely and temporarily allow the use of forklifts
2. When found regals action or incorrect give a warning or stop immediate action

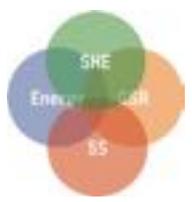


To be improved in the long term :

1. When there is a forklift driving course of the C.P. Group, send employees to attend training and take the C.P. Group’s driver license
2. Communication to employees all levels acknowledge when encountering action failure to inform the supervisor
3. Training to review how to drive a forklift safely to employees who have Forklift driver’s license at least once a year
4. In case that want to use the forklift must request always get permission from the management first.

CASE STUDY 07

SHE² CSR&5S Management
Safety, Health, Environment, Corporate Social Responsibility and 5S Management



Seed processing plants in Lopburi Province Thailand have many systems such as international standard systems ISO 9001, ISO 14001, SHE, 5S, CSR and Energy. to take action making the operation uninterrupted and not sustainable

Seed Processing Plant team therefore has an integrated concept of management systems that are consistent append together It is also a synergy of various committees together to achieve sustainability and is a corporate culture.



- SHE** | SAFETY
HEALTH
ENVIRONMENT
- EN** | ENERGY
MANAGEMENT
- CSR** | CORPORATE
SOCIAL
RESPONSIBILITY
- 5S** | SEIRI
SEITON
SEISO
SEIKETSU
SHITSUKE

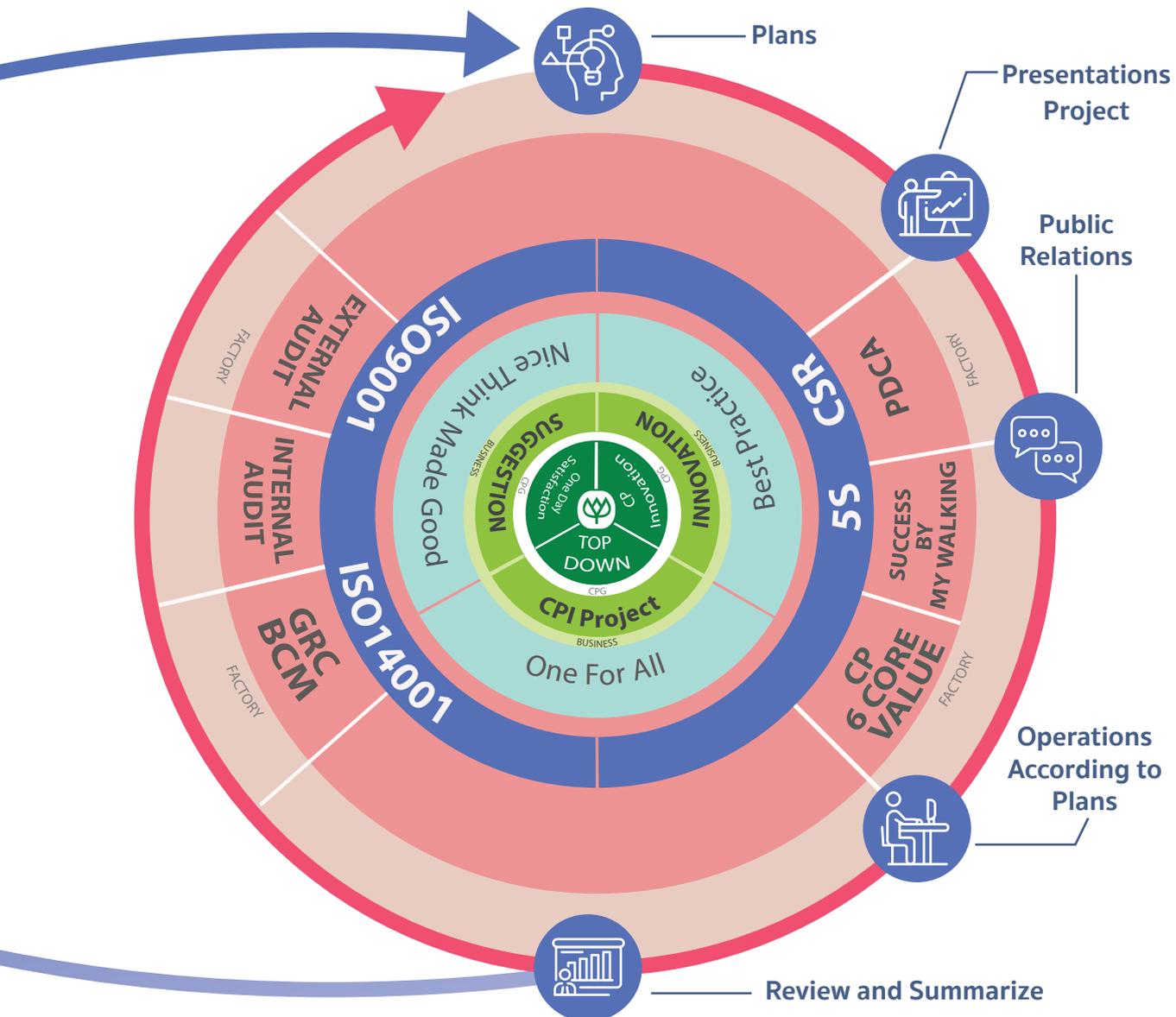


Driving of Organization



The system drives from management policy to the committee, making plans, presentations, and public relations, conduct, review, summarize, report results and apply to foreign factories.

There are operations according to plans according to the SHE² CSR & 5S system such as public relations education, practice, audit revision





CASE STUDY 08

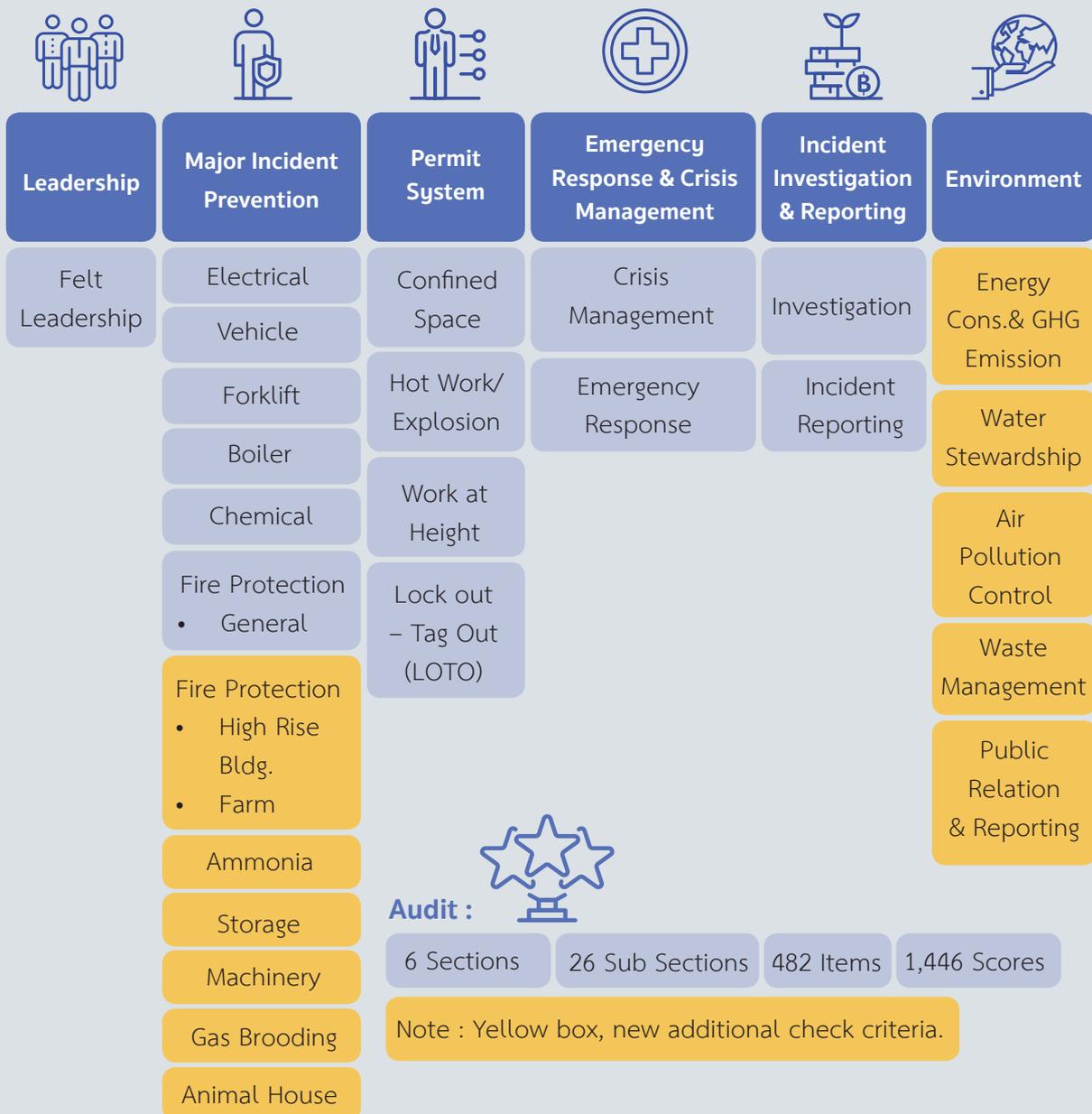
Safety Management Audits and Crisis Management, C.P. Group and CEO AWARDS, Crop Integration (Maize) Business Group



To prevent serious accidents and reduce the impact Up (Major Hazard Prevention & Emergency Response) and raise the level of SHE management to be on par with the international level, which is part of sustainable business that the business group needs to be audited. To comply with the SHE policy of Charoen Pokphand Group as a platform for exchange Experiences foster positive attitudes and can bring Improve management effectiveness



2020 SHE Audit Criteria



Performance			Scores
Over 89%	Best	★ ★ ★	3
Performance 70%-89%	Good	★ ★ ☆	2
Performance 50%-69%	Fair	★ ☆ ☆	1
Performance Under 50%	Should be	★ ☆ ☆	0
Not Applicable			N/A

LEADERSHIP

AND HUMAN CAPITAL DEVELOPMENT

(GRI 102-41, 102-43, 102-44, 103-1, 103-2, 103-3, 401-1, 401-2, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-9, 404-1, 404-2, 404-3, 405-1)

Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), develop a integrated business from B2B to B2C (C is farmers) bring data to develop research used to increase production capacity and transfer them back to farmers which is comparable to the “**life partner**” that CPP has to take care of closely allowing farmers to be part of the business Let’s go together in a sustainable way

CPP has established missions, visions and strategies to support these changes. focus on development Potential and empowerment of “**personnel**” is the key. CPP attaches importance to creating the readiness of Personnel for effective adaptation handling Drive human resource strategies in line with global standards.

The challenge is to create engagement and engagement channels for employees at all levels. to maintain competent personnel to stay with the Company Become a new leader Collect experiences, learn and grow with the company.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



All Employees
828 Employees

are trained to develop knowledge and understanding on Sustainability



31 Leader and Staff trained at the CP Leadership Institute (CPLI) C.P. Group

2020 Goal



All leaders and employees in Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group are provided with the training necessary to create business sustainability.

Performance in Comparison with 2020 Goal

Percentage of leaders and employees are training business sustainability

2017	2018	2019	2020	Achieve Goal 2020
------	------	------	------	-------------------

100	100	100	100	100%
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Management Approach



Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), believes that our people are the most valuable asset - they are the driving force behind the achievement of our aspirations. This is especially the case today, as CPP is committed to growing its business and expanding investments globally. There now arises the challenge of creating “**New Generation Leaders**” who will carry forward the organization’s values, while preparing and developing over 300,000 employees across our diverse businesses with the necessary knowledge and skills, and mindsets to embrace and adapt to changes, as well as to reinforce positive experiences for our employees to be proud for taking a part in CPP’s success.

Central to this is CPP “**Workforce 4.0**” Human Resources Strategy, which is guided by the 6 Core Values, digital information, and technology. The strategy consists of five core pillars, and focuses on developing up a new generation of leaders through real-life learning experiences, with the CPLI being central to these efforts. It also focuses on creating a human resources management ecosystem to promote recruitment of ethical and competent individuals, learning from various world-class advisors, career planning and development, and transforming to an ‘agile’ organization to enhance the Group’s adaptability to business changes and changes prompted by generational gaps.

LEARNING SYSTEM AND HUMAN DEVELOPMENT

An effective team is also important, and an effective team is the key driving force in leading the organization towards its goals of success. The principles for creating people are as follows:



1. A Role Model
To demonstrate commitment to core values and business ethics of the CPP and of C.P. Group

2. Develop a team by coaching
Using the coaching principle to develop the maximum potential of the team To be able to work, achieve goals and live a successful life.

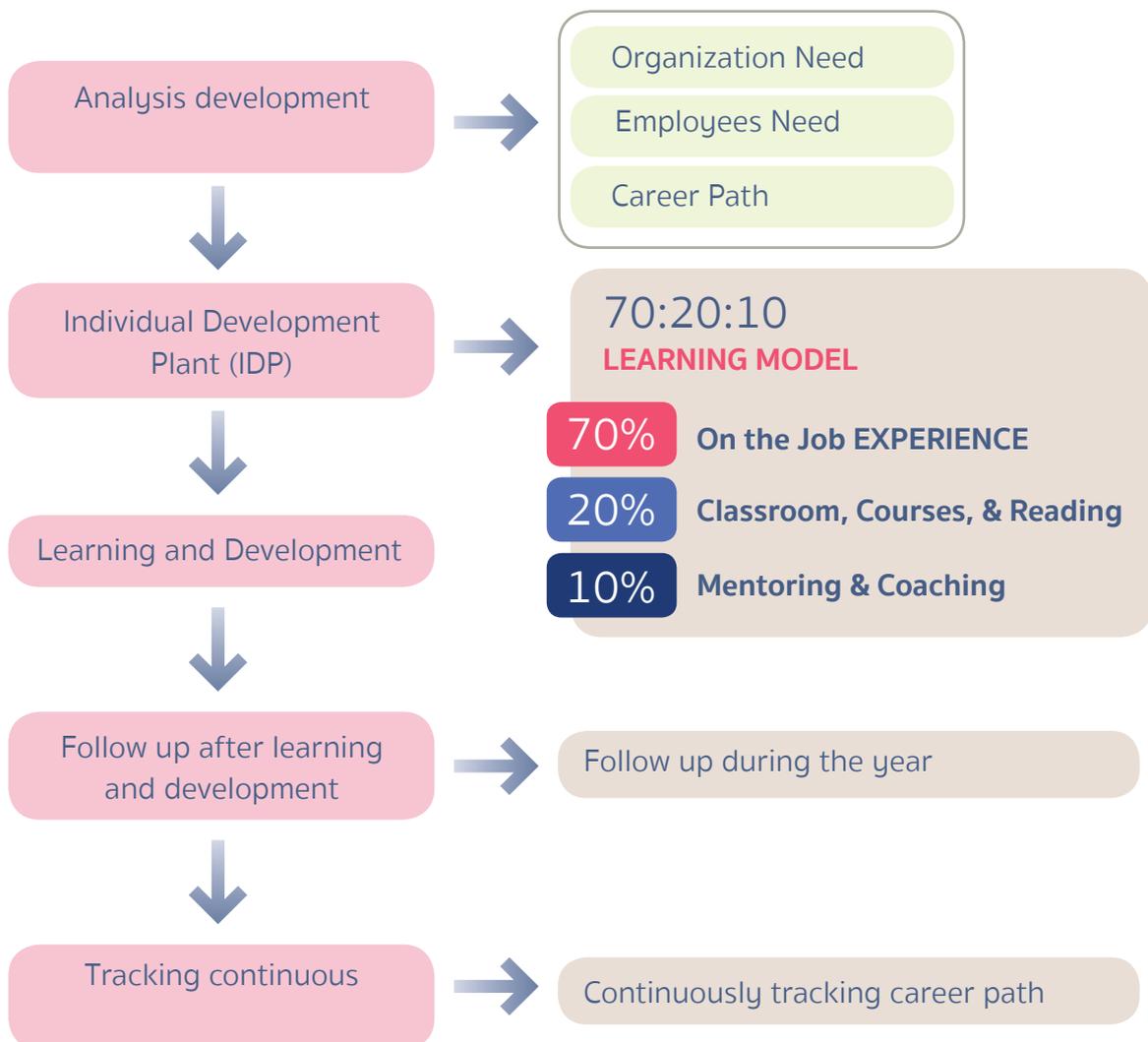
3. Communicate Effectively
To build trust and bond with people in the organization including key stakeholders.



4. Create a work environment



HUMAN DEVELOPMENT



LEARNING SYSTEM AND HUMAN DEVELOPMENT

CASE STUDY 09

Leadership Program

The CPP’s Human Resources Office recognizes the importance of leadership development, which is like an important force to drive the success of the organization to achieve goals and grow sustainably. Therefore, a Leadership Program has been organized with the objective of developing leadership for employees in the organization to have opportunities learn and develop competence in management and people management to lead the organization to achieve the goals set and work efficiently




Total employees attend training course

Leadership Program
97 Employees

Leadership Development Training From CP Leadership Institute (CPLI) C.P. Group

Human resources development at C.P. Group aims to develop leaders at all levels. With the CPLI at the center, courses are designed to suit the qualifications of all participants. All courses are developed based on real-life applications, focusing on learning through practicing by implementing cross-business and cross-function projects. The projects reinforce trainees to enhance business problem-solving skill and learn from experiencing actual impacts.



Total employees attend training course in CPLI

2020
All Program
31 Employees

FLP



CP Future Leaders Development Program

PLP



CP Potential Leaders Development Program

LDP



CP Leaders Development Program

SLP



CP Senior Leaders Development Program

CYBER SECURITY & DATA PROTECTION

(GRI 103-1, 103-2, 103-3, 418-1)



Management Approach

Over the past few years, there have been a growing number of common international data security breach incidents, including: Theft of customers' commercial and personal information which event These can affect your reputation, image and credibility. of the organization, CPP announced the Data Security Management Policy. To secure information technology and Cyber Threat Risk Management It consists of 3 components as follows:



Department and Employees



Plan and Procedures



Technology

Protection of personal information

CPP announced the Personal Data Protection Policy and Guidelines covers the entire customer. corporate employees and partners, including Covering customers who use the company's services which has communication with the owner of information as follows

In this case, the customer can exercise the right to request about the information collected as follows:



Purpose of collection



Collection period



Type of person or Department which may be disclosed



Information or ways to contact the company



Rights of personal data subject



Report the consequences of not giving personal data



Request withdrawal of consent



Access your personal information



Forfeit a copy



Search the collection Disclosure



Whistleblowing



Request to transfer their personal data to other Data Controller



Request to update the information



Request deletion, destruction or suspension of data

INFORMATION SECURITY : PERSONNEL MANAGEMENT INFORMATION

CASE STUDY 10

Management Approach

CPP's Human Resources Office focus on the importance of personal data management of employees in order to comply with international standards and protect personal information from unrelated parties including requesting information, collecting information, forwarding information and data destruction The Human Resources Office has prepared media and public relations including learning and taking quizzes online personal information.

เริ่มแล้ว!
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เริ่มรู้เรื่องใหม่ที่สำคัญกับ 5 หน้าที่
 กับหลักสูตร พ.ร.บ. คุ้มครองข้อมูลส่วนบุคคล
 ของคุณเองและพนักงาน
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**จับรางวัลและ
 ประกาศผลทุกสัปดาห์**

กติการ่วมลุ้นของรางวัล

1. ลงทะเบียนเรียนหลักสูตรนี้ก่อนวันที่ 30 กันยายน 2563
2. เรียนจบหลักสูตรนี้ก่อนวันที่ 30 กันยายน 2563
3. ทำข้อสอบผ่านเกณฑ์ที่กำหนด
4. เข้าร่วมกิจกรรมที่ทางบริษัทฯ จัดขึ้น

สอบถามรายละเอียดได้ที่
 Contact: 02-02820000 Email: HR@PPD.PKPHAND.CO.TH

**พ.ร.บ.คุ้มครองข้อมูลส่วนบุคคล
 PDPA (Personal Data Protection Act)**

**ข้อมูลส่วนบุคคล
 คืออะไร สงสัยจัง?**

ข้อมูลส่วนบุคคลคืออะไร?
 อะไรคือ PDPA?
 ทำไมต้องปฏิบัติตาม PDPA?
 ข้อมูลส่วนบุคคลคืออะไร?
 ข้อมูลส่วนบุคคลคืออะไร?
 ข้อมูลส่วนบุคคลคืออะไร?

เคลียร์ข้อสงสัย โปรดติดตามตอนต่อไป

**ขอเชิญพนักงานทุกท่านเข้าเรียนหลักสูตร
 พ.ร.บ.คุ้มครองข้อมูลส่วนบุคคล**

1. ลงทะเบียนเรียนหลักสูตรนี้ก่อนวันที่ 30 กันยายน 2563
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สอบถามรายละเอียดได้ที่
 Contact: 02-02820000 Email: HR@PPD.PKPHAND.CO.TH



CASE STUDY 11

CPP TOWN HALL 2020

Crop Integration (Maize) Business Group organized “**CPP Townhall 2020**” to cascade policies and focus employees towards B2C business practices that will improve farmers’ incomes and help organizations grow sustainable in the future.

However, the executives and employees who attended the event shared their opinions. in the workshop to analyze the factors It will lead to success and jointly plan the work to lead to concrete action.

The policy communication has been communicated to employees at all levels because employees are like the key forces that will drive together B2C business operations to lead the organization to success in a sustainable manner, with CPP Executives Manager in all countries, Young Leaders joining this event



CP Future Leader Development Program 2020

CASE STUDY 12

“Three benefits project to generate income for farmers”

Learning



Doing



CPP support the development of a new generation of leaders by sending employees who is a new generation to join the CP Future Leader Program of the CP Leadership Institute. This is a course that gives employees the opportunity to participate in the project. Learn and develop yourself through doing a real business for 6 months. Focus on creation complete leadership in the style of CP who is smart, good, disciplined in self-management. including being a person who can draw upon their own potential and others to use it to the maximum benefit.

Currently, the CP Future Leader Development Program has been carried out until the 8th generation, and CPP has sent employees to participate in the project continuously. The 8th generation is the first model that the company has set up a project to be its own learning base. By doing the “**Three benefits project to generate income for farmers**” with a total of 5 new leaders participating in the project. The new generation has studied and learned and actually planting in an area of 50 rai Wat Bot, Phitsanulok province and has reported the results to the management of the C.P. Group continually

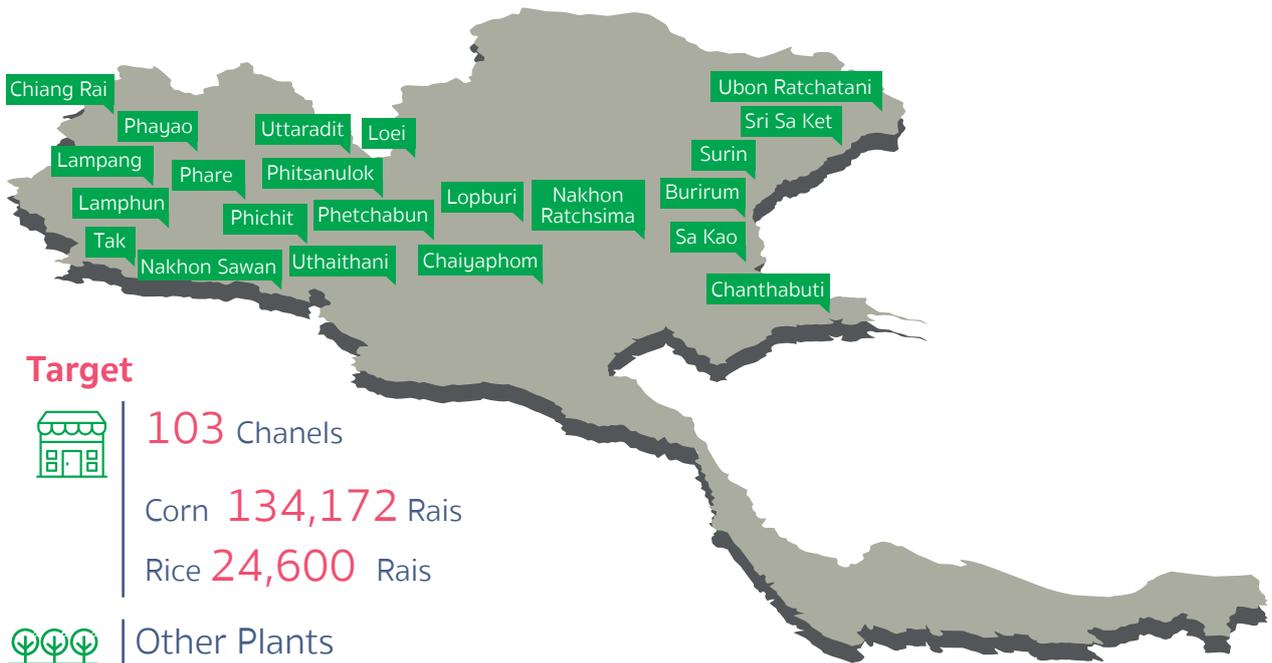
In 2021, CPP aims to send Employees participated in the 9th batch of 2 teams together

CASE STUDY 13

INTEGRATED AGRICULTURAL BUSINESS MANAGER (IABM)



Integrated Agricultural Business Manager (“IABM”) focuses on developing a business model to reach end customers or farmers. More according to the direction of the integrated business by connecting the market to be able to track member information in a B2B2C format, improving productivity, Establish a market to support the production. In line with the changes in the B2C business model to be stable, conduct business throughout the value chain that are relevant to all groups of stakeholders



Target



103 Chanel

Corn 134,172 Rais

Rice 24,600 Rais



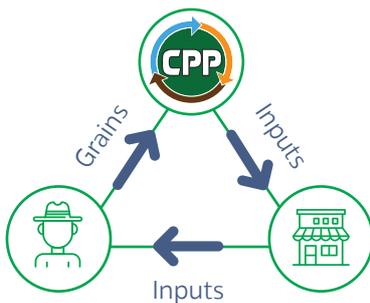
Other Plants

50,930 Rais

Type 1

Integrated Business

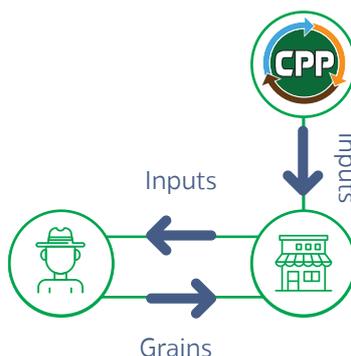
Selling inputs - Promoting planting- Redemption of grain



Type 2

Increase market potential

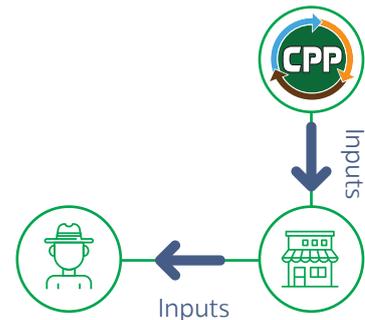
Selling inputs - Promoting planting- Redemption of grain



Type 3

Develop the potential of farmers

Selling inputs - Promoting planting



CASE STUDY 14

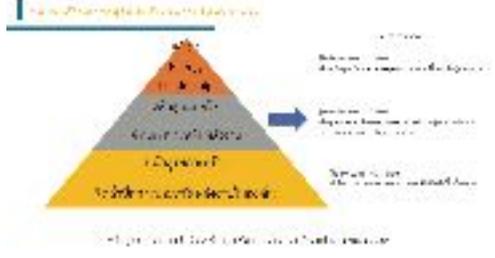
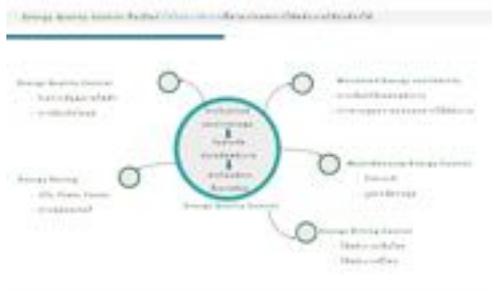
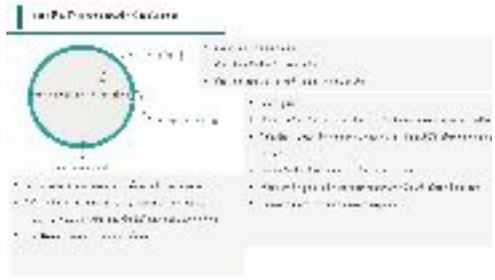
ENERGY MANAGEMENT DEVELOPMENT PROGRAM (Person Responsible Energy for Designated Factory)

Energy conservation is a new issue for the organization, therefore it is imperative. to constantly develop the potential of oneself and the organization In the past, many obstacles have been encountered, including data storage, energy consumption, Engineering information and how to check the energy efficiency of various machines in the factory This is the driving force behind efforts to resolve the issue

It starts with learning, training, researching more information from books and the Internet. Joining the Energy Network Education from successful energy companies **“From obstacles, disappointments, to the drive to continue to create.”** Therefore, it is an idea that arises after continuous study and development of energy management systems, through experimentation and implementation, to create a concrete and sustainable energy management system for factories.

Person Responsible Energy is responsible for energy strategies such as planning and monitoring the implementation of energy conservation. Energy conservation activities and training courses to develop knowledge and competence for employees within the organization. in addition also participates in Energy Conservation Projects from government and private agencies such as Improvement Boiler Efficiency Project with Chiang Mai University and Industrial Efficiency Energy Project, which is a project that cooperation with the Ministry of Energy and United Nations Industrial Development Organization (UNIDO) to manage and optimize energy use within the factory

It also expands the energy conservation effect by being a lecturer in training on energy conservation among factories in the Charoen Pokphand Group. Provide energy knowledge to students in the sHE2CSR&5S To School activity at School Soi 17 and School Soi 19, Phatthana Nikhom District. Lopburi



EDUCATION

Education is one of the main issues that needs to be addressed urgently and continuously to further develop world population and support societal change. In digital transformation era, multifaceted changes will have a significant impact on the lives of people, society, and the modern economy. As working conditions have now changed, universities and their graduates might have difficulty catching up with the business and industrial sectors. Therefore, developing people with the knowledge, abilities, and skills as required by the sectors has now become more challenging. These challenges, however, can be seen as opportunities as new technologies have emerged, the internet has become more accessible, technology has adapted to enhance effective learning, education expenses have decreased, and there is now more support for educational development. Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), recognizes the challenges and opportunities to support and develop education, as well as the competitiveness of both domestic and international human capital.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



9,546 children, youth, and adults will be provided with access to education and necessary skills development



25 schools are encouraged to educate and support sustainability



197 scholarships sponsored by CPP

2020 Goal



5,000 children, youth, and adults will be provided with access to education and necessary skills development.

Performance in Comparison with

2020 Goal

children, youth, and adults will be provided with access to education and necessary skills development.

	2017	2018	2019	2020	Achieve Goal 2020
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	-	1,468	4,318	9,546	5,000
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EDUCATION MANAGEMENT



Management Approach

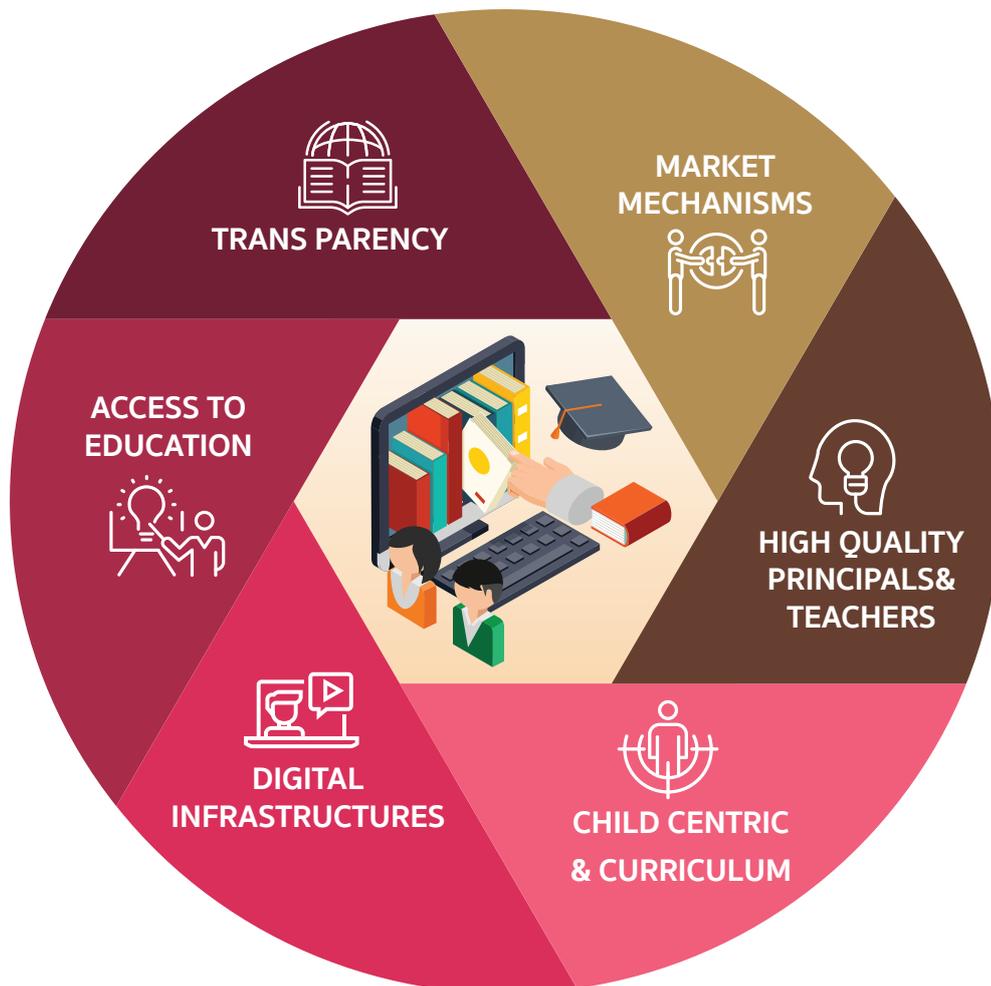
Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), firmly believes that building an inclusive culture for education and creating opportunities for knowledge access involves developing the potential of Thai youths and adults of all ages. This will prepare them to tackle various challenges, reduce inequalities, and increase Thailand’s competitiveness. CPP adheres to five key strategies in our effort to sustainably enhance the quality of education management in Thailand, in accordance with global megatrends. These are: transparency; market mechanisms

and an inclusive culture; developing high quality principals and teachers; creating value and a child-centric curriculum; and providing access to basic digital education infrastructure.

Moreover, CPP is committed in supporting the UN Sustainable Development Goals (UNSDGs), and has developed an implementation plan for UNSDGs alignment with targets that focuses on eliminating inequalities in education, providing opportunities and expanding access, and improving the capabilities of students and teachers to improve the quality of life for all.



Education Development Framework





CASE STUDY ¹⁵

NATIONAL CHILDREN'S DAY

Charoen Pokphand Produce Co., Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”), organizes National Children’s Day activities regularly. We recognize the importance of children and youth who will be important forces for the country’s future development. and has organized activities continuously for 14 years

In this year 2020, activities under the concept of “**Safety and Hygiene**” are organized to make Thai children aware of the importance of health care and having good hygiene, far away from disease, having a healthy body, bright mind, ready for openness to creativity and a vital force for the development of the country. through various activities The details are as follows.

1. To make youths realize the importance of health care and good hygiene
2. To create engagement between the organization and the community
3. To raise awareness and focus on children and youth which will be the future of the country
4. To enhance the development of children and youth to show their knowledge and abilities in various skills



25
schools

Total children
5,088
engaged in the event

CASE STUDY **16**

SCHOLARSHIP FOR EMPLOYEES' CHILDREN AND STUDENT'S MAEJO UNIVERSITY



Scholarship for employees' children 

CPP realizes the importance of employee welfare and education which is the main force in the youth development. Therefore, the company has implementing a policy to support the education of the employees' children by giving scholarships for employees' children with good academic performance and behave to have the opportunity to receive education until graduation.



Scholarship for student's Maejo University

CPP realized the importance of education and continued supporting and developing people with knowledge, abilities and skills required for over 8 years, totaling over 1,200,000 scholarship funds. The Company places great emphasis on education and contributes to the construction and development of youth and adults in order to increase their competitiveness in country baht. For the academic year 2020, CPP awarded scholarships for a bachelor's degree at Maejo University, Chiang Mai Province for 7 scholarships 15,000 baht per each, totaling of 105,000 baht.



CASE STUDY 17

SCHOOL PARTNER, CONNEXT ED PROJECT

The Connex ED Project is a collaboration between the government - private sector - civil society. to strengthen the economy and society to grow wealthy and sustainable develop basic education and leadership development focus on developing the potential of Thai people in the future through the management of basic education in Thailand in all dimensions Promote and upgrade the quality of Thai education in the 21st century for schools under its supervision. Pulling out their own potential to be both **“Good people and smart people”**. There are mechanisms to enhance education in accordance with the five operational principles that are appropriate and in line with the school and community context.

Vision



- Reduce inequality
- Improve the quality of children
- increase competitiveness

Mission



Encourage children and Thai youth can bring your own potential to become **“Good people and smart people”** of the country



Since 2019, CPP has participated in the Connex ED Project that focus on the development of learners of students at Soi 26 Sai School, Phatthana Nikhom District, Lopburi Province by supporting personnel to act as School Partners who have passed workshop on the development of new leadership potential before going to the actual field of work in the school to participate in the preparation of development plans according to the school context including supporting the budget for the preparation of school development plans.

HEALTHY



LIVING WELL

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) is committed to driving society toward sustainability through innovations that help promote good health for consumers. In addition, we implement projects aimed at improving the quality of life and health of people through our shared experiences and knowledge with a focus on comprehensive development in economic, social and environmental aspects.

We also join forces with many organizations to push forward changes at the national level, in line with our core values founded on the “**Three-Benefit Principle.**” consisted of



SOCIAL IMPACT



INNOVATION



HEALTH AND WELL-BEING



STAKEHOLDER ENGAGEMENT



SOCIAL IMPACT

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) sees the problem of inequality as one of the causes of discrimination in society, and lack of trust This puts the business at risk for reputation, and more supervision from official agencies as well as may affect the performance of the business in the long run Therefore, the problem of inequality is no longer just a social problem that is nearby. But it can become a business risk.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



Farmers
2,836 people
receiving career promotion
and income



Vulnerable group
603 people
who received promotion of
occupation and quality of life



1.41 Million Baht
for supported in CSR activities



2020 Goal



Improve employment prospects and
quality of life for 1,000 farmers, SMEs,
and vulnerable groups.

Performance in Comparison with

2020 Goal

Number of farmers that receiving
career promotion and income

2018	2019	2020	Achieve Goal 2020
2,148	2,748	2,836	1,000

SUPPORTING FARMERS



Management Approach



CPP is aware of and prioritizes business operations that may be affected by economic and social roles. by supporting farmers small entrepreneur and vulnerable groups to be part of the business. Encourage participation and creativity with continuous operation to be able to solve problems and help promote the quality of life

for the community as well as vulnerable groups to be able to live sustainably

Supporting famers guidelines

1. Provide farmers with groups. (Market leading production) and operating in an integrated manner between the relevant departments.
2. Training to farmers until they can reduce production costs, increase productivity and produce good quality.
3. Let the farmers be managers: manage production, produce and market knowledge.
4. CPP as the market for hedging the risk of price fluctuation, which can help members reduce their debt condition.

SUPPORTING THE VULNERABLE GROUP



Management Approach

CPP is committed to operating the business according to the C.P. Excellence on the realization of social responsibility according to the 3 benefits to sustainability of the Charoen Pokphand Group, while driving the 3 Sustainable Development Goals, which are: Society, Economy and Environment. To eradicate poverty Promote food security, create Quality of life, sharing educational opportunities, Sexually, water management, access to renewable energy,



supporting work in accordance with economic growth.

CPP develops industries and infrastructures through innovation, reduces income inequality, provides safe communities and cities to support consumption and appropriate production plans, climate change and ecosystems, enhancing cooperation towards Sustainable Development Goals.



Performance in 2020

Educational development



Develop children, youth and adults to receive good quality education develop necessary skills can be self-reliant in the future



Actual 2020

9,546
People



Target 2020

13,000
People

Actual 2018-2020

36,269
People

Community economic development and society



Driving sustainable development improve quality of life along with taking care of the environment joint network of multiple sectors



Actual 2020

603
People



Target 2020

2,800
People

Actual 2018-2020

9,615
People

Conserve natural resources and environment



- Disaster Relief and Recovery Plan
- National River Canal Conservation Day
- Conserving the Pasak River Project, 3rd years
- No Plastic Challenge Project, 3rd years

Creating a good reputation for CPP



Media Cost

10,481,480 People

Media Consumers

11,131,977 People



CSR SPIRIT

CPP volunteer staff

Target 2020

19,000 Hours
(100% BUs participation)



Actual 2020

16,620 Hours



Actual 2018-2020

59,476 Hours



Educational development

36,269
People



Community economic development and society

9,615
People



CSR SPIRIT
CPP volunteer staff

59,476
Hours





CASE STUDY 18

Sustainable Agriculture Development

Income for farmers 365 days/year

This project is to promote and develop farmers by increasing their skills and potential in land management effectively have access to water all year round. including focusing on policies “**Production Lead Marketing**” integrates working with government agencies to link quality products to the market build stability Reduce risks with modern technology Encourage farmers to grow crops year round and have access to adequate water resources.

Buying produce from farmers in the project by informing the purchase price of the minimum production in advance and if the market price is higher, will buy at the market price under the quality standards prescribed by the Ministry of Commerce

Yield 20 Rai	3 crops/ year	2 crops/ year
Total Profit (baht)	192,880	131,920
Total Profit (baht/day)	528	361



By joining in pushing for a project to generate income for farmers 365 days with the Thai Seed Trade Association, Feed Trade Association, Bank for Agriculture and Agricultural Cooperatives and Ministry of Agriculture and Cooperatives in order to operate in a sustainable system There is a central authority that can regulate oversee rules that create fairness for farmers

Operation model

- Surveying areas of irrigation areas, Water resources, Good soil has the right documents
- Good Management
- Production Lead Marketing
- Income for farmers 365 days
- Integrated Agricultural Business Manager (IABM) – Learning Center
- IT Platform

CASE STUDY 19

UNITE IN THE FIGHT COVID-19



 Donations from executives and employees to help fund the purchase of medical equipment, total donations **313,000** baht

CPP has taken action to help the situation of the COVID-19 crisis, which It is a catastrophic disaster affecting the world. by providing support through 3 main target groups under the project name “UNITE IN THE FIGHT COVID-19” donating “Royal Umbrella Lite RD 43 Rice” support medical personnel In Thailand 25 hospitals and in Cambodia 3 hospitals, a total of 28 hospitals





HEALTH AND WELL-BEING

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) is committed to research and development of products to meet production standards and agricultural product standards, with quality controls and checks throughout the value chain. In addition, the company has promoted knowledge and technology to farmers through comprehensive, easy-to-understand and accurate communication, as well as developing processes according to the standards. International, along with implementing programs to promote health and well-being of employees and people in the community.



เครือเจริญโภคภัณฑ์

ซีพี...เพื่อความยั่งยืน



Key Performance in 2020



Develop product
innovation to
promote health



Promote health
and well-being in
COVID-19 Crisis

PRODUCT INNOVATION TO PROMOTE HEALTH



Management Approach

The health and well-being of all citizens in each country is an important issue for will help increase the limit capability of that country In the future, as well as reducing the burden of medical expenses at the national level, CPP, as an upstream company of agribusiness, recognizes that it is a part that can help alleviate such problems effectively. by using the potential of presenting products and services that promote quality of life promote the health and well-being of the people

international standards, controlling and monitoring quality throughout the value chain, and promoting understanding of good nutrition for society as a whole. We focus on increasing the capacity of our employees (People), developing processes based on international standards (Process), offering products for promote good health and well-being (Product), and promote understanding of health issues (Promotion of Health) by providing product information and initiatives.

CPP is committed to investing in research and development, operating according to

PEOPLE

- Recruiting personnel with specific expertise
- Training and developing the necessary skills



PROCESS

- International Standard : ISO 9001 , ISO/IEC 17025
- Automation technology and robotics
- Traceability system



PRODUCT

- Research and develop products and innovations to create a variety of products
- invent food products for consumers in each age and food for specific patients



PROMOTION OF HEALTH

- Clear and accurate product information
- Traceability system



CASE STUDY 20

ORGANIC Fertilizer Product



Pellet
Organic Fertilizer



Powder
Organic Fertilizer



Pellet Organic
Fertilizer Size 1kg



Plant Media
Soil Plus

INNOVATIVE FOR COMPOSTING ORGANIC FERTILIZERS Low Cost and High Quality



How to compost a good organic fertilizer



1. Microbial food must be suitable. (Must have a good marinade recipe) Microorganisms will decompose organic agricultural materials.
2. The condition of the fermentation pile must be appropriate.
3. Must have good fermentation management.
4. It has good ventilation. (needs aerobic digestion)
5. Proper care of the fermentation environment



Benefit

1. Reduce the cost of fermentation by using raw materials compost is cheaper
2. Increase the porosity of the fermentation pile make microorganisms work better
3. Shorten the composting time.
4. Get quality organic fertilizer pellets. high grain hardness but fast solubility
5. Farmers can be used with fertilizer spreaders without broken granules.



CASE 21 STUDY

RESEARCH AND DEVELOPMENT OF THE CERTIFARM SYSTEM

for planning Product forecast and check back in cooperation with the Highland Research and Development Institute (Public Organization)



Initiative

Safe Vegetables Business ,CPP has an idea to develop Certifarm System and use it to be concrete in the area by striving to upgrade the vegetable production planning system from the upstream to quality, safety with modern technology to be used to forecast production to be able to deliver produce consistently and can be traced back on a sustainable basis

The development of such systems will make consumers aware of the source of quality produce safe from chemicals The system will help plan the production to suit the delivery of the market (Just in time) and reduce the time spent on the support team. can use the system to communicate

planting orders planting process The date of use of the chemical and the date of harvest to the farmer making it possible to plan the planting properly

The system can also help to forecast the production so that the sales team can find the market for production in advance. Farmers get the highest yields. without going through price pressure from middlemen and consumers get the most safe products from residue control of all vegetables, the system will be a center for data storage for production, marketing and transportation. Start testing the real system under development cooperation from Highland Research and Development Institute (Public Organization) : HRDI

Initiative

1. HRDI and CPP jointly defines project research activities and trials of the Certifarm system for production planning, predictable productivity and traceability.
2. HRDI provides academic cooperation and supports operations with groups of farmers in the 4 Royal High Land Development Project Pilot Projects as follows:

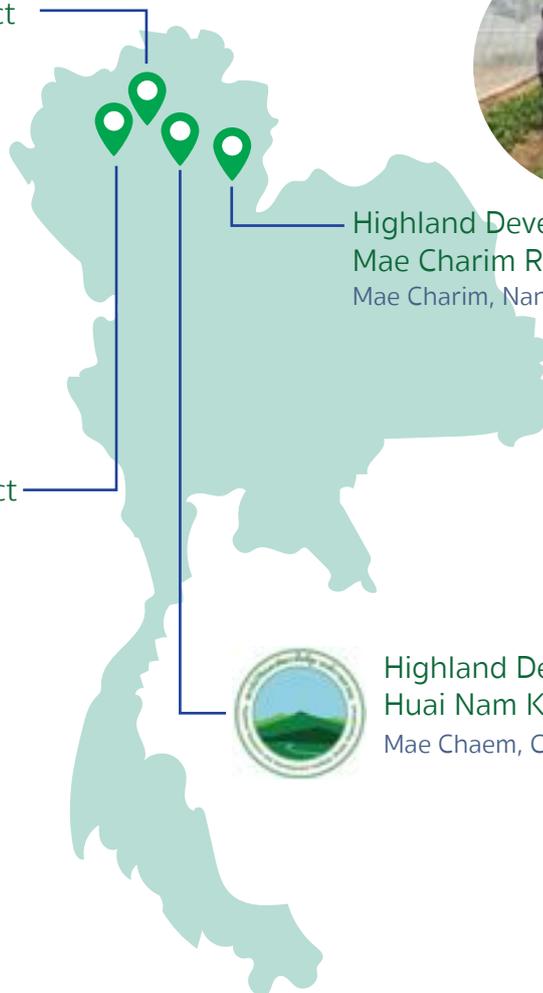
Key Performance

1. The number of farmers compared to the extension officers who use the system
2. Amount of data recorded for analysis such as chemical type, yield weight. Farmer Basics types of vegetables grown and recording time, etc.
3. Accuracy and time to predict productivity in advance by the method of calculating the yield of each plant species
4. Accuracy in planting planning compared to the scheduled delivery
5. Ability to trace with QR Code on the package.

Highland Development Project
Huai Pao Royal Project
Chiang Dao, Chiang Mai Province



Highland Development Project
Pang Hin Fon Royal Project
Mae Chaem, Chiang Mai Province



Highland Development Project
Mae Charim Royal Project
Mae Charim, Nan Province



Highland Development Project
Huai Nam Khao Royal Project
Mae Chaem, Chiang Mai Province



CASE **22**
STUDY

Give More
2nd YEAR

CPP operates the business of manufacturing and distributing seeds, plant nutrients, as well as promoting careers. Develop agricultural technology to increase productivity, reduce costs, generate more income with experts who are there to give advice to agriculture correctly according to academic principles. and with the value of 3 benefits. CPP sees the return of benefits back to society. Thus, the Give More project is a project at farmers and dealers who support products from the company return back to customers in different areas via channel hospital for public benefit



Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business donated money and essential food items over **5 million baht**

To encourage medical personnel and 88 hospitals across the country, Charoen Pokphand Group Foundation and CPP donated money and products to hospitals and agencies under the Ministry of Public Health, totaling 5,418,280 baht. It is a project that CPP intends to continue for the second year. and dealers are involved by supporting the CPP's products and CPP uses a portion of the revenue to support activities of hospitals and local agencies that farmers and all dealers are directly involved with Charoen Pokphand Group There is an important policy for all companies in the group to cooperate to help society in the situation of COVID-19.

WITH LOVE AND CARE FOR CPP EMPLOYEES' FRIENDS IN THE SITUATION OF COVID-19

CASE STUDY 23

INTRODUCTION

SUSTAINABILITY MANAGEMENT

HEART

HEALTH

HOME

APPENDIX

เครือข่ายรักกันดี ส่งมอบความห่วงใย
แด่พนักงานอนามัยจากโรงพยาบาลทักษิณที่เพิ่งก้าวรอยศรัทธาพิชิตไวรัสระบาด

เมื่อวันที่ 20 ตุลาคม 2563 คณะผู้บริหาร บริษัทเจริญผล ภูเก็ต จำกัด ร่วมกับ นาย ดร. อรุณชัย โชติประดิษฐ์ นายก อบจ.ภูเก็ต มอบถุงยังชีพและหน้ากากอนามัยให้แก่บุคลากรทางการแพทย์ที่โรงพยาบาลทักษิณ จังหวัดภูเก็ต

บริษัทเจริญผล ภูเก็ต จำกัด ได้จัดตั้งเป็นคณะกรรมการช่วยเหลือสังคมและรับผิดชอบต่อสังคม โดยได้มอบเงินช่วยเหลือจำนวน 1 ล้านบาท เพื่อช่วยเหลือบุคลากรทางการแพทย์ที่โรงพยาบาลทักษิณ จังหวัดภูเก็ต

ทั้งนี้ บริษัท ได้ดำเนินการมอบของช่วยเหลือแก่บุคลากรทางการแพทย์ จำนวน 100 คน และมอบหน้ากากอนามัยจำนวน 10,000 ชิ้น

โดยพนักงานของบริษัทได้ร่วมใจกันทำถุงยังชีพและหน้ากากอนามัย เพื่อส่งมอบให้บุคลากรทางการแพทย์

ตัวห่างไกล...แต่ใจไม่ห่างกัน
ขอรับถุงยังชีพและหน้ากากอนามัย COVID-19 จากบริษัทเจริญผล ภูเก็ต จำกัด

กลุ่มเป้าหมาย: บุคลากรทางการแพทย์และบุคลากรสาธารณสุข (บุคลากร) และบุคลากรในครอบครัวของบุคลากรทางการแพทย์

ขั้นตอนการขอรับถุงยังชีพ:

1. บุคลากรทางการแพทย์/บุคลากรสาธารณสุข (บุคลากร) และบุคลากรในครอบครัวของบุคลากรทางการแพทย์
2. ส่งใบคำขอรับถุงยังชีพและหน้ากากอนามัย (แบบฟอร์ม) พร้อมภาพถ่ายบัตรประชาชน (รูปถ่าย) และภาพถ่ายบัตรประชาชน (รูปถ่าย) ของบุคลากรทางการแพทย์/บุคลากรสาธารณสุข (บุคลากร) และบุคลากรในครอบครัวของบุคลากรทางการแพทย์
3. ตรวจสอบเอกสารและข้อมูล (ตรวจสอบเอกสาร)
4. อนุมัติ (อนุมัติ)
5. แจกจ่าย (แจกจ่าย)
6. ช่วยเหลือ (ช่วยเหลือ)

หมายเหตุ: บริษัทเจริญผล ภูเก็ต จำกัด ขอสงวนสิทธิ์ในการขอรับถุงยังชีพและหน้ากากอนามัย COVID-19 สำหรับบุคลากรทางการแพทย์และบุคลากรสาธารณสุข (บุคลากร) และบุคลากรในครอบครัวของบุคลากรทางการแพทย์

“เป็นห่วงนะ”
New Status Like Puffins and Puffins (New Kit)

ห่วง ความห่วงใยใจคุณ

i-Care

Case Set ชุดยังชีพและหน้ากากอนามัย (จำนวน 1-10 ชุด)
**วันที่ 20/10/2563 ถึงวันที่ 20/10/2563 จำนวนจำกัด

ด้วยรักและห่วงใย
มีความห่วงใยในสถานการณ์การระบาดของ COVID-19

เป้าหมาย: บุคลากรทางการแพทย์และบุคลากรสาธารณสุข (บุคลากร) และบุคลากรในครอบครัวของบุคลากรทางการแพทย์

แบบประกัน โทชีวิต-19

- รับเงินชดเชยกรณีติดเชื้อ COVID-19 50,000 บาท
- รับเงินชดเชยกรณีเสียชีวิต COVID-19 300,000 บาท
- รับเงินชดเชยกรณีเสียชีวิต COVID-19 100,000 บาท

จำนวนเงินประกัน: 100,000 บาท

วันที่ 20/10/2563 ถึงวันที่ 20/10/2563 จำนวนจำกัด



INNOVATION

The business challenge in the 4.0 era is the transformation of technology innovates rapidly in order to be able to respond and comply with changing consumer behavior in the agroindustry, which needs to be improved and innovated, as well as a focus on social and environmental responsibility. Innovation is therefore one of the Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”)’s priorities, both in terms of investment in infrastructure development. Human resource development in research and development And believe that it will help drive the business forward with sustainability in the midst of rapid change Including creating value for society and the environment at the same time



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



16 Number of Registered Plant protection varieties



71.9 Million baht, the savings from the project to reduce costs and increase efficiency



188 Innovators who invent innovative projects, reduce costs and increase efficiency.

2020 Goal



More than 10 Number of Registered Plant protection varieties

Performance in Comparison with

2020 Goal

	2018	2019	2020	Achieve Goal 2020
Number of Registered Plant protection varieties	6	2	16	10
Innovators who invent innovative projects, reduce costs and increase efficiency.	52	59	188	-

INNOVATION

GRI 103-1, 103-2, 103-3



Management Approach



CPP Innovation Diagram



STRATEGIC BUSINESS DIRECTION : SEED RESEARCH AND DEVELOPMENT DIVISION

Research, develop, improve corn breeding and important economic crops to the agricultural society with the invention of various agricultural innovations high yield Suitable for farmers' needs, creating sustainable returns for farmers.

- Develop and improve plants to meet the needs of farmers in each area
- Develop biotechnology techniques to assist in the selection of regulated gene traits. accurately
- Develop technology for cultivation, maintenance, irrigation, and machinery suitable for plants in each area.
- Increase the seed value by using chemicals to coat the seeds to increase the strength, prevent disease and insects.
- Manage resources and supply chain efficiently.

STRATEGIC BUSINESS DIRECTION : FERTILIZER AND MICROBIAL RESEARCH

Develop products to increase productivity and farmers' income.

Chemical Fertilizers



- Chemical fertilizers according to soil analysis values promote the use of fertilizers suitable for soil and plants.

Controlled Release Fertilizers



- Controlled Release Fertilizers to reduce the loss of nutrients in fertilizer pellets.

Organic Chemical Fertilizers



- Highly efficient organic chemical fertilizers. Secondary nutrient organic chemical fertilizers include chemical fertilizers containing essential plant nutrients and organic matter for soil conditioning with a ratio equivalent to chemical fertilizers

Probiotic Fertilizers

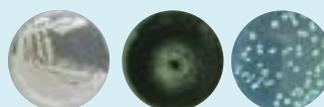


- Organic fertilizer mixed with microorganisms or Probiotic fertilizers to promote plants growth and reduce plant pathogen problems in soil

Organic Fertilizers



Microorganisms



- Microorganisms promote plant growth, prevent plant disease, eliminate environmental ammonia smell

Certification of International Laboratory Standards ISO/IEC 17025:2017 - Soil and fertilizer analysis laboratory providing inspection services. Fertilizer analysis for fertilizer registration.

CASE **24**
STUDY

DISSEMINATION OF RESEARCH RESULTS

C.P. Group Level, National Level and International Conferences

CPP has been published Research results resulting from experimental research by the research team and technology development both at the National and International level

- Presenting “Microorganisms Reduce Ammonia Emissions to the Environment from Industrial Chicken Manure Compost” at The 6th TECHCON 2020 : Research and Development to Solve National Problems As of July 31, 2020, Siam Technological College Bangkok



PROMOTE THE USE OF ORGANIC FERTILIZERS (+ MICROORGANISMS)

CASE **25**
STUDY

to promote immunity and reduce virulence.
Corn rot disease caused by Fusarium sp.

(+ Microorganisms)

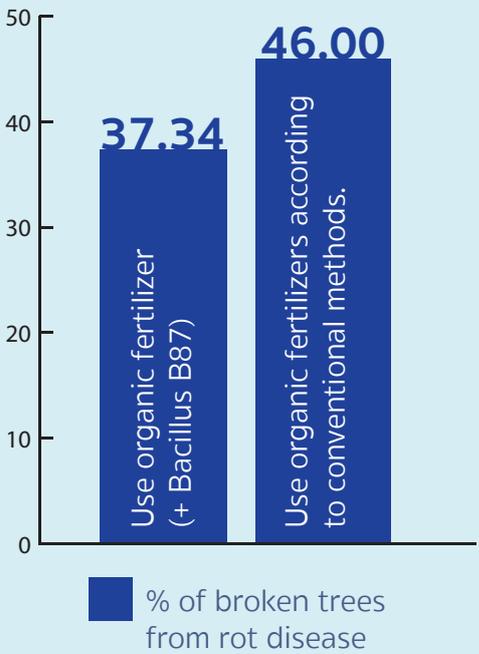


1. Improve soil structure, reduce soil pathogen problems.
2. Promote plant immunity against root and stem diseases.
3. Strengthen root formation and growth.
4. Help dissolve nutrients in the soil in a form that plants can use.
5. There are at least 10 million cells of beneficial microorganisms per gram of fertilizer.
6. NPK total nutrients not less than 2%
7. Organic matter not less than 20%

Use organic fertilizers (+ microorganisms) during soil preparation at the rate of 1 ton/rai.



Effect of corn stem rot disease



Plots that use organic fertilizers (+ microorganisms)

It reduces the damage of corn rot disease more than those that use conventional management methods.

Use of organic fertilizers (+ microorganisms)

It adds good microorganisms to the soil, reducing The use of chemicals to prevent disease and is a long-term method of controlling pathogens.

USE OF ORGANIC FERTILIZERS (+TRICHODERMA NST-009)

CASE STUDY 26

in promoting immunity and Reduce the severity of root rot disease in leaf vegetable group (Kale).



Use organic fertilizers

(+Trichoderma NST-009) during soil preparation at the rate of 160 kg/rai.

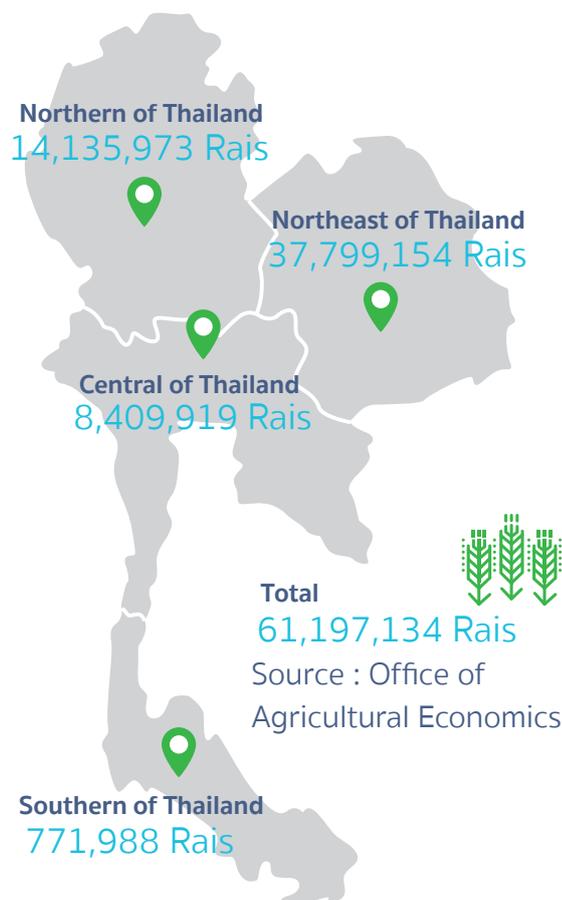


- The use of organic fertilizer (+Trichoderma NST-009) in Kale and Guangxi can promote plant immunity against root rot of kale. compared with the control unit conversion (Manage the conversion according to the method farmer)
- Productivity of kale in the plot using organic fertilizers (+TrichodermaNST-009)

 **more than control plot** **70%**

CASE STUDY 27

THUNG RUANGTHONG PACKAGE in the rice cultivation area



From the data and analysis results, it was found that the central region in Phra Nakhon Si Ayutthaya, Suphan Buri, Phichit, Phitsanulok provinces

- **Rice does not respond to Chemical fertilizers**
(46-0-0, 16-20-0, etc.), resulting in low yields.
- **Soil structure deterioration compacted soil**
lack of porosity causing plants to not be able to fully utilize the nutrients or partially usable
- **Soil is acidic (pH<5.5)**
It can be seen from the rust stains on the water surface in the rice plot. The rice did not grow and died.

Promote the use of fertilizers according to soil and plant analysis values by using organic chemical fertilizers. **(THUNG RUANGTHONG PACKAGE)**

Soil and water have the right nutrients.

- Moss occurs when removing water out the field, moss will cover the soil, causing the grass.



Green leaves

- Light green rice leaves.
- Green rice and the same height throughout the plot.



Strong stem

- Good tillering
- Rice does not fall easily. The number of heads and seeds per ear is large

The soil is loamy.

- not tight
- good root system
- Spread far and wide



Yield

- Good tillering
- A large number of ears and seeds per ear.
- Fast harvest

CPP encourages and encourages all employees to participate in innovation in the organization, keeping people in the organization motivated and dedicated to innovation. as well as being able to apply the innovations that have come into practice, collecting, transferring and exchanging knowledge effectively as well as bring innovation to expand and build on sustainability.

CP Innovation was organized to bring innovative innovations and knowledge experience. Come to exchange, share and expand the results to increase efficiency and promote continuous development for the sustainability of the organization and to glorify innovators and foster creative unity.

It is also organized to strengthen networks, exchange knowledge, experience and support to be an innovative organization with all business groups submitting their work to be considered and exhibited in the event and the Chairman Award from the Senior Chairman Dhanin Chearavanont

Innovation projects that have passed the exhibition “CP INNOVATION 2021”

Tube Cleaning Equipment for Hot Water Boiler (Fire Tube)	Seed Processing Plant Thailand
C.P.555 Hybrid Maize (Big Ear and High Yield) are Wide Adaptability for Farmers in India, South Asia and Southeast Asia.	C.P. Seed India
Hybrid maize for paddy field C.P. 639	Research development and Innovation
Baby corn Changdang18, high yield, high quality and high income	Research development and Innovation
Application of SNP Marker for Genetic Purity Analysis of Commercial Hybrid Maize in Seed Business	Research development and Innovation
Waxy corn Tein Sawan, early crop maturity and good choices for farmer	Research development and Innovation
Double haploid technology to develop maize inbred line.	Research development and Innovation
Quick Test for Soil Organic Matter and Total Nitrogen in Maize Growing Soil for Nitrogen Fertilizer recommendation	Research, Quality Assurance Soil and Fertilizer Center
Thong Rong Ngen - Enriching soil - Flourishing crop	Research, Quality Assurance Soil and Fertilizer Center
Soil Guide Service Program	Research, Quality Assurance Soil and Fertilizer Center
Isolated Microorganisms to Reduce Ammonia Emission during Organic Fertilizer Fermentation	Research, Quality Assurance Soil and Fertilizer Center
Eco-area Management for buffer zone at The Huai Kha Khaeng Wildlife Sanctuary, Uthai Thani Province	Corporate Communications Office
GIS DATA Management for Natural Resource Conservation from Smart Patrol Monitoring Center)	Corporate Communications Office

ONE DAY SATISFACTION PROJECT

CASE STUDY 29



CPP aims to drive employees Everyone is involved in their own creative improvement initiatives. and continued until it became Innovation through the One Day Satisfaction Program and believe that this is the beginning of innovation that drives all employees to participate in moving towards an innovative organization.

One Day Satisfaction Project It is a project that wants to focus on creating encourage all employees to participate in creating innovation in the organization by which Dr. Ajva Taulananda initiated the principle of concept from the Senior Chairman Dhanin Chearavanont who taught all employees to learn at be satisfied with just the present success just one day and tomorrow will always come up with a better way. With this concept Therefore, it is the basis for creating participation in innovation by improving, changing and innovating in the work they are responsible for as a basis for the creation of innovators In addition to that, it is promoted through a scoring system. can accumulate points And when the score reaches a certain level, employees will be honored as innovators at different levels.



Summary of One Day Satisfaction Project

Total **699** Projects 

71.9 million baht 
the savings from the project to reduce costs and increase efficiency

CPP Innovators

164 Assistance Innovators 

24 Innovator (Level 1-3)



HYBRID MAIZE

FOR PADDY FIELD C.P. 639

The government encourages farmers to choose crops that use less water instead of growing rice in the dry season. Corn is therefore a suitable crop for planting after the rice is harvested. Cultivation of maize instead of some paddy fields, causing the amount of corn yield to be consistent with domestic consumption demand and the crops harvested in this season are also of very good seed quality.

Research development and Innovation, CPP develop and improve of a hybrid maize for paddy field C.P. 639, is a maize variety that is well adapted in the field after rice harvesting. It is an alternative crop to replace rice cultivation in the dry season. It is a high yielding variety, large pods, good root system, good fertilization response. Help to raise the average domestic productivity. There is a continuous supply of products to the feed mill.



WAXY CORN TEIN SAWAN

Early crop maturity and good choices for farmer

CPP has a policy to promote production and take care of farmers. to be able to grow plants all year round To improve the livelihood and income of farmers, which can be better, Waxy Corn Tein Sawan, It is another option that can encourage farmers to plant during the time between main crops. Because it is a short-lived plant, requires little water and can be planted all year round. And the glutinous corn yield is in demand in the market.

Research development and Innovation, CPP develops and improves waxy corn varieties continuously to meet the needs of farmers, able to adapt to a wide range of consistent yields. Small, appetizing pods that are distinctive like wax corn. It is also the copyright of the company's varieties. Produced and trial sales in Thailand since 2019 in the amount of 500 kilograms and in 2020, there is a production order amount of 2,000 kilograms, total value 1,000,000 baht, helping to increase the variety in the consumer corn business.



CASE STUDY 31



ONE DEPARTMENT, ONE CPI PROJECT, ONE INNOVATION AND ONE ENERGY CONSERVATION ACTIVITY

The One for All is a project to increase efficiency, focusing on creating innovations, increasing efficiency, reducing costs. and suggestions so that employees in each unit are aware of the importance and participation in energy conservation Promote the development of technology, create awareness of energy saving and reduce the potential impact on the environment. There is proper and cost-effective energy management to create an energy conservation culture in the organization on an ongoing and sustainable basis.

In addition, the One for all project has been completed. The information will be filled in One day Satisfaction Project and CP INNOVATION which scores from project evaluation will be an innovation score and collect points to be used to promote innovators

 Cost, Productivity and Improvement (CPI) Project

It is a project that can reduce energy consumption or reduce costs and increase work efficiency that can be clearly measured.

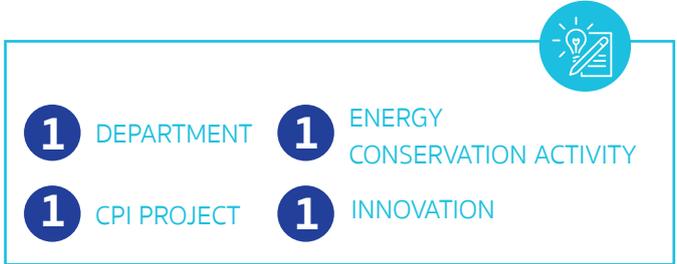
 Energy Conservation Activity

It is an activity that promotes energy conservation within the company or outside such as schools, communities.

 Innovation

The invention of new things for the development of work can be divided into 3 types as follows:

1. Economic innovation
2. Technological innovation
3. Social Innovation and Stakeholders





STAKEHOLDER

ENGAGEMENT

(GRI 102-21, 102-40, 102-42, 102-43, 102-44, 413-1)

The Board of Directors is confident that good corporate governance is an important factor for the Charoen Pokphand Group in enhancing its competitiveness and leading the Charoen Pokphand Group for sustainable growth, it also adds value to our stakeholders in the long term. Shows the presence. Management system that is efficient, transparent, verifiable. This helps build trust among stakeholders in the value chain.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



6 companies are defined stakeholder groups and looking for needs and expectations



CPP has **engagement survey** and the trust of stakeholders every year.



2020 Goal



100% of Business Line within CPP will develop a stakeholder engagement process.

Performance in Comparison with

2020 Goal

	2018	2019	2020	Achieve Goal 2020
Total of companies	6	6	6	100%
Total of companies develop a stakeholder engagement process	6	6	6	100%



STAKEHOLDER ENGAGEMENT FRAMEWORK

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) has announcing policies and considering stakeholders involved in business operations in the scope of each company. Also analyze the stakeholder relationship of the organization to reflect the business context in a comprehensive manner.

CPP identifies that business operations throughout the value chain are It involves direct and indirect stakeholders and analyzes issues that stakeholders have an impact and expect the

organization, including the issues that the organization has impact and expect to stakeholders who the company has given importance and increasing the positive impact and reducing the negative impact to maintain the competitiveness to develop the growth potential of long term business.

CPP determines how to engage with each group of stakeholders in order to communicate, manage and implement significant issues in formulating ways to meet stakeholders’ needs and create consistent bonds across the organization.



THE VOICE OF STAKEHOLDERS

CPP has compiled issues and opinions covering the economic, social and environmental dimensions of stakeholders, as well as prioritizing them. Stakeholders on the sustainable development of the significant issues have been applied in formulating ways to meet stakeholders' needs and create consistent ties across the organization.

Building engagement with stakeholders in each area is considered the key to building the foundation for a sustainable organization.

Stakeholders is a group of people who are positively and negatively affected by their business operations, both inside and outside the organization. CPP listens to stakeholders through a variety of channels that have analyzed those opinions and suggestions to understand expectations and needs before responding in a way that can manage issues that are important to both the business and all stakeholders appropriately



STAKEHOLDER ENGAGEMENT PROCESS



STAKEHOLDER ENGAGEMENT FRAMEWORK

(GRI 103-1, 103-2, 103-3, 418-1)

Stakeholder Group	Method of Engagement	Issues of Interest	Materiality Issues
Employee 	<ul style="list-style-type: none"> Intranet, CPTG & CROP Connect Mobile Applications E-mail and Social Media Meetings with executives Activities of the Welfare Committee and Safety Committee Satisfaction and engagement surveys Feedback and grievance channels 	<ul style="list-style-type: none"> Compensation, benefits, and remuneration Career progression Work environment Occupational health and safety 	<ul style="list-style-type: none"> Corporate governance Human rights & labor practices Leadership & human capital development
Community and society 	<ul style="list-style-type: none"> Sustainability Report Opinion survey and listening to recommendations Grievance channel Dialogues and regular visits Activities to promote quality livelihoods 	<ul style="list-style-type: none"> Business impacts on societies, communities, and the environment Engagement in promoting community Livelihoods Fair complaints process Transparent and efficient communications on performance 	<ul style="list-style-type: none"> Social impact Climate change management Water stewardship Ecosystem & biodiversity protection
Consumer/ Customer 	<ul style="list-style-type: none"> Consumer center Feedback and grievance channels Customer surveys and interviews Meetings and site visits Websites, E-Mail and Social Media 	<ul style="list-style-type: none"> Good product quality and suitable price Food Safety Product traceability Post-sale information about products and services Personal data privacy 	<ul style="list-style-type: none"> Health & well-being Ecosystem & biodiversity protection
Partner 	<ul style="list-style-type: none"> Site visits and joint meetings Partner development training courses Supplier capacity-building projects, partnerships, and joint innovation development Assessments, consultations, and technical Services Grievance channel 	<ul style="list-style-type: none"> Fair business practices Business Equality Supplier capacity-building Human rights and environmental impacts in the supply chain 	<ul style="list-style-type: none"> Corporate governance Responsible supply chain management

Response	Benefits Received by Stakeholders	Page
<ul style="list-style-type: none"> Treat employees with respect for human rights principles Continuously develop employees' capability Retain good and talented employees Develop a human resources management system Comply with Thai labor standards Enact the Safety, Occupational Health and Workplace Policy and Guidelines 	<ul style="list-style-type: none"> Employees receive appropriate training Leadership training and development Grievances and whistle-blowing management Assessments on safety, occupational health and work place environment 	<p>41-53 54-89 70-81</p>
<ul style="list-style-type: none"> Control efficiency of the pollution prevention system Support to increase the quality of life and generate income for the community Leverage the Company's competitive advantages as tools to create positive impacts and mitigate negative impacts on societies 	<ul style="list-style-type: none"> Initiatives that create values for society Climate change management Water stewardship Ecosystem and biodiversity protection 	<p>90-95 130-144 144-153 154-169</p>
<ul style="list-style-type: none"> Develop products and services that meet quality and safety standards Help consumers understand products and services through product labeling, and protect customer data privacy Develop a product traceability system 	<ul style="list-style-type: none"> Commitment to quality production processes Product labels, website, and direct consumer hotline Raw material sourcing and traceability 	<p>96-103 154-169</p>
<ul style="list-style-type: none"> Continuously develop supplier partnership projects Develop criteria for supplier assessment according to the Sustainable Procurement Policy Communicate with suppliers to help them understand requirements Treat all suppliers equally and fairly according to business agreements/Business Code of Conduct 	<ul style="list-style-type: none"> Supplier capacity-building Communications on the Supplier Code of Conduct Operations based on the foundations of ethics and transparency 	<p>41-53 170-175</p>

Stakeholder Group	Method of Engagement	Issues of Interest	Materiality Issues
Shareholder / Investor 	<ul style="list-style-type: none"> Meetings and roadshows Site visits to operational units Sustainability Report Grievance channel 	<ul style="list-style-type: none"> Corporate Governance Complete, transparent, and efficient performance disclosures Enhancing competitiveness and business direction 	<ul style="list-style-type: none"> Corporate governance
Mass Media/ Online media 	<ul style="list-style-type: none"> Communications through all formats/channels Media visits to operational units Press conferences and regular media interviews Support and engagement in media activities Grievance channel 	<ul style="list-style-type: none"> Corporate governance Complete, transparent, and efficient performance disclosures Business impacts on societies, communities, and the environment Social projects 	<ul style="list-style-type: none"> Corporate governance Stakeholder engagement
Government Auditor 	<ul style="list-style-type: none"> Meetings and visits on various occasions Collaboration and support for initiatives, project development, and beneficial activities Grievance channel 	<ul style="list-style-type: none"> Compliance to relevant laws and regulations Being a model business for social and environmental responsibility Complete, transparent, and efficient performance disclosures 	<ul style="list-style-type: none"> Corporate governance
Supplier 	<ul style="list-style-type: none"> Site visits and joint meetings Supplier development training courses Grievance channel 	<ul style="list-style-type: none"> Transparent and fair trade Human rights and labor practices 	<ul style="list-style-type: none"> Corporate governance Responsible supply chain management
Competitors 	<ul style="list-style-type: none"> Meetings with third party organizations such as the Federation of Thai Industries News and information obtained through public media and forums Grievance channel 	<ul style="list-style-type: none"> Compliance with ethics of competition, laws, and trade regulations Equitable, transparent and fair competition 	<ul style="list-style-type: none"> Corporate governance
Non-profit organization 	<ul style="list-style-type: none"> Regular feedback and dialogues Support collaboration through networks as appropriate Site visits to operational units Grievance channel 	<ul style="list-style-type: none"> Impacts of business operation on societies, communities, and the environment Social projects Complete, transparent, and efficient performance disclosures to the public 	<ul style="list-style-type: none"> Human rights & labor practices Social impact Ecosystem & biodiversity protection
Creditors and banks 	<ul style="list-style-type: none"> Letters to creditors E-mail and Social Media Grievance channel 	<ul style="list-style-type: none"> Pay in full and on time Complete, transparent, and efficient performance disclosures 	<ul style="list-style-type: none"> Corporate governance

Response	Benefits Received by Stakeholders	Page
<ul style="list-style-type: none"> Operate in compliance with laws, corporate governance principles, objectives, company's regulations, and decisions of the Shareholders Comply strictly with the creditor's conditions Listen to the recommendations and reflections from shareholders and investors Collaborate with relevant agencies to improve operational efficiency 	<ul style="list-style-type: none"> Good corporate governance Corporate sustainability management 	41-53
<ul style="list-style-type: none"> Engage media to strengthen good relations Provide factual, useful, and timely information for official communication to the public Monitor news reports to inform future operational approach 	<ul style="list-style-type: none"> Useful and timely information based on facts Good relations with the organization Support and participate in media activities 	41-53 116-127
<ul style="list-style-type: none"> Monitor and strictly comply with all relevant laws and operating guidelines Collaborate on and support initiatives, and develop projects and activities that will benefit the country Communicate and disclose performance in a complete, transparent, and efficient manner, and receive recommendations for improving operational plans 	<ul style="list-style-type: none"> Good corporate governance Oversight of compliance across the Group Partnerships for sustainable development 	41-53
<ul style="list-style-type: none"> Fair and transparent contracts Organize a course to increase the potential for supplier development Operate in accordance with human rights policy and labor practices throughout the supply chain 	<ul style="list-style-type: none"> Supplier capacity-building Communications on the Supplier Code of Conduct Operations based on the foundations of ethics and transparency 	41-53 170-175
<ul style="list-style-type: none"> Adhere to the rules/ethics of competition and establish a monitoring mechanism to ensure that there is no conduct associated with gaining trade secrets from competitors Prohibit any actions to defame competitors' reputation based on unfounded facts 	<ul style="list-style-type: none"> Good corporate governance Anti-corruption 	41-53
<ul style="list-style-type: none"> Coordinate work locally to jointly address problems Listen to recommendations to inform determination of operational approach Communicate and disclose performance in a complete, transparent, and efficient manner, and receive recommendations for improving operational plans 	<ul style="list-style-type: none"> Operations that uphold human rights and labor practices Value-added initiatives for societies Ecosystem and biodiversity protection 	54-69 90-95 154-169
<ul style="list-style-type: none"> Provide accurate and complete financial information Comply with contract terms Strictly follow the conditions Pay off debts on time 	<ul style="list-style-type: none"> Good corporate governance Anti-corruption 	41-53



VOICE OF FARMERS

CASE STUDY 32



Organizing a farmer's meeting to listen to problems and find out the root causes of problems with farmers to find a way to prevent and/or problem solving offer the right products able to solve problems, suggest methods for managing production, harvesting and linking the market. It is also an opportunity to clarify developing policies to make it more accessible to B2C.



DEVELOP A MODEL HOUSE

Career development and environmental friendliness

CASE STUDY 33

Safe Nature Project C.P. Group and Seub Nakhasathien Foundation together to support environmentally friendly career development based on economic philosophy through the Natural Agriculture and Sufficiency Economy Learning Center, Rabam Subdistrict, Lan Sak District, Uthai Thani Province continuously since 2016 in scheme of support for a sample house To generate income and build a sustainable career for the community in the area

At present, the Learning Center has supported tools, equipment and various raw materials to develop careers both in and outside the agricultural sector for farmers and groups

who are ready to develop careers in a total of 23 villages: Mushroom farming model house, Pla Ra model house, Glass Fish Cracker Sample House and model houses for sufficiency economy, etc.

The target group of the public relations is communities in the buffer area of Huai Kha Khaeng Wildlife Sanctuary to reduce the amount of forest collection or rely on resources from the Huai Kha Khaeng forest by The Learning center providing training on integrated farming knowledge to educate about conservation and the valuable use of natural resources and create the participation in caring for the Huai Kha Khaeng World Heritage Forest

CASE STUDY 34

CONTAINERS FROM NATURAL MATERIALS

Reduce plastic waste in the community

Safe Nature Project and the Sueb Nakhasathien Foundation jointly support the establishment of a container (plate, cup) community enterprise group in Ban Rai District, Uthai Thani Province to generate additional income from the use of local natural materials. coupled with reducing the amount of fuel which is one of the causes of forest fire problems.

In addition to supporting the budget for purchasing leaf container forming machines for enterprises, it also discussed with local government agencies to use natural containers to replace foam boxes or paper plates in meetings and training events. The work pays attention to be a part of supporting the community, resulting in additional income along with taking care of natural resources and the environment.



GIVING RICE TO THE SUPREME PATRIARCH OF THAILAND

CASE STUDY 35

According to the Supreme Patriarch's orders for temples in Thailand to help lighten the burden of the people by offering alms to help the COVID-19 crisis, CPP therefore offered 20,200 kilograms of Royal Umbrella Rice worth 1,090,800 baht.



Join the campaign to volunteer (CSR SPIRIT) to help society in times of crisis through activities that can be done by yourself and pass the help to those who are in need by making basic protective equipment (Face Shield) to deliver medical personnel.

DELIVER 1,379 FACE SHIELDS FROM CSR SPIRIT.



INDIA

Joining the fight against the COVID-19 crisis, handing out fabric masks to farmers, handing out vegetables and handing alcohol gel to Nuzvid Police Station and the Sub Collector’s Office.



VIETNAM

Giving away 276 bottles of water, handing out face masks and alcohol gel to the communities surrounding the company for 50 homes and making 10,000 fabric masks to distribute to customers and farmers.



MYANMAR

Training to make fabric masks for employees to use to prevent infection



LAO PEOPLE’S DEMOCRATIC REPUBLIC

Supporting drinking water and energy drinks for government officials



FOHME



LIVING TOGETHER

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) realize the importance of environmental sustainability by operating the business under the concept of using natural resources for the benefit of knowing value along with looking at the nature and environment resources through various activities under the “**Safe Nature Project**” with the following objectives.

1. To educate and cultivate awareness of youth as well as communities in living with nature happily
2. To protect, suppress, and proactively campaign for areas that remain intact both at the local and national level.
3. To restore forests and maintain watersheds in the area
4. To promote people who use the forest as an area for their livelihoods to have a good occupation and quality of life.

The strategy and action plan are implemented through supporting activities in various forms, namely educating and cultivating awareness of the people and the environment. Enhancing efficiency, suppressing the authorities, restoring reforestation, preserving watersheds in damaged areas, and promoting people who use forested areas as planting land to have a better career and quality of life.

To achieve the vision of being an organization that creates a positive contribution to the agricultural society through product and management innovations that improve the progress and security of food crops and energy crops to a global society on the basis of sustainable environment conservation under the framework of vision, mission and safety policy. Occupational Health, Environment, Energy and Efficiency, the following environmental sustainability goals consisting of



**CLIMATE CHANGE
MANAGEMENT**



**ECOSYSTEM AND
BIODIVERSITY
PROTECTION**



**WATER
STEWARDSHIP**



**RESPONSIBLE SUPPLY
CHAIN MANAGEMENT**



CLIMATE CHANGE

MANAGEMENT

(GRI 102-21, 102-40, 102-42, 102-43, 102-44, 413-1)

Under the challenges of climate change, Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) see the opportunity of change to create momentum and support for all business groups. CPP is committed to continuous efforts to reduce greenhouse gas emissions and to monitor measures as well as is committed to managing climate change and contributing to reducing the broader environmental impact. Relevant international practice principles are integrated into business practices that focus on climate change impacts.



เจริญโภคภัณฑ์



CP FOR SUSTAINABILITY

ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



Total Greenhouse gas emissions (Scope 1+2)

10,357.50
Ton Co₂e



Proportion of renewable energy use

28.32%

2020 Goal



Reduce greenhouse gas emissions (Scopes 1 and 2) per unit of revenue by 10% by 2020, compared to the 2015 baseline

Performance in Comparison with

2020 Goal

Percentage of reduce greenhouse gas emissions per unit of revenue

	2018	2019	2020	Achieve Goal 2020
Percentage of reduce greenhouse gas emissions per unit of revenue	2	-	72	100%

GREENHOUSE GAS MANAGEMENT AND POLICY



Management Approach

CPP recognizes the importance of balancing economic development. Environment, social responsibility and adherence to business practices for sustainable development is to assess and attach importance to environmental management throughout the business operation from product research and development, selection of raw materials, production processes, as well as business development processes. Must be responsible for protecting and preserving the environment both inside and outside the establishment. Therefore, environmental guidelines have been established as follows:

1. CPP strictly abides by national, local and international environmental standards, including customer requirements and regulations of the Crop Integration (Maize) Business Group Charoen Pokphand Group
2. Conduct business with environmental and social responsibility by focusing on business activities with the same standard of practice that affect the environment and surrounding communities as little as possible.
3. Require that there be an audit of the impact on environment from operations and continually improve efficiency by establishing measurable objectives, goals, and action plans and assessing the environmental impact.
4. Raise awareness by providing environmental training for employees and all groups of stakeholders.
5. Communicate policies and requirements to business partners to ensure that business partners operate appropriate environmental standards and practices in accordance with relevant environmental policies, rules and regulations of the countries in which they operate.
6. Disclosure of environmental performance to the public in sustainability reports or other forms of disclosure.
7. The top management of the CPP has approved by signing approval to promulgating the environmental policy to be used as a general practice whole organization



Performance 2020

 Greenhouse gas emissions	 Thailand (Ton CO ₂ e)	 Vietnam (Ton CO ₂ e)	 Myanmar (Ton CO ₂ e)	 India (Ton CO ₂ e)
 Total Greenhouse gas emissions (Scope 1+2)	4,069.81	2,586.70	235.39	3,465.61
 Greenhouse gas emissions (Scope 1)	1,165.64	135.46	140.50	526.01
 Stationary Combustion	454.21	86.72	4.14	493.07
 Mobile Combustion	711.43	48.73	136.36	32.94
 Biogenic Combustion	1,334.79	1,422.63	-	2.50
 Greenhouse gas emissions (Scope 2) : from Electricity	2,904.17	2,451.24	94.90	2,939.60

ENVIRONMENTAL MANAGEMENT AND POLLUTION PREVENTION



Management Approach

CPP is committed to environmental management in a systematic way by considering factors affecting internal and external environmental management and analyzing them into strategic objectives and goals, managing risks to an acceptable level. by documenting show the implementation Maintaining and continually improving according to the PDCA system in accordance with the requirements of the international standard ISO 14001 : 2015 with the announcement of the environmental policy as follows.



1. The company will comply with the requirements. and various laws related to the environment
2. The company will strive to prevent pollution. and continually improve the environmental management system
3. Energy and resources are properly managed, cost-effective, and technologically developed.
4. Recycle
5. Raise awareness of environmental protection including disseminating it to the public.
6. Operate the business without affecting the environment. taking into account both internal and external stakeholders

Factory	Compliance with Environmental Laws	Measurement results environmental quality	Environmental complaints from surrounding communities
Seed Processing Plant 1	97.95%	100%	No Complaint
Seed Processing Plant 2	100%	100%	No Complaint
Chemical Fertilizer Plant	99.55%	100%	No Complaint
Organic Fertilizer Plant	98.33%	100%	No Complaint

Key Performance for measurement results environmental quality



Sound Check



Heat Check



Oxygen Check



Chimney Check



Waste Water Check



Fine Dust Check

ENERGY MANAGEMENT AND EFFICIENCY



Management Approach

CPP realizes that energy conservation is important and it is the duty of all employees to work together to manage energy continuously and sustainably. Used as a guideline for crate operations and to promote the use of energy for efficiency and maximum benefits Therefore, the policy is as follows:



1. CPP will operate and develop an appropriate energy management system in accordance with the law. and other related regulations by stipulating that energy conservation is a part of the Company's operations.
2. The company will continually improve energy efficiency to suit the business. technology used and good practice guidelines
3. CPP will set plans and goals for energy conservation each year and communicate them to all employees to understand and act correctly.
4. CPP regards energy conservation as the responsibility of the Executives and employees of the company at all levels to cooperate in implementing the specified measures, monitoring, auditing and reporting to the Energy Management Working Group.
5. CPP will support personnel resources. budgeting, working time, training and participation in presentations to develop work in energy.
6. Executives and the Energy Management Working Group will review and update the Policy, Goals and Action Plans every year.



Performance 2020

	GRI 302 Energy Consumption	 Thailand (Gigajoule)	 Vietnam (Gigajoule)	 Myanmar (Gigajoule)	 India (Gigajoule)
	302-1 (e) Total energy consumption	50,299.67	25,717.45	3,293.77	18,126.46
	302-1 (a) Fuel Consumption	15,216.66	1,476.98	1,870.33	7,077.97
	302-1 (b) Renewable Energy	13,347.01	14,212.67	-	25.00
	302-1 (c) Electricity Consumption	21,736.00	10,027.80	1,423.44	11,023.49

WASTE MANAGEMENT

Management Approach

CPP places importance on the management of industrial waste and waste within the factory, therefore, has adopted the international standard system ISO 14001 : 2015 to manage the organization continuously since 2002. Waste management within the organization has been managed in a systematic way and in accordance with the legal requirements, operated according to the electronic authorization system (handling of unused materials) continuously causing the company to not have environmental complaints from surrounding communities

Performance



Training to educate employees at all levels about the international standard ISO 14001: 2015 so that employees at all levels can understand, understand and follow properly by having the training review 1 time / year.



Organize a Food Waste Project by having employees separate food waste from general waste and then fermented food waste into Fertilizer to reduce food waste more than 100 kg per month.



Silk husks and corn cobs are used to produce non-return compost by using the obtained fertilizer to care for green areas and lawns within Seed Processing Plant.



Set up a project “**CPP2 Recycle waste Bank**” to let all employees know how to properly separate each type of recyclable waste and also help create added value for recyclable waste. and use the income from the support program as a welfare for the employees participating in the project



Performance in 2020



Total weight of waste generated
601.97 Tons



Proportion of waste being reused
26.34%



Type of waste generated



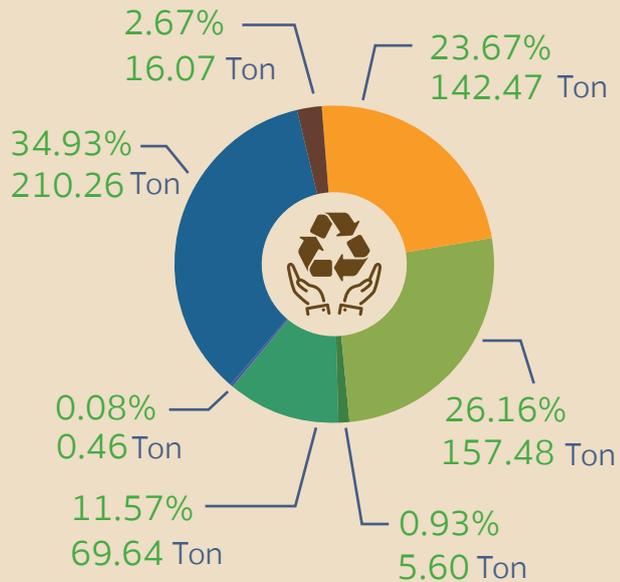
Non-hazardous waste

590.11 Tons

Hazardous waste

11.86 Tons

Waste management separated by methods



- Reuse
- Recycle
- Composting
- Incineration-mass burn
- Landfill
- On-site storage
- Others-to be specified by the organization

**Other methods of disposal are non-hazardous waste that is sold to be made into animal feed, and hazardous waste, used batteries, and waiting for the supplier to dispose

INTEGRATED RICE FIELD PROJECT

CASE STUDY 36

Use chemical fertilizers appropriately, reduce the burning of stubble by tilling.

Thailand is an agricultural country where most of the population is engaged in agriculture. The country's total agriculture is approximately 174 million rai, of which about 75 million rai is paddy area (Department of Agriculture Extension, 2013). It can be seen that the farmland is the most agricultural area in the country as rice is the staple food of the people in the country. After harvesting, there will be 25-50 million tons of rice straw stubble left in the fields per year. Most of the farmers are not well managed and do not choose to use the "burning" method. To speed up the next crop, causing a lot of air pollution. It also affects global warming from the agricultural sector causing carbon dioxide from burning stubble out up to 27 million tons kg carbon, nitrogen loss from 462 million kilograms of incineration resulted in the deterioration of farmland, the loss of organic matter and nutrients in the soil, destroying the soil structure suitable for cultivation. Growing crops

also produces soot, negatively affecting health and the environment. including resulting in the loss of natural balance.

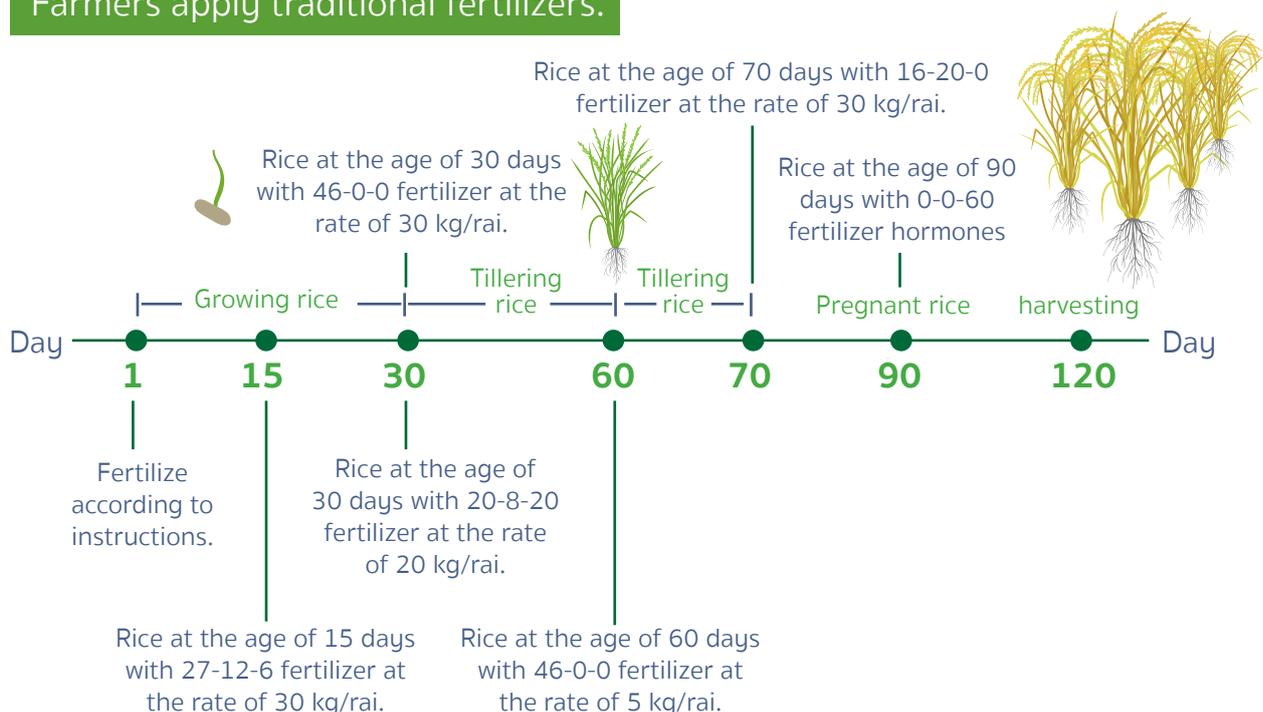
Therefore, the organizing committee has foreseen that the problem of burning behavior After harvesting rice straw stubble pattern Therefore, it supports cultivation according to academic principles in terms of seed management, proper fertilization, preventing insect diseases, increasing productivity and income for farmers without accelerating continuous production, helping farmers reduce stubble burning behavior. including encouraging the plowing of stubble to add organic matter to the farmland and reduce the increase in air pollution

Project Area

Thung Sai Subdistrict, Sai Thong Watthana District, Kamphaeng Phet Province

Compare fertilizer formulas and fertilization intervals of farmers and projects.

Farmers apply traditional fertilizers.





Performance



Areas	Farmers (Persons)	Areas (Rais)	Avg.Yield (kg/Rais)	Avg. of Kamphaeng Phet	Price	Baht/Rais	Value
Kamphaeng Phet Province	305	6,921	853	604	8.6	7,336	50,771,072
Lan Krabue District	113	3,188	964	604	8.7	8,387	26,737,118
Total	418	10,109	909	604	8.7	7,861	77,508,190

Project Benefits

The average yield of paddy cultivation in the year 62 of Kamphaeng Phet Province had an average yield of 604 kg/rai, which the average yield of farmers participating in the project in all 15 groups was higher than the provincial average. Planting according to the instructions can be added. Higher yields were obtained from the original planting behaviors in all 15 groups.

Farmers



- Gain knowledge on fertilizers, soil, and proper management of rice harvesting.
- Increased productivity and good quality.
- Increased farmers' income.
- Farmers can use them all the time.

Company



- Receive earnings in return.
- Business partners receive quality products. for product rotation
- Known more to farmers.

Country



- Encourage farmers' careers to have a better quality of life.
- Have quality agricultural produce that can be exported and create value for the country.
- The country's economy has improved.

GREEN HOME CPP

Responsible for the C.P. Group's policy towards becoming 2030 Carbon Neutral Organization

CASE **37**
STUDY



As the C.P. Group has a policy of sustainable business operations and strive to be an organization that Carbon Neutral by 2030. Therefore, in order to achieve business goals, at the beginning of 2020, the Group organized the project “We Grow...Plant for Sustainability” to encourage all companies to plant perennial plants and increase green areas in areas with documents of rights throughout the country.

CPP is one of the business organizations that focus on important to the restoration of nature and various environments along with continuous business operations Therefore, the policy has been adopted to drive the activities of perennial plant to offset greenhouse gas emissions to achieve the target set by the Group under the name “Green Home CPP”, on July 2, 2020, there was a kick-off at the Salang Phan Research Station, Wang Muang District, Saraburi Province. There are more than 250 executives and employees involved in planting.

On the area that operates, a total of 7 locations across the country are farm and factory areas. and research station It has a total target area of 1,385 rai, a period of 5 years, between 2020 - 2024. It is expected that when completed, the perennial plants will be able to absorb carbon dioxide 41,500 TonCO₂e/year.

Green Home CPP Performance

Summary

 Carbon Release
7,228 TonCO₂e/year.

 Amount of trees needed
24,095 Trees

2020 planted
8,940 Trees **43.1%** of trees needed

Thailand



 Carbon Release
4,369 TonCO₂e/year.

Amount of trees needed
14,562 Trees

2020 planted
4,760 Trees



Total Planted
103,668 **33%** of trees needed

Myanmar



Carbon Release **2030**
367 TonCO₂e/year.

Amount of trees needed

1,225 Trees

2020 planted

2,480 Trees

Total Planted

5,655 Trees

202.4%
of trees needed



Green Home CPP Myanmar



Business in Myanmar have cooperated with local authorities and the community organized the “Green home CPP Myanmar”, a total of 5 areas with a total of 2,480 trees.

India



Carbon Release
4,369 TonCO₂e/year.

Amount of trees needed

1,994 Trees

Note : Due to the COVID-19 epidemic situation in 2020, India is unable to plant trees as planned.



Green Home CPP Vietnam



Business in Vietnam have cooperated with local authorities and communities, organized GREEN HOME CPP Vietnam activities, planting perennial plants to increase green areas, both terrestrial forests and mangrove forests, a total of 4 areas, totaling 1,700 trees.

Vietnam



Carbon Release
1,909 TonCO₂e/year.

Amount of trees needed

6,366 Trees

2020 planted

1,700 Trees

26.7%

of trees needed



TRAINING ON HOW TO MEASURE CARBON IN TREES

CASE STUDY 38

to continue the path towards becoming a Carbon Neutral Organization



In addition to driving “Green Home CPP” by planting perennials in the area that has corporate licenses. to offset greenhouse gas emissions to achieve the targets set by the C.P. Group

CPP also places importance on building knowledge and understanding to prepare employees, which is an important mechanism for perennial planting in the area. as well as to increase green areas in the areas surrounding various buildings therefore, together with the Office of Sustainability Management Corporate Governance and Communication Charoen Pokphand Group organizes training to provide knowledge “Carbon sequestration of each plant species according to the sustainability goals of the C.P. Group.”

For the training, participants will learn the theory of Carbon Neutral 2030 approach, carbon emission data, carbon sequestration of each species. In addition, the employees who attended the training also learned in the real practice of collecting data. and tree growth measurements to calculate the carbon content of different tree species.





SOLAR CELL WORKSHOP SEEP PROCESSING PLANT 2, THAILAND

CASE STUDY 39

Initiative

This is because the demand for electricity in maintenance buildings tends to increase, together with the executives giving the policy promote the use of renewable energy. The engineering department saw the potential of solar energy as a clean and inexhaustible energy and therefore studied solar energy. In terms of technology, budget and investment costs by designing and installing an On Grid Solar Power System of 5 kW and can be used in conjunction with electricity from PEA.

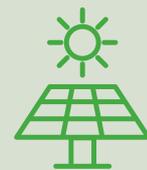


Summary

Reduced electrical energy	9,000 units per year
The cost of electricity is reduced	34,200 baht per year.
Investment	187,600 baht
Payback	5.49 years

Procedures and methods of operation

- Study the information on the installation of the Solar cell system.
- Design calculations for savings and costs.
- Install
- Follow up, collect and summarize data.



Results of project

Solar energy can be combined with electricity from electricity for use in maintenance buildings effectively.



Reduce energy

9,000 units per year



Cost of electricity is reduced

34,200 baht per year.



Payback

5.49 years

WATER

STEWARDSHIP

(GRI 103-1, 103-2, 103-3, 302-1, 302-3, 303-1, 303-3, 305-1, 305-2, 305-3, 305-4, 306-2, 307-1)

Half of the world's people will suffer from water scarcity if the use of water continues to flow. Moreover, the World Economic Council argues that water is one of the most important environmental issues in the 2017. Maintaining the stability of natural resources, especially clean water, is a major concern for the private sector. Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group ("CPP") give importance to and pay attention to water resource management as a fundamental factor for doing business, as well as supporting the Sustainable Development Goals Goal 6



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Key Performance in 2020



Water consumption

2.42
million cubic meters



Proportion of water being used

0.25 %



Water usage per revenues

564
cubic meters
per million baht

2020 Goal



Reduce water withdrawal per unit of revenue by 10%, compared to the 2015 baseline.

Performance in Comparison with

2020 Goal

Percentage of reduce water withdrawal per unit of revenue

2018

2019

2020

Achieve Goal 2020

-

-

19.69

10%

compared to the 2015 baseline at Seed Processing Plant and Organic Fertilizer.



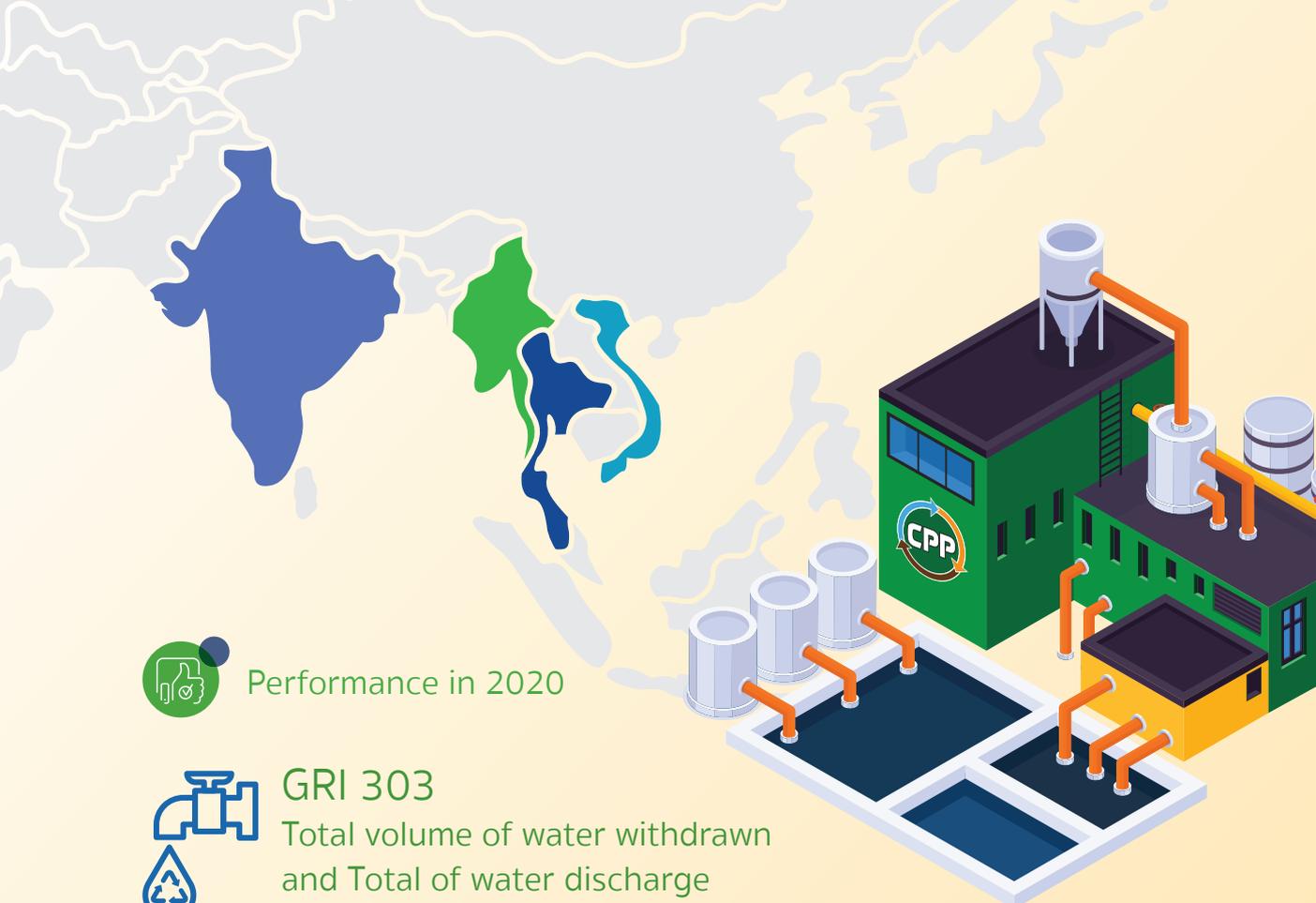
Management Approach



Water is a natural resource that is essential to every life, directly affecting a stable life and at the same time being essential to running a business. Nowadays, water scarcity has become an increasingly serious issue around the world. Charoen Pokphand Group is aware of the problem. In this regard, guidelines have been established to ensure that business operations can balance water use with the water needs of the community and nature as follows:

Water Stewardship Management Framework





Performance in 2020



GRI 303

Total volume of water withdrawn and Total of water discharge

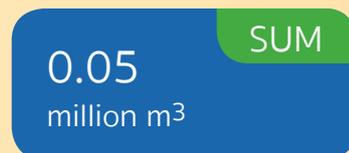
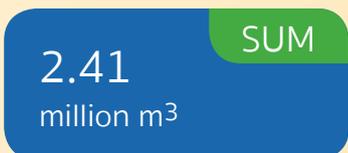
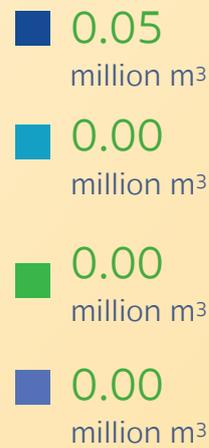
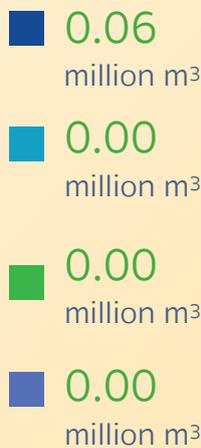
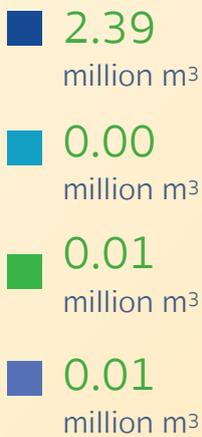
303-3 (a)
Total volume of water withdrawn



Total of water being used



303-4 (a)
Total of water discharge



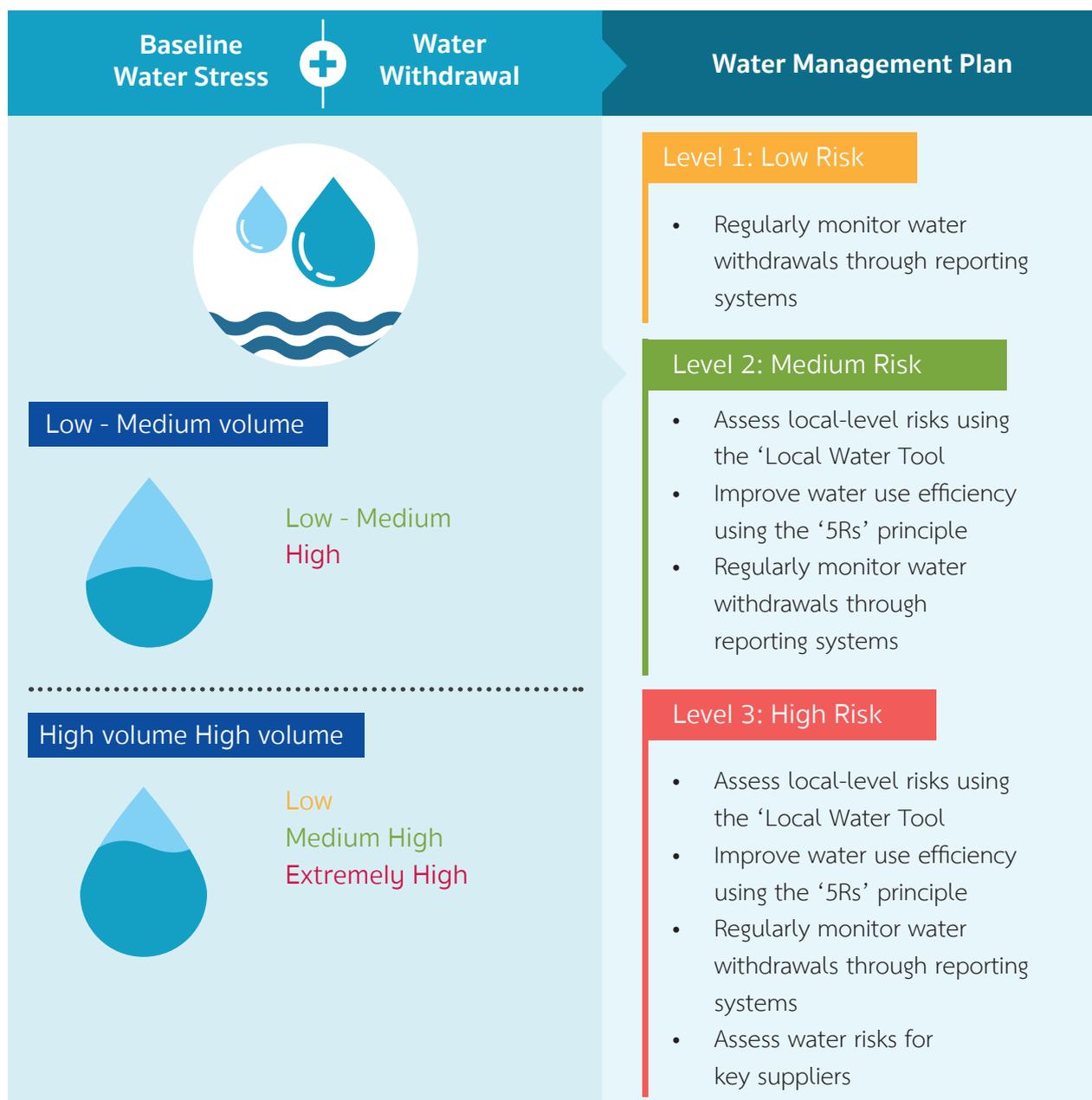
INTEGRATED WATER RISK ASSESSMENT

Enabling water management planning throughout the supply chain

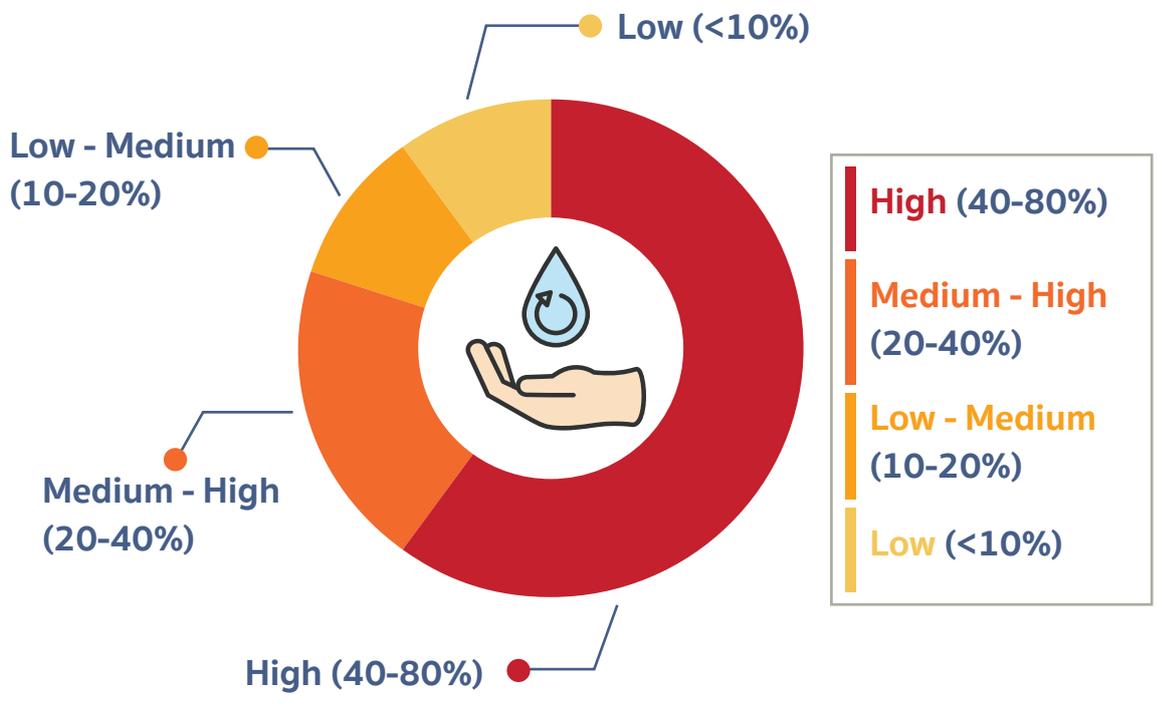
CPP has developed a water resources risk assessment framework that is applied from C.P. Group. The assessment evaluates risk factors in various dimensions, including the volume of water withdrawal by organization, and baseline water stress levels. CPP has adopted the internationally-recognized Aqueduct Water Risk Atlas tool of the World Resources Institute (WRI) for use as our preferred assessment tool. The results of the assessment are ranked according to three levels of water risk, and are then used to develop appropriate management plans.



Water Risk Assessment Framework



UNITS WITH HIGH WATER RISKS LEVEL CLASSIFIED BY REGION



High (40-80%)	7 Locations (64%)	Medium-High (20-40%)	2 Locations (18%)	
<ul style="list-style-type: none"> Seed Processing Plant 1, Lopburi Province Thailand Seed Processing Plant 1, Lopburi Province Thailand Chemical Fertilizer Plant, Ayutthaya Province Thailand Organic Fertilizer Plant, Saraburi Province Thailand Foundation Seed Farm, Saraburi Province Thailand Saleang Phan Research Station, Saraburi Province Thailand Sawankhalok Research Station, Sukothai Province Thailand 		<ul style="list-style-type: none"> Charoen Pokphand Seeds (India) Pvt.,Ltd. Extension Farm, Tak Province Thailand 		
		Low-Medium (10-20%)	1 Locations (9%)	<ul style="list-style-type: none"> C.P.Seeds Vietnam Co.,Ltd.
		Low (<10%)	1 Locations (9%)	<ul style="list-style-type: none"> Charoen Pokphand Produce Myanmar Co., Ltd.

CASE 40 STUDY

WATER HOUSE PROJECT (UNDERGROUND WATER BANK)

Water house project (underground water bank) is another project that CPP promotes and supports farmers and employees to organize by bringing water to storage. The basement in the aquifer is like depositing money with a bank on days when money is in trouble. You can also use the savings you have saved with the underground water bank. During the rainy season, underground water banks absorb the water to store it in the aquifers, and in the dry season, it can be pumped up.

Benefits of underground water banking

- Solve the problem of flooding.
- Solve the problem of dry areas.
- Help to increase the groundwater level.
- Adds moisture to the soil surface, making trees and plants green all year round.
- Reduces infrastructure damage.
(Road blocking the waterway road erosion of water or flowing wild water)
- Help protect the environment and prevent forest fires.
- Help reduce the infestation of various insects.



Myanmar



Seed Processing Plant Thailand



POLICY FOR DIGGING ARTESIAN WELLS In corn growing areas

CASE 41 STUDY

Myanmar Business has expanded into B2C business by accepting members to join the project. The key policy is to enable farmers to farm all year round, so water is important. CPP has dug artesian wells for members with irrigated farming areas or public water sources. By 2020, 127 wells cover a total area of 1,588 Rais free of charge, and in addition to corn fields, farmers can also grow rice, sweet corn and peas

WATER RESOURCES DEVELOPMENT CREATE PRODUCTION OPTIONS



“Water” is considered the heart and is very necessary for farming, especially in areas outside irrigated areas. And in the areas where the water delivery system is not accessible, it is necessary to support the development of agricultural water sources to increase the productivity of farmers.

For this reason, The Safe Nature Project has been co-operated with the Sueb Nakhasathien Foundation and the Learning Center Tambon Rabam supports the development of agricultural water sources for farmers in the integrated farming area according to the sufficiency economy model, which faces the problem of no water sources in the farmland. In 2020, it supported the development of water sources for Ms. Samruay Munsing after having water sources in agricultural areas. It helps increase productivity from farming and growing vegetables and fruits, and also earns more from fish farming.

ECOSYSTEM

& BIODIVERSITY PROTECTION

(GRI 103-1, 103-2, 103-3, 302-1, 302-3, 303-1, 303-3, 305-1, 305-2, 305-3, 305-4, 306-2, 307-1)

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP”) is aware of the problems that arise and is committed to taking part in reducing impacts and protecting the integrity of biodiversity and ecosystems through the involvement of businesses and industry in Take care and minimize these effects. CPP continues to assess the risks of global biodiversity by striving to conserve and utilize marine resources responsibly, protect, restore and support the use of terrestrial ecosystems, forests and natural diversity



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Key Performance in 2020



Investment in Environmental **4.32** million baht through the Safe nature project



Tracability **100%**



Protect, restore and support
The use of terrestrial ecosystems, forests and biodiversity, particularly in the process of

2020 Goal



100% of key raw materials comes from responsible sources without contributing to the depletion of forests and marine resources.

Performance in Comparison with

2020 Goal

	2018	2019	2020	Achieve Goal 2020
Percentage of key raw materials comes from responsible sources without contributing to the depletion of forests and marine resources	100	100	100	100%
Percentage of traceability in corn product	50	75	100	100%
Percentage of ecological restoration operations	100	100	100	100%



Management Approach

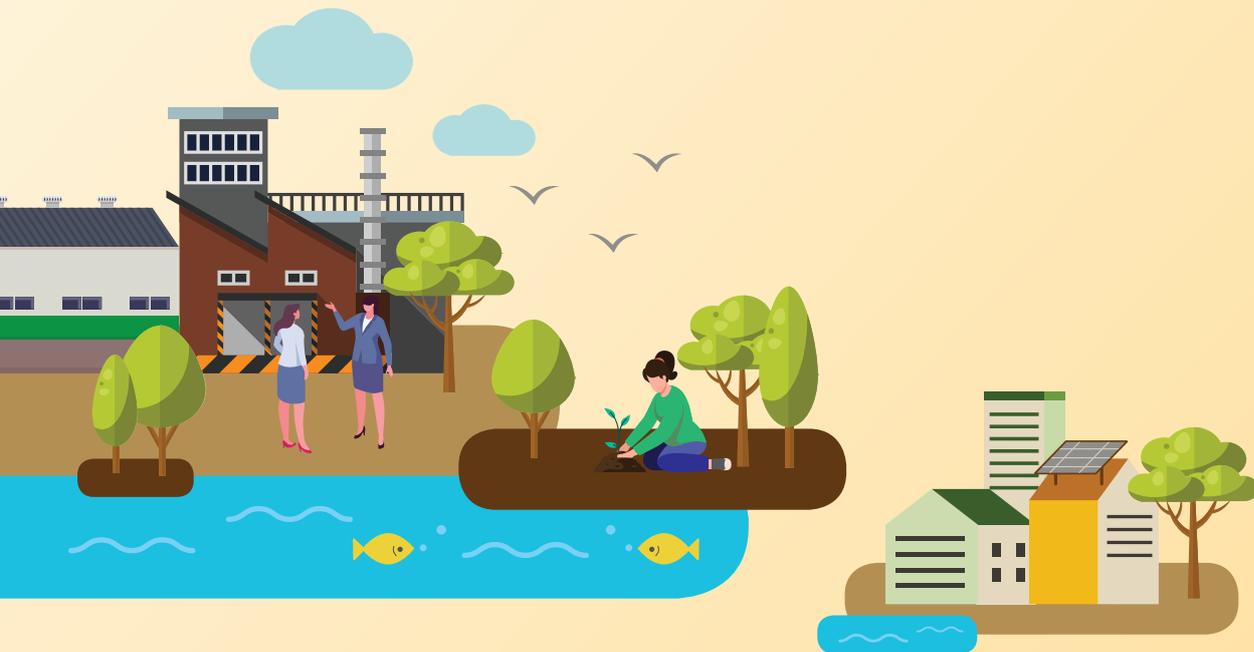
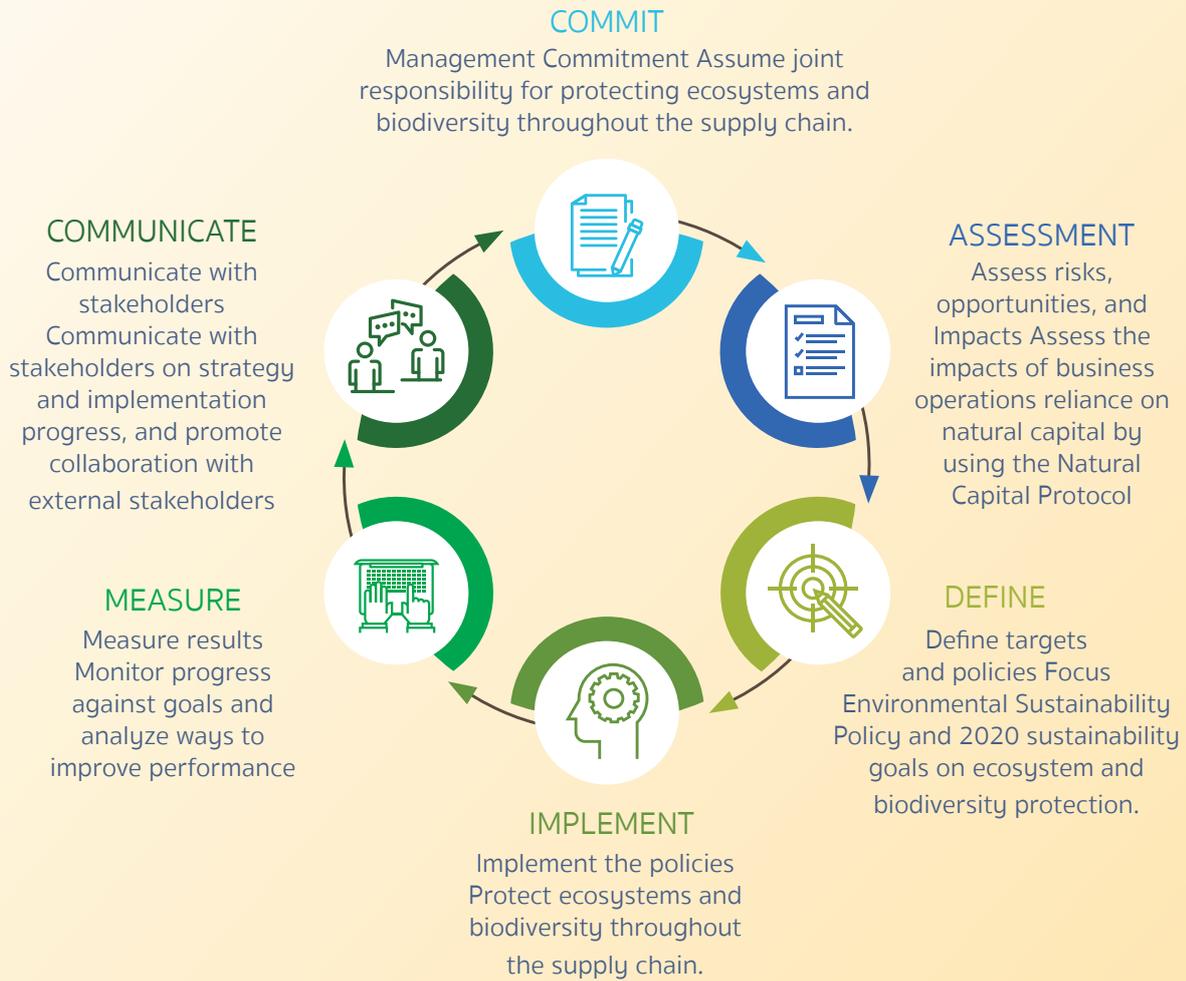
CPP believes that protection of ecosystems and biodiversity based on the equitable use of resources is the responsibility of all sectors of society, therefore, guidelines in line with the Rio Declaration on Environment and Development and the Convention on Biological Diversity are therefore formulated:

1. Participate responsibly to protect ecosystems and biodiversity in compliance with laws, regulations and international standards and set long-term goals to guide business operations as well as to cooperate with organizations working in conservation
2. Reduce impacts on ecosystems and biodiversity along the supply chain by developing supply chain management practices. Responsible for preventing deforestation and ensuring guidelines are implemented effectively.
3. Ecosystem and biodiversity risk assessments are carried out to inform decision-making and effective risk management.
4. To promote awareness and understanding of ecosystem protection and biodiversity to employees, partners and key stakeholders by organizing training knowledge sharing or organizing campaign activities
5. Disseminate information and performance on the protection of ecosystems and biodiversity through Sustainability Reports. Charoen Pokphand Group to report the progress status of current operations against the targets identified to stakeholders.
6. Develop cooperation with government agencies, non-profit organizations (NGOs), educational institutions, community and other agencies to jointly solve ecosystem and biodiversity problems at the national or global level





Ecosystem and Biodiversity Protection Framework





CASE **42**
STUDY

THE SAFE NATURE PROJECT
Uthai Thani Province Thailand

The safe nature project supports activities “Phaya Vulture Camp” by Sueb Nakhasathien Foundation Together with Huai Kha Khaeng Wildlife Sanctuary, Huai Kha Khaeng Wildlife Breeding Station and the Zoo Organization of Thailand Held on December 18-19, 2020, aims to create knowledge and understanding of the importance of vultures to the ecosystem for students from 9 schools with 54 students from 4 districts of Uthai Thani province as follows:



Lan Sak District
including Huai Kha Khaeng Wittaya School, Rong Ta Tee Wittaya School, Lan Sak Wittaya School, Ban Bung Ai Chiam School and Ban Pong Sam Sip School

Huai Khot District
including Samor Thong Prateeppleephon Upatham School

Nong Chang District
including Nong Chang Wittaya School

Ban Rai District
including Thong La School

TRAINING AND DISTRIBUTE WILD SWEET VEGETABLE

CASE STUDY 43

seedlings to the community to reduce their dependence on the exploitation of the western forest



Although Huai Kha Khaeng Wildlife Sanctuary does not have communities to live in the forest area, but along the east side there are 29 communities engaged in agriculture already located near the edge. There are still more than 60 communities that come to collect forest products to generate income, resulting in inevitable conflicts between communities in the area and the staff of Huai Kha Khaeng Wildlife Sanctuary.

The Natural Agriculture and Sufficiency Economy Learning Center Tambon Rabam, the Sueb Foundation and the Safe Nature Project supports the propagation of wild sweet vegetables and provides training Knowledge of planting and caring for wild sweet vegetables for the community to bring to planted at home, in public forest areas and in community forests for consumption and additional income without having to collect wild vegetables from the forest.

In 2020, support the cultivation of wild sweet vegetable seedlings amounting to 16,000 seedlings and organize 2 training sessions for communities in 3 districts, totaling 200 people, which has been supported since 2016.

At the same time, the wild sweet potato seedlings were given to farmers in 5 households with 3,000 plants per production. Average yield 10 kg, price 200 baht/kg., generate additional income 2,000 baht/year.

households 5 

plants 3,000

Areas 2 Rais

Average Yields 

10 kg/Rais

200 Baht/kg

Generate Additional Income 

2,000 baht/year.

Reduce dependence on natural resources from the World Heritage West Forest



SUPPORT FOR WILDLIFE SURVEILLANCE EQUIPMENT

CASE STUDY 44

Increase the efficiency of staff
Huai Kha Khaeng Wildlife Sanctuary



Wildlife problems outside the area and destroying the community's agricultural areas around the Huai Kha Khaeng Wildlife Sanctuary tend to be more severe, so The Safe Natural Project Safety has therefore, in collaboration with the Sueb Nakhasathien Foundation, to support surveillance equipment for the Wildlife Coordination Center outside the Huai Kha Khaeng Wildlife Sanctuary since 2019, including alarm devices, wildlife push kits, camera traps, etc.

In 2020, support alarm kits and 5 sets of spotlights to be installed additionally to increase the efficiency of officers to be able to push wildlife back to protected areas in a timely manner

Fixed the problem of reducing the collision between humans and wild animals. It also supports communities affected by wildlife to switch from traditional agricultural crops to non-farm crops. Wild animal foods that the market needs such as vegetables, wild vegetables, and herbs, etc.

THE NEW YOUTH NETWORK TAKES CARE OF THE FOREST through the training of the Forest Technology Teacher Project by the Handy GPS application

CASE STUDY 45

Conservation of natural resources and environment It is important for everyone to cooperate with all sectors in the Nature Safety Project. Together with Sri Lanna National Park, organizing a "forest technology teacher project" with the youth in the school through the Handy GPS application by the end of 2020 in order to convey knowledge of forest care over 800,000 rai in Sri Lanna National Park to the community network and youth in the area

The application works through a smartphone. from surveys, trekking, geolocation and find information on the coordinates of the area, enabling the community network to report forest fire problems or threats that occur to the park staff in a timely manner more accurate.

At the same time, knowledge on conservation and sustainable utilization of forests was also shared in order to raise awareness and create awareness of the value of local natural resources for the new generation of youth Initially, technology was used in parallel with the creation of youth networks in the area. It helps to increase the potential of forest care and play an important role in reducing the problem of forest fire and preventing it. The invasion of this watershed forest is more effective.



CASE STUDY 46

SUPPORT PATROLS

to reduce threats to the western forest

The abundance of forests in Huai Kha Khaeng area leads to threats and encroachment from outsiders to exploit various plant and wildlife species. forest

The Safe Nature Project, in collaboration with the Sueb Foundation, supports food supplies to the Community Forest Committee, Lan Sak District, Uthai Thani Province, to patrol the forest areas surrounding the Huai Kha Khaeng forest every month.

The community forest committee consists of representatives from the community. Department of Forestry, Sanctuaries Each patrol uses 10 officers to explore the route in 18 forest areas as planned The data will be recorded with the GPS device starting from the walking path. traces of what was found as well as exploring the boundaries of the reserved forest in order to use the information

obtained in laying out guidelines for intrusion prevention, alerting with the community if wildlife footprints are found

In 2020, the community forest committee, Lan Sak district, summarizes the results of the patrol in.



18 forest areas



388.16 kilometers reconnaissance distance



17 local threats found



46 animal footprints



Utilization of 23 areas



Ordained 25 large trees

COMMUNITY LAND UTILIZATION MAP

for Career Development in a protected forest area for sustainable communities



In the past, most communities in the park It's an undocumented area, so there's no chance of accessing the structure, fundamentals of career development as well as government assistance measures Sri Lanna National Park Therefore, we have joined together with the Safe Nature Project. Maejo University and relevant government agencies conducting a project to create a land use map according to soil and water conservation principles in conservation forest areas For sustainable communities Ban Mae Jon, Chiang Dao District, Chiang Mai Province, which is Aradang or Palaung hill tribe, leads to the problem of farming areas that encroach on watershed forests of more than 1,088 rai.

Initially, Sri Lanna National Park has negotiated to return the area of 183 rai to be rehabilitated as a buffer forest. In addition, it has joined with the community to survey and design the utilization of the area suitable for the conditions of the area according to soil and water conservation principles, as well as jointly create community rules for space management for people to coexist with the forest sustainably as follows:

1. Area that the community returned to the park for common use, amounting to 127 rai, focusing on planting 3 types of trees for 4 benefits such as Makhampom, Teak, Pradu, Canada, Phai, Wa, etc.
2. Buffer line or fire line, distance of 5.2 km, focusing on growing bamboo such as Ruak bamboo, Sang Mon bamboo, Kim Sung bamboo and Tong bamboo.
3. Community farming area: develop water resources, grow alternative crops such as vegetables and vegetables in greenhouses. bean overlap corn and some made livestock



CASE STUDY 48

THREAT SURVEILLANCE MONITORING CENTER (WAR ROOM)

helps to solve the problem of forest encroachment on the watershed.



The Safe nature project Participated in supporting equipment and improving the “Monitoring and Surveillance Center Threats” (War room) to Sri Lanna National Park in order to increase efficiency in surveillance of threats, to control forest fire situations, as well as to plan wildlife conservation and biodiversity in an area of more than 800,000 rais of Sri Lanna National Park

The War room acts as a center for collecting information from all kinds of surveillance equipment in the area to bring come to watch out for threats, allowing officers to access the scene of the accident and stop offenders in a timely manner In addition, hot spot information obtained from photographs via weather, wind direction information And the wildfire situation from drones also helps rangers to quickly control the situation and plan to stop the spread of wildfires.

The data from camera traps, both NCAPS and CAMERA TRAP installed at various points of the park. and connect the signal to the War room, enabling the year 2020, Sri Lanna National Park can arrest and prosecute a total of 31 offenses, 11 of which are related to forest fires. that can intercept offenders before they act It was also used to assess biodiversity and track wildlife populations in the “Release Wild Animals Project” implemented in 2019.

In the future, Sri Lanna National Park Prepare to increase the potential of unmanned aerial vehicles (Drone) can increase the flight range to 10-20 km / round for use in exploring areas that are inaccessible by foot reconnaissance. as well as to increase the efficiency of forest fire management with accuracy and access to the area more quickly





SMART PATROL TRAINING
 increase the efficiency of park rangers
 and support Drone to explore the area.

CASE 49
STUDY

Over 800,000 rai of park rangers patrols are planned to operate in sections between adjacent areas. Therefore, to increase efficiency The project therefore supports SMART PATROL TRAINING to Sri Lanna National Park officials to prepare for the use of various tools and equipment, as well as knowledge of the National Park Act new can take care More forest coverage, quick access to risk areas, reducing forest encroachment cases and solve forest fire problems in a timely manner as well

Safe nature project Supported drones for use in forest surveillance missions with technology. The data obtained from surveying the area of use land use and check the area’s occupancy The population was compared with the patrol data from the foot. Reduce conflicts between officers and communities, create community rules to conserve natural resources in protected forest areas, and use Big Data to properly manage land use in conservation forest areas.

EXPLORE THE BASICS TO CAREER DEVELOPMENT

for people living in the forest

CASE STUDY **50**

INTRODUCTION

SUSTAINABILITY MANAGEMENT

HEART

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APPENDIX



Community participation in driving natural resource conservation is the key to solving problems and promoting occupational development to have enough income for communities in the Sri Lanna National Park area. The Safe nature project has supported the “Project to explore basic information for further career development and the quality of life of Ban Mae Sai Pa Miang community”, which is a community that farms in the area upstream of Mae Sai River One of the main rivers that flows into Mae Ngad Boon Chon Dam.

From the survey found Mae Sai Pa Miang community earns an average of 25,000 baht per year from agriculture. In the past, fresh miang averaged 7 baht per kg, while fresh coffee averaged 13 baht per kg. Royal Project Expansion Project Market, Doi Saket District and Mueang District, Chiang Mai Province The secondary occupation is animal husbandry. and general contracting In addition, there are other crops.

The Safe Nature Project will discuss with Sri Lanna National Park to make a career development plan that is suitable for areas and linking markets to enable communities to be self-reliant and contributing to the conservation of natural resources and the environment on this watershed forest along with the development of occupations to live with the forest in a sustainable way



PLANTING LOCAL TREES TO PROMOTE TOURISM and a source of wildlife food for Mae Ngat Somboon Chon Dam



On the auspicious occasion of His Majesty’s birthday, August 12, 2020 to show loyalty and in remembrance of His Majesty’s grace towards conserving natural resources and wildlife in Sri Lanna National Park with The Safe Nature project, Siam Rubber and Cassia Association Houseboat entrepreneurs club and network of colorful local planting networks and 2,100 trees to feed wildlife, a distance of 500 meters in the **“Plant Planting Project The local area promotes tourism and is a source of food for wildlife”** in the Mae Ngat Somboon Chon Dam area.

There are 8 types of colorful local plants that are planted, namely Thong Kwao, Ratchaphruek, Tabaek, Sala, Inthaninnam, Red Flower Wild Opera and white flower crescent As for the plants for food for wildlife, such as cassia, gooseberry, and wa, which are planted together with the original native wood. It is expected that the area will be a resting place for tourists to watch the atmosphere and also be a source of food for wildlife. In 2019, there has been an activity to release wildlife.

Each year there are both Thai and foreign tourists. come in to travel a lot because there is a beautiful scenery and is a source of water activities such as staying in a houseboat, boating, so planting colorful local trees In addition to increasing the potential of the area, it will also stimulate ecotourism for Mae Ngat Somboon Chon Dam. also help attract tourists

LINKING THE WILD WEST WORLD HERITAGE SITE

a large forest that is fertile And there
is an important biodiversity of Thailand

CASE STUDY 52



Preservation “**Continuous integrity**” of the western forest It’s a conservation challenge. leading to a connection with the diversity of wildlife At present, it is found that the area between the Khao Sanam Barnacle Wildlife Sanctuary with the Khlong Wang Chao National Park is cut by a national highway and is a community farming area. which in addition to affecting the habitat of wildlife affecting the exchange of genetics and diversity of reduced varieties

The Safe Nature Project with Sueb Nakhasathien Foundation, Royal Forest Department, Department of National Parks, Wildlife and Plant Conservation Kamphaeng Phet Province and network partners do “**Project to manage forest reserves and the western forest connection line for sustainable development**” at Kosamphi Nakhon District with the concept of connecting ecosystems through economic forest processes Along with building a network and community participation processes to enable communities to coexist with forests in a sustainable way

From the cooperation of all sectors resulting in the results of operations according to the plan as follows:

1. Academic work and basic information
A database of land utilization of some wildlife that has been used in the community forest area and the community’s arable land, such as the weasel, chamois, and foxes, and a database of species distributed in the area, such as banyan trees, teak trees, red trees and bamboo In addition, the working group also works with the advisory committee from Kasetsart University to develop projects for registration with T-VER
2. Database of community, economy, society, area of farming area and area status At the same time, there was a meeting to discuss with various agencies. with the governor of Kamphaeng Phet Province leading Surveying the arable land of the community through the survey process of the local government organization
3. Build awareness and correct understanding of the Ecosystem Management Program in the Forest Reserve and the Western Forest Connectivity for Sustainable Development. Producing videos and articles on the Ecosystem Management Project for dissemination through websites and social media of the Sueb Nakhasathien Foundation.

To achieve common objectives and goals Safe nature project therefore supported the Sueb Foundation together with related networks to continue to carry out the planned activities

THE SAFE NATURE PROJECT, MAE CHAEM

Life Changing Water emphasizes community participation in local resource management and sustainable career development.



“Water changes lives. life changing environment When there is water, there is life. Water is the foundation of agriculture.”

After incorporating the science of King Rama IX “**Inside Explosion: Understanding, Accessing and Developing**” to drive the activities of the Safe Nature Project, Mae Chaem since 2012, starting from the development of water resources to be sufficient for cultivation and development. Sustainable careers for master areas “**Baan Mae Pan-San Kiang**” It was found that in 2020, there are 5 Phuang Ponds with a size of 750 cubic meters, and 42 Phuang Ponds with a size of 175 cubic meters, with 190 plots of water supplying pipes to the farmer’s plots covering an area of 1,200 Rais.

As for the sustainable career change in the agricultural sector and non-agricultural sectors consist of

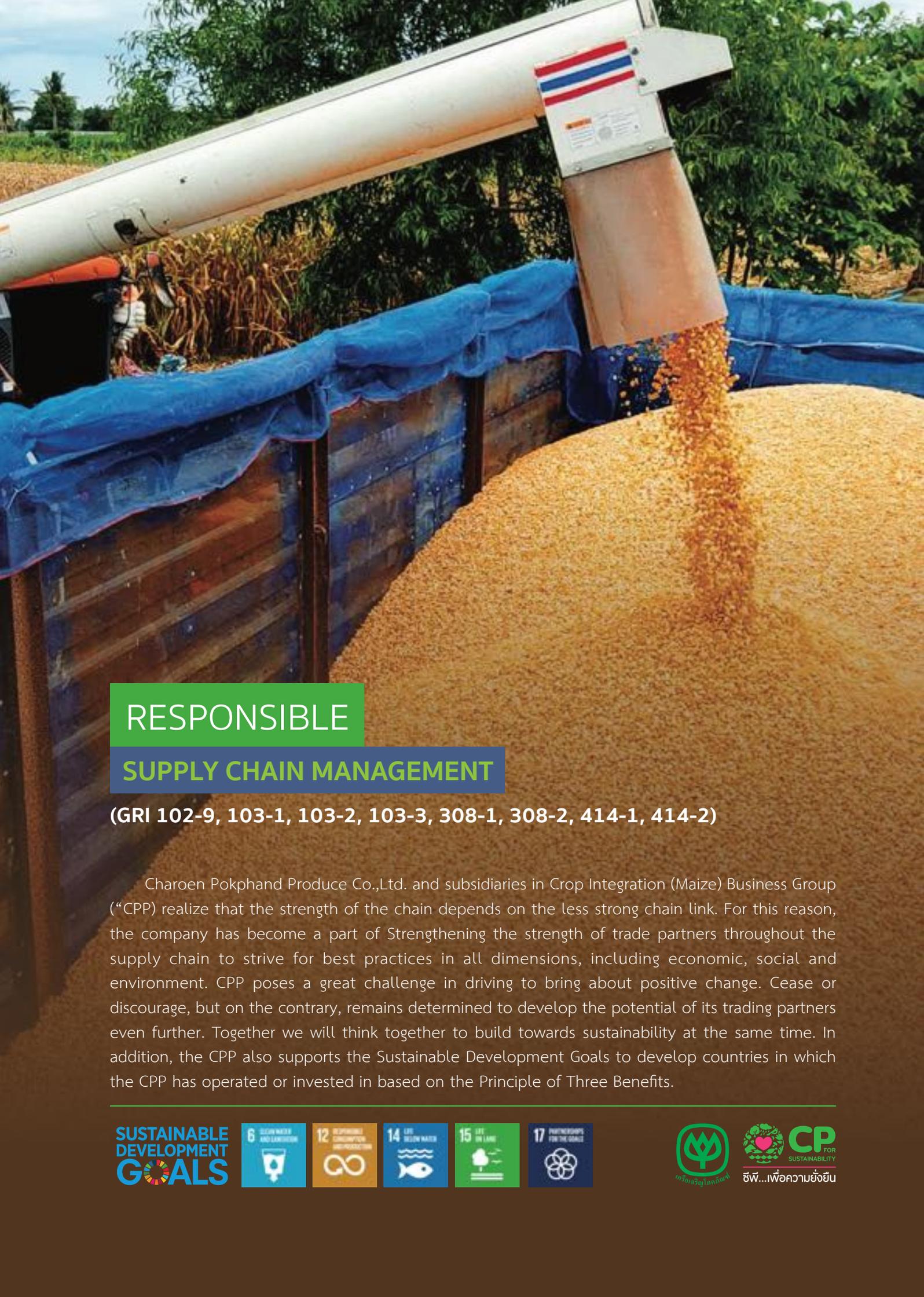
1. Register longan farmers in large plots of Chiang Mai Province, with 80 members, total area of 970 rai, create a network to buy longan, make an MOU, buy longan with private companies
2. Perennial fruit tree group: 120 members (including longan farmers) average income 80,000 baht / year
3. The swine group consists of 27 members, 100 sows, 419 piglets and fattening pigs. 160 pigs who participated in the project to develop safe pig farms in the year 2019/20, totaling 11 animals and in the year 2020/20, amounting 10 animals

4. Community products processing factory (pork meat) with average income of 10,000 baht / month
5. Group of laying hens, average income 9,000 baht / month
6. Sin Teen Jok cloth weaving group has 30 members, income Average 2,000 baht / month
7. Community Enterprise Group has 146 households with 22,035 shares, which in 2019/2020 has a turnover. There is an investment amount of 14,520,446 baht have total income of 15,810,689 baht and have profit net 1,209,243 baht.

In addition, they also jointly built check dams around the Mae Pan River. to jointly conserve the Mae Pan River The main stream that nourishes communities in the area as well as to cultivate awareness participation in the care of natural resources for the community; and Youth in Mae Chaem district, along with supporting the development of young smart farm to be able to raise the standard of production. and continue trading into the system online to expand marketing channels for community products

The Safe Nature Project Mae Chaem and Maejo University It has also expanded its performance on water resources development and environmentally friendly career development. which emphasizes the participation of the community to the village of Mai Pu Loei and Ban San Phatthana as well “**Ban Mae Pan-San Kiang**” is a learning center to bring other communities in Mae Chaem District come to study the work of the project. to be applied to suit the conditions of the community in the future.





RESPONSIBLE

SUPPLY CHAIN MANAGEMENT

(GRI 102-9, 103-1, 103-2, 103-3, 308-1, 308-2, 414-1, 414-2)

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group (“CPP) realize that the strength of the chain depends on the less strong chain link. For this reason, the company has become a part of Strengthening the strength of trade partners throughout the supply chain to strive for best practices in all dimensions, including economic, social and environment. CPP poses a great challenge in driving to bring about positive change. Cease or discourage, but on the contrary, remains determined to develop the potential of its trading partners even further. Together we will think together to build towards sustainability at the same time. In addition, the CPP also supports the Sustainable Development Goals to develop countries in which the CPP has operated or invested in based on the Principle of Three Benefits.



ซีพี...เพื่อความยั่งยืน

Key Performance in 2020



Implementation and announcement “Supplier Code of Conduct”



100% of critical suppliers has been assessed for sustainability.



Every company in the business group has **assessed and identified Critical Supplier.**

2020 Goal



100% of critical suppliers has been assessed for sustainability.

Performance in Comparison with

2020 Goal

Percentage of of critical suppliers has been assessed for sustainability.

2018	2019	2020	Achieve Goal 2020
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-	-	100	100%
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Management Approach

CPP Supply Chain Management Operated under Responsible Supply Chain Management Framework, which contains components that demonstrate a commitment to manage supply chain risks in accordance with the Supplier Code of Conduct, Supply Chain Management Policy

and supply chain management goals including sustainability audits with key trading partners that are important and high risk as well as continuously communicate the results of supply chain management operations.

Procedures and practices for sustainable supply chain management



Supplier Code of Conduct

CASE STUDY 54

CPP believes that “partners” is the key chain of business success And believe that sustainable success needs to be based on respect for human rights, good governance and environmental protection, for this reason the Supplier Code of conduct has been established in line with the UN Global Compact and relevant laws and regulations To ensure that the business processes of CPP and its partners

are consistent with applicable laws and regulations to be part of helps to develop potential, enhance competitiveness and enhance long term growth together, as well as being an opportunity for companies and business partners to participate in improving and developing society and the environment overall

Supplier Code Of Conduct



Compliance with Laws and Regulations



Freedom of Association and Collective Bargaining



Product Safety and Quality



Occupational Health and Safety



Traceability



Land Rights



Child Labor



Environmental Management



Personal Data, Confidentiality and Intellectual Property



Responsible Sourcing



การบังคับแรงงาน และการกดขี่แรงงาน



Operating with Integrity



Discrimination



Conflicts of Interest



Employment Arrangements, Remuneration and Benefits



Anti-bribery and Corruption

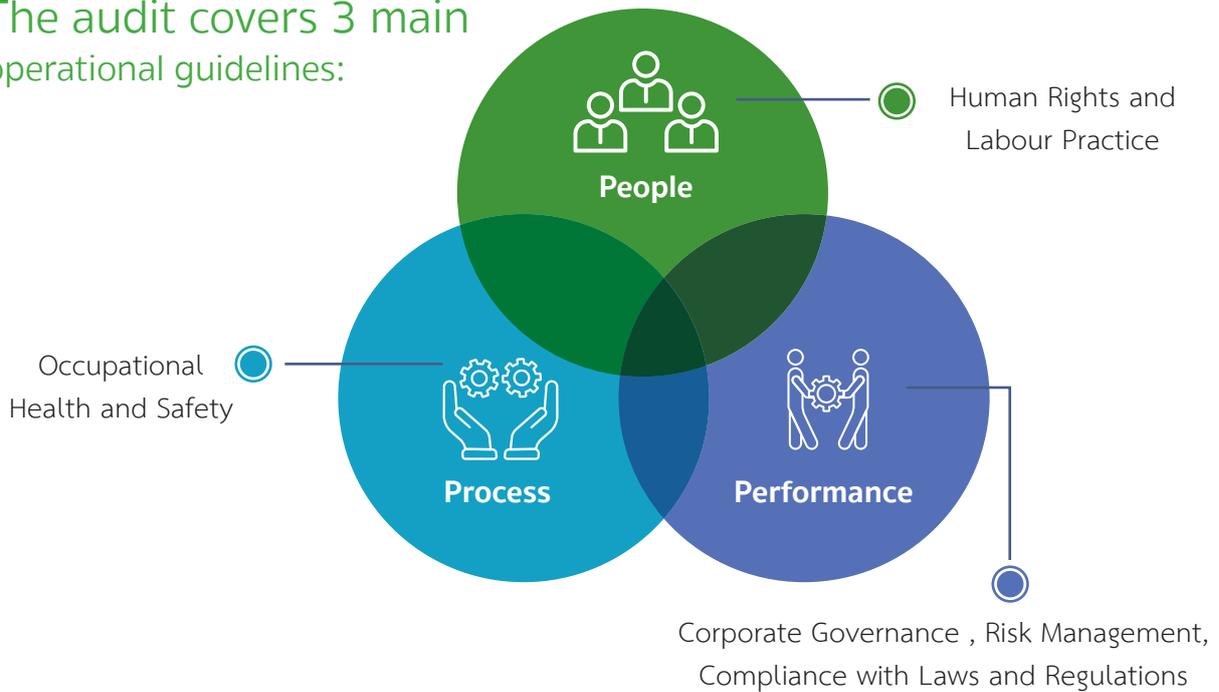


BUSINESS SUPPLIER ETHICS COMPLIANCE AUDIT

CASE STUDY 55

CPP believes that lasting success It needs to be based on responsible business practices throughout the supply chain, such as respect for human rights, good governance and environmental protection. including the operation comply with relevant laws and regulations

The audit covers 3 main operational guidelines:



ESG Integration in Supply Chain Management Strategy

Goals of Responsible Supply Chain Management

 <p>Identification of key business partners and other high-ranking business partners</p>	 <p>Communication issues Sustainability to business partners</p>	 <p>Self-assessment Sustainability of key business partners</p>
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Smart Sale Program

CASE STUDY 56

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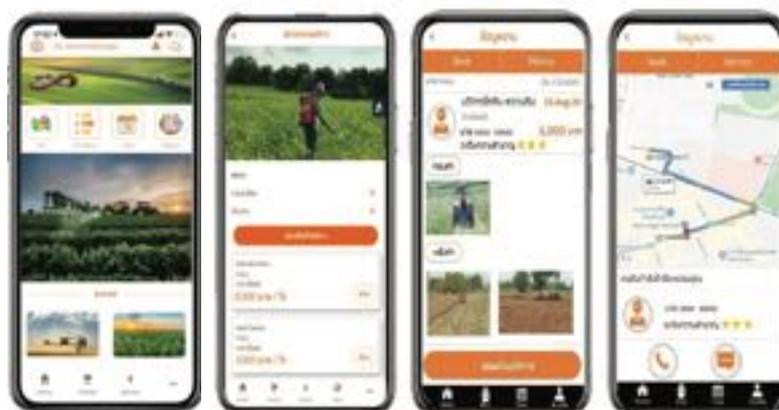
Smart Sale Program is a program that the company Used to connect the company's database with customers and to support the modified agribusiness with 3 objectives:

1. Efficiency: Easier data collection through an application that records operational activities and milestones, reduces costs, and can track and visualize on-site activities at all times.
2. Productivity: Real-time actionable insights enable planned business decisions and/or decide to respond in a timely manner have the ability to predict quantities and the quality of output reduces operating costs resulting in higher productivity for the business.
3. Sustainability: meeting agricultural needs enhance good environment resources Profitability creates equity, empowering agriculture in agro-ecological systems by enabling businesses to benefit from actionable insights. At the same time empowering farmers through guidance. and notifications and can receive big data to analyze synthesize and use this information in the future including the creation of a precise agricultural service model



Benefits :

- Have information for analysis, planning accurate sales strategies.
- Increase the efficiency of the sales team to be quick, timely and respond to customers' needs.





APPENDIX

COMPANIES WITHIN THE SUSTAINABILITY REPORTING SCOPE

📍 4 COUNTRIES

Charoen Pokphand Produce Co., Ltd.



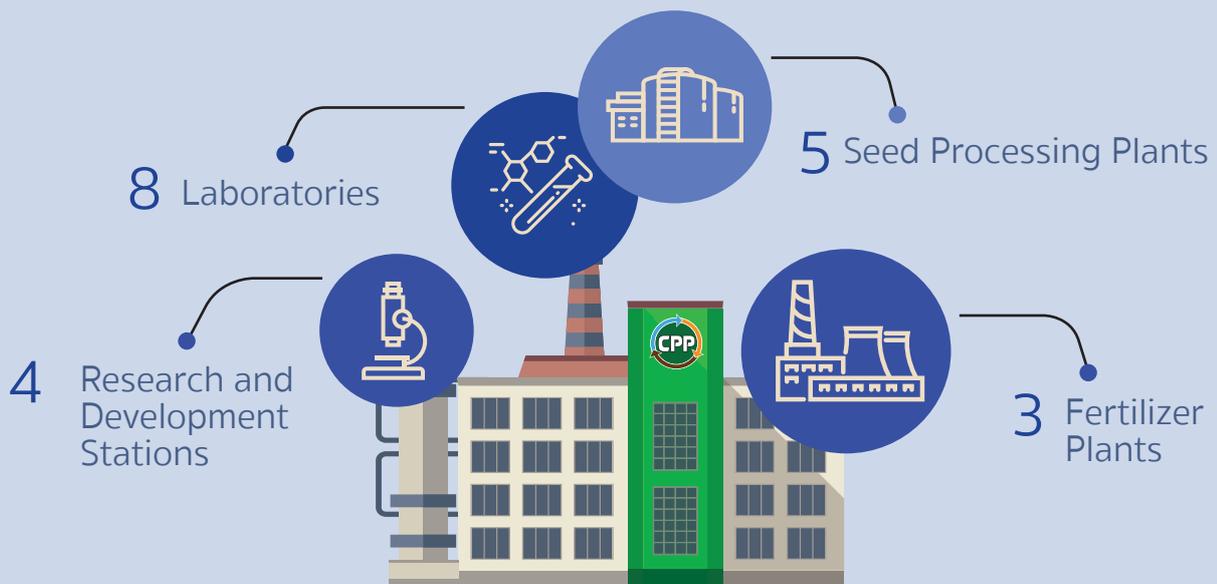
Charoen Pokphand Produce Myanmar Co.,Ltd.



C.P. Seeds (Vietnam) Co.,Ltd.



Charoen Pokphand Seeds (India) Pvt., Ltd.



SUSTAINABILITY PERFORMANCE

2017-2020

Charoen Pokphand Produce Co.,Ltd. and subsidiaries in Crop Integration (Maize) Business Group

GRI	Performance	Unit	2017	2018	2019	2020*
ECONOMIC PERFORMANCE						
G4-EC1	Revenues	Million Baht	3,373.77	5,017.38	4,525.96	4,289.81
	Employee Benefits	Million Baht	492.82	525.46	539.06	553.77
	Tax Paid to Governance	Million Baht	78.5	74.53	63.22	69.57
	Investing in research and development	Million Baht	55.04	60.06	70.12	75.05
	Community and Social Contribution	Million Baht	23.43	20.37	12.67	15.30
SOCIAL PERFORMANCE						
Employees						
102-8	Total Employees	Persons	827	904	805	1,012
		Male/ Female	498 329	552 352	475 330	628 384
102-8	Separate by contract type					
	Employees	Persons	418	784	790	828
		Male/ Female	314 104	490 294	462 328	514 314
	Worker / Contractors	Persons	409	120	15	184
		Male/ Female	184 225	62 58	13 2	114 70
405-1	Separate by gender					
	Male	%	60	61	59	62
	Female	%	40	39	41	38

GRI	Performance	Unit	2017		2018		2019		2020*	
401-1	New Hires									
	Number of new hires	Persons	33		142		96		70	
		Male/ Female	25	8	93	49	54	42	46	24
	Ratio of new hires	%	7.895		18.11		12.15		8.24	
		Male/ Female	5.98	1.915	11.86	6.25	6.84	5.32	5.55	2.90
401-1	Turn Over									
	Number of turn over	Persons	19		62		94		98	
				15	4	39	23	59	35	69
	Ratio of Turn Over	%	4.55		7.91		11.9		11.84	
		Male/ Female	3.59	0.96	4.91	2.93	7.47	4.43	8.33	3.50
404-1	Average of training hours for all employees	Hours per person	4.62		3		4.99		7.30	
404-1	Number of Employees completed sustainability Training	Persons	0		309		705		828	

Note :

* In 2020 The data was collected from 4 countries as follows: Thailand, Vietnam, India and Myanmar

GRI	Performance	Unit	2017		2018		2019		2020*	
OCCUPATIONAL HEALTH AND SAFETY										
Injury Rate (IR)										
403-2 (a)	Employees	Persons per 1,000,000 working hours	3.00		2.45		4.11		2.78	
		Male/Female	3.95	4.00	3.25	1.4	5.91	1.32	4.86	0.00
403-2 (b)	Worker / Contractors	Persons per 1,000,000 working hours	0.00		2.6		2.29		8.52	
		Male/Female	0.00	0.00	3.85	0.00	0.00	7.82	9.53	7.03
Lost-Time Injury Frequency Rate (LTIFR)										
403-2 (a)	Employees	Persons per 1,000,000 working hours	0.60		1.2		2.06		0.00	
		Male/Female	0.00	1.50	2.15	0.00	3.38	0.00	0.00	0.00
403-2 (b)	Worker / Contractors	Persons per 1,000,000 working hours			0.00		0.00		5.68	
		Male/Female			0.00	0.00	0.00	0.00	4.76	7.03
Number of Lost-Time Injury										
403-2 (a)	Employees	Persons	-		-		-		0	
		Male/Female	-	-	-	-	-	-	0	0
403-2 (b)	Worker / Contractors	Persons	-		-		-		2	
		Male/Female	-	-	-	-	-	-	1	1
Lost Day Rate (LDR)										
403-2 (a)	Employees	Persons per 1,000,000 working hours	1.8		15.3		18.00		0.00	
		Male/Female	0.00	4.50	27.05	0.00	29.54	0.00	0.00	0.00
403-2 (b)	Worker / Contractors	Persons per 1,000,000 working hours					0.00		85.21	
		Male/Female					0	0.00	142.92	0.00

GRI	Performance	Unit	2017		2018		2019		2020*	
Rate of facilities as a work-related injury										
403-9 (a)	Employees	Persons per 1,000,000 working hours	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
403-9 (b)	Worker / Contractors	Persons per 1,000,000 working hours	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
Number of facilities as a work-related injury										
403-9 (a)	Employees	Persons	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
403-9 (b)	Worker / Contractors	Persons	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
Rate of High-consequence work-related injury (excluding facilities)										
403-9 (a)	Employees	Persons per 1,000,000 working hours	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
403-9 (b)	Worker / Contractors	Persons per 1,000,000 working hours	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
Number of High-consequence work-related injury (excluding facilities)										
403-9 (a)	Employees	Persons	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
403-9 (b)	Worker / Contractors	Persons	-		-		-		0.00	
		Male/Female	-	-	-	-	-	-	0.00	0.00
Rate of Recordable work-related injury										
403-9 (a)	Employees	Persons	-		-		-		2.78	
		Male/Female	-	-	-	-	-	-	4.86	0.00
403-9 (b)	Worker / Contractors	Persons per 1,000,000 working hours	-		-		-		8.52	
		Male/Female	-	-	-	-	-	-	9.53	7.03

GRI	Performance	Unit	2017	2018	2019	2020*
Number of Recordable work-related injury						
403-9 (a)	Employees	Persons	-	-	-	5
		Male/ Female	-	-	-	-
403-9 (b)	Employees	Persons	-	-	-	3
		Male/ Female	-	-	-	-

Number of Fatalities as a result of Work-related ill health

403-10 (a)	Employees	Persons	-	-	-	0.00
		Male/ Female	-	-	-	-
403-10 (b)	Worker / Contractors	Persons	-	-	-	0.00
		Male/ Female	-	-	-	-

Number of cases of recordable work-related ill health

403-10 (a)	Employees	Persons	-	-	-	0.00
		Male/ Female	-	-	-	-
403-10 (b)	Worker / Contractors	Persons	-	-	-	0.00
		Male/ Female	-	-	-	-

Note :

- In 2020 The data was collected from 4 countries as follows: Thailand, Vietnam, India and Myanmar
- The severity level of an injury is calculated from the number of absent work days. Injury Rate (IR) = [Total number of injuries at all levels (during the reporting period) X 1,000,000 hours worked] / Total number of hours worked (during the reporting period).
- Lost Time Injury Rate (LTIR) = [Total number of lost time injuries (during the reporting period) X 1,000,000 hours worked] / Total number of hours worked (during the reporting period).
- Lost Day Rate (LDR) = [Total number of lost days (during the reporting period) X 1,000,000 hours worked] / Total number of hours worked (during the reporting period)

GRI	Performance	Unit	2017	2018	2019	2020*
ENVIRONMENT PERFORMANCE						
ENERGY						
302-1 (a)	Fuel Consumption	Gigajoules	9,871.95	25,985.43	26,570.26	25,641.61
302-1 (b)	Renewable energy	Gigajoules	0.00	13,790.44	40,938.78	27,584.68
302-1 (C)	Electricity Consumption	Gigajoules	15,516.99	18,895.34	28,739.06	44,210.73
305-2 (a)	Total Green House gas (GHG) emission	Gigajoules	2,960.98	4,868.06	6,649.84	10,357.50
305-1 (a)	Green House gas (GHG) emission (Scope 1)	TonCO ₂ e	754.12	2,238.46	2,059.10	1,967.60
305-2 (a)	Green House gas (GHG) emission (Scope 2)	TonCO ₂ e	2,206.86	2,629.60	4,590.74	8,389.91
302-4	Biogenic emission	TonCO ₂ e	0.31	1,656.84	4,326.30	2,811.35
WATER						
303-3 (a)	Total volume of water withdrawn	Million m ³	-	1.04	1.76	2.66
	• Surface water	Million m ³	-	0.92	1.54	2.20
	• Ground water	Million m ³	-	0.06	0.21	0.19
	• Rain water	Million m ³	-	0.06	0.00	0.27
	• Municipal water supplies	Million m ³	-	0.01	0.01	0.03
303-4 (b)	Total of water being used	Million m ³	-	-	0.00	0.006
303-4 (a)	Total of water discharge	Million m ³		0.02	0.18	0.09
WASTE						
	Total weight of waste generated	Tons		260.64	591.35	601.97
306-2 (a)	• Total weight of non-hazardous waste	Tons	-	1.75	585.4	590.00
306-2 (b)	• generated	Tons	-	258.89	5.95	11.86
PLASTIC PACKAGING						
	All plastic packaging	Tons	-	-	0.00	700.02
	Recyclable plastic packaging *Category Mono Layer	Tons	-	-	-	475.73
	Biodegradable plastic packaging	Tons	-	-	-	5.24
	Other plastic packaging	Tons	-	-	-	207.15
	Reducing the use of plastic packaging	Tons	-	-	-	11.89

Note :

- The calculation method under this Sustainability report is in accordance with GRI Standards (GRI 302-1)
- Total fuel consumption = the sum of all types of fuel resource consumption x its heating value (in each) - Unit in GJ per month
- the conversion factors are based on Thailand Energy Efficiency Situation report 2018 by Department of Alternative Energy Development and Efficiency
- Electricity consumption = The sum of electricity used (in kWh) x 3.6 - Unit in GJ per month)
- Total energy consumption = non-renewable energy consumption + renewable energy consumption + electricity consumption (Unit in GJ per month)
- Energy types included in the calculation of intensity per revenue are non-renewable energy including coal, fuel oil, diesel, gasoline, bunker oil, LPG, and natural gas as well as renewables including biogas, biomass (such as rice husk, charcoal, cashew nutshell, fire wood/ scrap wood/ woodchips, corn cob, pal kernel shells, and sawdust) and biodiesel, and electricity consumed within the organization only (GRI 302-3)
- Reporting scope of GHG emissions covers CO₂, CH₄, and N₂O The Global Warming Potential (GWP) used in the calculation is referred to the given values of IPCC, while the greenhouse gas emission factors are based on the information which is available at the time of disclosure of this Sustainability Report. GRI 305-1, GRI 305-2, and GRI 305-4)
 - Thailand reference from Energy Policy and Planning Office, Ministry of Energy (<http://www.eppo.go.th/index.php/en/en-energystatistics/co2-statistic>)
 - Myanmar reference from <https://united4efficiency.org/country-assessments/myanmar>
 - Vietnam reference from https://www.iges.or.jp/en/publication_documents/pub/data/en/1215/IGES_GRID_EF_v10.10_20210223.xlsx
 - India reference from https://www.iges.or.jp/en/publication_documents/pub/data/en/1215/IGES_GRID_EF_v10.10_20210223.xlsx
- Reporting scope of GHG intensity includes only GHG scopes 1 and 2 (GRI305-4)
- Total water consumption is collected by using data from water meter, water bill, calculation from flow rate of water pump and average volume of rainwater from Meteorological Department (GRI 303-1 : 2016)
- Total reused/recycled water is calculated by using data from water meter and flow rate of water pump (GRI 303-3 : 2016)
- Total hazardous and non-hazardous waste stored within organization is an accumulated figure in previous year (GRI 306-2)
- Total waste generated is a figure of non-hazardous waste and hazardous waste generated in each year. For the amount of waste stored within the organization, the calculation is from an accumulated figure of waste in the present year - an accumulated figure of in the previous year (GRI 306-2)
- All information about waste disposal methods have already been approved by waste disposers or waste disposal manifest from waste disposers (GRI 306-2)

GRI CONTENT INDEX

GRI 102: GENERAL DISCLOSURES 2016

DISCLOSURES		PAGE/WEBSITE	EXTERNAL ASSURANCE
Organizational Profile			
102-1	Name of the organization	<ul style="list-style-type: none"> Our Business About this Report 	-
102-2	Activities, brands, products, and services	<ul style="list-style-type: none"> Our Business 	-
102-3	Location of headquarters	<ul style="list-style-type: none"> Business Overview 	-
102-4	Location of operations	<ul style="list-style-type: none"> Business Overview Our Business 	-
102-5	Ownership and legal form	<ul style="list-style-type: none"> Our Business 	-
102-6	Markets served	<ul style="list-style-type: none"> Business Overview Our Business 	-
102-7	Scale of the organization	<ul style="list-style-type: none"> 2020 Highlights Business Overview 	-
102-8	Information on employees and other workers	<ul style="list-style-type: none"> Appendix 	-
102-9	Supply chain	<ul style="list-style-type: none"> Responsible Supply Chain Management 	-
102-10	Significant changes to the organization and its supply chain	<ul style="list-style-type: none"> About this Report 	-
102-11	Precautionary Principle or approach	<ul style="list-style-type: none"> Climate Change Management Water Stewardship 	-
102-12	External initiatives	<ul style="list-style-type: none"> Stakeholder Engagement 	-
102-13	Membership of associations	<ul style="list-style-type: none"> Stakeholder Engagement 	-
Strategy			
102-14	Statement from senior decision-maker	<ul style="list-style-type: none"> Message from the Senior President Message from the CEO 	-
102-15	Key impacts, risks, and opportunities	<ul style="list-style-type: none"> Message from the Senior President Message from the CEO Our Business Climate Change Management Water Stewardship 	-
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behavior	<ul style="list-style-type: none"> Sustainability Milestone Six Core Values C.P. Excellence 	-
102-17	Mechanisms for advice and concerns about ethics	<ul style="list-style-type: none"> Corporate Governance 	-

DISCLOSURES		PAGE/WEBSITE	EXTERNAL ASSURANCE
Governance			
102-18	Governance structure	<ul style="list-style-type: none"> Sustainability Governance Corporate Governance 	-
102-20	Executive-level responsibility for economic, environmental, and social topics	<ul style="list-style-type: none"> Sustainability Governance 	-
Stakeholder Engagement			
102-40	List of stakeholder groups	<ul style="list-style-type: none"> Stakeholder Engagement 	-
102-41	Collective bargaining agreements	<ul style="list-style-type: none"> Human Rights and Labor Practices 	-
102-42	Identifying and selecting stakeholders	<ul style="list-style-type: none"> Stakeholder Engagement 	-
102-43	Approach to stakeholder engagement	<ul style="list-style-type: none"> Stakeholder Engagement 	-
102-44	Key topics and concerns raised	<ul style="list-style-type: none"> Stakeholder Engagement 	-
Reporting Practice			
102-45	Entities included in the consolidated financial statements	<ul style="list-style-type: none"> Our Business Reporting Boundary 	-
102-46	Defining report content and topic Boundaries	<ul style="list-style-type: none"> Materiality Assessment 	-
102-47	List of material topics	<ul style="list-style-type: none"> List of Material Issues 	-
102-48	Restatements of information	<ul style="list-style-type: none"> In 2020, we discontinued reporting GRI 308-2 and GRI 414-2 as our supplier audit program is set to be completed by 2020. We will report the abovementioned GRI indicators again once the result of the program has been confirmed. 	-
102-49	Changes in reporting	<ul style="list-style-type: none"> About this Report 	-
102-50	Reporting period	<ul style="list-style-type: none"> About this Report 	-
102-51	Date of most recent report	<ul style="list-style-type: none"> About this Report 	-
102-52	Reporting cycle	<ul style="list-style-type: none"> About this Report 	-
102-53	Contact point for questions regarding the report	<ul style="list-style-type: none"> Materiality Assessment About this Report 	-
102-54	Claims of reporting in accordance with the GRI Standards	<ul style="list-style-type: none"> About this Report 	-
102-55	GRI content index	<ul style="list-style-type: none"> GRI Content Index 	-
102-56	External assurance	<ul style="list-style-type: none"> Appendix 	-

SPECIFIC STANDARD DISCLOSURES

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
Economic Performance				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Sustainability Milestone	-	-
	103-2 The management approach and its components	• Sustainability Milestone	-	-
	103-3 Evaluation of the management approach	• Sustainability Milestone	-	-
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	• 2020 Highlights	-	-
Indirect Economic Impacts				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Social Impact • Education • Innovation	-	-
	103-2 The management approach and its components	• Social Impact • Education • Innovation	-	-
	103-3 Evaluation of the management approach	• Social Impact • Education • Innovation	-	-
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	• Social Impact • Education	-	-
	203-2 Significant indirect economic impacts	• Social Impact • Education • Innovation	-	-
Anti-corruption				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Corporate Governance	-	-
	103-2 The management approach and its components	• Corporate Governance	-	-
	103-3 Evaluation of the management approach	• Corporate Governance	-	-
GRI 205: Anti-Corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	• Corporate Governance	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
Energy				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Climate Change Management	-	-
	103-2 The management approach and its components	• Climate Change Management	-	-
	103-3 Evaluation of the management approach	• Climate Change Management	-	-
GRI 302: Energy 2016	302-1 Energy consumption within the organization	• Appendix	-	✓
	302-3 Energy intensity	• Appendix	-	-
	302-4 Reduction of energy consumption	• Appendix	-	-
Water				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Water Stewardship	-	-
	103-2 The management approach and its components	• Water Stewardship	-	-
	103-3 Evaluation of the management approach	• Water Stewardship	-	-
GRI 303: Water 2018	303-1 Interactions with water as a shared resource	• Water Stewardship	-	-
	303-2 Management of water discharge-related impacts	• Water Stewardship	-	-
	303-3 Water withdrawal	• Appendix	-	✓
	303-4 Water discharge	• Appendix	-	-
	303-5 Water consumption	• Appendix	-	-
Biodiversity				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Ecosystem & Biodiversity Protection	-	-
	103-2 The management approach and its components	• Ecosystem & Biodiversity Protection	-	-
	103-3 Evaluation of the management approach	• Ecosystem & Biodiversity Protection	-	-
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	• Ecosystem & Biodiversity Protection	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
Emissions				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Climate Change Management	-	-
	103-2 The management approach and its components	• Climate Change Management	-	-
	103-3 Evaluation of the management approach	• Climate Change Management	-	-
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	• Appendix	-	✓
	305-2 Energy indirect (Scope 2) GHG emissions	• Appendix	-	✓
	305-4 GHG emissions intensity	• Appendix	-	-
	305-5 Reduction of GHG emissions	• Appendix	-	-
Effluents and Wastes				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Climate Change Management	-	-
	103-2 The management approach and its components	• Climate Change Management	-	-
	103-3 Evaluation of the management approach	• Climate Change Management	-	-
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	• Appendix	-	-
	306-2 Waste by type and disposal method	• Appendix	-	✓
Supplier Environmental Assessment				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Ecosystem & Biodiversity Protection	-	-
	103-2 The management approach and its components	• Ecosystem & Biodiversity Protection	-	-
	103-3 Evaluation of the management approach	• Ecosystem & Biodiversity Protection	-	-
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	• Ecosystem & Biodiversity Protection	-	-
Employment				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Human Rights and Labor Practices	-	-
	103-2 The management approach and its components	• Human Rights and Labor Practices	-	-
	103-3 Evaluation of the management approach	• Human Rights and Labor Practices	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	• Appendix	-	-
Occupational Health and Safety				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Human Rights and Labor Practices	-	-
	103-2 The management approach and its components	• Human Rights and Labor Practices	-	-
	103-3 Evaluation of the management approach	• Human Rights and Labor Practices	-	-
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	• Human Rights and Labor Practices	-	-
	403-2 Hazard identification, risk assessment, and incident investigation	• Human Rights and Labor Practices	-	-
	403-3 Occupational health services	• Human Rights and Labor Practices	-	-
	403-4 Worker participation, consultation, and communication on occupational health and safety	• Human Rights and Labor Practices	-	-
	403-5 Worker training on occupational health and safety	• Human Rights and Labor Practices	-	-
	403-6 Promotion of worker health	• Human Rights and Labor Practices	-	-
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	• Human Rights and Labor Practices	-	-
	403-9 Work-related injuries	• Appendix	-	✓
403-10 Work-related ill health	• Appendix	-	-	
Training and Education				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	• Leadership and Human Capital Development	-	-
	103-2 The management approach and its components	• Leadership and Human Capital Development	-	-
	103-3 Evaluation of the management approach	• Leadership and Human Capital Development	-	-
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	• Appendix	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
Human Rights Assessment				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Human Rights and Labor Practices 	-	-
	103-2 The management approach and its components	<ul style="list-style-type: none"> Human Rights and Labor Practices 	-	-
	103-3 Evaluation of the management approach	<ul style="list-style-type: none"> Human Rights and Labor Practices 	-	-
GRI 412: Human Rights Assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments	<ul style="list-style-type: none"> Human Rights and Labor Practices 	-	-
Local Communities				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Social Impact Health and Well-being Education Water Stewardship Ecosystem & Biodiversity Protection Responsible Supply Chain Management 	-	-
	103-2 The management approach and its components	<ul style="list-style-type: none"> Social Impact Health and Well-being Education Water Stewardship Ecosystem & Biodiversity Protection Responsible Supply Chain Management 	-	-
	103-3 Evaluation of the management approach	<ul style="list-style-type: none"> Social Impact Health and Well-being Education Water Stewardship Ecosystem & Biodiversity Protection Responsible Supply Chain Management 	-	-
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	<ul style="list-style-type: none"> Social Impact Health and Well-being Education Water Stewardship Ecosystem & Biodiversity Protection Responsible Supply Chain Management 	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION /NOTE	EXTERNAL ASSURANCE
Supplier Social Assessment				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Ecosystem & Biodiversity Protection 	-	-
	103-2 The management approach and its components	<ul style="list-style-type: none"> Ecosystem & Biodiversity Protection 	-	-
	103-3 Evaluation of the management approach	<ul style="list-style-type: none"> Ecosystem & Biodiversity Protection 	-	-
GRI 414 Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	<ul style="list-style-type: none"> Ecosystem & Biodiversity Protection 	-	-
Product and Service Labelling				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Health and Well-being 	-	-
	103-2 The management approach and its components	<ul style="list-style-type: none"> Health and Well-being 	-	-
	103-3 Evaluation of the management approach	<ul style="list-style-type: none"> Health and Well-being 	-	-
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	<ul style="list-style-type: none"> Health and Well-being 	-	-
Healthy and Affordable Food				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Health and Well-being Innovation 	-	-
	103-2 The management approach and its components	<ul style="list-style-type: none"> Health and Well-being Innovation 	-	-
	103-3 Evaluation of the management approach	<ul style="list-style-type: none"> Health and Well-being Innovation 	-	-

UNITED NATIONS GLOBAL COMPACT COMMUNICATION ON PROGRESS – ADVANCED LEVEL

UNITED NATIONS GLOBAL COMPACT (UNGC) COMMUNICATION ON PROGRESS – ADVANCED LEVEL		
CRITERION	DESCRIPTION	PAGE
1	The COP describes mainstreaming into corporate functions and business units	2-3, 13-23, 24-35, 46-47, 54-59, 62-65, 116-123, 131-139, 147-151
2	The COP describes value chain implementation	13-23, 24-35, 170-172
3	The COP describes robust commitments, strategies or policies in the area of human rights	40-45, 50-59, 62-65, 116-123
4	The COP describes effective management systems to integrate the human rights principles	54-59, 62-63, 116-123, 170-172
5	The COP describes effective monitoring and evaluation mechanisms of human rights integration	40-45, 54-59, 170-172
6	The COP describes robust commitments, strategies or policies in the area of labor	40-45, 54-59
7	The COP describes effective management systems to integrate the labor principles	40-45, 46-47, 54-59, 170-172
8	The COP describes effective monitoring and evaluation mechanisms of labor principles integration	40-45, 54-59
9	The COP describes robust commitments, strategies or policies in the area of environmental stewardship	40-45, 130-139, 146-151, 154-157
10	The COP describes effective management systems to integrate the environmental principles	46-47, 104-107, 130-139, 146-151, 154-157
11	The COP describes effective monitoring and evaluation mechanisms for environmental stewardship	46-47, 130-139
12	The COP describes robust commitments, strategies or policies in the area of anti-corruption	40-45
13	The COP describes effective management systems to integrate the anti-corruption principle	40-45, 170-172
14	The COP describes effective monitoring and evaluation mechanisms for the integration of anti-corruption	40-45
15	The COP describes core business contributions to UN goals and issues	2-3, 6-9, 24-29
16	The COP describes strategic social investments and philanthropy	82-84, 90-93, 96-98, 116-123, 130-139
17	The COP describes advocacy and public policy engagement	82-84, 90-93, 96-98, 116-123, 130-139
18	The COP describes partnerships and collective action	116-123
19	The COP describes CEO commitment and leadership	2-3
20	The COP describes Board adoption and oversight	30, 40-45
21	The COP describes stakeholder engagement	40-45, 104-107, 116-123

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Goal	Description	Chapter
1	End poverty in all its forms everywhere	<ul style="list-style-type: none"> Social Impact
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> Health & Well-being
3	Ensure healthy lives and promote well-being for all at all ages	<ul style="list-style-type: none"> Human Rights & Labor Practices Health & Well-being
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<ul style="list-style-type: none"> Leadership & Human Capital Development Education Social Impact Responsible Supply Chain Management
5	Achieve gender equality and empower all women and girls	<ul style="list-style-type: none"> Leadership & Human Capital Development
6	Ensure availability and sustainable management of water and sanitation for all	<ul style="list-style-type: none"> Water Stewardship Ecosystem & Biodiversity Protection
7	Ensure access to affordable, reliable, sustainable and modern energy for all	<ul style="list-style-type: none"> Climate Change Management
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<ul style="list-style-type: none"> Human Rights & Labor Practices Education Social Impact Innovation Responsible Supply Chain Management
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	<ul style="list-style-type: none"> Education Innovation Responsible Supply Chain Management
10	Reduce inequality within and among countries	<ul style="list-style-type: none"> Human Rights & Labor Practices Social Impact
11	Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> Climate Change Management
12	Ensure sustainable consumption and production patterns	<ul style="list-style-type: none"> Corporate Governance Climate Change Management Water Stewardship
13	Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> Climate Change Management
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	<ul style="list-style-type: none"> Water Stewardship Ecosystem & Biodiversity Protection
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	<ul style="list-style-type: none"> Ecosystem & Biodiversity Protection
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul style="list-style-type: none"> Corporate Governance Stakeholder Engagement
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	<ul style="list-style-type: none"> Leadership & Human Capital Development Stakeholder Engagement Innovation



Independent Statement

Introduction and Engagement

Charoen Pokphand Produce Co., Ltd. (hereafter ‘CPP’) commissioned TÜV NORD (Thailand) Ltd. (hereafter ‘TUVT’) for Sustainability Assurance Engagement. TÜV NORD (Thailand) Ltd. conducted the independent assurance of CPP’s sustainability report (hereinafter ‘the Report’), which includes ‘limited assurance’ of CPP’s sustainability information for the applied reporting period for the calendar year 2020. This assurance engagement was conducted against the Global Reporting Initiative Standards and AA1000 AS Version 3 Protocol (Type 2, Moderate Level). The Report covers CPP’s sustainability information for the period 1st January 2020 to 31st December 2020. The remote verification was conducted in July 2021. In addition, desk review was carried out for other sites which are parts of report boundary.

Scope, Boundary and Limitations of Assurance

The scope of the assurance includes the economic, environmental and social indicators in the report as per the Core disclosures required by GRI Standards. In particular, the assurance engagement includes the following:

- Verification of the Report content, principles as mentioned in the GRI Standards,
- Review of the policies, initiatives, practices and performance described in the Report;
- Review of the disclosures made in the Report against the requirements of the GRI Standards
- Verification of the reliability of the GRI Standards Disclosure on economic, environmental and social (disclosures are tabulated below)
- Specified information was based on the materiality determination and needs to be meaningful to the intended users;
- Confirmation of the fulfilment of the GRI Standards; ‘in accordance’ with the Core criteria, as declared by the management of CPP.

The reporting boundary is based on the internal and external materiality assessment. The reporting aspect boundaries are set out in the Report covering the sustainability performance of four (4) main business units; Seed Processing, Chemical Fertilizer, Organic Fertilizer, and Research Centre (in line with Company’s Annual Report 2020), comprising

Charoen Pokphand Produce Co., Ltd

Office: 89 AIA Capital Center 32 Fl., Rachadapisek Bangkok 10400

Seed Processing Plant: Phatthana Nikhom Sub-District, Phatthana Nikhom District, Lopburi Province

Chemical Fertilizer Plant: Pak Chan Sub-District, Nakhon Luang District, Ayutthaya Province

Organic Fertilizer Plant: Kham Phran Sub-District, Wang Muang District, Saraburi Province

Research centre: Salaengphan Station Wang Muang District, Saraburi Province

Research centre: Sawankhalok Station Sawankhalok District, Sukhothai Province

C.P.P. Fertilizer Co. Ltd

Office, Seed Processing Plant and Fertilizer Plant: F.5, Zone A, Thilawa special economic zone, Dagon-Thilawa road, Kyauktan Township, Yangon, Myanmar

C.P. Seeds (Vietnam) Co., Ltd.

Office and Seed Processing Plant: Lot I4 Road No.1 Dinh Quan Industrial zone, La Nga District, Dong Nai Province, Vietnam

Charoen Pokphand Seeds (India) Pvt., Ltd.

Office: 4th Floor, Srinidhi Landmark, Opp. New Thippasandra Post Office, New Thippasandra Main Road, HAL III Stage, Bangalore-560075, Karnataka, India.

Seed Processing Plant: Door No. 5-133, Billanapalli Road, Meerjapuram Village, Nuzvid Mandal, Krishna District-521111 Andhra Pradesh, India



During the assurance engagement, TUVT adopted a risk-based approach, concentrating on verification efforts on the issues of high material relevance to CPI's business and its stakeholders. TUVT has verified the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flows and controls. In doing so:

- TUVT reviewed the approach adopted by CPI for the stakeholder engagement and materiality determination process. TUVT performed limited internal stakeholder engagement to verify the qualitative statements made in the Report;
- TUVT verified the sustainability-related statements and claims made in the Report and assessed the robustness of the data management system, information flow and controls;
- TUVT examined and reviewed the documents, data and other information made available by CPI for the reported disclosures including the Disclosure on Management Approach and performance indicators;
- TUVT conducted interviews with key representatives including data owners and decision-makers from different functions of the Company during the verification;
- TUVT performed sample-based reviews of the mechanisms for implementing the sustainability related policies, as described in CPI's Sustainability Report;
- TUVT verified sample-based checks of the processes for generating, gathering and managing the quantitative data and qualitative information included in the Report for the reporting period.

Opportunities for Improvement

The following is an extract from the observations and opportunities for improvement reported to the management of CPI and are considered in drawing our conclusions on the Report; however, they are generally consistent with the Management's objectives.

There are some Opportunities as follows:

- Emission Factor, should refer to IPCC fifth Assessment Report; AR5 according to Greenhouse Gas Protocol as GWP recommend
- Significant changes to the companies from previous reporting periods shall be considered in the list of material topics and topic Boundaries

Conclusions

The Report was prepared based on the GRI Standards Reporting Principles and Standard Disclosures 'in accordance' with the GRI Standards Core option. In our opinion, based on the scope of this assurance engagement, the disclosures on sustainability performance reported in the Report along with the referenced information provides a fair representation of the material aspects, related strategies, and performance indicators, and meets the general content and quality requirements of the GRI Standards Core option.

- Disclosures: TUVT is of the opinion that the reported disclosures generally meet the GRI Standards reporting requirements for 'in accordance' Core reporting criteria. Organization refers to general disclosure to report contextual information about an organization while the Management Approach is discussed to report the management approach for each material topic.
- Topic Specific Standard: TUVT is of the opinion that the reported specific disclosures for each material topic generally meet the GRI Standards reporting requirements for 'in accordance' Core reporting criteria.

The requirements below material aspect were verified by the assurance team:

Material Issues	GRI Disclosure Number
Energy consumption within the organization	GRI 302-1
Water withdrawal	GRI 303-3 (2018)
Direct (Scope 1) GHG emissions	GRI 305-1
Energy indirect (Scope 2) GHG emissions	GRI 305-2
Waste by type and disposal method	GRI 306-2
Work-related injuries	GRI 403-9 (2018)

On the basis of the procedures we have performed, nothing has come to our attention that causes us to believe that the information subject to the Type 2 moderate level assurance engagement was not prepared, in all material aspects, in accordance with the GRI Standards 'Core option' sustainability reporting guidelines, or that the sustainability information is not reliable in all material respects, with regards to the reporting criteria.



TUVT did perform any assurance of procedures on the prospective information, such as targets, expectations and ambitions, disclosed in the sustainability information. Consequently, TUVT draws conclusion on the prospective information. This assurance statement has been prepared in accordance with the terms of our engagement. It does include detailed testing of source data or the operating effectiveness of processes, internal controls and consequently they do enable us to obtain the assurance necessary to become aware of all significant matters that might be identified in a Type 2 moderate level assurance engagement.

TUVT has evaluated the Report's adherence to the following principles with respect to the requirements of the GRI Standards, Stakeholder identification and engagement is carried out by CPI on a periodic basis to bring out key stakeholder concerns as material aspects of significant stakeholders. The materiality assessment process considering aspects that are internal and external to the Company's range of businesses. The Report fairly brings out the aspects and topics and its respective boundaries of the diverse operations of CPI. The Report has fairly disclosed the General and Specific Standard Disclosures, and adequately captured the impact of its business on the community and environment and has taken several measures to reduce the impact including the Disclosure on Management Approach, covering the sustainability strategy, management approach, monitoring systems and sustainability performance indicators against the GRI Standards. It was reported in a neutral tone, in terms of content and presentation. The majority of the data and information was verified by TUVT's assurance team by remote technic. In our view, the Report could be adherence to Inclusivity, Materiality, Responsiveness, Impacts, Completeness, Neutrality, Relevance, Sustainability context, Accuracy, Reliability, Comparability, Clarity and Timeframe.

TUVT expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement. The intended users of this assurance statement are the management of CPI. The management of the Company is responsible for the information provided in the Report as well as the process of collecting, analyzing and reporting the information presented in web-based and printed Reports, including website maintenance and its integrity. TUVT's responsibility regarding this verification is in accordance with the agreed scope of work which includes non-financial quantitative and qualitative information (Sustainability Performance - environmental and social indicators) disclosed by CPI in the Report. This assurance engagement is based on the assumption that the data and the information provided to TUVT by CPI are complete and reliable.

TUVT's Competence and Independence

TUVT is an independent, neutral, third-party providing sustainability services, with qualified environmental and social assurance specialists. TUVT states its independence and impartiality with regard to this assurance engagement. In the reporting year, TUVT did not work with CPI on any engagement that could compromise the independence or impartiality of our findings, conclusions and recommendations. TUVT was not involved in the preparation of any content or data included in the Report, with the exception of this Assurance Statement. TUVT maintains complete impartiality toward any people interviewed during the assurance engagement.

Ms. Numfon Sangeamruk
Lead Verifier
TUV NORD (Thailand) Ltd.
Bangkok 10260 Thailand



Date: 25 Aug. 2021
Place: Bangkok, Thailand
Project Reference No: TUVN/CPI/SA/2020

**“Farmers
are Life Partner”**





Sustainability Report 2020



CHAROEN POKPHAND PRODUCE CO.,LTD



CP for good deeds

Charoen Pokphand Produce Co.,Ltd.

and subsidiaries in Crop Integration (Maize) Business Group

Charoen Pokphand Group

AIA Capital Center Building 29th floor.

89 Ratchadapisek Road, Din Daeng, Bangkok 10400

