



SUSTAINABILITY GROWTH

SUSTAINABILITY REPORT

2019

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



CHAROEN POKPHAND PRODUCE CO.,LTD

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

Sustainability Report
2019



CHAROEN POKPHAND PRODUCE CO.,LTD



TABLE OF CONTENT

Section 1

Introduction

Message from the Leader Crop Integration Business (Maize)

Charoen Pokphand Group

- 4 Message from the Vice-Chairman
- 5 Message from the CEO

Important results of the year 2019

- 6 2019 Highlights
- 8 Awards and Recognitions

About C.P. Group and CPCROP (Maize)

- 12 Business base of
Crop Integration Business (Maize)
- 14 B2C Business Direction
- 16 Business of Crop Integration Business (Maize)
- 17 Six Core Values
- 19 CP Excellence Management
- 20 Our Development of
Charoen Pokphand Group
- 21 Milestones of CPCROP (Maize)

Section 2

SUSTAINABILITY MANAGEMENT

- 24 Sustainability Strategy
- 26 Sustainability Management Plan
- 27 Sustainability Governance
- 28 Strategic Framework
- 30 Sustainability Roadmap
- 31 Governance Structure

Materiality Assessment

- 32 Materiality Assessment Process
- 33 Business Unit Materiality
- 34 Result of Materiality
- 35 About This Report

Section 3

HEART : Living Right

- 38 Corporate Governance
- 44 Human Right and Labor Practices
- 50 Leadership and Human Capital Development
- 56 Stakeholder Engagement

Section 4

HEALTH : Living Well

- 64 Social Impact
- 80 Health and Well-Being
- 90 Education
- 98 Innovation

Section 5

HOME : Living Together

- 112 Climate Change Management
- 124 Water Stewardship
- 132 Ecosystem and Biodiversity Protection
- 138 Responsible Supply Chain Management

Section 6

Appendix

- 145 Reporting Boundary
- 146 Sustainability Performance Data
- 147 GRI Index
- 151 United Nations Global Compact Communication
on Progress - Advanced Level
- 152 United Nations Sustainable Development Goals
- 153 Independent Assurance Statement

Message from **VICE CHAIRMAN**

Crop Integration Business (Maize)
Charoen Pokphand Group



Mr. Eam Ngamdarnonk
Vice Chairman
Crop Integration Business (Maize)
Charoen Pokphand Group

“

To be grateful, you must start with yourself as a good person. If you are a good person, you must be grateful. If you are not a good person, indeed, you don't know how to be gratitude.

”

“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”

Message from CEO

Crop Integration Business (Maize)
Charoen Pokphand Group

Mr. Sumeth Pingosnit
Chief Executive Officer
Charoen Pokphand Produce Co., Ltd.
Crop Integration Business (Maize)
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 Business (Maize) 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, the Sustainable Development Goals (SDGs)”

2019 Performance Highlights

Economics

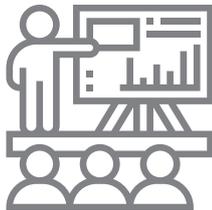
HEART : LIVING RIGHT



Total Sales Revenue
4,525.96
Million baht



Employee's Benefits
539.06
Million baht



Employee's Training Expenses
6.82 Million baht



Tax Paid to Governments
63.22
Million baht

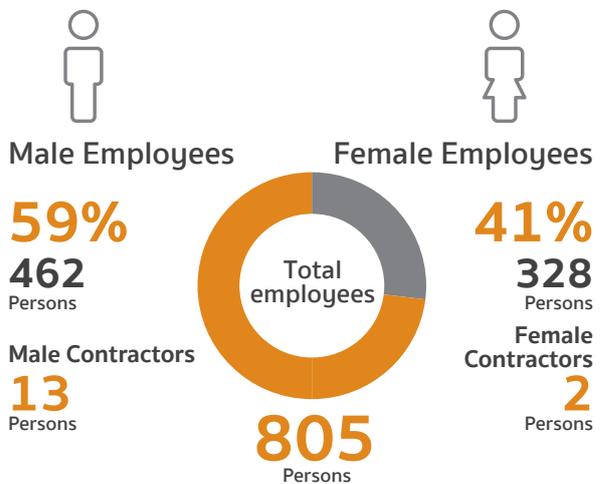


Community and Social Contribution
12.67 Million baht

Number of Employees (persons)

805

Percentage of Employees by Sex



Male Contractors
13
Persons

Female Contractors
2
Persons

New employees 96 persons



Human Capital Development
4.99 hours
average training hours of all employees

Declaration of ethics
In operating the business of the group

Assessed and identified Business
human right salient issues
5 Issues

HEALTH: LIVING WELL



Supported farmers,
SMEs, and People in
vulnerable groups

2,748 persons



103,950 CC

The amount of blood donated
(Data from the Seeds Planting /
Slang Phan Farm / Research
and Develop)



Donate
3.74 million baht
to 87 hospitals throughout
Thailand through
"Give More" Year 1



Supported access to
education and
knowledge to
4,318 persons



70.12 Million baht
Investing in research
and development



241
Number of research
and develop personnel
(Including Thai and locals)



9
Number of Registered
Plant protection varieties
in Thailand and India

HOME: LIVING TOGETHER



GHG Emissions
(Scope 1+2)

6,649.84
Ton CO2e

GHG Emissions (Scope 1+2) by Country

Thailand **3,898.23**
Ton CO2e

Vietnam **1,909.61**
Ton CO2e

India **583.47**
Ton CO2e

Myanmar **258.53**
Ton CO2e

Energy Consumption

96,245.11
GJ



42.54%
ratio of
renewable
energy

Water Consumption

1.76
Million cubic meters
(excluded India)



0.03%
Proportion of
water being
reused

Waste
Generated

591.35
Tons



13.03 %
Proportion of
waste being
reused

Investment in
Environmental

6.12
million baht
through the project
Safe nature



15,000 rai
Total area of
protection and
restoration of
land ecosystems

Awards and Pride

Safety Health Environment and Energy Management



Outstanding Model Establishment Award Occupational safety and working environment



- Seed Processing Plant Soi 19 (National level 17 years)
- Seed Processing Plant Soi 12 (National level 14 years)
- Organic Fertilizer Plant (National level 4 years)
- Chemical Fertilizer Packing and Mixing Plant (Provincial level)



Zero Accident Campaign Award (Zero Accident Campaign Activity)



- Seed Processing Plant Soi 19 (5 years copper level and 1st year silver level)
- Seed Processing Plant Soi 12 (beginning of the 4th year),
- Organic Fertilizer Plant (Beginning level 1)

Award for Management in Occupational Safety, Health and Environment In small establishments



- Seed Processing Plant Soi 19 (Gold Level)
- Seed Processing Plant Soi 12 (Gold Level)



Outstanding Establishment Award for Safety, Occupational Health and Work Environment



- Year 2017 Seed Plant (Vietnam)



Project implementation awards Safe establishment



- Seed Processing Plant Soi 19 (Gold Level)
- Seed Processing Plant Soi 12 (Gold Level)



Thailand Energy Award in the category of "Outstanding Factory"



- Year 2018 Seed Processing Plant Soi 12



Safety Officer Award Outstanding professional level, national level



- Year 2016 Ms. Sarin Kaewbothai, Seed Processing Plant Soi 12
- Year 2017, Mr. Gomes Charoenmool, Organic Fertilizer Plant



ASEAN Energy Award



- Seed Processing Plant Soi 12 received an award Winner: Energy Management for Buildings & Industry (Small and Medium Industry 2018)

Environmental management



Green industry award

- Seed Processing Plant Soi 19 (Level 3)
- Seed Processing Plant Soi 12 (Level 3)



Environmental Governance Project Award

- Seed Processing Plant Soi 12



Thailand 5S Award Technology Promotion Association (Thai-Japanese)

- Year 2017 Seed Processing Plant Soi 19 (Silver Level)

Corporate Social Responsibility



CSR-DIW Continuous Award (Corporate Social Responsibility)

- Seed Processing Plant Soi 19 for the 3rd consecutive year
- Seed Processing Plant Soi 12 for the 3rd consecutive year



Protection standard award and Solve drug problems (TSRI)

- Seed Processing Plant Soi 19
- Seed Processing Plant Soi 12
- Organic Fertilizer Plant

Best Provider Award



Award for Best Provider in Quality 2019 From CPRAM Co., Ltd., a large ready-to-eat food manufacturer to distribute both domestic and export to the world market

Integrated vegetable factory (Glass Farm)

Awards and Pride



CP Award for Sustainability Category: Society
 Type : Society
 “CP for Sustainability Project” 2016 finalists received the award as one of the 38 outstanding social projects. In the social side that has developed a career along with taking care of natural resources and environment in Mae Chaem District, Chiang Mai Province



Charoen Pokphand Group Innovation Project 2018
 Type : Environment
 Participated in the project of the Charoen Pokphand Group Innovation in 2018 under the topic “ Forest management in the Si Lanna National Park, Phrao District, Chiang Mai Province



Certificate “Forest Resource Protection” 2018
 Type : Environment
 “Protect Forest Resources” received a certificate as a private organization that supports and helps in the conservation of natural resources and the environment on the occasion of the 16th anniversary of the National Parks, Wildlife and Plant Conservation Department



International standard system



Charoen Pokphand Produce Co., Ltd. is certified for quality standards ISO 9001: 2015 certified by SGS (Thailand) covering factories including

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

Agricultural production standards

Agricultural Inputs Certificate



GAP good agricultural practices

Glass Farm integrated vegetable production facility



Charoen Pokphand Produce Co., Ltd. has been certified. Environmental management system standard ISO 14001: 2015 certified by SGS (Thailand) covering factories including

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



Business Base of Crop Integration Business (Maize)

Myanmar



- 1 Seed and Fertilizer Laboratory
- 1 Seed Processing Plant
- 1 Chemical Fertilizer Plant

India



- 2 Research and Development Stations
- 1 Biotechnology Laboratory
- 1 Seed Processing Plant

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

Vietnam



- 1 Seed and Fertilizer Laboratory
- 1 Soil and Fertilizer Laboratory
- 1 Seed Processing Plant



10 Countries in business*



4 Research and Development Stations



8 Laboratories



5 Seed Processing Plants



3 Fertilizer Plants



1,819
Employees

Thais **805**
Locals **1,014**
December 2019



970,000
Corn farmers

estimated number of corn farmers covering countries in business

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



Vision

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



Mission

“Farmers are Life Partner ”

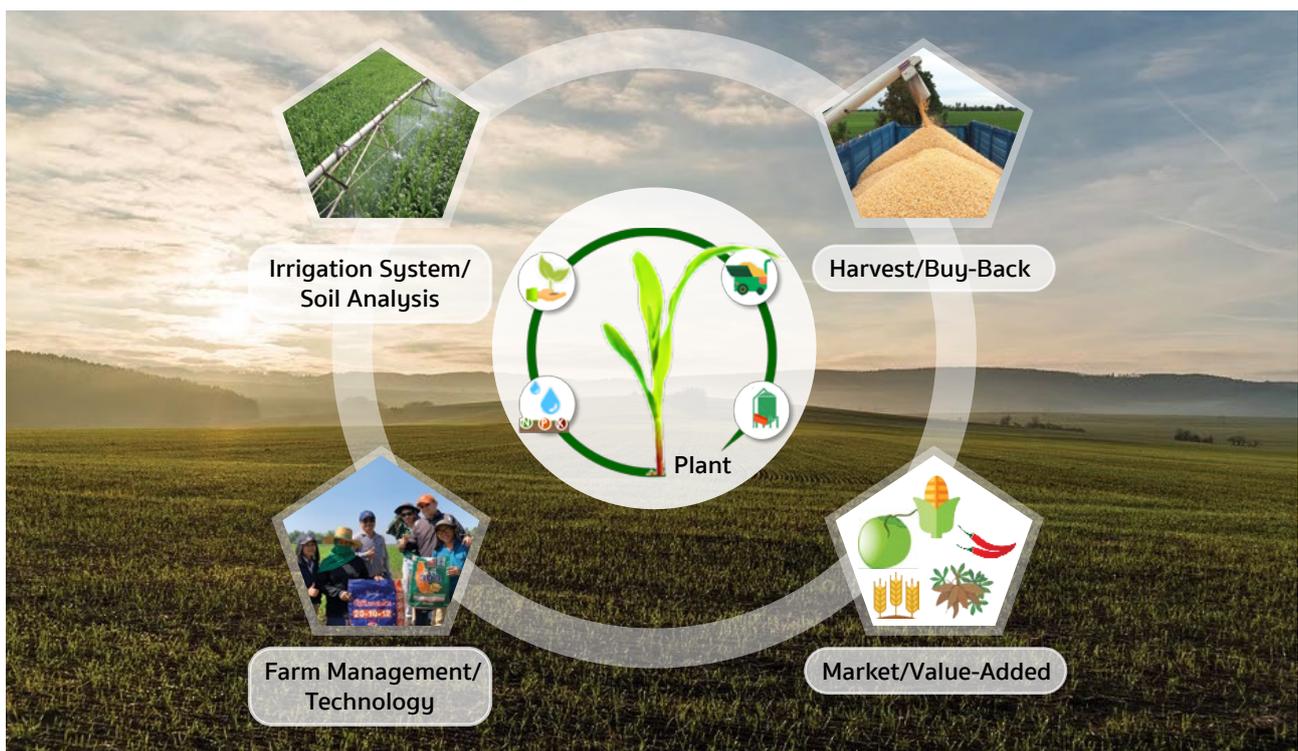
Maintain farmers to earn 12 months per year, develop small-scale farmers until they become large plots or partnerships with companies and must be sustainable

B2C Model for Security of Farmers and Sustainability of the Business

Agriculture, which is a vital foundation of the country's economy, is inundated with many risk factors including weather volatility, uncertain 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 Crop Integration Business (Maize), as a member of the agriculture industry, to provide support to farmers to ensure sustainable agricultural practices. Crop Integration Business (Maize) 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. The organization also aims to uplift livelihood and earnings of farmers, "Life partners" of Crop Integration Business (Maize), by ensuring consistent stream of income 12 months a year. To accomplish this, the company revolutionizes the business practices to coincide with global society 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 knowledge management, 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 that needs to be nurtured and grow together sustainably.

In addition to the company's commitment to farmers and to promote sustainability in agriculture sector, Crop Integration Business (Maize) 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 but also be educated regarding post-harvest management such as avoid burning corn stalks to alleviate smoke problem. Crop Integration Business (Maize) continues to plant perennial trees within company's properties to increase green space and reduce emission of carbon dioxide. These are missions that Crop Integration Business (Maize) strives to support farmers with income security while attaining environmental sustainability.

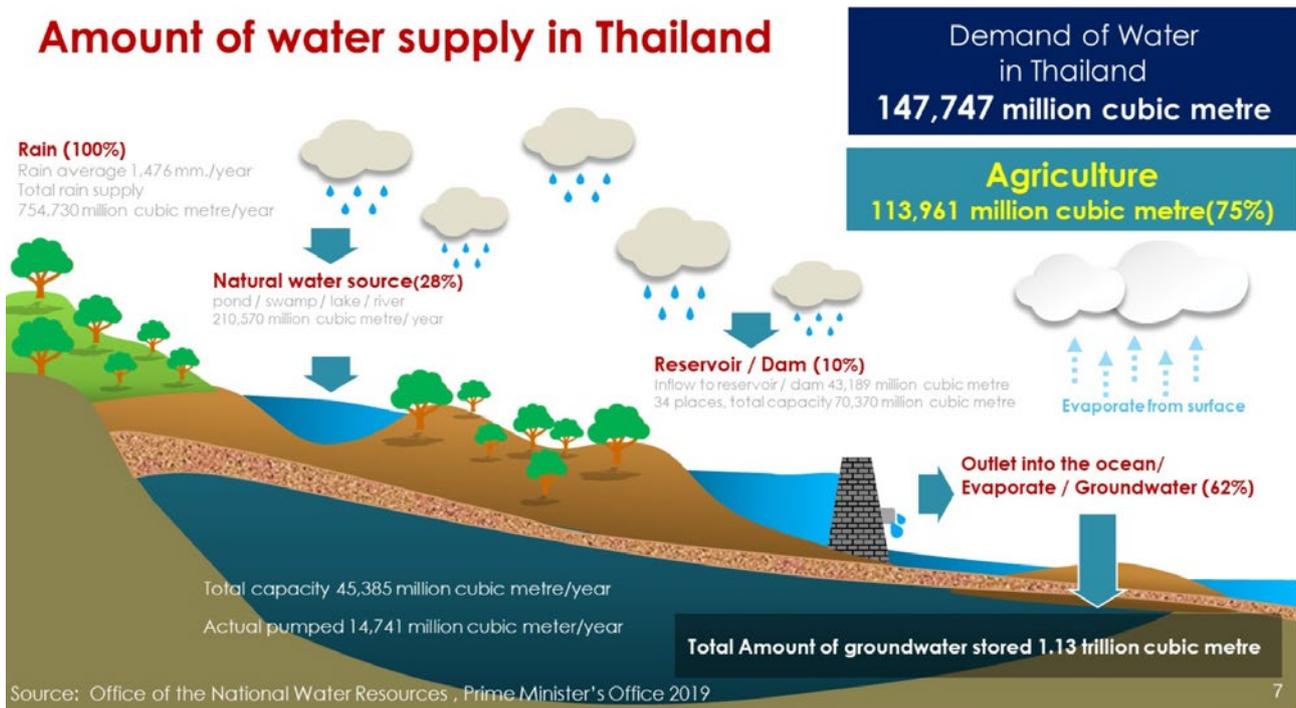


Water Resources Development for Agriculture

Our study of Thailand reveals that the average annual rainfall stands at 754,730 million cubic meters. Only 10% of that total quantity is stored in middle to large reservoirs for irrigation whereas 62%, or 488,087 million cubic meters, of the remaining flows into the ocean, evaporates, or seep underground without being utilized. Furthermore, the study has found that a total of 1.13 trillion cubic meters of water resources is underground. If both surface and underground water can be utilized to support agriculture, farmers will lessen their dependency on rainwater.

Our main approach is to promote creation of artesian well, development of “Kaem Ling” (dikes) resources, or small irrigation projects to provide farmers with water all year round in order to achieve 2-3 cropping per annum (depending on suitable crop rotation and terrain conditions). The projects will be collaborations among government and private sectors, financial institutions, and farmers.

If the project results in effective water management for agriculture farmers will be allowed to sow crops throughout the year regardless of types and season without being dependent on seasonal rainfall. Our achievements will see farmers having earnings 365 days a year at 500 baht/day on average, uplifting their prosperity and livelihood.



Income

365
Day/year

Average Income
Not less than

500 Baht/day

Crop Integration Business (Maize) Charoen Pokphand Group.

Main Business

From the fact that the Charoen Pokphand Group operates an integrated agricultural business in the field of animal husbandry production and animal feed production for domestic and international, corn being one of the crucial raw materials due to its high protein content. Despite this, however, the domestic corn production in Thailand is still insufficient for its domestic demand. To address the supply shortage of corn grain, corn for animal feed still needs to be imported from abroad almost every year. Therefore, to support the production shortfall of corn with stable and good quality for raising animals, Crop Integrated Business (Maize) 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 produce 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 not the least, the most crucial factor is water resources management and irrigation to enable all year round planting which will result in increasing income and farmers' 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
C.P.Yangon Co.,Ltd.	Myanmar
Charoen Plantation Co.,Ltd.	Cambodia
Charoen Pokphand Produce (Lao) Co., Ltd.	Lao PDR
C.P.Seeds (India) Pvt.,Ltd.	India



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



SIX CORE VALUES



For almost a century that the Charoen Pokphand Group has been trusted by Thai society and the world society, and the Group continues to develop to bring good quality of life to people and to develop sustainable society, economy and environment.

A large tree that can stand and grow must have roots that stable. Like the business of the Charoen Pokphand Group that is progressive and sustainable because it is based on corporate values that have been passed down from generation to generation. It is a spirit that is committed to developing the ability to manage business on the basis of morality and ethics under 6 corporate values

For more than 9 decades since its beginnings as a small shop in 1921, Charoen Pokphand Group has grown into a multinational conglomerate, with businesses in diverse industries, operating in 20 countries and economies worldwide. Over the years, C.P. Group has maintained its aspiration to grow in a sustainable manner. To summarize the core management philosophy that drives the Group's development, Dr. Ajva Taulananda, Senior Vice Chairman of C.P. Group, states that a sustainable business cannot focus solely on short-term profit, it must strive to improve management effectiveness, resources and environmental management, while maintaining cost competitiveness. It must treat every shareholder and all categories of stakeholders fairly. Most importantly, the decision-making process of leaders should be guided by the principles of moderation, reasoning and resiliency. A sustainable business requires both business expertise and moral values, which are reflected in C.P. Group's six Core Values.

SIX CORE VALUES



Three Benefits

Charoen Pokphand Produce Co., Ltd. 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.

Since our Company's foundation, this principle has guided how we have grown and also ensured that our operations both in Thailand and around the world benefit not just our business but society as a whole.



Speed with Quality

Modern businesses must be fastmoving, without compromising on quality. They 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. As a result, Charoen Pokphand Produce Co., Ltd. places great importance on the efficiency and effectiveness of our business and of our employees.



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

Global businesses face circumstances that change daily, from political events and environmental issues through to consumer needs and technological development. 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

Innovation is the force that drives every aspect of a business from process through to products. Businesses must constantly innovate to keep pace with a rapidly changing world.

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

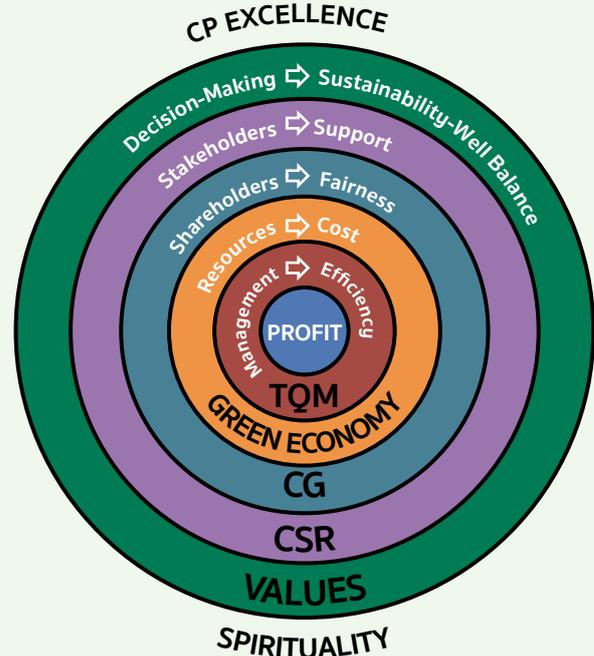
Since the day we were founded, we have operated our business with integrity, and this applies to every action we take, whether large or small.

Even as we expand into new industries, integrity remains key pillars of our philosophy. 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



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 C.P. Group's own management style.



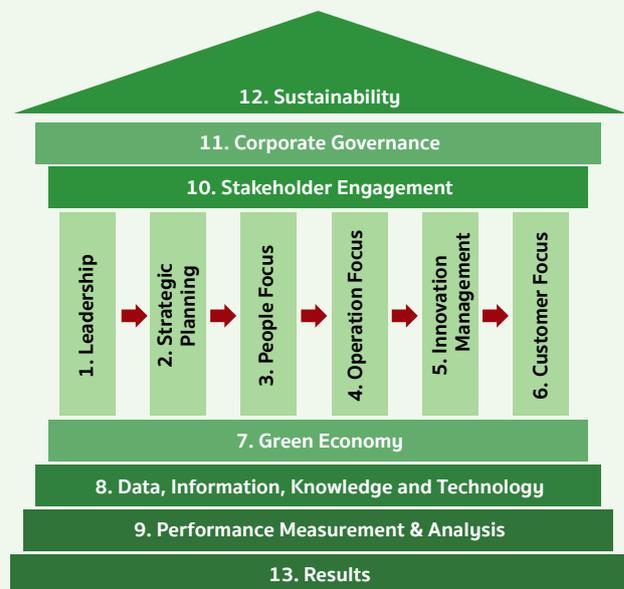
Source : C.P. Excellence 2019-2020 Handout

The C.P. Excellence Management Approach comprises 13 components, represented by the house above, including:

- 6 management aspects that form the pillars supporting the house,
- 4 principles forming the foundation that connects all the management pillars together for sustainable business growth,
- 3 areas of responsibility as the roof that protects the organization.

With the C.P. Excellence Management Approach, we are confident that we can enhance employee happiness, strengthen our businesses, and maintain support and recognition from community, reinforcing our role as a strong contributor to the Society.

C.P. EXCELLENCE



CHAROEN POKPHAND GROUP MILESTONES

“GROWING AND EXPANDING SUSTAINABILITY”



The Two Founders of Sustainable Growth

The Chia Tai Chung seed shop was founded in 1921 by siblings Mr. Chia Ek Chor and Mr. Chia Seow Hui (Choncharoen Chiaravanont) in the Song Wat neighborhood of Bangkok. Since the founding, the Chia brothers have emphasized “integrity and honesty” as the foundation of their business model. This foundation has served as the groundwork for other businesses and is best represented by clearly stating expiration dates on vegetable seed packaging and offering to exchange expired seeds for new seeds to reduce the financial burden on farmers and their families.

In addition, the Chia brothers came up with other innovative ideas such as replacing paper-based packaging with metallic containers that are more durable and can maintain seed quality for a longer period. Another idea was using an airplane, the most modern technology at the time, as a symbol or a “trademark” under the name “Airplane Brand Chia Tai Chung.” Today, the brand is known simply as “Airplane Brand.”



OUR MILESTONES

“GROWING AND EXPANDING SUSTAINABILITY”



1979

Initiated a complete integrated business group under the name Bangkok Seed Industry Company Limited, a business that has focused on agricultural development, selection and breeding various plants, promote the cultivation of field crops such as corn, rice, fruit trees, rubber, palm oil and agricultural machinery and rice mill machinery. Moreover, the has Group implementing projects for the development of farmers' occupation, including the restoration of the countryside and the country.



1995

Expanded business operations in China established Xiangfan Chiatai Agriculture Development Co., Ltd. to operate corn seed business.



1996

C.P. Yangon Co., Ltd., Myanmar, operates the business of corn seed, fertilizer and expand into a comprehensive business at the present.



1998

C.P. Seed Vietnam Co., Ltd, was established in 1993 and has operated the business in corn seed, fertilizer and expand into a comprehensive business at the present.



2002

Charoen Pokphand Seed (Lao PDR) Co., Ltd., operates the business of corn seed and fertilizer.



2003

C.P. Seeds (India) Pvt., Ltd., India, operates field corn seed business, edible corn and hybrid rice, doing business covering India and South Asia countries.



2004

Charoen Plantation Co., Ltd., starting to enter the market since 1997, engaged in corn seed, fertilizer business.



2007

Charoen Pokphand Group divides the management structure of the integrated plant business into Crop Integration Business (Maize), which comprises of 10 companies, doing business in 11 countries including Thailand, Lao PDR, Cambodia, Myanmar, Vietnam, China, India, Bangladesh, Pakistan, Nepal and Sri Lanka.



2011

Established plant DNA laboratories in India and Thailand for testing of species purity and biotechnology studies.



2012

The Safe Nature Project has started, emphasizing the importance of conservation of forest and water areas and has ongoing activities every year.



2015

Started a large-scale farm business located in Kampong Thom, Preah Vihear Province, Cambodia with the concept of large-scale farming by applying modern technology and management systems with precision and high efficiency to produce high-quality, large-scale produce and low cost of production.



2016

Started a business of agricultural service, FARMPRO. This is to increase distribution channels and provide services and buy produce directly from farmers. The first branch, Chiang Khong, located in Chiang Rai, Thailand. Currently the business expands to 10 branches, 5 branches in Myanmar and 4 branches in Vietnam.



2017

Started the safe produce business by establishing a hydroponic vegetable production plant under a closed building applying Viscon technology hydroponics to produce high quality vegetables with the highest safety.



2019

The company enters the integrated business, creating a comprehensive agricultural model. Sustainable B2C provides farmers with improved income and well-being.

SUSTAINABILITY MANAGEMENT



Charoen Pokphand Produce Co., Ltd. and companies in the Group 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 CP Excellence approach to business operations for human development.

In addition, Charoen Pokphand Produce Co., Ltd. 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**



**Sustainability
Governance**



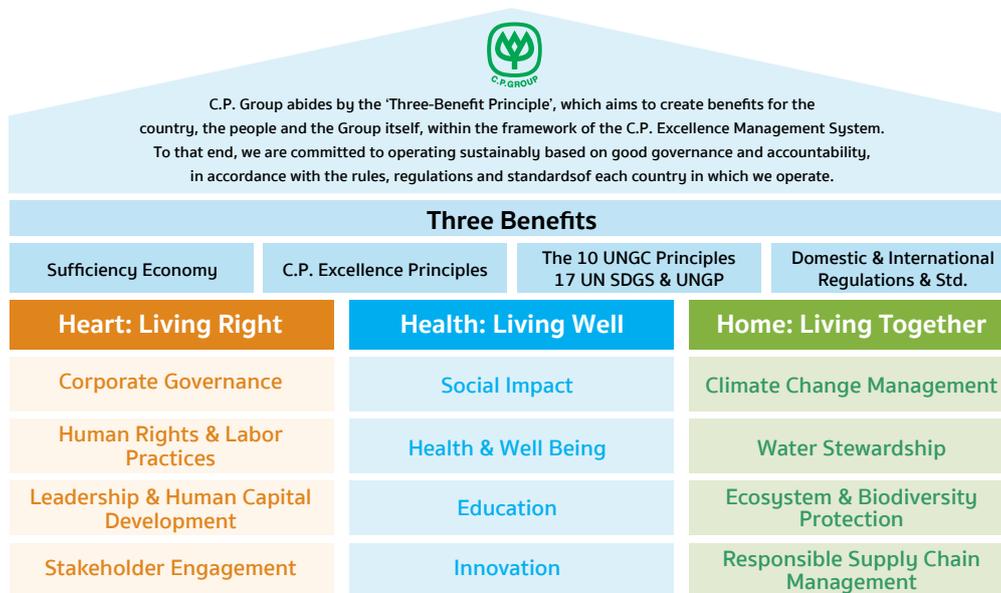
**Materiality
Assessment**



**About this
Report**

SUSTAINABILITY STRATEGY





In 2016, C.P. Group and Crop Integration Business (Maize) 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. The first element is Sufficiency Economy which can be integrated into our whole supply chain. It emphasizes that businesses must acknowledge and understand their own competency and operate adequately and sufficiently. The second element is the C.P. Excellence Management Approach which aims at transitioning the organization through internal synergy between business, people, and mind. The third element refers to international guidelines related to sustainable business operations, including UN Global Compact, UN Guiding Principles on Business and Human Rights (UNGPs), and UN Sustainable Development Goals (SDGs). C.P. Group is committed to operating in accordance with such international guidelines and supporting all of the 17 SDGs. The last element is rules and regulations, and standards of the countries in which we operate. Strict compliance with such rules and regulations, and standards are fundamental to our businesses.

More importantly, the Group 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.



The Company has a goal to develop the organization to grow by adhering to the principles of sustainability in the Company's business operations through the implementation of innovations in both strategic and operational for sustainable business growth. And adjust to cope With changes in technology and Innovation in the 4.0 era.

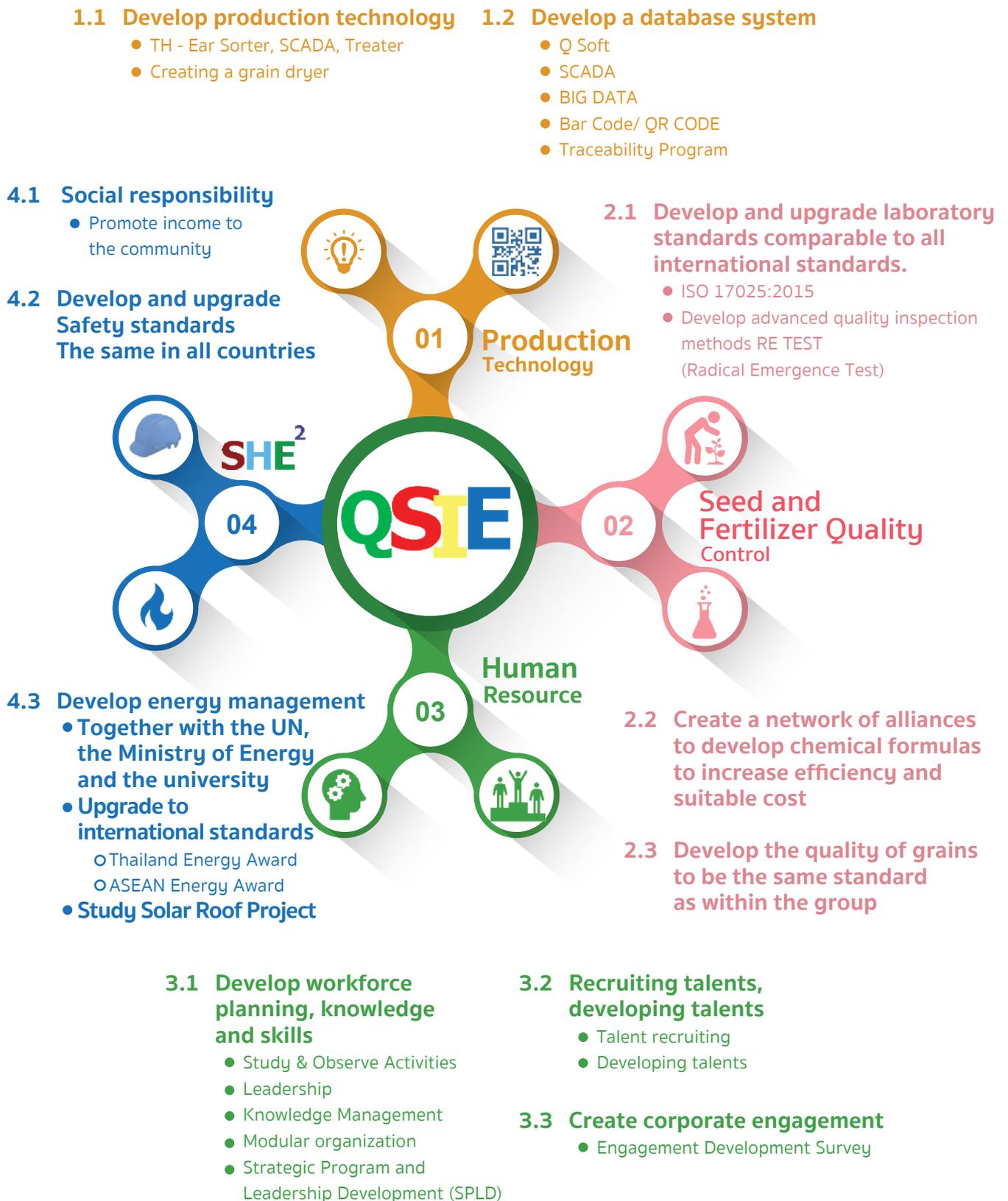


The company analyzes and reviews in order to fully identify the needs or expectations of farmers and trading partners. Farmers and trading partners through various activities and communication channels This is to ensure a swift, efficient and sustainable response to expectations and concerns of stakeholders.

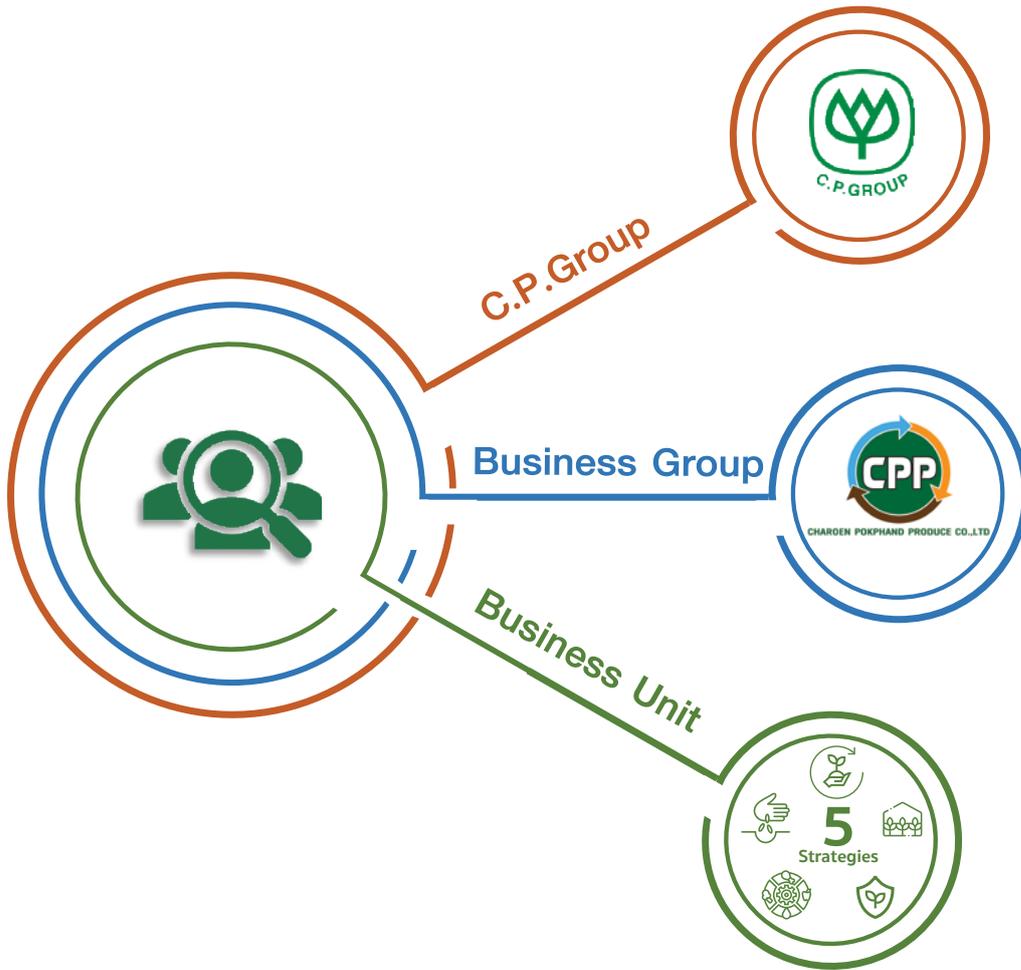


The company understands and values the expression of environmental responsibility by driving environmental change and improvement through the Company's supply chain operations. Because the company believes that driving innovation will help the company. Deliver good products to customers while reducing environmental impact throughout the supply chain

Defining strategic objectives and goals



Corporate governance system



- Internal Audit Office of CPG Group (Independent Organization)
- Insurance Office and LMG property insurance company

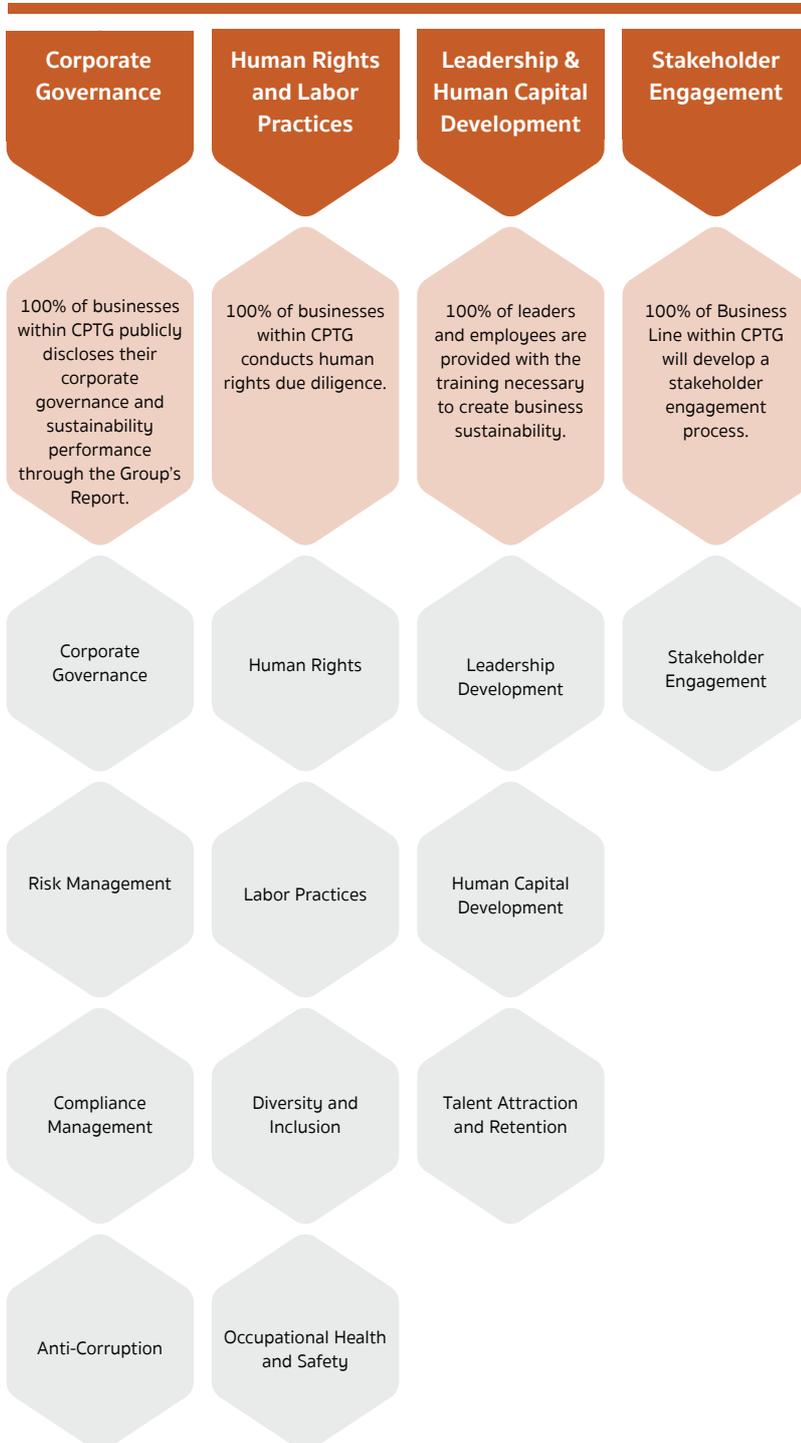
- Safety committee Occupational health and environment (SHE)
- Automotive Safety Subcommittee
- Working Group to Drive Sustainability Strategy, Charoen Pokphand Group
- Governance, Risk and Compliance Management Committee (GRC)
- Project 3 High, 1 Low and CEO Award Academic Subcommittee

- Executive Review Committee International standard system (ISO 9001, 14001)
- Safety Committee Occupational health and work environment
- Welfare Committee
- Innovation, Suggestion and Energy Committee (ISE)
- The Corporate Social Responsibility Working Group (CSR)
- 5S working group

STRATEGIC FRAMEWORK

ECONOMICS:

HEART

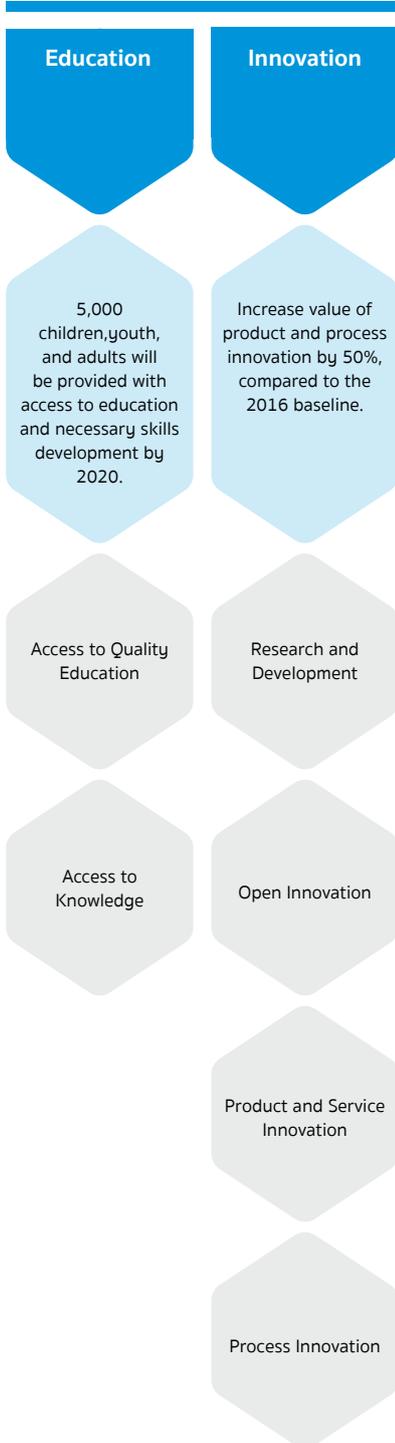


SOCIAL:

HEALTH



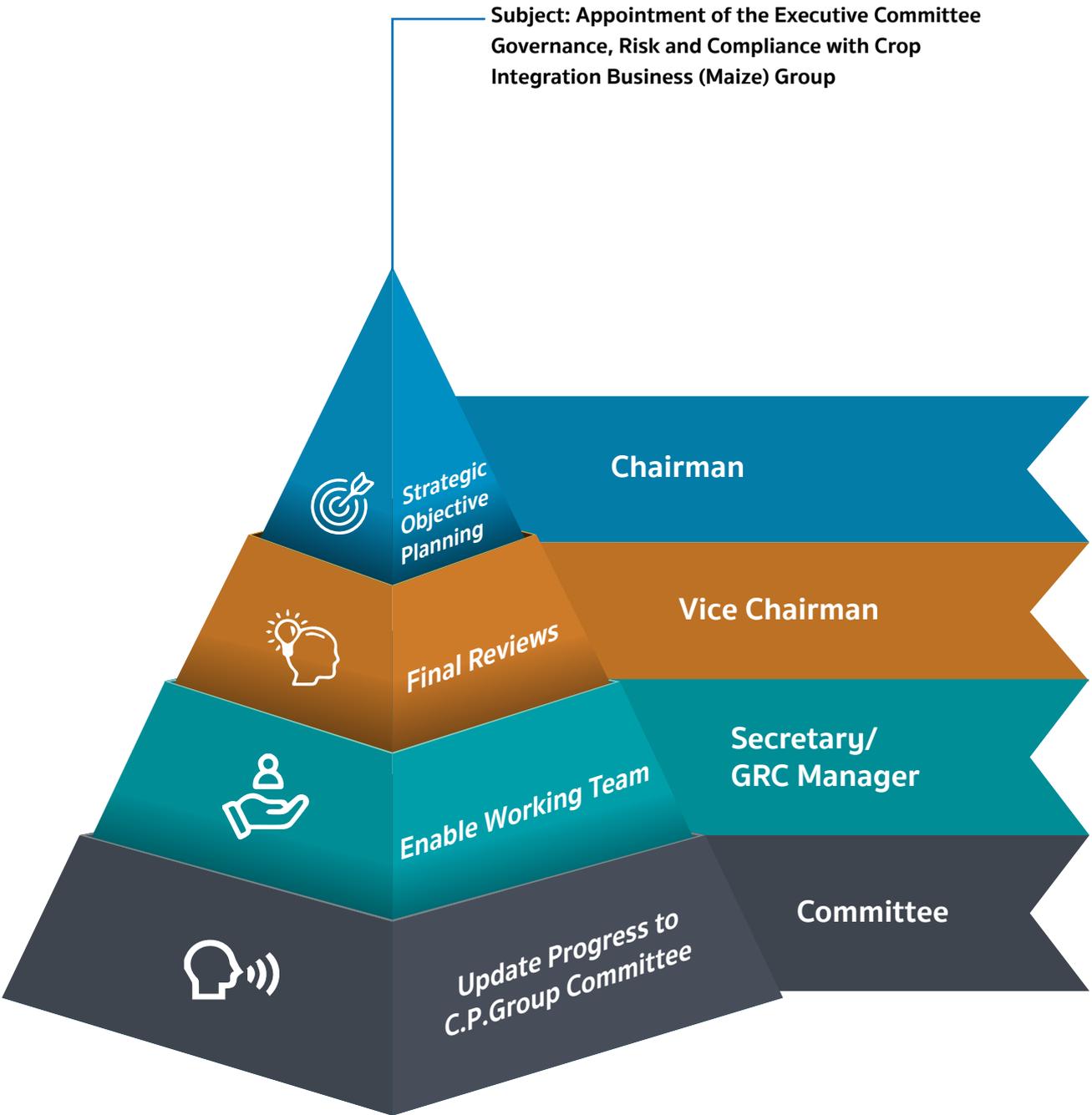
Environment: HOME



SUSTAINABILITY ROADMAP

DETAIL	Build	Integrate		Scale	
	2016	2017	2018	2019	2020
Sustainability Strategy					
• Crop Integration Business (Maize) Sustainability Strategy and 2020 Goals	▶				
• Crop Integration Business (Maize) Sustainability Strategy and 2025 and 2030 Goals					▶
Sustainability Strategy Performance					
• The Crop Integration (Maize) Business Group Main Businesses in Thailand	▶	▶	▶	▶	▶
• The Crop Integration (Maize) Business Group Main Businesses in Thailand and Overseas		▶	▶	▶	▶
Sustainability Reporting					
Reporting Boundary					
• Crop Integration Business (Maize) Main Businesses in Thailand	▶				
• Crop Integration Business (Maize) Main Businesses in Thailand and Overseas		▶	▶	▶	▶
Report					
• GRI G4 (Core Option)	▶				
• GRI Standards (Core Option)		▶	▶	▶	▶
UN Global Compact Communication On Progress					
• GC Active CoPs	▶				
• GC Advanced CoPs		▶	▶	▶	▶
3rd-Party Assurance Boundary					
• Thailand	▶	▶	▶	▶	
• Thailand and Overseas					▶
Data Verified by 3rd-Party Assurer					
• Water Withdrawal (GRI 303-1)	▶	▶	▶	▶	▶
• Indirect GHG Emissions (Scope 2)	▶	▶	▶	▶	▶
• Direct GHG Emissions (Scope1)	▶	▶	▶	▶	▶
• Occupational Health and Safety	▶	▶	▶	▶	▶
• Energy Consumption	▶	▶	▶	▶	▶
• Waste	▶	▶	▶	▶	▶

GOVERNANCE STRUCTURE



Materiality Assessment Process

The objective of this Sustainability Report 2019 is to disclose Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize), C.P. Group's performance across economic, social and environmental dimensions in relation to issues that are material to our business and stakeholders. The Group takes into account material sustainability issues from internal and external factors in accordance with the Global Reporting Initiatives (GRI) and its 4 principles which include Sustainability Context, Materiality, Completeness and Stakeholder Inclusiveness. Our Materiality Assessment was conducted through the following 4 steps adapted from the GRI Standards:

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.

- 1.1 Reviewing Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize), C.P. Group's 2016, 2017 and 2018 key material issues;
- 1.2 Benchmarking material issues with peers that are involved in the same industries with the Group's 8 Business Lines;
- 1.3 Analyzing global sustainability standards including: The United Nations Global Compact (UN Global Compact) - Advanced level; UN Sustainable Development Goals (SDGs)
- 1.4 Identifying our material sustainability issues from the previous stages, our business direction, and internal discussion within the Sustainability Committee and Governance Risk and Compliance (GRC) Committee.

Prioritization

Prioritized our material issues that were identified in Step 1 by our internal and external stakeholders. The Prioritization process went through different stages as shown below.

- 2.1 Conducting the online Materiality Prioritization Survey to seek opinions and views from executives across all Operation, Business Groups and representatives from various stakeholder groups;
- 2.2 Consolidating the results of materiality assessment in 2018 from our subsidiaries and integrating them into the result of the online Survey;
- 2.3 Assigning weighting of our Business lines and Our Company in accordance with their revenue;
- 2.4 Calculating scores of the material issues prioritized according to importance to business and stakeholders;
- 2.5 Formulating Materiality Matrix

Validation

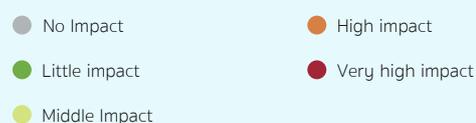
Validated sustainability reporting process in line with the GRI Standards, and its 4 principles. The Validation process went through different stages as shown below. Interviewing external stakeholders with regard to material issues of the Group, feedback and opinion to improve our sustainability reporting process; Considering and approving the prioritized materiality issues by executives Verifying and assuring the accuracy and completeness of our sustainability reporting process by an independent third party.

Continuous Improvement

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

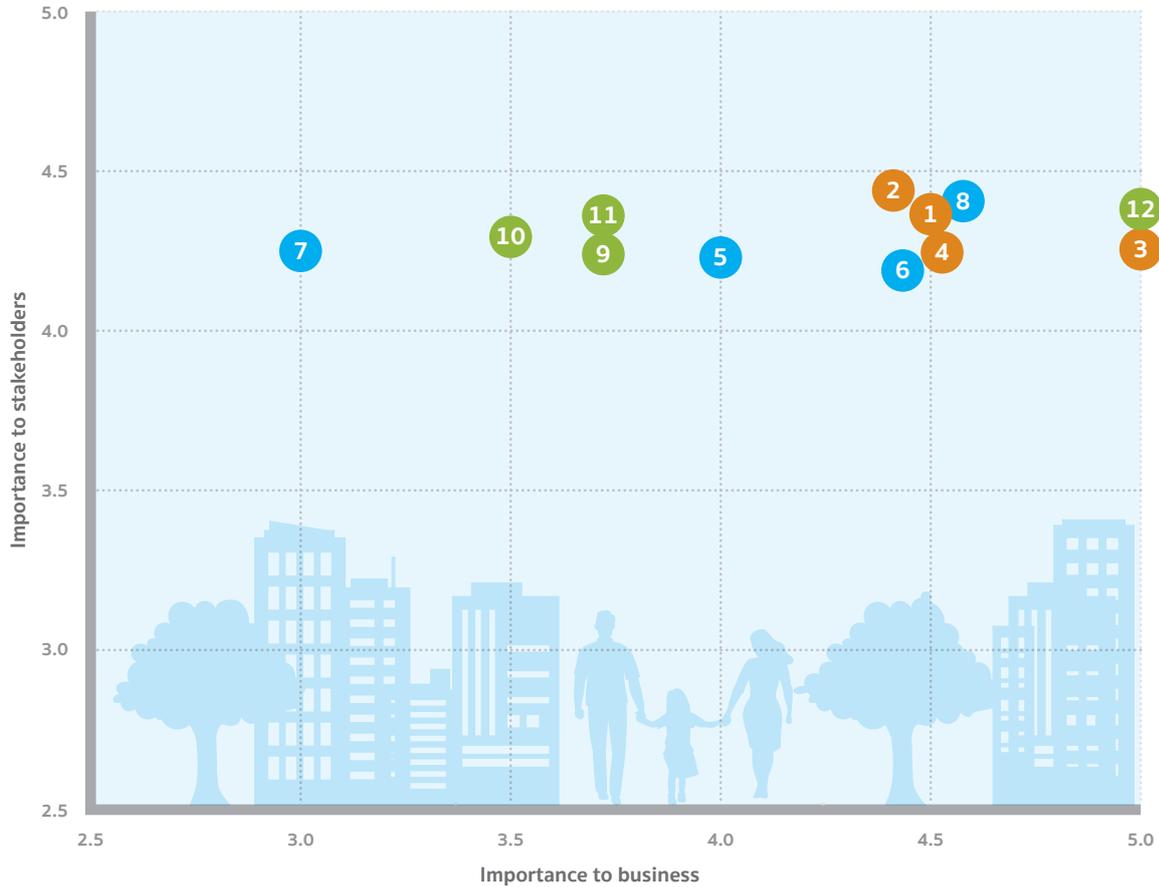
Material Issues and Topics Relevant to Our Business Lines

Material Issue	Topic	Business Line		
		Crop Integration Business	Seed Business	Fertilizer Business
Corporate Governance	Governance and Business Ethics	●	●	●
	Risk and Crisis Management	●	●	●
	Information Security & Cybersecurity	●	●	●
Human Rights & Labor Practices	Labor Practices and Human Rights (excluding Health & Safety)	●	●	●
	Occupational Health and Safety and Well-being	●	●	●
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	●	●	●
	Energy Management	●	●	●
	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	●	●	●



Materiality Assessment of Crop Integration Business (Maize)

Matrix by 12 Issues



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

GRI102-1, GRI102-45, GRI102-50, GRI102-51, GRI102-52, GRI102-53, GRI102-54, GRI102-56

ABOUT THIS REPORT

Sustainability Reporting

Charoen Pokphand Produce Co., Ltd., The Crop Integration Business (Maize), C.P. Group has published our Sustainability Report for the first Sustainability Report 2019 which was published in November 2020. 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., Crop Integration Business (Maize), 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, since the beginning of the company to 31st December 2019.

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 TÜV NORD (Thailand) Ltd., a reliable and internationally recognized independent assurer. Data validated include
GRI 302-1, GRI 303-1,
GRI 305-1, GRI 305-2,
GRI 306-2 and GRI 403-2
(Details can be found on page 148-149)

Communication On Progress (CoP)

Communication on Progress (CoP) Communication on Progress to the United Nations Global Compact (UN Global Compact) has been reported consecutively since 2018. In 2018, the Group enhanced our transparency by committing to the 21 Principles of the UN Global Compact at the Advanced level.

UN Sustainable Development Goals (SDGs)

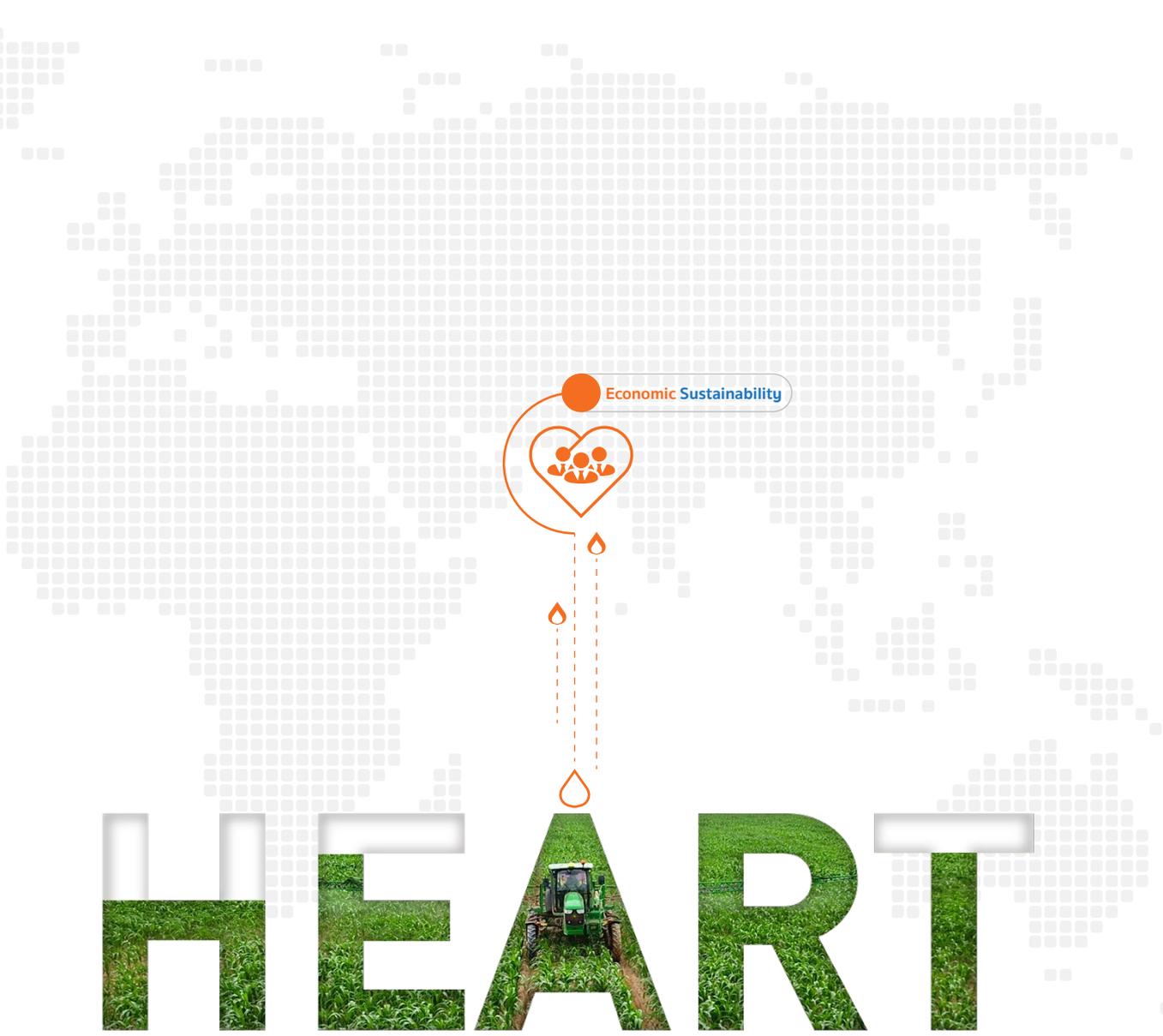
Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize), Group, C.P. Group is committed to consistently operating our business in accordance with the 17 Sustainable Development Goals (SDGs). (Details can be found on page 152)

Reporting Boundary

Human resources data cover 100% of Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize) 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., Crop Integration Business (Maize), C.P. Group.

Contact Us

For more information of this Sustainability Report, please contact: Corporate Sustainability Office, Pokphand Produce Co., Ltd., AIA Capital Center Building, 32th floor. Ratchadapisek Road, Din Daeng, Bangkok 10400
Phone: +66 (0) 2646-7200
Email: sadudee.s@cpintertrade.com
<https://www.cpp-worldwide.com>



Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize), C.P. Group awares of the important foundation for achieving sustainable growth in a business.

The company 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 Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize) C.P. Group.

consisted of

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



CORPORATE GOVERNANCE



Key Performance in

2562



All companies

In the Group performance results in good governance and sustainability are disclosed through the Group's report.



Policy announcement
Anti-corruption
of all companies in the business group

The challenge

The Directors of Company believes that good corporate governance is a significant aspect to increasing the Charoen Pokphand Produce Co., Ltd., Crop Integration Business (Maize) competitiveness and to ensure long-term sustainable growth, as well as to addvalue 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 first challenge in our organization 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 Group.

Performance against Goal

2020 Goal (Thailand)

100% of all business within CPCROP (Maize) will publicly disclose their corporate governance and sustainability performance through the Group's report

2019 Progress

- Corporate governance
- Risk management
- Anti corruption
- Compliance with regulations

Corporate Governance

The company 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.



Code of Conduct

In 2018, the 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 groups of companies in the group

The Corporate Governance, Risk and Compliance (GRC) Committee is responsible for promoting and enforcing and monitoring, supervising and reviewing the Business 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.



Business group overview Crop Integration Business (Maize)

Total 805 Employees	Tested 705 people	un-pass 100 people
----------------------------------	--------------------------------	---------------------------------

Number of Thai employees 87.58% passed testing.



Risk & Compliance Management



CPCROP (Maize) Risk Management Framework

The Company 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 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)

The company will set up a system and process for risk management and compliance in accordance with the strategy, business goals of international standards and in accordance with the laws, rules and regulations both inside and outside the organization.

Executives and employees at all levels organize risk management methods and integrate the principles of risk management with working to achieve the objectives set.

Risk management and compliance are essential to management responsibilities at all levels of a company in order to achieve corporate governance.



Performance 2019

Risk and Compliance Management Performance 2019

ERM (Self assessment*)

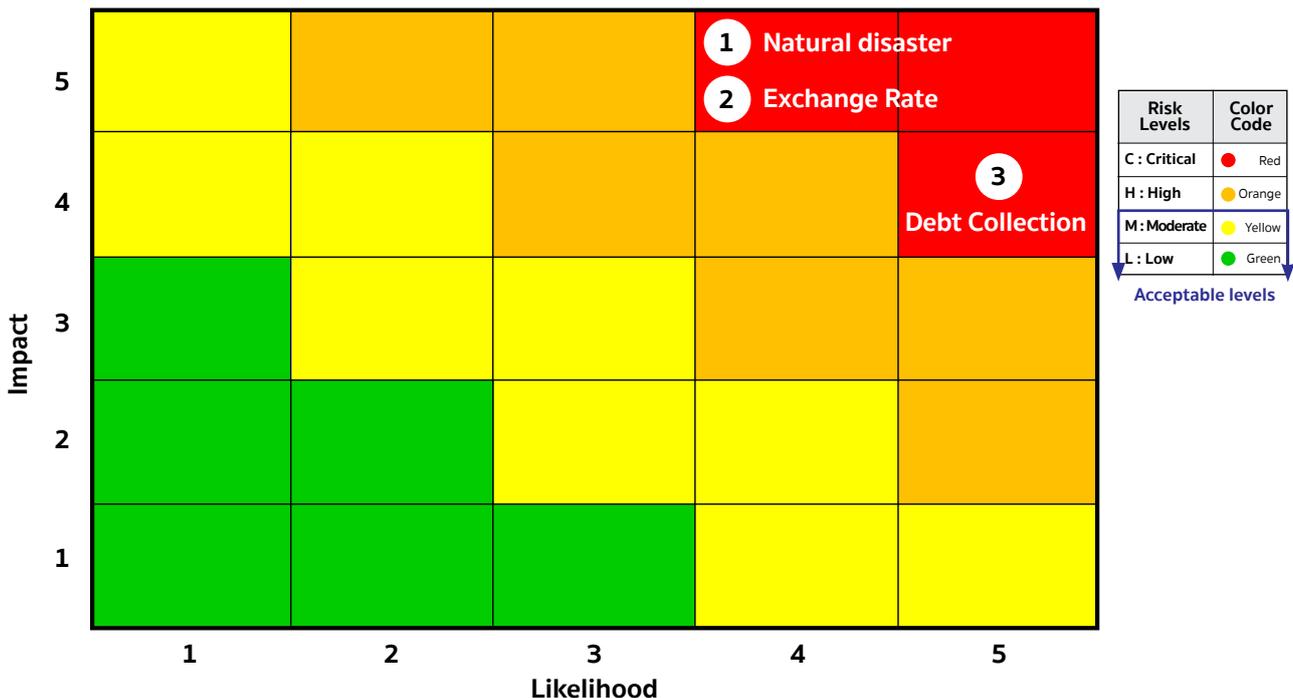


- There is Governance and risk management at the board level.
- Define structure And risk management personnel
- Clearly define roles, duties and responsibilities
- Define and take action in accordance with corporate culture values in risk management.
- Link risk management with the recruitment, development and retention system
- Link management Risk with the process Strategic organization
- Determine the acceptable risk level for the organization
- Define objectives and Target by considering the acceptable risk
- Risk identification covers issues related to the organization
- Assess the severity and Prioritize risks
- Define unacceptable risk management measures and plans
- Prepare a report showing the organization risk overview
- There is a system to monitor the changing factors.
- There is a system and periodically review the results
- There are ways to find System development and improvement Enterprise risk management Continuously
- Use risk analysis data in the decision making process
- Communication and awareness creation In corporate risk
- There is a performance report. Performance and Achieving values organizational culture

COMPLETED
 INCOMPLETED

Note *: Items for evaluation are basic requirements according to the risk management standard of Charoen Pokphand Group

Risk Matrix OVERVIEW



Anti-Corruption

Integrated Crop Business (Maize) Charoen Pokphand Group adheres to Code of Business Conduct by Company Directors, Executives and Employees will not act and will not accept any form of corruption. The Company has established

guidelines, operational measures and roles of responsibility and has reviewed the anti-corruption policy implementation. This program regularly to comply with business changes, rules, regulations and laws



Guideline

1. Implementation of this policy, use the guidelines set forth in the Company, the Corporate Governance and Ethics Manual, as well as the relevant rules, regulations and operating manuals of the Company.
2. Actions involving a high risk of birth Corruption, the company Assign company directors, executives and Employees must carefully perform their duties in the following areas:
 - 2.1 Neutrality and political assistance
 - 2.2 Charitable donations
 - 2.3 Giving of gifts, entertainment and other expenses



HUMAN RIGHTS AND LABOR PRACTICES



Key Performance in 2019



All departments

Impact assessment
Human rights



Identify issues Human rights

Important at the
business group level



Policy announcement
**Human rights and
labor practices**
at the business
group level

The challenge

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

A key challenge 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.

Performance versus Goal

2020 Goal (Thailand)

100% of Charoen Pokphand Produce Co., Ltd. and its group companies disclose their performance in governance and sustainability through the Charoen Pokphand Group report.

2019 progress

- Human Rights Assessment, Risk Management and Practice Labor
- Compliance with rules and regulations

Safety health and environment management

Crop Integration Business (Maize) to focus on operating safety. Occupational health and environment by raising the level to the same standard in every country To raise the level of safety for managers, employees, contractors and individuals. To prevent accidents and disease from work as well as not affecting the surrounding community and environment through various activities and projects to raise awareness of employees.



Work improvement according to Kaizen Guidelines. Learn to find, improve and how to apply them to further improve their work and departments.



Training the 5S course for employees of all levels so that employees know the benefits of 5S and system work process 5S to achieve Sustainable for employees.



Training on a basic fire extinguishing course to build knowledge and understanding and to rehearse the actual practice, which has an annual fire drill.



Training to review the general safety course and safety law for the employees in Thailand for review so that employees of all levels are aware of safety and related laws



Training in severe firefighting courses with firefighters of the Thai Fire Team to enable fire fighters to properly use severe fire extinguishing equipment and how to safely extinguish severe fires.



Training courses on hazard analysis and risk assessment for employees by allowing employees of all levels to attend training together with a workshop on finding hazards in the real job site. To analyze hazards, find ways to improve and remedy the risks at an acceptable level.



First aid training and CPR



Train firefighters to prepare for emergency response.



Safety review training for employees
1 time / year



The factory has organized a safety driving campaign during the festival. With the principle of “3S” is to create a habit, fully wear, the car is ready And 7 Danger Days by providing knowledge on traffic law practice and safe driving techniques. Including checking the condition of the motorcycle’s readiness, connecting the Act and changing the engine oil to employees



The company organized an activity SHE2 & 5S DAY in which there was an activity to educate employees about energy, safety, 5S standard system in the event, educating and raising awareness of employees on safety, Energy conservation, social responsibility and systems In addition, the award was awarded for the Outstanding Safety Unit and the 5S system, which has been ongoing since 2016.



Governance of Respect for Human Rights



The Charoen Pokphand Group has established a human rights policy that seriously reflects the company's commitment, and is applicable to all business segments of the Charoen Pokphand Group, and has also initiated a human rights audit process. It includes human rights risk assessment, formulation of plans and remedial approaches to mitigate risks, including surveillance.



Charoen Pokphand Produce Co., Ltd. provides HUMAN RIGHTS DUE DILIGENCE: HRDD by 2020 with the right Human protection Reduce the loss. The company has evaluated Compounding actual and possible human rights abuses. And follow up and communicate with the public This ensures that the affected person will receive the care and heal that it takes.

Requirements about accepting workers to work in factories

CPP Fertilizer Myanmar has entered into an agreement with Crown labor service, which is stated in The service provider's clause. rights and obligation Article 4.4 states that the service provider is responsible for recruiting workers to perform services at the company and shall strictly comply with the Myanmar labor laws and regulations, including the law.



Defining Salient Issues

Company respects the human rights of all employees in the Group. And will abide by the laws of each country, the Company's commitments are stated in the Company's policy Such as the Non-Discrimination and Equality Policy and Harassment Policy to provide effective remedies to affected people. The company has established a complaint handling process that applies to the entire organization. Any employee who is concerned about the human rights impacts of company activities can report through the internal complaint channel.

The company has identified human rights risks that arise from its operations, with direct and indirect consideration of the risks involved. By considering the various factors involved in specific details. And all-rounder, covering trading partners or subcontractors, such as industry-specific risks and human rights-based risks.



Improvement of safety, health, energy, environment and social responsibility standards and safety management audit

Safety operation It is very important to the business of Charoen Pokphand Produce. Co., Ltd. and companies in the business group by adhering to taking care of employees, contractors, visitors as well as stakeholders in business

operations throughout the supply chain, therefore establishing a policy with a commitment to Improvement of safety, health, energy, environment and social responsibility standards and safety management audit since 2018



LEADERSHIP AND HUMAN CAPITAL DEVELOPMENT



Key Performance in 2019



Leaders and employees are trained to develop knowledge and understanding on **sustainability.**



Develop business partners and **business partners to acquire the necessary knowledge** and skills to support sustainable business operations.

The challenge

The Business Group's management values and good corporate governance, transparency, accountability, with the strong belief that a sustainable organization must be based on the three-benefit philosophy that is the values of the Charoen Pokphand Group. Therefore, it is a shared responsibility that executives at all levels are to adhere to the values and implement sustainability policies, as well as continually building understanding and cooperation from employees at all levels.

The first challenge of the Company is to create understanding and communicating among diverse employees in both languages and cultures to recognize the importance of good corporate governance. This leads to creating a culture of conducting business with responsibility and practice on the same norm.

Performance against Goal

2020 Goal (Thailand)

100% of our leaders and employees are trained to develop knowledge and understanding on sustainability.

2019 progress

- Leading the Sustainable Organization
- Sustainability Training
- Sustainability Partner Training

Enterprise Leadership Management System

Business group leaders direct, and motivate people within the organization to help drive the organization towards both economic and sustainability goals. It also aims to create new generation leaders to be integrated agricultural business executives who must be good and smart people to build success with a team.



Human resource development through leadership development courses

Human resource development of the business group focuses on building leaders at all levels. With a leadership institute at the center, with courses suitable for Participant qualifications, all courses developed from hands-on practice, emphasizing on the project execution through hands-on learning. Business lines and business lines. To solve real business problems, you have to make decisions and learn from the real impact.



Leaders and employees trained from Charoen Pokphand Group Leadership Institute, all courses included. **119** people, total accumulated from 2012 to present

One Young World Summit

One Young World, the world's largest youth leadership platform, offers youth around the world an opportunity to share ideas with world leaders from diverse disciplines to inspire motivation to change the world. Charoen Pokphand Group has a policy to support the young generation of the Group and outsiders to attend the One Young World event.

Participants



One Young World 2017

“The child labor problem must be taken away as soon as possible, every children have their rights to access education which is the precious resource to develop themselves and their countries.”

ยอดฉัตร นาสินธุรัชย์
ตัวแทนผู้รับรางวัล ธีรธรรมาภิบาลไทย

#OYW2017Leaders #OYW2017
#17SDGs #CPGroupDelegates




“DON'T BE AFRAID TO FAIL. IN ORDER TO LIVE A CREATIVE ACTION FOR SUSTAINABLE WORLD.”

CHAYAKRID SUKARAM (ART)




Purpose and Value (CPP)

Integrated plant business group (Maize) has a business model through Dealers (B2B), but to comply with the direction of operation A new business model that focuses on doing business directly to B2C farmers in irrigated areas, as well as to support farmers to cultivate throughout the year or to grow 3 crops / year. This Purpose and Value will help farmers

achieve better incomes and livelihoods by organizing activities to adapt a series of ideas to In line with the direction of business operations, as well as to create understanding and prepare to step into changing directions and creating a new business plan.



Sustainability Workshop Program

Company emphasizes on communication and educating on sustainability in All levels are trained and mentor to the organization on the development of the organization towards a socially responsible organization. Through the standards in the country CSR-DIW and international (ISO Standard). Organization development towards an organization with sustainable development in accordance with the Sustainable Excellence Model.

To create an Elevated. Leadership, the company systematically makes use of modern management tools. It consists of defining and distributing strategies for sustainability, building processes Innovation for sustainability leading to Reporting and Communication.

Company pays attention to driving sustainability goals. In accordance with the SDG guidelines Goal and to create a commitment of management to action and communicate to employees at all levels.



STAKEHOLDER ENGAGEMENT



Key Performance in 2019



Every company

Stakeholder groups are defined and looking for needs and expectations.



The organization **has engagement survey** and **the trust** of stakeholders with the organization every year.

The challenge

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.

Performance against Goal

2020 Goal (Thailand)

100% of business groups have a relationship with stakeholders

2019 progress

- Listening and assessment of the organization's stakeholders

Stakeholder Engagement Framework

Charoen Pokphand Produce Co., Ltd. and companies in the business group have 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.

Company identifies that business operations throughout the value chain are It involves direct and indirect stakeholders, covering committees, employees, customers, farmers, trading partners, community and society, government, NGOs, the media and commercial competitors.

Company 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.

Company 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

The Company 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.

Company 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.



Involvement with Related Association

Atteneled Thai Seed Trade Association

Charoen Pokphand Produce Co., Ltd. attended the Thailand meeting International Seed Trade 2019 organized by Thai Seed Trade Association, Department of Agriculture The National Science and Technology Development Agency hosted the first event in Thailand.

The organization of the event aims to promote Seed industry and related businesses both development The seed industry of Thailand and other regions to support Thai seed business, especially SME has the opportunity to meet business partners both at home and abroad to promote products and services to the world.



Attended the National Seed Academic Conference

Charoen Pokphand Produce Co., Ltd. Limited together with the Seed Association Of Thailand supports the organization of the National Seed Academic Conference organized to disseminate academic knowledge on Thai seeds by academics from both educational institutions, government organizations In addition, the association also shared information on academic progress related to the seed industry.

The association was established in 1982 as a center for coordinate with governmental and non-governmental organizations and be able to coordinate with international organizations to benefit the nation's seed industry and to provide farmers with good, high-quality seeds for adequate use.



Japan Bean and Pulses Association

Charoen Pokphand Produce Co., Ltd. Co., Ltd. together with the Executive Committee of Thai Maize and Produce Traders Association, welcomed Japan Bean and Pulses Association and a public benefit organization certified by the Ministry of Agriculture Forestry and Fisheries of Japan to meet with representatives of Thai nut and seed traders in exchanging product information with each other to expand import and export channels between them in the future.

In addition, representatives were sent to be the executive director of the association and to attend the meetings continuously. And recently attended the annual general meeting In order to exchange information, summarize the report on the situation of plant production and determine the direction of the entrepreneurs who are exporting, as well as mobilize solutions and obstacles that arise in Thailand together.

The association has been established since 1956. currently, there are 109 export operators, whose members are from export operators such as maize, sorghum, etc., which have participated in this activity continuously.





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



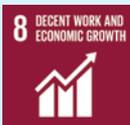
We also join forces with many organizations to push forward changes at the national level, in line with our core values founded on the “Three-Benefit Principle.”

1. Social Impact
 2. Health and Well-Being
 3. Education
 4. Innovation
-

SOCIAL IMPACT



**SUSTAINABLE
DEVELOPMENT
GOALS**



Key Performance in 2019



All affiliated companies
have social responsibility
activities.



Policy announcement
Social responsibility
at the business group level
and the company



Farmers
and vulnerable
group

The challenge

Inequality is one of the critical social problems at the present-day which leads to lack of trusting environment in Thai society. This affects and puts the business at risk in terms of its reputation and scrutinized supervision from additional authorities and may affect the business operating in a long-term. Thus, the business group must have a strong connection between businesses and local community by considering the needs and expectations of the people in society and taking those needs into account as an important part of the business group's goal.

Performance against Goal

2020 Goal (Thailand)

1,000 farmers and small entrepreneurs, including vulnerable groups, were promoted to careers and quality of life in 2020.

2019 progress

- Support small-scale farmers according to Irrigated dry-season feed corn project and '365 days' integrated project.
- Create career security, community sustainability and shared values of society

	2018	2019	Goals 2020
Number of farmers Get a career boost and income (Thailand) (person)	2,148	2,748	1,000

Management guidelines

Support for farmers

The Company realizes and attaches importance to business operations that may be affected by economic and social roles by supporting farmers, small entrepreneurs, and vulnerable groups to be part of their business, financial support. , Promote participation and create value as well as generate income. And which the Company has given importance and has continued to work in order to be able to solve problems and help promote the quality of life for communities and vulnerable groups to be able to sustain life according to basic factors in society.

Supporting Famers Guidelines for farmers members

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

CASE STUDY

1

Irrigated Dry-Season Feed Maize leading to business development “Integrated Business”

Sustainable integrated agriculture model that lifts farmer’s income and livelihood.
Deliver high-quality grains with traceability for animal feed production.

Based on the three-benefits value of the Charoen Pokphand Group, committed to creating sustainable business, society and environment. Charoen Pokphand Produce Co., Ltd. has established a “field corn project” in irrigated areas to generate stable income for farmers instead of paddy fields affected by drought and unstable price problems. Because besides the shapely corn, there is a certain buying market and it uses less water for only one third of the rice cultivation.

The project commenced in 2017 in cooperation with the government to implement the Pracharat Power Project to support corn planting after the paddy season instead of the off-season rice. To solve the problem of oversupply of rice, slumping rice prices, solve drought problems. As well as increasing the yield and distributing corn harvesting range in

the country in line with the needs of the animal feed industry, it was found that farmers participating in the project Satisfied with higher incomes than second-tier rice cultivation, and most of them decided to plant the second round the following year..



At the same time, the company has also created an agricultural management manager to send to irrigated rice fields throughout the country to provide advice on soil analysis, water system development and production planning from selecting corn varieties that are suitable for soil conditions, Care, harvest and repurchase according to the specified conditions in order to build confidence for farmers who grow corn after rice fields. "Integrated agriculture"

In order to provide farmers with income throughout the year, the Company has developed a 100-day average short-lived quality corn crop to be able to grow 3 crops of maize / year in which farmers will have an average income of at least 300 baht / day. The company has a policy to buy all produce back, which can be traceable to the source of the produce. Good quality raw materials will be forwarded to the feed industry of the Charoen Pokphand Group.

This will make the farmers who participate in the project earn income. And better living It is growing together with the integrated agricultural business because we believe that "farmers are life partners.



Farmers will have an average income of at minimum of

300 Baht / day

120,000 Baht / rai / year



Using organic fertilizers and organic-chemical fertilizers to improve soil structure, reduce costs of production and level up productivity

It is a project to promote the use of properly formulated fertilizers, right time, correct rates, based on soil and plant analysis costs to achieve soil restructuring, increase yields, reduce costs, increase the profit of farmers by the project's results. Reducing the cost of applying fertilizer in rice by 13.03% with the same output. This leads to an increase in profit of 572 baht/rai, reducing the cost of fertilizing in corn by 10% with the same output, resulting in an increase in profit of 1,000 baht/rai. Promote the use of fertilizers based on the analysis of soil and plants in the area.



Promote the use of fertilizers based on soil and plant analysis

Test results

	Fertilizer Cost (Baht/rai)	Production (Kg./rai)	Net Profit (Baht/rai)
Farmer's practice	900	984	2,486
CP Mordin	875	1,280	4,702



* Note : Selling price at 7,400 baht/ton, MC 23%
Cost of production, excludes fertilizer cost of 3,895 baht/rai

OM soil before planting



OM soil after planting



CASE STUDY

3

Generate income for member farmers 100,000 baht per rai per year

FARMPRO Myo Hla branch has a service area covering 100,000 rai of irrigated areas with the goal of making member farmers earn full year incomes along with sharing areas for growing high income crops such as sweet corn with Sweet corn cafe being the farmers who buy produce.

The company provides well digging and water systems for local farmers to grow sweet corn and buy it to Sweet Corn Cafe near by.

Bawni farm, the private farm, is a source of corn and high-income crops on an area of 6,000 rai and is a demonstration area of B2C business, which allows farmers to grow 3 crops with an income of 100,000 baht per rai per rai on farmland.



Income per rai
100,000
baht/year

Continuing to solve haze problem with local farmers

C.P. Yangon Co.,Ltd. in collaboration with community leaders and distributors in Taunggyi city, Shan State creating activities to lead farmers increase yields and reduce smog problems in agricultural areas in Shan State. The activities recommended to farmers this time include training, knowledge, benefits, methods of infection propagation. Tricoderma microorganisms to aid in the degradation of cultivated material to be organic matter in soil instead of incineration.

This knowledge transfer activity and community development. The pilot villages were selected in two sub-districts of Taunggyi city, Chao Ni Subdistrict and Bahan Jet Subdistrict, with a total agricultural area of 12,500 rai, more than 600 farmers households. Corn, mango and avocado are the main ones.

This event was attended by more than 300 farmers interested in learning. Originally, farmers prepared some soil by burning, but knowing how to manage the simple plant remains with Trichoderma microbes, they are willing to cooperate in the burning no more.

For the local activity plan, there are still activities that need to be continued for the next 4 months in Phase 1, which are:

- Extension of Trichoderma around 2 rai per kitchen to compare between use and not.
- Prepare the nursery for nursery (Sweet tamarind) to supplement
- Using the dried corn husks after harvest processing into containers.



Donation of water filters to schools in the community Andhra Pradesh State, India

Charoen Pokphand Seed (India) Co., Ltd. is committed to promoting the health and well-being of farmers and community people in the vicinity of the company to operate the business. The company has donated a Reverse Osmosis (RO) water filter. In order to create good hygiene for students

in the community 200 cases resulted in good health for farmers and local people from consuming clean drinking water and reducing the burden of expenses incurred. It also helps to mitigate the effects of restrictions on access to clean drinking water for farmers, communities and society.



CASE STUDY

5

Social Value Creation Projects

Develop stability in key watershed forests of Thailand, promote occupation for local people, help reduce deforestation in watershed forests, so that people can live with forests sustainability

CASE STUDY 5-1 Safe Nature Project
Phrao District, Chiang Mai Province

CASE STUDY 5-2 Safe Nature Project
Mae Chaem District, Chiang Mai Province

CASE STUDY 5-3 The Golden Bagging Project
Santisuk District, Nan Province

CASE STUDY 5-4 Safe Nature Project
In the wild west
Ban Rai District, Uthai Thani Province



Safe Nature Project, Phrao District, Chiang Mai People live with the forest sustainably

The company operates more than 800,000 rai in the Si Lanna National Park area. Phrao District, Chiang Mai Province, the area in the north, an important water source of Thailand. Sri Lanna and the network partners in the area are “Phrao Rak Pa People Club” For example, the bamboo planting project, black pig farming, breeding duck breeding for consumption, and increasing distribution channels in stores, welfare,

community products. In the past, supporting the exploration of farm land, areas out of the forest, along with promoting Assam tea seedlings to farmers and supporting knowledge on coffee quality development and training to educate, care, process, Planting coffee, along with setting up rules for caring for the forest, can help reduce deforestation in the watershed. People live in a sustainable way with the forest.



Forster of the forest in the Sri Lanna National Park area.



800,000 Rai

Bamboo planting project

1 Rai **1** Bunch of Bamboo

CASE STUDY

5-2

Safe Nature Project, Mae Chaem District, Chiang Mai Community participation leads to sustainable development

By the Safe Nature Mae Chaem Project in collaboration with Mae Jo University The King's philosophy of "Understanding, Access and Development" is a mechanism to drive the project. The area began with the opportunity for the Ban Mae Pan community to express opinions, reflect the needs and problems of the people in the community called "Explosion from the inside". After that, all parties use various information to analyze and find solutions to problems that are suitable for the way of life of the community in order to jointly develop to sustainable communities in 3 areas: social, economic and environmental. The community serves as an important engine for driving. The project covers an area of 14.03 square kilometers or equal to 6,252 rai.

At the same time, in order for the community to be self-sufficient sustainably, the Mae Chaem Natural Safety Project has also supported the establishment of "Ban Mae Pan-San Kieng Natural Community Enterprise Group" was established to allow the community to learn how to do business suitable for the way of life of the community. Currently, there are 146 members of households, 22,035 shares (1 share equal to 100 baht, 1 household holding no more than 20,000 baht) amounting to 2,203,500 baht, working capital of 14,520,446 baht and a net profit of 1,290,243 baht. At the same time, the group had a net savings of 336,000 baht and 129,000 baht from the net profit for public benefit donation in the year 19/20, sustainable large at the district level in 2019.

Support integrated farming, community income throughout the year, reduce dependence on forests. After participating in solving the problem of water sources for agriculture for the Ban Mae Pan-San Kieng community, the Mae Chaem Natural Safety Project also



encouraged the communities of both villages to study agricultural practice from various learning centers. Mae Jo University provides academic advice, so that the community can apply the knowledge gained from education, study visits, and apply it to adjust the agricultural career according to the needs of each group.

At present, "Ban Mae Pan-San Kieng community" has a wide variety of agricultural jobs, including Perennial fruit trees, Vegetables, Pig farmers, Community products processing plants (Pig meat), Chicken egg farmers, Hinjok sarongs



Award Winner for Community Enterprise
Provincial Level (Chiang Mai) Year 2019



Average income of
fruit tree farmers
80,000 Baht/year



Income from Community
Processing Products
Avg **10,000** Baht/month

The Golden Bagging Project, Santisuk District, Nan Develop water sources for professional development and tourism promotion

The Company has been working on the Safe Nature Project in the area to expand the results of Pid Thong Lang Phra Project in Nan Province at Santisuk District, Nan Province since 2012, in collaboration with the development project to develop stability in the Nan River Basin. This is due to the royal initiative of Area 2, Nan Province, for hill tribe people who work in the Ban Mae Sanan area, Pong Subdistrict, has promoted tourism. By donating rubber rafts to farmers groups, generating income from accepting tourists to rafting Namwa, promoting domestic pig farming, giving egg-duck breeds with food to the people, supporting the development of water sources to grow rice, terraced fields and use Water to grow vegetables for consumption in the household. People can now reduce expenses, generate income for the family, help reduce the invasion of deforestation in this watershed forest area.



CASE STUDY

5-4

Safe Nature Project & SNF Home learning towards sustainability

The company conducts activities “Safe Nature Project” in the western forest at Ban Rai district Uthai Thani Province since 2013, in collaboration with Seub Nakhasathien Foundation (SNF) and from 2014 - up to the present, together with the Natural Agriculture Learning Center and Sufficiency Economy in Tambon Racham, focusing on supporting the career development for people living in the forest area. Support the cultivation of seedlings such as Phak Wan Pa by distributing sweet Phak Wan with correct knowledge training for the people to grow Phak Wan Pa behind the house to collect food, sell it, reduce expenses and generate income. Benefit from the western forest It also supports the cultivation of vegetables, fruits, medicinal plants, food preservation processing. At present, the project results have been achieved with 12 learning or model houses and are prepared to expand the results to the people in the neighborhood.



Joining forces to support the Agricultural and Industrial Learning Center at Khao Prik Prison Sikhio District, Nakhon Ratchasima



Charoen Pokphand Produce Co., Ltd. takes part in supporting social activities by Support activities in the Agricultural and Industrial Learning Center, Khao Prik Nai Prison “The project of planting bamboo for agricultural learning ofInmates ”on an area of 25 rai, which in addition to supporting more bamboo species 3,000 whole trees that make use of the shoots and bamboo glands.The company supports organic chemical fertilizers for the maintenance of bamboo plots for 2 consecutive years in order to allow prisoners to have professional training in planting, caring for, processing bamboo shoots and making bamboo weaving for a career after the punishment. It is growing well and is a learning center for work that receives attention from outsiders.



Supporting the vulnerable group

The company is committed to operating the business according to the C.P. Excellence on the realization of social responsibility according to the philosophy of 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, sustainable water management, access to renewable energy Modern, supporting decent work in accordance with economic growth.

The company develops industries and infrastructures through innovation, reduces income inequality, provides safe communities and cities to support consumption and appropriate production plans, climate care, marine resources. And ecosystems on the ground It all brings up justice and peace, enhancing cooperation towards Sustainable development goals.



Important activities 2019



Prostheses Unit Project in collaboration with the Prostheses Foundation

The company has formulated a human rights policy which truly reflects the company's commitment to pushing forward this matter. This applies to all business groups of the Charoen Pokphand Group. It has also initiated the development of human rights audit processes, including human rights risk assessments, formulating plans and remedial approaches to mitigate risks, including surveillance. Thailand has a large number of people with disabilities who need prosthetic legs to have a good quality of life and be able to work and support their families with pride, not a burden to society, but the cost of making prostheses is expensive. At the height, the Prostheses Foundation is able to make prosthetics at a low price because they can find substitutes for free prosthetics for all races, all religions, and participating in the Prosthetics Foundation. Since 2011, providing support to the omelet rice booth to raise the handicapped people who have received

prostheses and their families, along with giving rice, drinking water to people with leg disabilities and prosthetist. Localization. The company also provides the opportunity for partners to support prostheses and find patients for prosthetic support in each area that has been released continuously for more than 14 years.



Company C.P. Yangon Co., Ltd. Participated in The Prosthetic Activity Service from Thailand to Myanmar in which the Prostheses Foundation in Royal Patronage and the Royal Thai Embassy in Yangon have encouraged Prosthetics were performed for disabled people in Myanmar by prosthetic donors More than 100.



Total prosthetic donor
1,007 cases (year 2017-2019)

CASE STUDY

8

Supporting social activities in Vietnam.

C.P.Seeds Vietnam Co., Ltd. is a part of continuously support the implementation of social activities. In the past, we have supported social activities through various projects in total value. 620,000 baht. With details as follows



Supporting social activities
620,000 baht



Donated money to Vien Huyet Hoc Hospital for Child Cancer Aid Program in Hanoi Province, value of 150,000 baht



Give bicycles to students in poor areas, Thanh Anh District, Cao bang Province, value of 100,000 baht



Provide scholarships and libraries to Non Sao Mai School in Baria Province Corn Plantation Promotion Area, value of 150,000 baht



Handing over a poor farmer's house in Nghe an Province, value of 220,000 baht

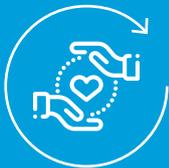
HEALTH AND WELL-BEING



Key Performance in 2019



Production Standards
and Agricultural
Inputs Standards



Promote health and
and **well-being of**
all employees

The challenge

Charoen Pokphand Produce Co., Ltd. and companies in the business group are 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.

2019 progress

- Standards for the production of agricultural factors and agricultural products
- Develop projects that support opportunities in vulnerable groups focusing on career building and community sustainability

Development of agricultural production standards

Seed Processing Plant, Charoen Pokphand Produce Co., Ltd. places great importance on seed quality inspection and assurance. There are procedures, methods and standards in every production process that are accurate, punctual and comparable to international standards. International Seed Testing Association (ISTA) to give farmers the confidence that Quality seeds pass the standard Meet the needs For chemical fertilizer plants has been certified to the quality system ISO 9001: 2015 in the quality inspection of tools, equipment and inspection methods according to the Department of Agriculture of Thailand.



Agricultural Inputs

CP Mor Din Organic fertilizers under 'Dock Bua Ban' brand received an organic input production certification mark, which is a organic input production that can be used to produce organic crops according to organic standards Ministry of Agriculture and Cooperatives.



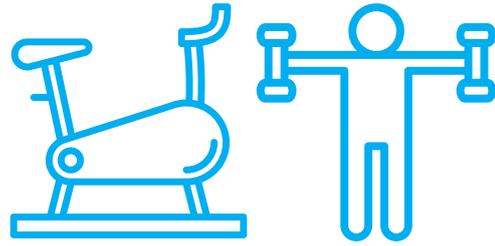
Agricultural Standard GAP

Glass Farm integrated vegetable production plant is certified GAP Agricultural Standard - Good Agricultural Practice for Food Crops from the Department of Agriculture, Ministry of Agriculture and Cooperatives and received the Award for Outstanding Delivery of Quality in 2019 from CPRAM Co., Ltd., a large ready-to-eat food manufacturer to distribute both domestic and export to the world market.



Promotion of health and well-being

Charoen Pokphand Produce Co., Ltd. has focused on the health of employees in the organization. The company therefore provides a place to exercise for employees. Consists of a fitness room, field Football, Petanque Stadium Along with encouraging employees to exercise For example, pre-work exercise, annual sporting events to make employees of all levels aware of their own health, which is a key engine in driving business towards sustainability.



CASE STUDY

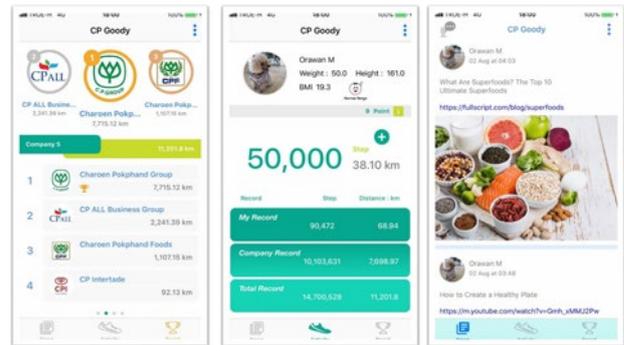
9

CP Goody

As the Charoen Pokphand Group sees that the “happiness” of Employees are the foundation of the organization because when employees are happy And having a good quality of life will inevitably result in a better quality of work which will It is beneficial to both employees and the company has focused on creating a good quality of life for employees in the group. Through the CP application Goody comprises of three healthcare platforms: Physical Well-Being, Psychological Well-Being, Financial WellBeing by Applications in the first phase will start with Physical Well-Being.

CP Goody is an application used to record employees' walking, running and swimming activities. By taking a picture from the device and then saving it in an app to accumulate steps or distances, it is a source of useful information that employees can use in their daily lives and also have fun activities to win. Various awards

- ✔ Share health news stories
- ✔ Keep walking, running, swimming
- ✔ Organize activities to compete within the organization



CP Goody Activity
“This step brings luck”



Give More...Year 1

Year 2019, Charoen Pokphand Produce Limited, in conjunction with dealers, has a 'Give More' project to give ... more 'by dividing part of the operating results from seed distribution Lotus brand (corn) and CP fertilizer to be donated to more than 87 hospitals in the country.



Hospital
87 locations



Donation amount
3,739,435 baht



Support for sick people and the elderly

The present society of the country has entered the aging society within a year. By 2021, it will enter the aging society completely and find that most of the diseases that occur is paresis patients Paralysis, hands not tense Brain disorders Which causes a pecking of the palm area, causing wounds and symptoms Tendon muscle is shortened, making it impossible to open the hand, or The company therefore created the idea of participation of employees to help society through activities “Khun Chang holding hands”

Raising awareness of employee participation, contributing to social sharing through activities that can be done by themselves, creating pride and happiness in working with organizations that care for society.

- Provide basic medical aids to help relieve the initial illness, reduce hospital costs.
- To create integrated participation between the public and private sectors to strengthen society together.



Target group

Delivered to Khun Chang holding hands for 2,999 pieces

Chulalongkorn Hospital, Thai Red Cross Society

Siriraj Hospital

Ramathibodi Hospital

Chest Hospital

Phra Nakhon Si Ayutthaya Hospital

Chaopraya Yommarat Hospital Suphanburi

Buriram Hospital

Kamphaeng Phet Hospital

Saraburi Hospital

King Narai Maharaj Hospital Lopburi Province



CSR Spirit

Employees are at the heart of corporate development. A tool to create the participation of executives and employees who work together to do good for the benefit of society while continuing to grow business.

Volunteering work also creates self-value among employees and a good relationship with them. We also feel proud of the organization that works as a good organization that serves society, community, is responsible for consumers, works and feels comfortable and secure. Volunteering is also to develop the potential of teamwork. In volunteer work, employees' minds are developed to learn about giving and making sacrifices. This makes it less selfish, taking advantage of each other in the work, instead of helping to support each other. All

of them give employees a positive attitude towards working together. Volunteering can also help bridge the gaps in the management of employees and make work more open-minded, indirectly affecting the work of the organization. To go smoothly and a pleasure in working with the organization.



CASE STUDY

13

“100 years-CP” and “One donated to three received”

Charoen Pokphand Produce Co., Ltd. has joined the 100 years-CP to donate blood and volunteer for the blood donation project “One donated to three received”. Management and staff have continuously taken part in blood donation activities since 2017-2019, totaling 103,950 cc. of donated blood.



Blood donation
Total
103,950 CC



EDUCATION



Key Performance in 2019



The company can create access to quality education according to the specified goals.



Declare an **equality policy to reduce** the advancement of education

The challenge

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. Crop Integration Business (Maize) recognizes the challenges and opportunities to support and develop education, as well as the competitiveness of both domestic and international human capital.

Performance against Goal

2020 Goal (Thailand)

Support children, youth and adults to have access to education and the development of skills required for a total of 5,000 people.

	2018	2019	Goal 2020
Children, youth and adults to have access to education and the development of skills required	1,468	4,318	5,000

2019 Progress

- Encourage boys and girls to access development, care and Provide pre-primary education For quality early childhood
- Encourage all men and women to have access to technical education, higher vocational education Including the university
- Increase the number of youth and adults with the necessary skills Including technical skills, techniques and careers for employment Having a good job and being Operator

Management guidelines

Charoen Pokphand Produce Co., Ltd. believes that creating a culture of participation in education and creating opportunities for accessing knowledge is to develop the potential of youth and adults of all ages. challenge various areas, reduce inequality and increase the competitiveness of the country.

CASE STUDY 14

National Children's Day

The Company has organized an annual National Children's Day activity to encourage people to recognize the importance of children and youth that will be a vital force for the development of the country in the future and has continued to organize the National Children's Day more than 13 years. This year, the National Children's Day event was organized under the theme of Children's Dream Career 2019 to encourage Thai children to learn how to set life goals, build a commitment for future study and find their own preferences.

Objective

1. To realize children importance in nation-building and provide them the opportunity to open their wings and fly high to achieve their goals.
2. To create participation between the organization and the communities surrounding the company area.
3. To raise awareness and give importance to children and youth who 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



Total children 4,273 engaged in the event

Support family warmth and build a strong society CPP and Carabao Foundation Jointly organized activities on the National Children’s Day and the Mother’s Day

Child and youth development as well as strengthening family relationships are activities that the Company Charoen Pokphand Produce Co., Ltd. has always been of great support, realizing that the intimacy and warm relationships of the family are the basis for children and young people to grow into quality adults. Keep society strong.

The Company, therefore, has joined with Carabao Foundation to organize the “National Children’s Day” activity since 2010 to the present in order to provide opportunities for children from Lam Sali community. Krungthep Kreetha learns and enhances skills through an out-of-classroom activity base to promote creativity, assertiveness, as well as having fun with numerous recreational activities and prizes, which every year the company sponsors food, beverages and prizes to Approximately 200 children attending the event.

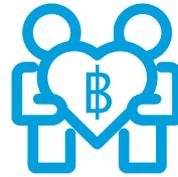


In addition, the Company and the Carabao Foundation have jointly organized a “Mother and Child Bond” activity on the occasion of the National Mother’s Day. Continued from 2009-2017 It aims to foster love and bond between mothers. With children from Lam Sali community Krungthep Kreetha through recreational activities And a booth to enhance various skills and knowledge In order to allow the mother and child couple to participate in activities and communicate more Which throughout the 9 years that we have organized activities The mother and son were found to have 200-300 people joining each year.



Scholarship

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



Give scholarships

406 scholarships

3,297,220 baht

Scholarships for employees' children



Crop Integration Business (Maize) Charoen Pokphand Group 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.

Scholarships for Mae Jo University

Charoen Pokphand Produce Co., Ltd. realized the importance of education and continued supporting and developing people with knowledge, abilities and skills required for over 7 years, totaling over 1,200,000 scholarship funds

baht. For the academic year 2019, the company awarded scholarships for a bachelor's degree at Mae Jo University, Chiang Mai Province for 10 scholarships 15,000 baht per each, totaling of 150,000 baht.



Safe Nature Project Support Environment Conservation Camp



With a commitment to the development of the country along with the care of natural resources and the environment, the Charoen Pokphand Group provides educational support to youth at the primary, middle and high school levels. Co- conserve natural resources and environment in the western forest, Mae Klong watershed forest that flows to nurture the central region. In this regard has proceeded A youth project to preserve the environment to support youths who are children of forest guardians in Huai Kha Khaeng Wildlife Sanctuary, Uthai Thani Province.



In the part of the natural safety project Charoen Pokphand Group donated scholarships to the children of forest guardians in Huai Kha Khaeng Wildlife Sanctuary at the event “Sueub Nakasathien” on September 1 every year. By participating in continuing scholarship awards since 2018, 10 scholarships per year, 3,000 baht each. In addition, it also supports the youth camp activities to carry on the work so that the youth who receive the scholarship each year can learn about conservation and sustainable use of natural resources as well.



Site visit



Total number of visitors and Site visits
3,140 people

Slang Phan – Kham Pran Farm

The Slang Phan-Kham Pran Farm is a large closed farm area with an area of 2,063 rai, which is a farm with management of the main seed production, corn, which has a large irrigation system and the main seed plots, so it is managed and planned. Systematically grow corn. The farm has focused on learning by opening the farm as a learning center for corn production technology, which opened up new opportunities. The visitors are included employees within C.P.Group and third parties such as customers, farmers, government employees, private sectors, civil servants, students, etc.



Organic Fertilizer Plant

To study the seed processing processes involved including handling raw materials, production, packaging, storage and distribution management to the recipient. Every step is reviewed by QA standard.



Soil and Fertilizer Laboratory

To study the importance of soil fertility and assessment of fertility process including analyzing soil characteristics procedure, soil samples collecting methods. Finally, the final process is to be able to recommend the right fertilizer formula, right ratio to enhance soil fertility in needed areas. These processes can be done on field and inside laboratory.



5S system and safety, occupational health and environment management system



Seed Processing Plant Business, Lopburi Province Open house to welcome in the opportunity to come to study and see the system work 5S and the Company's safety, occupational health and work environment management system

Process of seed processing, quality assurance and storage of seeds



Seed Processing Factory, Lopburi Province, opens house to welcome new employees of the company, such as CCP New Gen (Program 1), on site for observation the plant's overview of seed processing, seed processing process and quality assurance of the company.

Seed Processing Plant Business, Lopburi Province, welcomes students to learn about factory operations

INNOVATION



SUSTAINABLE
DEVELOPMENT
GOALS

8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY INNOVATION
AND INFRASTRUCTURE



Key Performance in 2019



9 items
Register new plant varieties



241 people
Number of research and development personnel
(Including Thai and local people)



53.51 million baht,
the savings from the project to reduce
costs and increase efficiency in 2019.



59 people
Number of innovators who invent
innovative projects, reduce costs
and increase efficiency.

The challenge

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 agro-industry, which needs to be improved and innovated, as well as a focus on social and environmental responsibility. Innovation is therefore one of the company'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.

Performance against Goal

2020 Goal (Thailand)

Add value to product and process innovation
50 percent compared to the base year 2016

2019 progress

- Develop research and development processes and innovation processes owned by the company.
- Promoting organizational and social potential, as well as paying attention to employee participation by cultivating habits and fostering positive attitudes towards change, aiming for innovation

	2018	2019	Goals 2020
Number of innovations	52	59	85

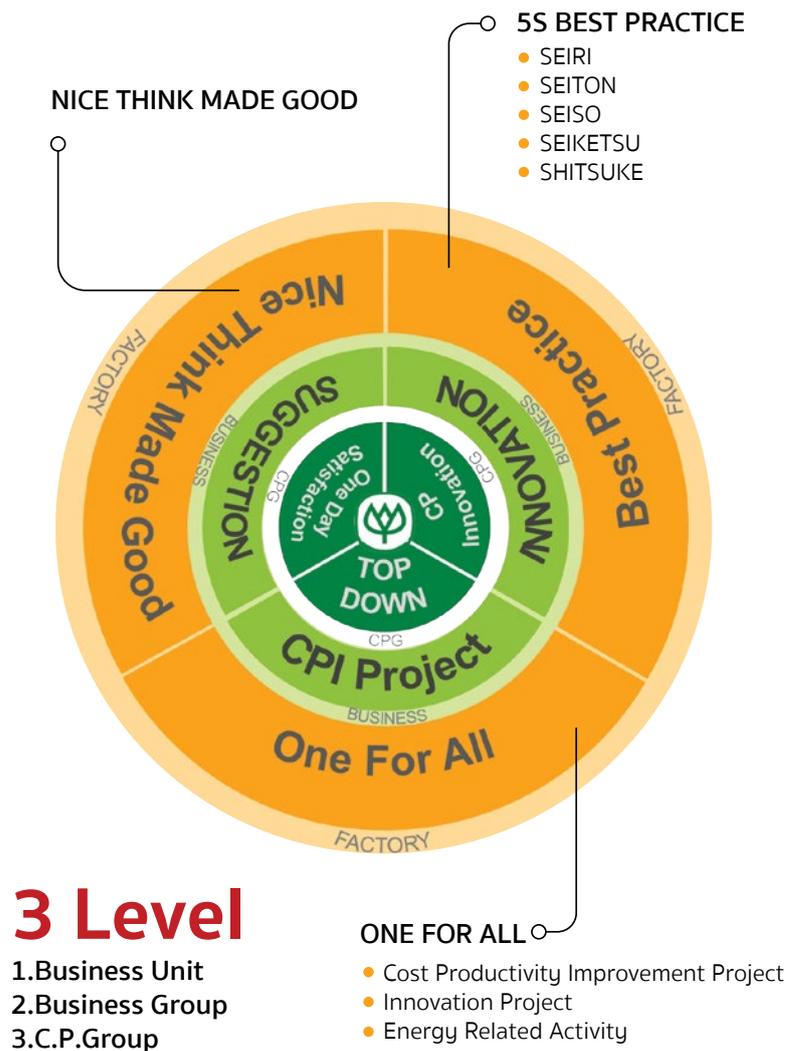
Management guidelines

To support the changes that will enter the digital age, Charoen Pokphand Produce Co., Ltd. and companies in the business group believe that Innovation will be an important tool for us. Keep pace with global change, and therefore define and implement the Company's innovative management framework, consisting of building a human resource development platform and corporate culture.

Process development These include open innovation and intellectual property management, which is the basis for the adoption of digital technology to transform the organization in order to drive innovation in a systematic and continuous development, aiming to be an innovative organization throughout the organization.

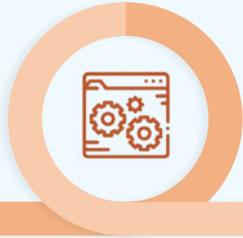
The Company believes that everyone in the organization plays an important role in driving the policy and developing innovation. Therefore, the company promotes and supports the creation of innovative works by cultivating employees to embrace change and take part in creating innovation, fostering corporate culture. Which will drive innovation organizations. The company has held an innovation competition every two years continuously. For sharing Knowledge and exchange of experience for employees in the company. In addition, the company also promotes innovation by creating incentives for awarding and a system for grading the work that has been qualified for the CP Innovation Fair as a reward for personal accumulation of employees. And stepping into innovators at different levels

CPP Innovation Diagram



Note : CPI Project refers to Cost Productivity Improvement Project

Organization improvement and development system



MANAGEMENT SYSTEM

- GRC Management
- ISO 9001:2015
- ISO 14001:2015
- Green Industry
- BCM
- SHE² CSR & 5S System



PROCESS IMPROVEMENT

- C.P. Excellence
- 3/1
- Kaizen/Suggestion
- CPI Project
- ONE FOR ALL
- CHANGE
- PDCA



INNOVATION

- C.P. Innovation
- CEO Award



PERFORMANCE EXCELLENCE

- PMS
- 360 Feed Back
- Employee Engagement
- Plant KPI
- Department KPI
- Personal KPI

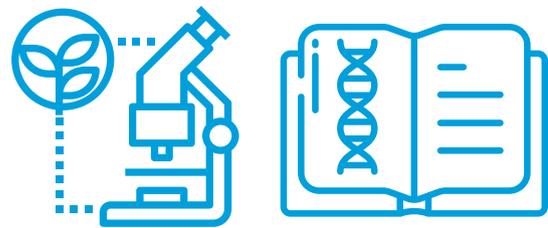


KNOWLEDGE MANAGEMENT

- CPLI Program
- Components of QA System for Standardization
- 5S Master Certification Program
- Energy Management Program
- Risk Management Program
- R&D

Strategic Business Direction : Research and Development Division

- Development of breeding maize varieties, early-mature 90 days. Perennials can be harvested using machines that are high population with high yields, disease resistant and pests such as edible corn, rice and soybeans.
- Biotechnology development, improvement Select plants such as Marker Assisted Selection (MAS) qualifies varieties. As needed, based on DNA markers, Double Haploid (DH), reducing development time to get purebred corn in 2 seasons, normally 6 to 7 seasons.
- Develop cultivation technology, irrigation systems, agricultural machinery that are suitable for crops and the area conditions.
- Increase seed value, develop seed coating. Increase strength, prevent disease and insects.
- Manage efficient use of resources and supply chains One Seeds project uses a low-cost production base, reducing the risk by diversifying production.
- Business partner Government agencies and private educational institutions such as Bayer, BGI, Chia Tai, etc.



Strategic Business Direction : Plant Nutrition Research and Development Division

- Develop products to increase farmers' productivity and income.
 - Chemical fertilizers based on soil analysis cost encourage farmers to use fertilizers suitable for soil and plants, urea 46-0-0 with a loss-reducing coating
 - High performance organic chemical fertilizers are both chemical fertilizers that contain essential nutrients for plants and organic matter for soil conditioning to be suitable with the ratio equivalent to chemical fertilizers.
 - Organic fertilizers for rice, corn, vegetables, fruit, Home Garden increase the value of organic fertilizers with microorganisms, such as organic fertilizers with Tricoderma for fruit trees.
 - Microorganism Composted microorganisms promote plant growth in the environment, eliminate ammonia odor.
- Accreditation of soil and fertilizer laboratory standards, provide fertilizer analysis services for fertilizer registration.



CASE STUDY

17

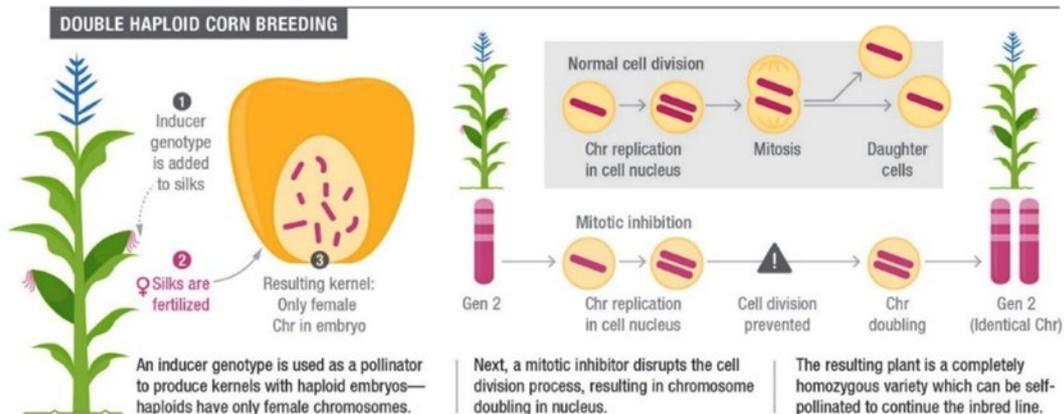
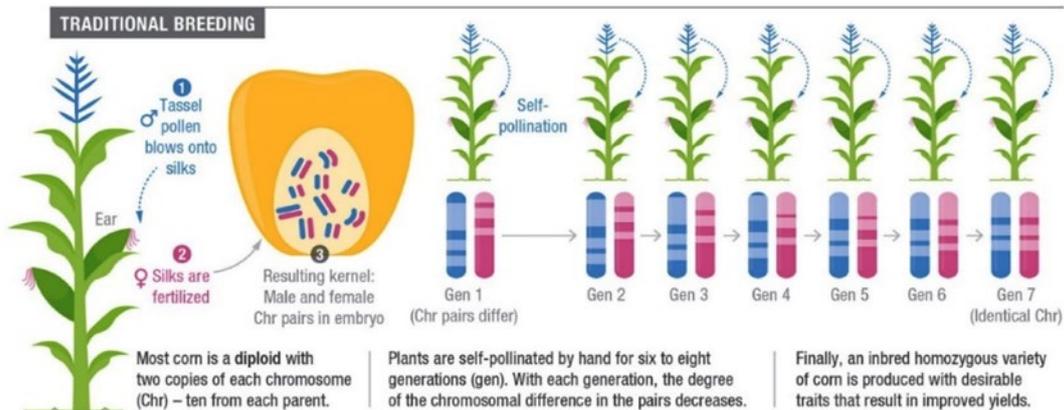
The use of Double Haploid technology shortened the breeding period from 7-8 years to commercial hybrids in just 2-3 years

Corn Research and Development Unit, C.P.Seeds (India) Pvt., Ltd. has seen the importance of agriculture-related innovations in terms of breeding by applying new breeding techniques to help ensure the success of obtaining good quality, yielding quality varieties. It is high and can adapt to a broad environment.

By using the Double Haploid technique, the introduction of genetics to help shorten the breeding period of traditional breeding plants, it took 7-8 years to acquire one commercial hybrid. Innovation was developed by adopting the Double Haploid technique. Used at present, can help shorten the breeding time to 2-3 years.



The Benefits of Double-Haploid Corn Breeding



Source : <https://www.lucyreading.co.ukprojectcorn-breeding>

CP Innovation Development Process

CP Innovation Charoen Pokphand Group

C.P. Group's mindset focuses on creating new and better products every day. We embed the spirit of innovation throughout our organization in 3 key ways: by creating an atmosphere conducive to innovation, by providing incentives and by practical application of our innovations. We also collaborate with external organizations and institutions to conduct research on innovation. The C.P. Innovation Exposition was first started in 2011 to inspire C.P. Group people to foster a spirit of innovation, to build a network of across the organization to share and exchange their knowledge and experience of efficiency enhancement.



2013

- Early maturing maize variety CP.201 (received the Chairman's award)
- CP.808 maize varieties for farmers in India and South Asia. (received the Chairman's award)
- Quality determination of F1 hybrid maize by method of root color observation.
- Innovation for upstream forest management in the area of Si Lanna National Park, Phrao District, Chiang Mai Province



2016

- Rapid quality inspection of fertilizers with NIR
- CP.333 maize varieties for seed businesses in South Asia and ASEAN
- Hybrid sweet corn variety, CP Sweet S1

2019

- Maize cultivars resist large blight disease CP.640 variety.

One Day Satisfaction Project

One day satisfied project. A "Bottom Up Activity" project that encourages employees of all levels to think of ways to improve, change To create new things to make employees' daily work better, also fostering participation throughout the organization to become a corporate culture and lead to the foundations of innovative organization creation.



Number of participants
118 people



Number of projects
330 projects



Expect cumulative savings
53.51 million baht / year

Innovators By Type



Innovator's Assistants
34 persons



Innovator 1
19 persons

Innovation for upstream forest care at Si Lanna National Park

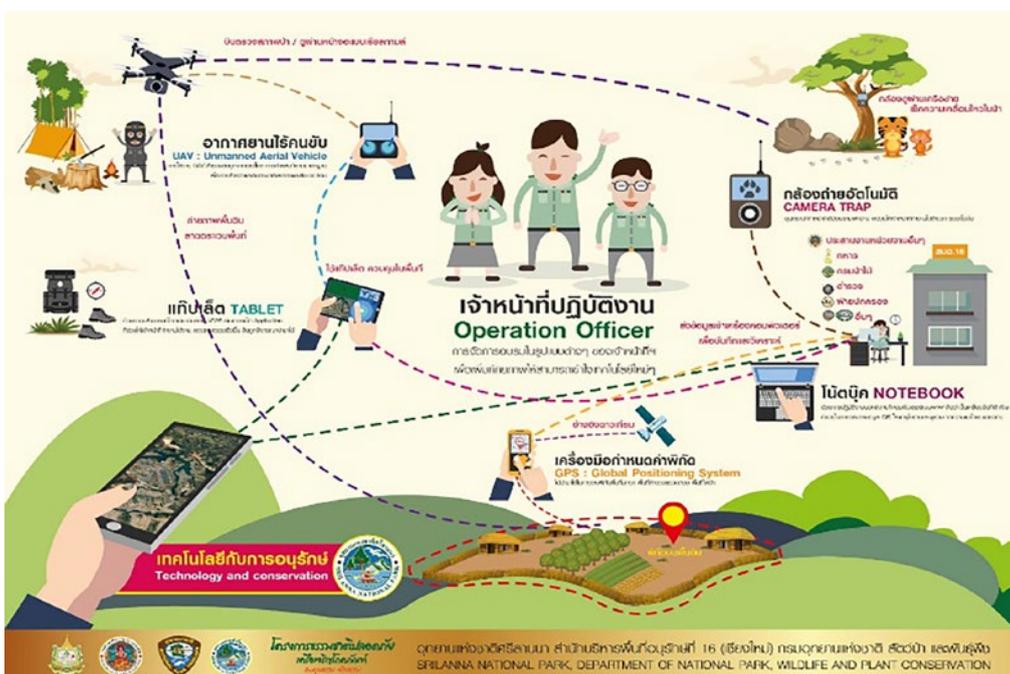
The company supports technology of care. Over 800,000 rai of watershed forests for forest protection officers at Sri Lanna National Park, Chiang Mai Province since 2013 to create knowledge and understanding between park officials and people in surveillance, prevention, suppression and halt the encroachment of natural resources and

Environment. This creates a forest lockout by surveying the area to keep the forest out of arable areas. The Company supports technology such as GPS, Drone, Notebook Computer, Tablet, etc.

In addition, in 2019, it also supported the Forest Care Laboratory to serve as an integrated conservation area threat surveillance center, known as the Wall Room, to communicate the performance reports to make the operations possible. It can reach areas in case of emergency such as forest fire, deforestation, hunting, etc.



Year	Public Relations	Survey	Field	Areas
2013 - 2019	255 Times	79 Villages	13,588	83,660 Rai



Project to increase the efficiency of hot water boiler combustion

Because of the plant to adjust the seed Lopburi has a corn seed dehumidification process using a hot water boiler (Boiler) as a source of heat energy with corncobs as fuel, which is By product from production. The factory has an idea In order to reduce energy consumption to reduce production costs, combustion efficiency was measured for data analysis. Improper filling of air into the combustion chamber causes wastage of fuel (corn cobs).

Therefore, studies have begun to study and determine the appropriate post-combustion air standard for use in setting up the machine. 2. Air from the fan aerates 3. The air from the exhaust fan) is suitable for solid fuel (corn cob), making it a standard setting to increase the combustion efficiency. Reduce energy costs Ie, corncob fuel and electricity down. Total amount 141,000 baht / year.



Hot Water Boiler



Oxygen Sensor for Monitoring Hot Water Boiler Combustion Efficiency

Wet Scrubber System to reduce the diffusion of vapor, heat and odor from the organic fertilizer fermentation process

The organic fertilizer plant has an inverted composting process to add oxygen to the fertilizer pile and enhance the microbial function. It was found that the diffusion of steam, heat and odors had less effect on staff performance, environment and community according to the wind blowing direction and also had less effect on material receiving efficiency per cycle. This is because impacts that may occur must be monitored.

The company has adopted the Wet Scrubber System principle to develop a device for removing gas and acid / chemical vapor by using the principle of contact between the waste air and liquid, which is water by spraying water. The dispersed water collides with the exhaust air. This process causes the contaminated materials to be trapped by the liquid. Can not be released into the atmosphere. With this principle, the fertilizer plant Organic has developed a towing unit to prevent odors and dust. And there is a canvas covering of organic

fertilizers to reduce the spread of another layer from this operation can receive additional raw materials from 3,600 tons / cycle and help reduce the diffusion of odors and dust that affect the operator on the environment. And the surrounding communities as well.



Water Scrub System

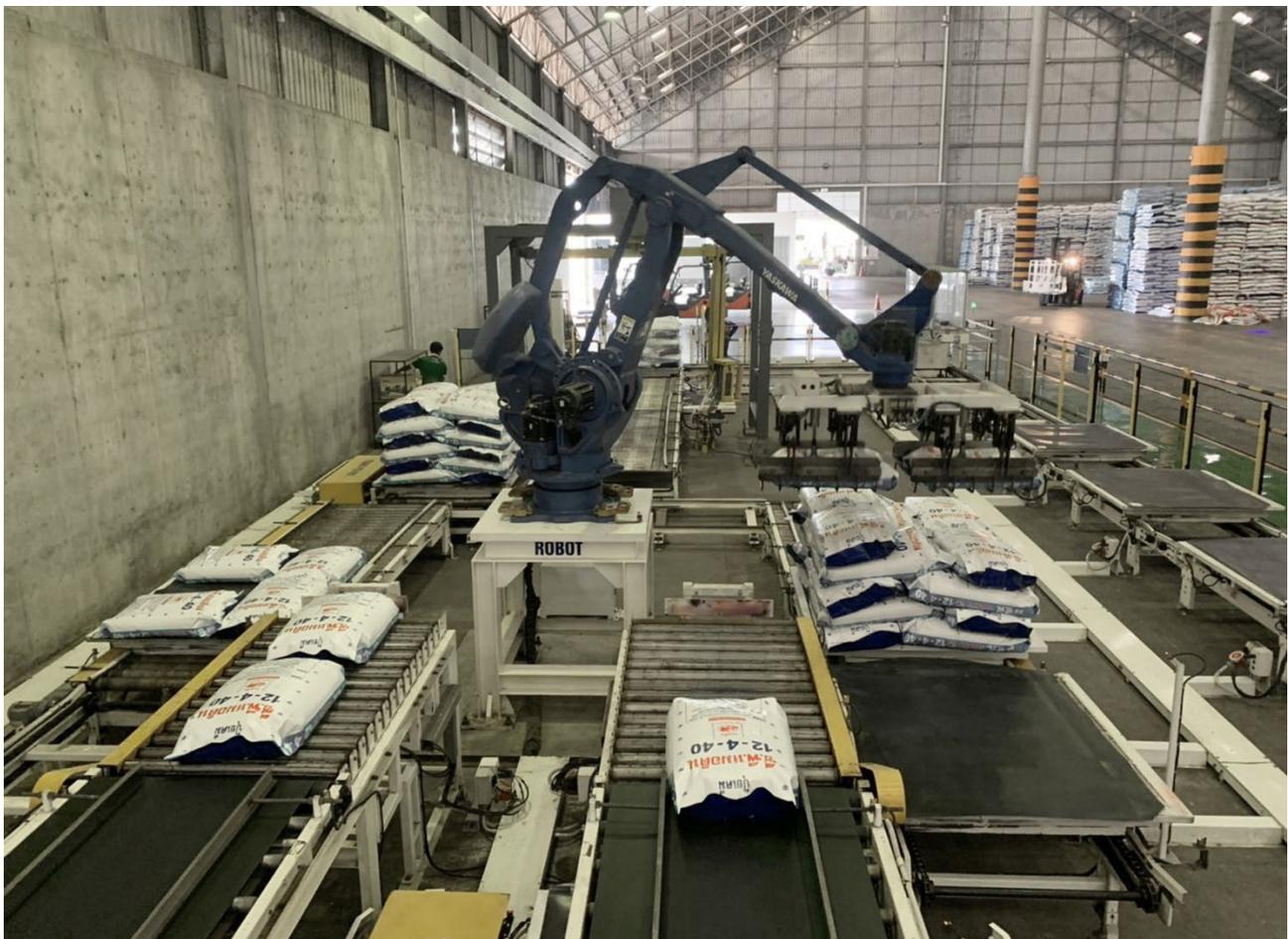


Odors and Dust Control

Automated Product Sorting, Chemical Fertilizer Plant

Automated palletizing project and palletizing system. The company introduced an automated palletizing system to replace the manual labor of the sorting system. Large in size, pallet conveying, and recirculation systems are designed specifically for fertilizer plants, such as area size, layout, machine-equipment, and operating procedures.

Which results This ensures consistent and improved product quality, reduces dependence on skilled labor, which in the future will be quite rare, replacing the storage system from singback to slip sheet (cost reduction). And a film is wrapped to prevent dust on the product.



Production efficiency
25 tons / hr



- Employees have better work health
- Increase the efficiency of labor in production



Cost reduction
24.88 baht / ton



Better control of working
standards



Safe and reduce bag
contamination, able to
extend bulk dispensing

Organic Fertilizer for Fruit Trees with Trichoderma

Charoen Pokphand Produce Co., Ltd. provides organic fertilizers with nutrients suitable for the growth of durian and other crops. Walailak University has *Trichoderma.asperellum* NST-009, a strain with high potential for promoting plant growth and dissolving phosphate in a form of plant utilization.

Organic fertilizer combined with *T. asperellum* NST-009 (Walailak University) is a bio-fertilizer with high potential to add nutrients, improve soil structure, promote growth and strengthen durian. It is economically important and is the fruit that gives the highest economic return of Thailand.



Dissemination of research results in academic conferences International level / National level / Group level

Charoen Pokphand Produce Co., Ltd. has published research results resulting from research, experiments and research by both international technology research and development teams. National level and CP Group's level.



- The 7th Master Corn and Sorghum Research Workshop on “Increasing Productivity and Quality of Corn in Changing Environment”
- Special lecture for graduate students and doctoral students Department of Agronomy Kasetsart University, Bangkok.
- Conference Charoen Pokphand Group 2019 (CP Symposium 2019) at BITEC Exhibition and Convention Center Bangna, Bangkok
- The 39th National Corn and Sorghum Conference 2019
- The 5th National Academic Conference (5th TECHCON 2019) “Strong Thai innovation is stable through research and development”
- International Soil and Fertilizer Conference July 2019, Kasetsart University campus Kamphaeng Saen, Nakhon Pathom Province

- Special discussion on “Crisis: Fall Armyworm” Annual General Meeting 2019, Association of Entomology and Zoology of Thailand
- Academic seminar on “Breaking the Income Crisis with Thai Agricultural Innovation” and Annual General Meeting 2019 by Plant Breeding and Planting Association of Thailand





Living Together



HOME

Charoen Pokphand Produce Co., Ltd. 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

- 1) Greenhouse gas emissions
 - 2) Water consumption
 - 3) Ecological protection and biodiversity
 - 4) Environmentally responsible supply chain management
-



CLIMATE CHANGE MANAGEMENT



Key Performance in 2019



Release greenhouse gas
6,649.84 Ton Co₂e



Proportion of renewable
energy use
23.44%

Renewable energy in business activities



Announcing climate
change policies
at business and agency levels.

The challenge

Under the challenges of climate change, Charoen Pokphand Produce Co., Ltd. and the companies in the group see the opportunity of change to create momentum and support for all business groups.

The company 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.

Performance against Goal

2020 Goal (Thailand)

to reduce the greenhouse gas emission concentration per unit of product weight by 10% compared to the base of 2015.

2019 Progress

- Initiated a recommendation plan to reduce greenhouse gas emissions
- Focus on processes and projects for energy saving and production efficiency in the organization
- Support and be a part of the value creation project within social

	2017	2018	2019	Goals 2020
Percentage reduction of greenhouse gas emissions	-	2	-	10

Greenhouse gas policy

Managing the Green Economy in accordance with the Greenhouse Gas Management Policy

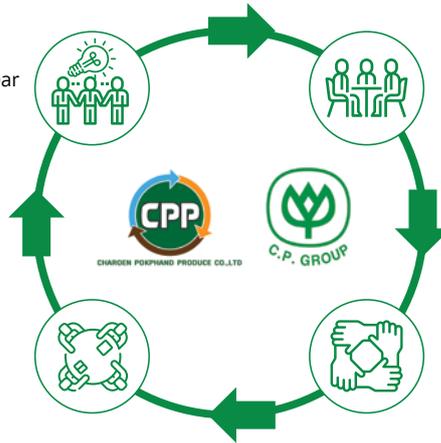
Green Economy Principles to ensure that the process has been implemented as follows

Act

- MRC management review meeting 3 times / year
- Business group sustainability meeting 2 times / year
- Environmental quality measurement
- CSR-DIW Continuous Report

Check

- Internal Audit ISO 14001: 2015 2 times / year
- External Audit ISO 14001: 2015 2 times / year
- Check CEO Award
- Compliance check



Plan

- Environmental goals
- Resource use goals
- Goals of creating consciousness

Do

- ISO 14001: 2015
- SHE
- Energy Management
- OJT Standard System 14001: 2015
- License Contact Farming

Environmental Practices



Pollution prevention system covers all areas



Green area inside the Seed Processing Plant

Environmental surveillance.



Measure and analyze wastewater quality pH, TSS, TDS, BOD, COD, Oil & Grease, TKN, H₂S annually

Resource practice



Project "Reduce excess air properly Increase efficiency burning of the boiler"

Achievements in energy conservation

THAILAND Energy Awards 2018

Charoen Pokphand Produce Co., Ltd. is committed to the management Energy management work, which emphasizes legal compliance as well as upgrades the energy management system and is continuously developed according to the Thailand Energy Award criteria of the Department of Alternative Energy Development and Efficiency. Ministry of Energy. There is a sustainable operation, executive commitment, energy conservation results and environmental impacts which can be widely expanded.



Charoen Pokphand Produce Co., Ltd. (Seed Processing Plant, Soi 12) received the Thailand Energy Awards 2018 for Outstanding Factory Energy Conservation. The Thailand Energy Awards is the best international Thai energy award. There is an ongoing contest.



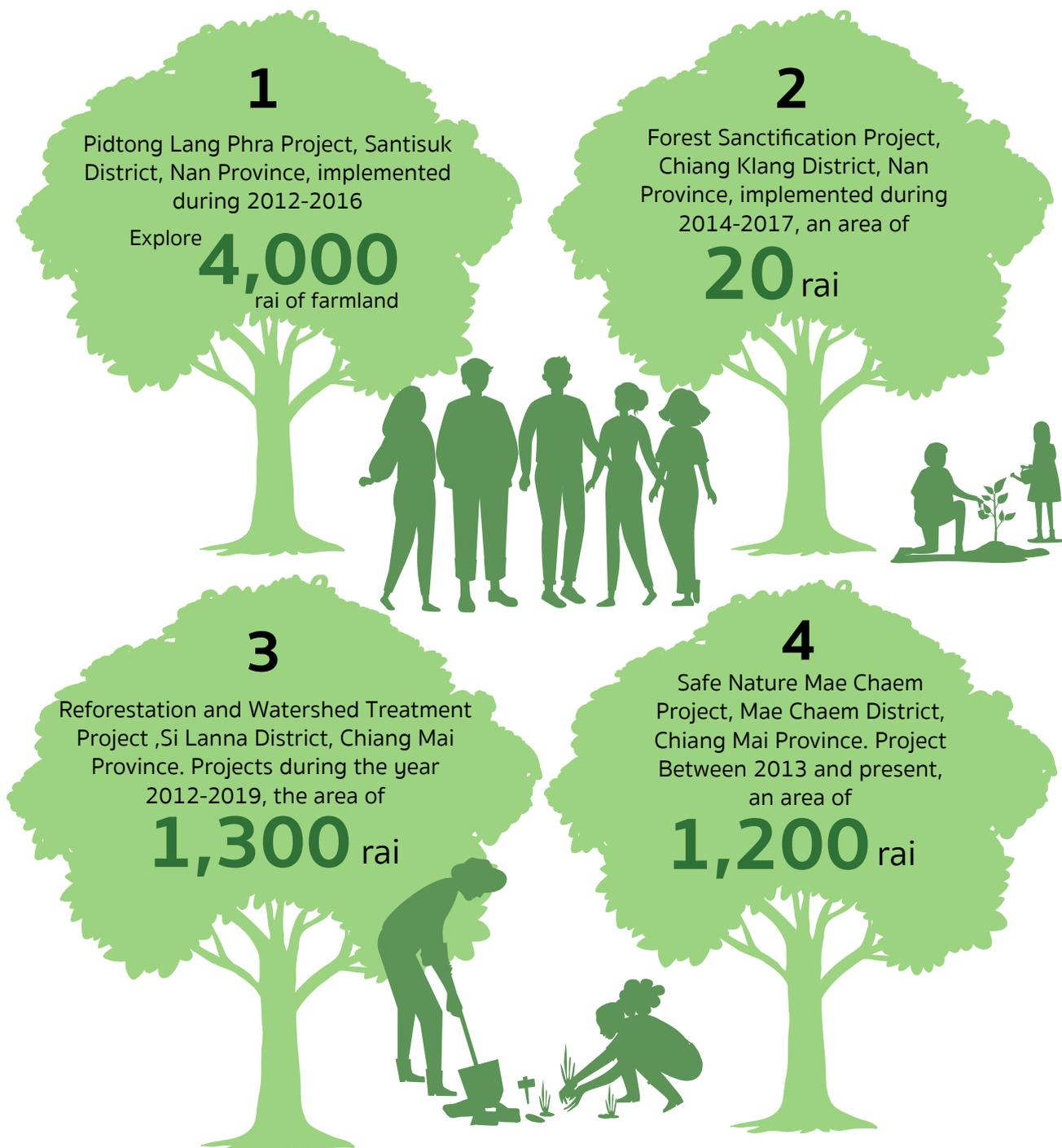
ASEAN Energy Awards 2018

Charoen Pokphand Produce Co., Ltd. (Seed Processing Plant Soi 12) received the first prize as ASEAN ENERGY AWARDS 2018: Energy Management in Buildings and Industries (Small and Medium Industry) at the 36th event ASEAN Ministers on Energy Meeting and Associated Meetings in Singapore. The company entered the contest for the best energy award in the ASEAN by 2018 The company received the award (WINNER) for outstanding energy management in small and medium factories, demonstrating the team's commitment to driving energy conservation. To raise the level of energy management and management to be continuous and sustainable.



Creating Social Value Alongside Local Communities

Charoen Pokphand Produce Co., Ltd. is aware of its social and environmental responsibility and has participated in the forest restoration activities in 4 watershed forests since 2012 til the present.



Develop the stability of the main watershed forests of Thailand, promote occupation for local people, help reduce the invasion of deforestation in the upstream forest areas, people can live with the forest sustainably.

1. Pidtong Lang Phra Project, Santisuk District, Nan Province, restore forest care, career development

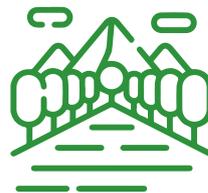
Charoen Pokphand Produce Co., Ltd. Be aware of social and environmental responsibility, undertake forest restoration activities in upstream forests Nan Province, which has a total area of 7 million rai, which is an area higher than a percent 70 have been continuously destroyed and destroyed by the Natural Safety Project. Charoen Pokphand Group Since 2012, in conjunction with the Royal Initiative Development for Security in the Nan River Basin Nan Province in the area of Ban Rat Rattana. Which is an area of expansion of the Pidthong Lang Phra Project Nan Province by carrying out various activities To care for the important watershed forests of the country on the Phu Damand Phu Laem Thong Mountains, flowing into rivers and flowing into Sirikit Dam Down to the Chao Phraya River up to 45 percent by operating Activities as follows.

1. Reforestation Project of Prachasakha 800 million kla, 100 rai
2. Planting vetiver grass for soil and water conservation, 50,000 seedlings
3. Land ownership survey using GPS
4. Project to support the processing of agricultural products for the country.
5. Gold Seed Capital Project, Black Pig Fund for 15 residents of Ban Rat Rattana
6. Project to improve rice terraces for rice cultivation
7. Tourism Promotion Project Mae Sanan Rafting



Planting upstream forests

140 Rai



Planting Rong Huai Forest to increase moisture.

36 Rai



Planted the original forest

330 Rai



Vetiver grass

50,000
seedlings

Year	Explore where to cook	Planting upstream forests	Rong Huai Forest	Forests make money	Reforestation
2012-2016	4,000 rai	140 rai	36 rai	30 rai	330 rai

2. Forest Staking Project in Chiang Klang District, Nan Province, Model of Forest Care for Sustainable Career Development

Safe Nature Project, Charoen Pokphand Produce Co., Ltd. supported the strategy of Nan Province. by supporting the activities of the forest conservation project, in collaboration with the Watershed Management Unit at Pue Subdistrict, Chiang Klang District, Nan Province, to clearly define the arable land and forest. In addition to making the villagers eat well, live well and live happily, the villagers realize the importance of taking care of the forest with a conscious mind to create a forest treasure. As well as learn to use Life and benefits from the forest, as well as creating a sustainable fertility for the forest in this area, inheriting a valuable legacy to the descendants.

The support activities extent to cover 3 projects as follows

1. Staking project, size 6X6 inches, 1.5 meters high, 2,000 plants by planting 500 plants a year for a period of 4 years from 2014-2017. It also supports forest restoration.
2. Reforestation project, the village of good people who take care of the forest, an area of 20 rai and the area of the villagers returning the forest 4,000 rai
3. Project compensation for a model village of good people who take care of the forests "Forest care Fund" in the watershed area of Nam Mead 41,000 rai



**Forest Settlement Project
(Boundary, arable land
and forest area)**

2,000 site.



20 rai
**Planting upstream
forests**



**Establish a forest care fund in
the watershed Nam Mae forest.**

41,000 rai



3. Reforestation Rehabilitation Project, Sri Lanna District, Chiang Mai Province

Charoen Pokphand Produce Co., Ltd. is committed to contributing responsibly to society and the environment in order to achieve sustainability by setting goals in the care of upstream forests to help reduce the potential impacts of natural disasters.

The Natural Safety Project, Phrao District, Chiang Mai Province, in collaboration with Sri Lanna National Park and local network partners through various activities, mainly, to restore forest plantation and maintain watersheds in damaged areas of more than 8 rai of land.

It is a body of water that flows into a large reservoir, size 20. Square kilometer is called “Mae Ngad Somboon Chon Dam”, capable of holding a maximum of 265 million cubic meters of water. It is considered an important and famous reservoir in Chiang Mai that flows into the Chao Phraya River, helping every part of the Chiang Mai people including the settlement. Industry in Lamphun Province.



Location coordinates for reforestation and watershed treatment

Year	support seedling cultivation	upstream forest planting	Maintenance of plots, fire prevention lines, planting forests	Measure growth	Grow bamboo species
2012-2019	171,900 seedling	1,300 rai	1,300 rai	100 rai	630 Bunch of Bambo

The support activities continue since 2012, covering projects as follows

1. The seedling planting project to support forest plantation in the area of Sri Lanna National Park 2013-2019
2. Reforestation projects on important occasions
3. Fire resistance project
4. Progress monitoring project of reforestation area (growth measurement)
5. Planting and propagation of bamboo in the park area



4. Safe Nature Mae Chaem Project, Mae Chaem District, Chiang Mai Province Water changes life, creates a career, restores forests

Water helps to change lives, create a variety of careers, and help restore the forest and various resources of Ban Mae Pan-San Kieng community, Chang Kheng Sub-district, Mae Chaem District, Chiang Mai Province after the community agrees to change the way of production from monocultural cultivation to integrated farming according to the philosophy of sufficiency economy. It is the source of the development of water systems for agriculture on the highlands, or making a bunch of ridge ponds and laying the pipelines to transport water from the bunches into the farms' arable areas to provide the community with agricultural water throughout the year.

The Safe Nature Mae Chaem Project supports the digging of wells and materials, while Mae Jo University's research team is responsible for training and providing knowledge on site selection for ponds and community pipelines. putting the water pipelines for farms in the project.

Supporting communities to participate in every step leads to a sense of belonging, appreciation, and maintenance of the ponds. Mae Pan-San Kieng community water pipeline system. The community can manage water use efficiently. It is also possible to share sustainable water use with the surrounding communities.

Since 2013 to present, the Mae Chaem Nature Safety Project has supported the construction of five 750 cubic meters of bush ponds and 175 cubic yards. There are 47 ponds in cubic meters, including 337 farmers' households with a pipeline system. It provides those farmers with water for agriculture all year round, covering the farmers' water usage areas 190 plots totaling 1,200 rai.



Pond capacity

750 m³ **5** ponds

pipeline system to supply water to

337 farm households



Covering a water area of

190 plots

Total area of

1,200 rai

Photo contest “Wake up the idea ... Realize nature”

Safe Nature Project, Charoen Phokphand Group has organized a photo contest “Wake up the idea... Realize Nature” under the theme “Memory In Si Lanna” and “Memory In Maejam” by inviting people who like photography to submit photos of nature, environment, lifestyle and culture. The beautiful local area of Si Lanna National Park and Mae Chaem District. Which is considered the main watershed of the North to raise awareness of the importance of nature and the environment, leading to a feeling of appreciation and participation of the people of both communities in the conservation of resources around the community. As well as publicize the location Take a scenic natural tour in Si Lanna National Park and make the most of Mae Chaem ecotourism

The “Memory In Si Lanna” activity, the Safe Nature Project, in collaboration with the Department of National Parks, Wildlife and Plant Conservation and the Media Photographers Association of Thailand, has organized 2 contests, in 2017 and 2019, with a total of 756 and 397 entries. The pictures in order. From all 3 groups of contestants are students (higher education) and individuals living in the area of Phrao District, Mae Ruam District, Chiang Dao District, Chiang Mai Province, which is the location of Si Lanna National Park and the general public. There are 22 and 28 award winners.

For all 3 photo contests, the awarded photos will be published during the activity period. And stories of various places via online media channels to stimulate awareness of the conservation of natural resources and the environment.

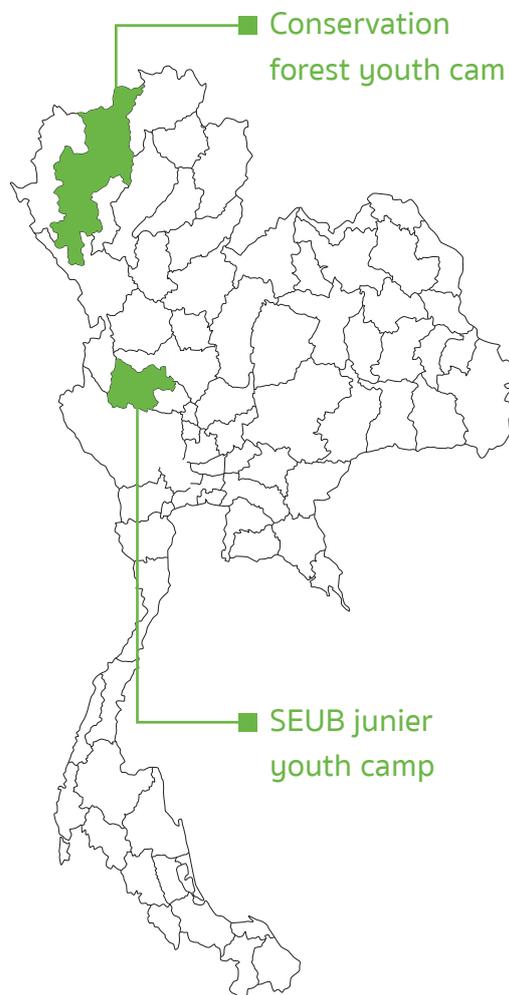
Furthermore, the photo contest brings in the attractions to the Si Lanna National Park and Mae Chae District, Chiang Mai Province. For the communities in both areas can develop into ecotourism, the communities in the area will be able to live with Forest and nature in a friendly manner, as well as with sustainable income.



Social value creation project to support youth camps

Safe Nature Project Charoen Pokphand Group supports the organization of youth camps at the primary and secondary levels in two areas that have been engaged in the activities with an important objective: to stimulate and raise awareness of the young generation to know how to use resources and be able to coexist with nature and environment.

1. "Mae Van Youth Forest Conservation Youth Camp" and The Forest Conservation Youth Camp, Si Lanna National Park during 2013-2019, 8 models, 50-60 people each, total 260 people.
2. "Sue Junior Youth Camp" and "Youth Camp Conserve the forest" During the years 2013-2019, there are 4 models, each 50 people in total. Total of 200 people.



Youth camp to raise awareness about conservation (2 areas)

460 people



Waste management

The Charoen Pokphand Produce Co., Ltd. and all the companies within the group realize the importance of the management of industrial waste and waste within the factory. Therefore, the international standard system ISO14001: 2015 was used to manage within the organization for several decades. By systematic waste management in the organization And in accordance with the legal requirements, the organization has no demands on the environment. Both with the surrounding community and at the national level.



The company provides knowledge to employees of all levels on the international standard ISO. 14001: 2015 to enable employees of all levels to comply correctly with review training 1 time per year.



There is a clear classification of trash to employees separately. General waste, recycled waste, hazardous waste.



The company has organized a green bin project by allowing employees to separate food waste from general waste and then use food waste to compost to reduce more than 100 kg of food waste per month.



Improve the dehumidification system from the original use of fuel oil as fuel, improve it by Product is a replacement fuel, reducing industrial waste by more than 700 tons per year.



Establish the CPP2 Recycling Waste program to let all employees know how to properly separate each type of recyclable waste.



WATER STEWARDSHIP

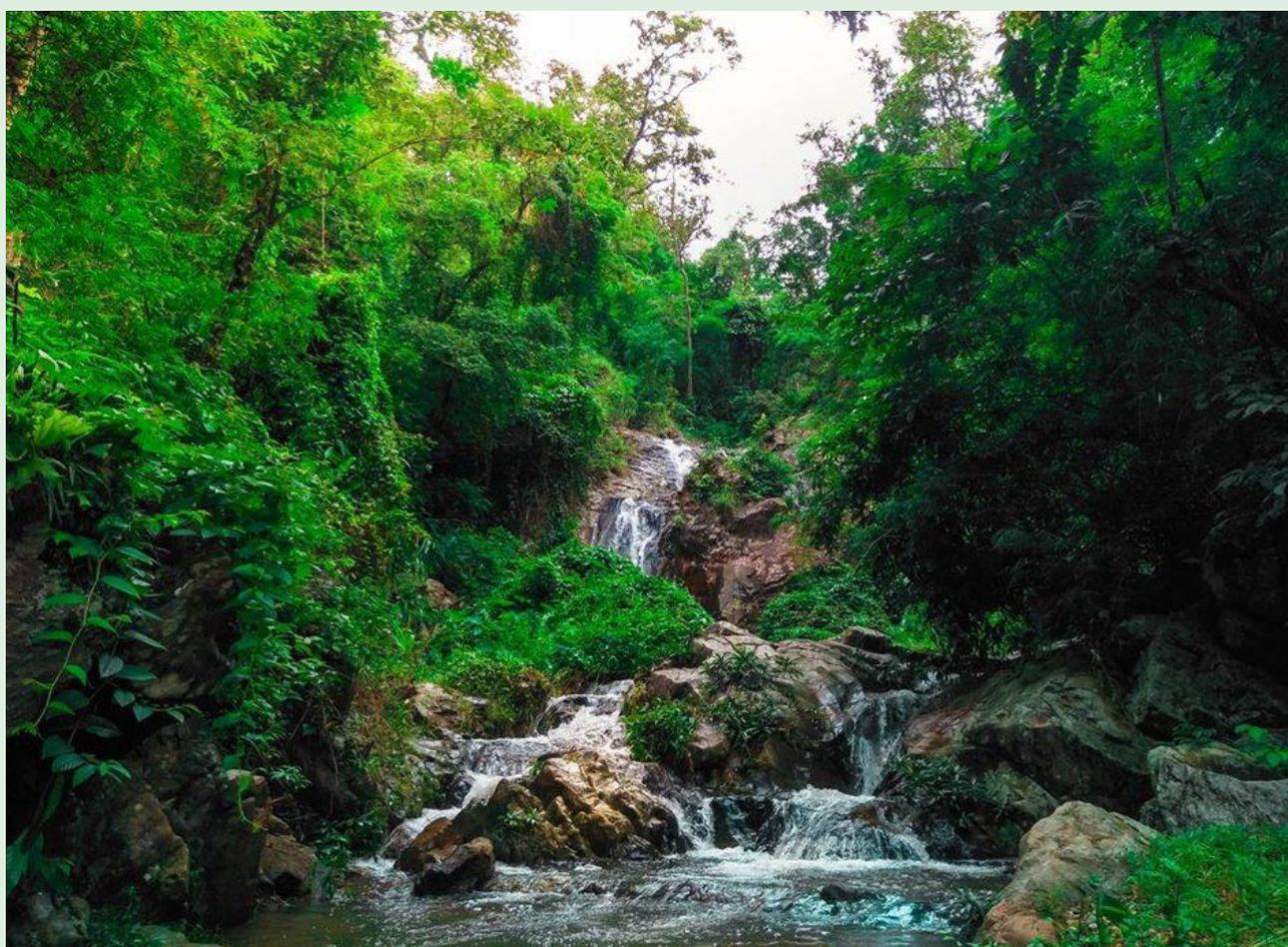


photo contest "Memory in Si Lanna" year 1 (2017)



Key Performance in 2019



Amount of water used
1.75 million cubic meters



Proportion of recycled /
reused water
0.10%



Encourage farmers
to access water sources
for agriculture.

The challenge

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 the companies in the business group 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.

Performance against Goal

2020 Goal (Thailand)

Reduce water consumption per unit of production by 10% compared to the base year of 2015.

2019 progress

- Water consumption management and control guidelines
- Communicate and transfer technology of water use for agriculture to farmers and other stakeholders

Management guidelines

Water is essential natural resources for living organisms and having direct impacts to their livelihoods, meanwhile, it also plays an important role for our business operation. At present, water scarcity becomes one of the most critical issues throughout the world. Our C.P. Group definitely realizes this serious problem and its risk occurrence by means of setting up the following practical guidelines to ensure that our business operation is able to keep the balance between the needs of water use for communities and nature.

1. Strive to minimize any negative impacts on natural water resources in order to ensure that people in every household having a good water quality and an adequate water supply for their utilization and consumption
2. Setting up long term goals in the use of water resources and also encourage all business functions within organization to implement an effective water management, water risk assessment, water resources preservation and applying technology to raise up volume of water recycle
3. Promoting the principles of good water quality and safe water supply shall be accessible and affordable for all people in communities in a fair and equity manner
4. Promoting cooperation between community and any associated stakeholders in the use of water and water resource preservation as well as responding to any concerns from community and public society with transparency manner
5. Encourage an awareness and understanding of water preservation to all employees and any interested stakeholders by training, knowledge sharing and also any related campaign activities together.
6. Data disclosure and its operational performance on water preservation passing through Sustainability Report in order to follow up its status against with specified targets and also communicate to any interested stakeholders
7. Collaboration with any associated agencies i.e. governmental authorities, non-governmental organizations (NGOs), educational institutes, communities and other associated stakeholders in order to handle with the problem on water stewardship both for national and global level



Agricultural Drip Irrigation System with Solar Energy

Slang Phan-Kham Pran Farm in Wang Muang District, Saraburi Province Larger, more space 2,063 rai have a large irrigation system to manage water for the cultivation of corn. But there are still some areas where large irrigation systems were inaccessible. Drip irrigation with solar energy comes with water irrigation system. The drip improves space utilization from large, inaccessible irrigation areas, reducing the consumption of electricity and oil used in Water pumping.

By assessing the energy consumption of the Slang Phan-Kham Phran farm, the electricity used for pumping water by 340 kWh was reduced. More water loss to areas outside the root zone 40% while the drip system has a loss of not more than 10%.



Results and benefits

30% 

Reduced water loss from large sprinkler systems compared to drip irrigation systems.

340 kWh 

The amount of solar energy instead of using electricity in 2019.

Creating an ecosystem for managing water, fertilizers and the environment in organic fertilizer production

Charoen Pokphand Produce Co., Ltd. takes into account the water management generated from the organic fertilizer plant by collecting water from the compost pile and the reserve rainwater, used in the composting and test plots in the factory business. It is technically correct. In addition to reducing the use of water from natural sources, it also reduces environmental and odor effects.



A total of 60,025 cubic meters of water from the natural well, receiving pond and dams are treated with a water filtration system, fertilizers, and pumped for use through pH and Electric Conductivity measurements.

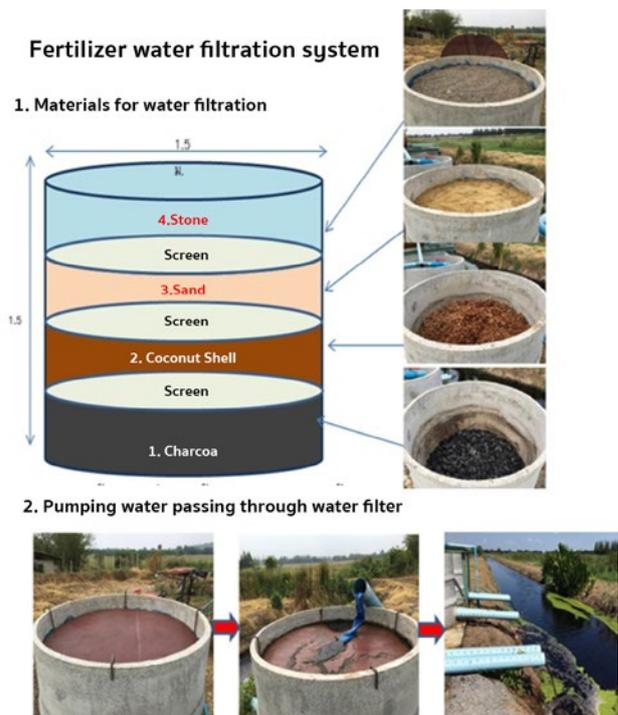


Compare the original cost from using floating well water and using a water pump to use oil to use fertilizers from treatment and use of electrical systems, you can see that the results can be saved up to 228,990 baht.

The cost	Sump water and oil pumps	Use of fertilizers from treatment and use of electrical systems
Pumping water into floating ponds and circulating water, fertilizers, and reuse	307,920	78,930
Total Saving	228,990 Baht	

Total Saving
228,990 Baht

Total Water Treatment System
60,025
Cubic meter



Note : Compare with the base year 2017-No water filter

Well Digging Service for Agriculture

C.P.Yangon Co., Ltd. Has a service unit to drill groundwater for use in agriculture, which allows farmers to have water for agriculture all year round. There are 67 ponds in 3 sub-districts and 12 villages, which cover more than 800 agricultural areas. Ranches in Naypyidaw District Myanmar and continues its agricultural service, with two groundwater drills for this activity.



Drilling
67
underground wells

Covering
agricultural area
800 rai

Conserve the Pasak Basin and Release Sustainable Freshwater Fish

Pasak Cholsit Dam is the longest clay core dam in Thailand. Its length is 4,860 meters and the height at the highest point is 36.50 meters. This activity is held for the second time, with 79,999 freshwater fish species being released over the Pasak Cholasit Dam, Lopburi Province.

The company is related and bound with the Pasak River running business from upstream and downstream, the company realizes the need to cultivate conservation awareness among employees and stakeholders in the sustainable use of natural resources.

The project has the following objectives.

1. To conserve natural resources and the environment in the Pa Sak River Basin in line with sustainable development.
2. To create a public mind for social benefit and Cultivate awareness of the use of natural resources and the environment to know the value of employees.
3. To create the participation of the community and the company.



Build a Houses for Water

C.P.Seeds Vietnam Co., Ltd. Focuses on the development of water sources. Building houses to provide water because water is considered an important factor in the development of various agricultural fields, which will lead to the development of various businesses completely.

In this regard, the Company and the government in the area have jointly developed a canal to supply water to farmers in the Seed Production Promotion Area at Chang Bang District, Taininh Province, enabling the surrounding farmers to use the water from the canal for cultivation. , Resulting in higher yields from planting, generating income and sustainability for farmers.



CASE STUDY

32

Participate in water resources development for career development for sustainable forest care, upstream preservation, Nan Province

Safe Nature Project, Charoen Pokphand Produce Co., Ltd. coordinate with Thai Seed Trade Association Punthai supports social activities and takes care of Environment in Nan Province in 2013 Support the development of water sources and donate vegetable seeds to the Royal Pidthong Lang Phra Project in order to donate to the villagers of Ban Sasasukh, Village No. 6. Bo Subdistrict, Mueang District, Nan Province To distribute to people in the area of the project expansion project Nan Province is cultivated for consumption to reduce expenses and increase income for 33 families.



Villagers conserve river basins

1,970 rai

The villagers have clean water to consume in the community

162
persons

33
families



ECOSYSTEM & BIODIVERSITY PROTECTION



Photo from the photo contest “Memory Si Lanna” Year 1 (2017)



Key Performance in 2019



Number of forest areas that have been restored

15,000 rai.



The amount of environmental investments

6.12 million baht through the Safe Nature project.



Protect, restore and support

The use of terrestrial ecosystems, forests and biodiversity, particularly in the process of promoting corn cultivation.



The company announced the **environmenta** and biodiversity policy.

The challenge

Charoen Pokphand Produce Co., Ltd. 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. The company 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

Performance against Goal

2020 Goal (Thailand)

Through assessment of procurement from non-invasive, deforestation and marine resources.

2019 progress

- Traceability in corn products
- Developing processes for biodiversity assessment.

	2018	2019	Goals 2020
● Percentage of traceability in corn product	50	75	100
● Percentage of ecological restoration operations	100	100	100

Management guidelines

Charoen Pokphand Produce Co., Ltd. definitely believes that baseline of ecosystem protection and biodiversity preservation under the equality use of natural resources is core responsibility for all associated parties. Therefore, we commit to implement practical guidelines which are in accordance with Rio Declaration on environment and development including with Convention on Biological Diversity as following.

1. Responsible contribution on ecosystem protection and biodiversity preservation to comply with legal, other regulations and international standards as well as setting up long term goals for business operation plus more cooperation with any conservation organizations.
2. Minimize impacts on ecosystem and biodiversity throughout value chain by means of developing practical guidelines on responsible value chain, deforestation protection and ensuring an effective implementation in practice.
3. Providing risk evaluation that impact to ecosystem and biodiversity in order to consider and plan for business operation as well as risk management, more effectively.

4. Encourage on awareness and understanding about ecosystem protection and biodiversity preservation to all employees, partners, and any potential interested stakeholders via training, knowledge sharing and also any related campaign activities.
5. Data disclosure and its operational performance on ecosystem protection and biodiversity preservation passing through C.P. Group Sustainability Report in order to monitor its status against with specified targets and communicate to any associated interested stakeholders
6. Develop collaboration with governmental authorities, non-governmental organizations (NGOs), educational institutes, communities and other associated stakeholders in order to handle with the problem on ecosystem protection and biodiversity preservation both for national and global level.



Declaration of intent to prohibit corn planting in reserved and protected forest areas

The company is committed to developing its business towards sustainability in 3 areas: economy, social responsibility and giving importance to the environment by setting it as the main policy in business operations. Therefore, strict traceability system has been established in the production chain, especially in the maize business, which is an important raw material in food production to consumers, must come from areas where have the right documents and not destroy the environment.

At the same time, it also takes part in solving the fire crisis. Northern haze forest in 2015 The company, together with the Pollution Control Department, the Thai Feed Producers Association and the Thai Maize and Produce Traders Association, signed a memorandum Agreement (MOU) to Prevent and Solve Smog Problems from Burning Agricultural Materials in Maize Plantation. Which aims to create cooperation between the public and private sectors In reducing and controlling the burning of agricultural waste in the maize growing area of 9 northern provinces.

The essence of the MOU on the part of the private sector is to cooperate in the reduction and control of the incineration of maize areas by establishing an accounting of the cultivation and trading of maize for use as information for the burning of waste materials in the area. Cultivate corn as well as create incentives for corn farmers, reduce and stop burning on corn cobs, while encouraging farmers to implement Good Agricultural Practices (GAP). Burn-free agriculture and other appropriate approaches include research and development, utilization of corn stubble to create value for agricultural waste materials, as well as to cooperate and support the government in solving burning problems. In the agricultural areas and the northern haze of the government fully.

It is also strict with distributors across the country, with the immediate termination of their seed distributors. If found to be involved in or promote the cultivation of maize in such area in any significant case, the Company is the only operator

that declares a clear intention to make a notice on every packaging that “Prohibited to plant in restricted and protected forest areas”



At the same time, the company also requires farmers participating in the maize seed planting promotion program to be planted with legal rights documents, not deforestation or encroachment on forest areas and prohibit operations. Burning stubble is strictly prohibited. By plowing instead to reduce the environmental impact of the cultivation process As well as being able to traceable to the producer farmer plots.



MOU signed up to sustainably tackle the haze problem in Chiang Mai

Signed up for sustainable cooperation to solve the haze problem in Chiang Mai. Charoen Pokphand Produce Co., Ltd. signed a Memorandum of Understanding (MOU) in 2015 in solving the sustainable haze problem in Chiang Mai area. By aiming to reduce the number of heat spots (Hotspot) At least 20 percent from the number of hotspots 2,381 points in the year 2015 and dust control (PM10) to be in the standard throughout



In this regard, the solution to the haze problem in Chiang Mai Province according to this memorandum of agreement will be implemented in 3 pilot areas, Mae Chaem District, Samoeng District and Chiang Dao District, where the past has found a heat point (Hotspot) than other areas by will The operation area is divided into 3 zones: forest zone, agricultural zone and community zone. Operated in December 2015 - April 2016, totaling 20 weeks



In each area, there will be activities such as providing academic knowledge on substitution of crop modification, agriculture in the area, campaigning for public relations, knowing the enforcement of the law according to the announcement of province. Monitoring and evaluation of requesting cooperation of people in the area to monitor that materials are not burned or forest burning in the area, etc.

For the company to cooperate with the province, especially informing corn growers to follow the requirements agreed with the company and proceed according to the province's request for cooperation. To provide the cultivation of maize to improve the occupation and livelihood of farmers and lead to sustainable solutions to the haze problem in the area.



Aiming to reduce the number of heat spots (Hotspot) down at least

20 percent



Control

(PM10) dust value

Returning Wildlife Project for Healthy Forest

Safe Nature Project with Protected Areas Regional Office and local networks: Prao District, Chiang Mai Province organizes the project “Returning Wild Animals to the Forest” the Si Lanna National Park area Chiang Mai to accelerate wildlife population rehabilitation and ecological balance on June 2019

By releasing wild animals this time Operated in 2 areas: Wat Phra That Doi Wiang Chai Mongkol and Pha Chor area Above the Mae Ngad Somboon Dam, total of 636 wildlife 9 species

The two wildlife release areas are in the Si Lanna National Park area, which is a protected area in perfect condition, has suitable environmental factors for life and is a habitat for wildlife. Networks in the area also strongly cooperate in patrols and protect the area. And jointly lay out a framework for care and have a positive attitude towards wildlife conservation.



Released

636

wild animals

RESPONSIBLE SUPPLY CHAIN MANAGEMENT



Key Performance in 2019



Number of main business partners to receive ethical communication

281 Suppliers.



Every company in the business group has assessed and identified

Critical Supplier.

The challenge

We 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 The company poses a great challenge in driving to bring about positive change. Cease or discourage, but on the contrary, the Company 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 Company also supports the Sustainable Development Goals to develop countries in which the Company has operated or invested in based on the Principle of Three Benefits.

Performance against Goal

2020 Goal (Thailand)

100% of key business partners have been assessed for sustainability.

2019 progress

- Responsible Supply Chain Management
- Supply Chain Audit

Management guidelines

Crop Integration Business (Maize) CP Group is committed to ensuring responsible management of our supply chain. Responsible management refers to responsible sourcing and traceability of key raw materials, conducting assessments of our supply chain for related risks, ensuring compliance and working with our key suppliers and partners for continuous improvements. Responsible supply chain management can be summarised by a long term collaboration between CPG and its suppliers that focuses on continuous improvement.

As responsible management of our supply chain is important to CP Crop (Maize) and our stakeholders, we have included it as a key part of our sustainability strategy. A summary of our planned actions relating to responsible supply chain management are:

Procedures and practices for sustainable supply chain management.

1. Revising our responsible sourcing policy into a more comprehensive responsible supply chain management policy and to align with the UN Global Compact and other relevant standards;

2. Providing responsible supply chain management training to employees, business and supply chain partners and other key stakeholders;
3. Establishing a responsible supply chain management process for the group and each business unit that focuses on provision of support to suppliers and partners. This includes the identification of supply chain risks through conducting assessments, self-assessments for suppliers, monitoring of suppliers, audits of suppliers and planning for mitigation of any issues identified. This process should also include a responsible supply chain communication channel or platform to inspire collaboration with suppliers that may be at-risk etc. A senior management representative should be assigned for ownership and approve the revised policy;
4. Communicating responsible supply chain performance
As we realise these new action steps towards strengthening our supply chain, CP Crop (Maize) CHAROEN POKPHAND GROUP will update on our progress according to the UN Global Compact and in the future sustainability report;

Supply Chain Training Program

Charoen Pokphand Produce Co., Ltd. and companies in the business group believes that “Business partners” are the key chain of business success and the Company believes that sustainable success needs to be based on respect for human rights, good governance and environmental protection. The company has therefore created a Supplier Code of conduct in accordance with UN Global Compact and related laws / regulations

In order to ensure that the business processes of the Company and its business partners are in accordance with the relevant laws and regulations, the Supplier Code of Conduct Handbook has been developed to assist in the Strengthen long-term growth together. It is also an opportunity for companies and business partners to take part in improving and developing society and the environment.

In this regard, the company has provided training and knowledge to relevant personnel and Critical First Tire, 25% of the number of important or 43 partners.

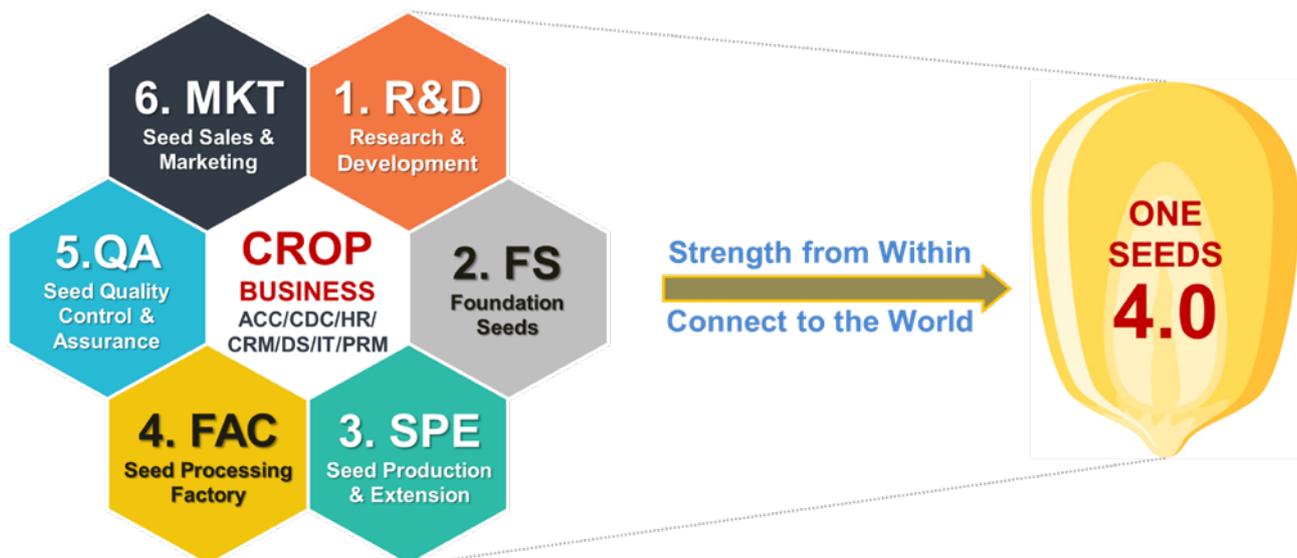


ONE SEEDS Project

Linking with both internal and external international trade partners that creates a supply chain network across multiple regions is both an opportunity and a contributing factor to competitiveness, but conducting transactions with international organizations is often at risk. The management of the supply chain must carefully consider the factors that may arise with the operations. Currently, business competition is not limited to a competitive model, but a supply chain competition where building capacity for the supply chain must first be strengthened within the organization.

Therefore, supply chain management is a joint planning between organizations, such as product development or information system management to be linked together, whether it is customer order status, raw material orders, production plan, stock volume. Inventory chest includes uncertainty in demand or market demand. And risk factor sourcing can be used to define a supply chain strategy framework to meet customer demand, but the global political and economic situation is facing challenges that put corporate sectors to face risks, whether they are Regarding currency exchange rates, volatility of oil prices, political stability and natural disasters, these risks affect all sectors. This causes organizations to find ways to prevent risks, such as finding partnerships, developing partnerships between organizations, sourcing and building relationships with suppliers of raw materials to create mutual benefits, whether they are resources and information, to create capacity. With organizations operating under the modern economy.

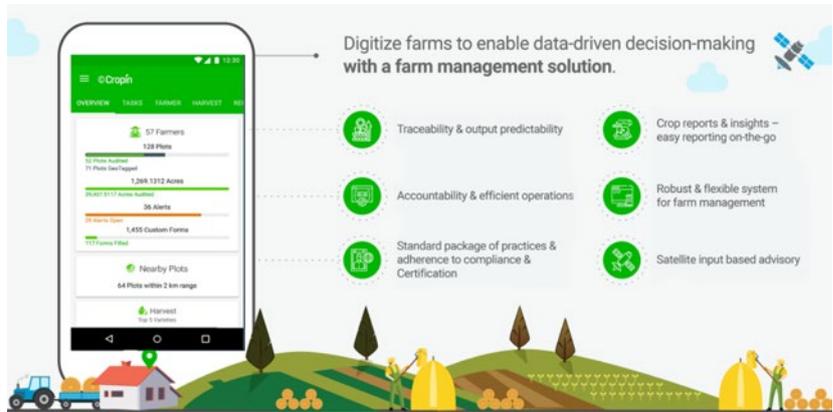
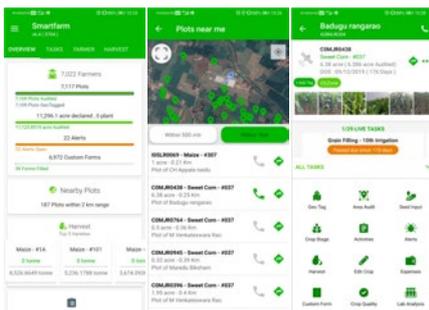
With the readiness of economic, social and environmental aspects Of India makes C.P.Seeds (India) Pvt., Ltd. is the center (Seed Hub) to produce and export hybrid maize seeds to value pairs in more than 10 countries. Countries around the world launched the ONE SEED project in 2015, where it helps to reduce gaps and risks in terms of exchange rates, volatility, oil prices, political stability and natural disasters. One form that will affect the organization in all dimensions.



Smart Farm with CropIn

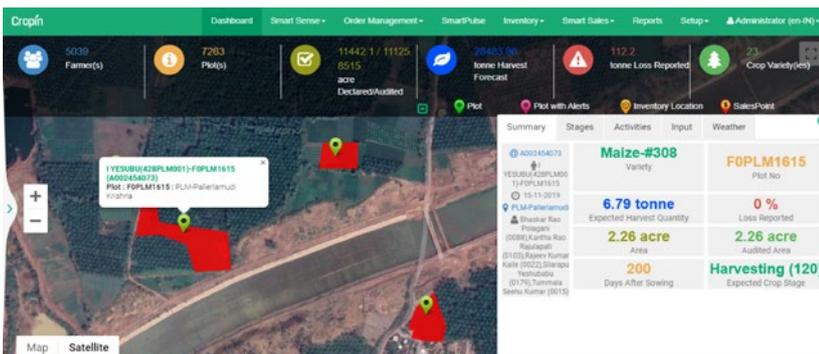
The supply chain management process is the process of managing every step, from the import of raw materials to the production process, the ordering process, until the product is delivered to the customer in order to be continuous and efficient. While creating a system for the flow of information.

SMART FARM

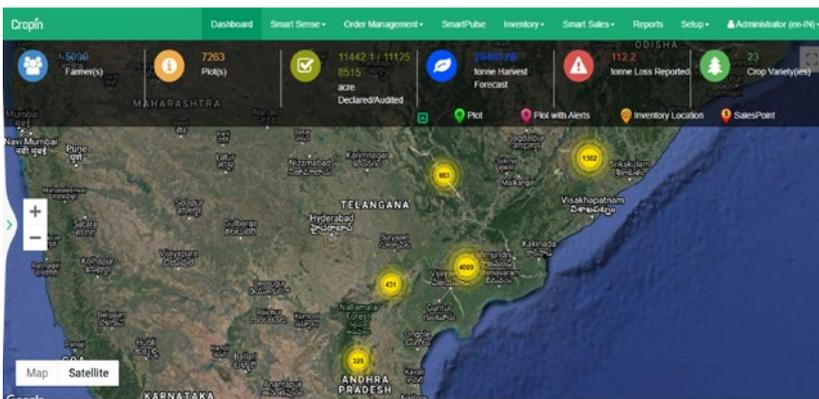


The system that creates the work processes of each agency is transmitted throughout the organization, the exchange of information is also included to customers and suppliers. In addition, supply chain processes are also important to help organizations improve their management capabilities, such as reducing inventory, increasing productivity or reducing waste in work processes, promoting business growth such as increasing opportunities. In launching new products faster, opening new markets, increasing customer satisfaction, promoting the sustainability of the business such as reducing business costs, providing service, working capital, etc. The overall process of material flow Products as well as information and transactions through the organization that delivers Manufacturer, supplier to the customers or consumers, where these organizations have

business relationships. In an organization's adaptation to supply chain management, it is important to provide the organization with the ability to manage the growth of Business and business sustainability.



C.P.Seeds (India) Pvt., Ltd. Has developed a tool to manage the commercial corn seed production. To monitor and assess the risks that arise from the beginning of planting until harvest, and can also traceable the origin of raw materials at every step, which is the source of using the Smart Farm application in production management. Every step of the trade corn seed, the company has implemented the application to promote over 5,000 farmers in India since 2019.



CASE STUDY

38

Supply chain management of chemical fertilizers and organic fertilizers

Charoen Pokphand Produce Co., Ltd. inspects the source of raw materials, chemical fertilizers and organic fertilizers, both domestic and foreign, from ship and vehicle transportation to the factory to produce quality products for farmers, in which the fertilizer application is under the recommendation of Research , Quality Assurance Soil and Fertilizer Center on how to apply fertilizers that are technically relevant and suitable for the type of plants grown.



100% traceability of production data, quality and affordability.



Besides product quality control The production plant also takes into account the impact on society and communities around the factory as well, with the chemical fertilizer plant managing the transportation from the cargo port, the fall tarpaulin is used, the truck transportation to the warehouse has the use of a cross-conveyor system Warehouse to reduce truck noise and install indoor vacuum system for employees' health. For organic fertilizers (Kham Phran) factories that use raw materials from chicken manure, waste water treatment management systems are used to reuse and prevent odor from raw materials. Effect on society and community. This makes it possible to build confidence in product quality and reduce complaints about quality and service from customers.

APENDIX

Companies within the sustainability reporting scope Crop Integration Business (Maize)



4 Countries

- Charoen Pokphand Produce Co., Ltd
- C.P. Yangon Co., Ltd.
- C.P. Seeds Vietnam Co., Ltd.
- C.P. Seeds (India) Pvt., Ltd.



4 Research and Development Stations



8 Laboratories



5 Seed Processing Plants



3 Chemical and Organic Fertilizer Plants

Sustainability Performance 2017-2019

Charoen Pokphand Produce Co.Ltd and Companies in the business group

GRI	Performance	Unit	2017	2018	2019
Economic Performance					
G4-EC1	Income	Million baht	3,373.77	5,017.38	4,525.96
	Employee Benefits	Million baht	492.82	525.46	539.06
	Taxes plaid to the government and local authorities	Million baht	78.5	74.53	63.22
	Research and development and innovation spending	Million baht	55.04	60.06	70.12
	Development and support for society and community spending	Million baht	23.43	20.37	12.67
Social Performance					
Employee details					
102-8	Total Workforce	Persons	827	904	805
			Male 498, Female 329	Male 552, Female 352	Male 475, Female 330
102-8	By Contract Type	Persons			
	• Employees		418	784	790
			Male 314, Female 104	Male 490, Female 294	Male 462, Female 328
	• Workers/ Contractors		409	120	15
			Male 184, Female 225	Male 62, Female 58	Male 13, Female 2
405-1	Proportion of employees by gender	%			
	• Male		60	61	59
	• Female		40	39	41
401-1	Employment				
	• Number of new employees	Persons	33	142	96
			Male 25, Female 8	Male 93, Female 49	Male 54, Female 42
	• New employment rate	%	7.89	18.11	12.15
			Male 5.98, Female 1.915	Male 11.86, Female 6.25	Male 6.84, Female 5.32
401-1	Employee Turnover				
	• Number of employee turnover	Persons	19	62	94
			Male 15, Female 4	Male 39, Female 23	Male 59, Female 35
	• Employee turnover rate	%	4.55	7.91	11.9
			Male 3.59, Female 0.96	Male 4.91, Female 2.93	Male 7.47, Female 4.43
404-1	Average training hours	Hours per person per year	4.62	3	4.99
404-1	"Number of employee training and development in Sustainability"	Persons	-	308.5	705
				Male 289, Female 19.5	Male 406, Female 299
403-2	Absentee Rate	%	0	0.05	0.15
Health and safety information					
403-2 (a)	Number of injuries (not stop working)	Person /200,000 Working hour			
	• Employees		0.6	0.49	0.82
			Male 0.79, Female 0.30	Male 0.65, Female 0.28	Male 1.18, Female 0.26
403-2 (b)	• Workers/ Contractors		0	0.52	0.46
			Male 0, Female 0	Male 0.77, Female 0	Male 0, Female 1.56
403-2 (a)	Number of injuries (off work)	Person /200,000 Working hour			
	• Employees		0.12	0.24	0.41
			Male 0, Female 0.30	Male 0.43, Female 0	Male 0.68, Female 0
403-2 (b)	• Workers/ Contractors			0	0
				Male 0, Female 0	Male 0, Female 0
403-2 (a)	Lost day work from accident	Day /200,000 Working hour			
	• Employees		0.36	3.06	3.6
			Male 0, Female 0.90	Male 5.41, Female 0	Male 5.91, Female 0
403-2 (b)	• Workers/ Contractors				0
					Male 0, Female 0
Environmental Performance					
302-1 (e)	Total Energy Consumption	GJ	25,388.94	58,671.21	96,245.11
	• Fuel Consumption		9,871.95	25,985.43	26,570.26
	• Renewable energy		-	13,790.44	40,938.78
	• Energy purchased		15,516.99	18,895.34	28,739.06
	Green House gas (GHG) emission	Ton CO2eq	2,960.98	4,868.06	6,649.84
305-1	Green House gas (GHG) emission (Scope 1)		754.12	2,238.46	2,059.10
305-2	Green House gas (GHG) emission (Scope 2)		2,206.86	2,629.60	4,590.74
302-4	Biogenic	Ton CO2eq		1,656.84	4,326.30
303-1 (a)	Water withdrawal	Million cubic meters		1.04	1.76
	• Surface water		-	0.92	1.54
	• Ground water		-	0.06	0.21
	• Rain water		-	0.06	0.001
	• Municipal water / Purchased water		-	0.01	0.01
306-1 (a)	Recycle/Reuse Water	Million cubic meters	-	-	0.001
306-1 (a)	Water effluent	Million cubic meters	-	0.02	0.18
	Total weights of waste	Ton	-	260.64	591.35
306-2 (b)	• Non-Hazardous waste		-	258.89	585.40
	• Hazardous waste		-	1.75	5.95
	All plastic packaging	Ton	-	-	-
	Recyclable Plastic Packaging *Category Mono Layer	Ton	-	-	-

GRI CONTENT INDEX

GRI 102: GENERAL DISCLOSURES 2019

DISCLOSURES		PAGE/WEBSITE	EXTERNAL ASSURANCE
Organizational Profile			
102-1	Name of the organization	" - Our Business - About this Report"	-
102-2	Activities, brands, products, and services	- Our Business	-
102-3	Location of headquarters	- Business Overview	-
102-4	Location of operations	" - Business Overview - Our Business"	-
102-5	Ownership and legal form	- Our Business	-
102-6	Markets served	" - Business Overview - Our Business"	-
102-7	Scale of the organization	" - 2019 Highlights - Business Overview"	-
102-8	Information on employees and other workers	- Appendix	-
102-9	Supply chain	- Responsible Supply Chain Management	-
102-10	Significant changes to the organization and its supply chain	- About this Report	-
102-11	Precautionary Principle or approach	" - Climate Change Management - Water Stewardship"	-
102-12	External initiatives	- Stakeholder Engagement	-
102-13	Membership of associations	- Stakeholder Engagement	-
Strategy			
102-14	Statement from senior decision-maker	" - Message from the Senior Chairman - Message from the Chairman - Message from the CEO"	-
102-15	Key impacts, risks, and opportunities	" - Message from the Senior Chairman - Message from the Chairman - Message from the CEO - Our Business - Climate Change Management - Water Stewardship"	-
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behavior	" - Sustainability Milestone - Six Core Values - C.P. Excellence"	-
102-17	Mechanisms for advice and concerns about ethics	- Corporate Governance	-
Governance			
102-18	Governance structure	" - Sustainability Governance - Corporate Governance"	-
102-20	Executive-level responsibility for economic, environmental, and social topics	- Sustainability Governance	-
Stakeholder Engagement			
102-40	List of stakeholder groups	- Stakeholder Engagement	-
102-41	Collective bargaining agreements	- Human Rights and Labor Practices	-
102-42	Identifying and selecting stakeholders	- Stakeholder Engagement	-
102-43	Approach to stakeholder engagement	- Stakeholder Engagement	-
102-44	Key topics and concerns raised	- Stakeholder Engagement	-
Reporting Practice			
102-45	Entities included in the consolidated financial statements	" - Our Business - Reporting Boundary"	-
102-46	Defining report content and topic Boundaries	- Materiality Assessment	-
102-47	List of material topics	- List of Material Issues	-
102-48	Restatements of information	In 2018, 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	- About this Report	-
102-50	Reporting period	- About this Report	-
102-51	Date of most recent report	- About this Report	-
102-52	Reporting cycle	- About this Report	-
102-53	Contact point for questions regarding the report	" - Materiality Assessment - About this Report"	-
102-54	Claims of reporting in accordance with the GRI Standards	- About this Report	-
102-55	GRI content index	- GRI Content Index	-
102-56	External assurance	- About this Report	-

MATERIAL TOPICS

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION/ NOTE	EXTERNA 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	- 2019 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	-	-
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 2016	303-1 Water withdrawal by source	- Appendix	-	✓
	303-3 Water recycled and reused	" - Appendix - Ecosystem & Biodiversity Protection"	-	-
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	-	-
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	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION/ NOTE	EXTERNA ASSURANCE
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 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 2016"	"403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities"	- 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	-	-
Human Rights Assessment				
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 412: Human Rights Assessment 2016"	"412-1 Operations that have been subject to human rights reviews or impact assessments"	- Human Rights and Labor Practices	-	-

GRI	DISCLOSURES	PAGE/WEBSITE	OMISSION/ NOTE	EXTERNA ASSURANCE
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" 	--	--
Supplier Social 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 414 Supplier Social Assessment 2016"	"414-1 New suppliers that were screened using social criteria"	- Ecosystem & Biodiversity Protection	--	--
Product and Service Labelling				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	- Health and Well-being	--	--
	103-2 The management approach and its components	- Health and Well-being	--	--
	103-3 Evaluation of the management approach	- Health and Well-being	--	--
GRI 417: Marketing and Labeling 2016	"417-1 Requirements for product and service information and labeling"	- 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

CRITERION	DESCRIPTION	PAGE
1	The COPdescribes mainstreaming into corporate functions and business units	20-27
2	The COPdescribes value chain implementation	38, 42, 68-69
3	The COPdescribes robust commitments, strategies or policies in the area of human rights	41-42
4	The COPdescribes effective management systems to integrate the human rights principles	41-42
5	The COPdescribes effective monitoring and evaluation mechanisms of human rights integration	41-43
6	The COPdescribes robust commitments, strategies or policies in the area of labor	41-43
7	The COPdescribes effective management systems to integrate the labor principles	41-43
8	The COPdescribes effective monitoring and evaluation mechanisms of labor principles integration	41-43
9	The COPdescribes robust commitments, strategies or policies in the area of environmental stewardship	102-132
10	The COPdescribes effective management systems to integrate the environmental principles	102-132
11	The COPdescribes effective monitoring and evaluation mechanisms for environmental stewardship	102-132
12	The COPdescribes robust commitments, strategies or policies in the area of anti-corruption	38-39
13	The COPdescribes effective management systems to integrate the anti-corruption principle	38-39
14	The COPdescribes effective monitoring and evaluation mechanisms for the integration of anti-corruption	38-39
15	The COPdescribes core business contributions to UN goals and issues	146
16	The COPdescribes strategic social investments and philanthropy	60-69
17	The COPdescribes advocacy and public policy engagement	132-137
18	The COPdescribes partnerships and collective action	132-137
19	The COPdescribes CEO commitment and leadership	2-3
20	The COPdescribesBoard adoption and oversight	25
21	The COPdescribes stakeholder engagement	53-57

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

GOAL	DESCRIPTION	CHARTER
1	End poverty in all its forms everywhere	<ul style="list-style-type: none"> • Social Impact • Climate Change Management
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> • Health & Well-being • Climate Change Management
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"> • Human Rights & Labor Practices • Leadership & Human Capital Development • Education
5	Achieve gender equality and empower all women and girls	<ul style="list-style-type: none"> • Human Rights & Labor Practices
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 • Social Impact • Education • Innovation • Water Stewardship
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	<ul style="list-style-type: none"> • Innovation
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 • Human Rights & Labor Practices • Climate Change Management • Ecosystem & Biodiversity Protection • Responsible Supply Chain Management
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"> • 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 • Human Rights & Labor Practices • Stakeholder Engagement • Responsible Supply Chain Management
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	<ul style="list-style-type: none"> • Climate Change Management • Water Stewardship • Ecosystem & Biodiversity Protection

Independent Assurance 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. This assurance engagement was conducted against the Global Reporting Initiative Standards and AA1000AS (2008) Protocol (Type 2, Moderate Level). TUVT also performed Assurance, based on AccountAbility Principles Standard AA1000AP (2018) and AccountAbility Stakeholder Engagement Standard AA1000SES (2015) and ISO 14064 Part 3: Greenhouse Gases: Specification with guidance for the validation and verification of greenhouse gas assertions (ISO, 2006). The remote verification was conducted in May 2020. In addition, desk review was carried out for other sites which are parts of report boundary. CPP opted for external assurance for the calendar year 2019. The Report covers CPP's sustainability information for the period 1st January 2019 to 31st December 2019.

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 application of the Report content, principles as mentioned in the GRI Standards, and the quality of information presented in the Report over the reporting period;
- 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 and AA1000AS (2008), with a Type 2, moderate level of assurance;
- Verification of the reliability of the GRI Standards Disclosure on economic, environmental and social (disclosures are tabulated below)
- Specified information was selected 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 2019), comprising;

- 1) **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
- 2) **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
- 3) **C.P. Seeds (Vietnam) Co., Ltd.**
Office and Seed Processing Plant: Lot I-4 Road No.1 Dinh Quan Industrial zone, La Nga District, Dong Nai Province, Vietnam
- 4) 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

Research centre: 5-127, Excellent research and innovative center Opp.Porus Chemical plant, Akkireddygudem ,Musunuru Mandal,Krishna District-521213 Andhra Pradesh, India

Our engagement did not include an assessment of the adequacy or the effectiveness of CPP's strategy or management of sustainability related issues. During the assurance process, TUVT did not come across the limitations to the scope of the agreed assurance engagement. No external stakeholders were interviewed as a part of the sustainability engagement for the reporting period.

Verification Methodology

This assurance engagement was planned and carried out in accordance with the GRI Standards and AA1000AS (2008). The Report was evaluated against the following criteria:

- Adherence to the principles of Stakeholder inclusiveness, Materiality, Responsiveness, Completeness, Neutrality, Relevance, Sustainability context, Accuracy, Reliability, Comparability, Clarity and Timeliness; as prescribed in the GRI Standards and AA1000AS (2008);
- Application of the principles and requirements of the GRI Standards for its "in accordance with Core" criteria.

During the assurance engagement, TUVT adopted a risk-based approach, concentrating on verification efforts on the issues of high material relevance to CPP'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 CPP 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 CPP 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 site visit;
- TUVT performed sample-based reviews of the mechanisms for implementing the sustainability related policies, as described in CPP'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 CPP and are considered in drawing our conclusions on the Report; however, they are generally consistent with the Management's objectives.

Opportunities are as follows:

- The sources of methane emission could be considered following; plantation

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
Approach to stakeholder engagement	GRI 102-43
Energy consumption within the organization	GRI 302-1
Water withdrawal	GRI 303-1 (2016)
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
Average hours of training per year per employee	GRI 404-1
Percentage of employees receiving regular performance and career development reviews	GRI 404-3
Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	GRI 403-2 (2016)

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. Type 2 moderate level assurance engagement with respect to sustainability related data involves performing procedures to obtain evidence about the sustainability information. 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 Inclusiveness: Stakeholder identification and engagement is carried out by CPP on a periodic basis to bring out key stakeholder concerns as material aspects of significant stakeholders. In our view, the Report meets the requirements.

Materiality: The materiality assessment process has been carried out, based on the requirements of the GRI Standards, 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 CPP. In our view, the Report meets the requirements.

Responsiveness: TUVT believes that the responses to the material aspects are fairly articulated in the report, i.e. disclosures on CPP’s policies and management systems including governance. In our view, the Report meets the requirements.

Impact: CPP has adequately captured the impact of its business on the community and environment and has taken several measures to reduce the impact.

Completeness: The Report has fairly disclosed the General and Specific Standard Disclosures, including the Disclosure on Management Approach, covering the sustainability strategy, management approach, monitoring systems and sustainability performance indicators against the GRI Standards, 'in accordance with the Core option. In our view, the Report meets the requirements.

Reliability: The majority of the data and information was verified by TUVT's assurance team at CPP's office on the factory's premises and found to be accurate. Further desk review of web-based data was carried out for all other sites mentioned above. Therefore, in accordance with the GRI Standards and AA1000AS (2008) for a Type 2, moderate level assurance engagement, TUVT concludes that the sustainability data and information presented in the Report is reliable and acceptable. In our view, the Report meets the requirements.

Neutrality: The disclosures related to sustainability issues and performances are reported in a neutral tone, in terms of content and presentation. In our view, the Report meets the requirements.

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 CPP. 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 CPP in the Report. This assurance engagement is based on the assumption that the data and the information provided to TUVT by CPP are complete and reliable.

TUV'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 CPP 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.



Mr. Nattapon Vasasmith
Lead Verifier
TUV NORD (Thailand) Ltd.
Bangkok 10260 Thailand



AA1000
Licensed Assurance Provider
000-286

Date: 30 May 2020
Place: Bangkok, Thailand
Project Reference No: TUVN/ CPP/ SA/ 2019



Charoen Pokphand Produce Co., Ltd.

and Companies in Crop Integration Business (Maize)

89 AIA Capital Center, 32th Floor Ratchadapisek Road,
Din Daeng, Bangkok 10400

