



TAIWAN FERTILIZER CO.,LTD.

2016

Corporate Social Responsibility Report

The background of the slide is a collage of various agricultural products. On the left, there is a vertical strip of bright red cherry tomatoes. To their right are several horizontal bands of different grains and legumes: light brown rice, green lentils, reddish-brown rice, and yellow soybeans. On the far right, there are several stalks of fresh green leafy vegetables, possibly bok choy or similar, with long stems and broad leaves.

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About this Report

Taiwan Fertilizer Corporation's 2016 Corporate Social Responsibility Report was compiled based on the guidelines set forth in the Global Reporting Initiative (GRI G4) and the "Core" option. The verification of this Report was conducted by SGS, an independent third-party with credibility, for an independent assurance of this Report to assure that the contents and figures presented in TFC's 2016 CSR Report were compiled based on the assurance standard of AA1000 AS (2008). With the third-party assurance of the Moderate Assurance (Type 1) from SGS, the reliability and accuracy of the disclosed information is thus assured.

The efforts and performance made by Taiwan Fertilizer Co., LTD. in economic, social and environmental aspects are compiled in this Report. Meanwhile, TFC also responds to its stakeholders' expectations and demands in this report, aiming at building a long-term partnership with its customers and the

social groups for the promotion of social inclusion and for stepping toward the objective of sustainable growth. In addition to disclosure of related indicators of the material aspects, performance and conducts in Economy, Corporate Governance, Employee Care, Customer Care, Environmental Protection and Social Participation are also revealed in this Report.

To continuously enhance the transparency in sustainability information, this Report is available in both English and Chinese, and the contents of this TFC CSR Report can also be downloaded on TFC's official website in Corporate Sustainability Section (<http://www.taifer.com.tw>). In the future, the CSR Report with third-party assurance will be published annually to actively reveal TFC's mission, commitment, strategy, specific practices and future objectives concerning sustainability to our stakeholders for effective stakeholder engagement, laying important cornerstone of sustainable development for the

enterprise.

Reporting Period

From January 1st to December 31st, 2016.

Boundary of Reporting

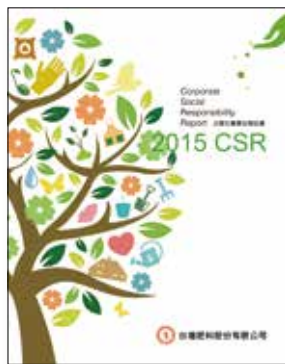
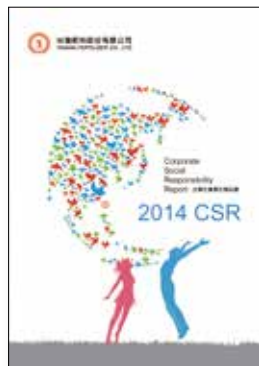
- This Report covers the economic, social and environmental performance of TFC in Taipei Head Office and the factories in Keelung, Miaoli, Taichung and Hualien. Part of the information disclosure includes that of subsidiaries included in the consolidated financial statements with TFC and TFC invested enterprises.
- The disclosure of financial performance includes consolidated financial statements with TFC and TFC invested enterprises.

GRI Compliance

Core option

Level of Assurance

AA1000 AS (2008) Moderate Assurance (Type 1)



Download TFC's CSR Report

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Message from the Chairman

Agriculture plays an essential part of the development of a country. It is only when the solid foundation of food production is laid can the supplies of livelihood be ensured. In 2016, United Nations' 17

Sustainable Development Goals (SDGs) officially came into force. Among which, Goal 2: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" is exactly one

of the sustainable development goals Taiwan Fertilizer Corporation has been striving to implement.

Eco-friendly farming practices have become global trends. With the innovative core R&D and production capacities, TFC provides more environmentally friendly fertilizer products and agricultural materials while keeping the food production efficiency. Meanwhile, we also put into more human resources for the promotion of it, teaching farmers to make good use of organic materials and learn environmental friendly agricultural technology so that Taiwan can gradually step on the path toward an organic island with sustainable agriculture.

Inheritance and Deep Plowing

Taiwan Fertilizer has a sound and complete corporate governance system. For the past seven decades, integrity has been the cornerstone of the enterprise development. In 2016, TFC was awarded CommonWealth Magazine's Corporate Citizenship Award and TCSCA's Taiwan CSR Award-New Star Award while being selected as the "TWSE Corporate Governance 100 Index Constituent" for two consecutive years. In addition, TFC was also ranked top 20% in the Third Annual Corporate Governance Evaluation. Our corporate governance performance is widely recognized and affirmed.

To deepen and fully implement Integrity Manage-



ment, we expanded our programs of Integrity Education in 2016 and invited our employees at all levels, supervisors and management to participate in these programs to deepen the concept and thoroughly prevent corruption.

TFC initiated the “Investment Plan of West Wharf Area, West 10 of Taichung Harbor” in 2016, setting economic and environmental sustainability as the starting point for the comprehensive deep plowing of the chemical fertilizer industry. It is scheduled to build a nitrobenzene compound fertilizer plant to development green fertilizer products and a new industrial chemical storage tank to make use of the trade logistics advantages of Taichung Port to carry out a new layout of the chemical industry in an attempt to create a variety of profit sources for TFC while taking into account the sustainable development of the enterprise and the environment.

Vitality and Innovation

In 2016, we self-developed and produced organic fertilizers with high quality raw materials, and currently, six have passed the review from the Council of Agriculture as organic fertilizer products suitable for organic agriculture. Meanwhile, the organic cultivation techniques and product quality management process are also established to facilitate the development of domestic organic agriculture.

In the same year, TFC also introduced new series of peat-added compound fertilizer (nitrophosphate) and developed various microbial fertilizer products. In addition, the biological pesticides developed from *Bacillus amyloliquefaciens* (BA) are used for field efficacy trials.

In addition, we actively develop a circular economy model, redesign the process and recycle waste chemical liquid for reuse. Based on the same concept, the agricultural waste such as distillers’ grains, mushroom waste and bean dregs are the sources of the raw materials for organic fertilizers. We also utilize deep ocean water (DOW) for multi-phase aquaculture production in our Hualien Factory and also develop aquaponics to recycle water resources. TFC also actively converts waste into renewable resources with its own professional core technology, creating the maximum benefits in circular economy.

Care and Concern

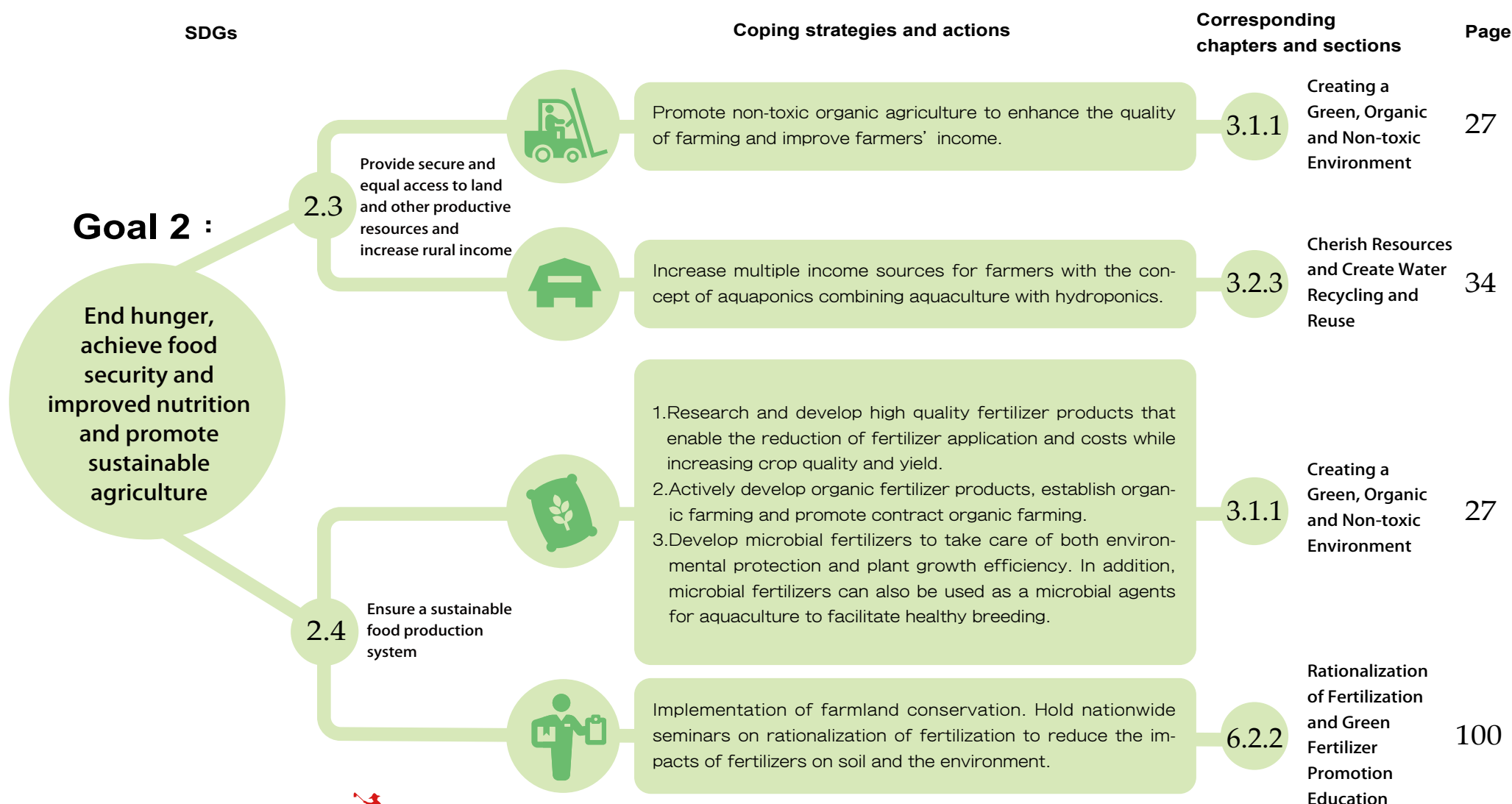
With the ideal of “solving social problems with core competence of the corporation”, we have promoted social care and public welfare activities and also established the Taiwan Fertilizer Foundation to take good care of the farmers and disadvantaged groups in an organized and systematic manner. Looking to the future, TFC will continuously sponsor various agriculture-related, academic and artistic

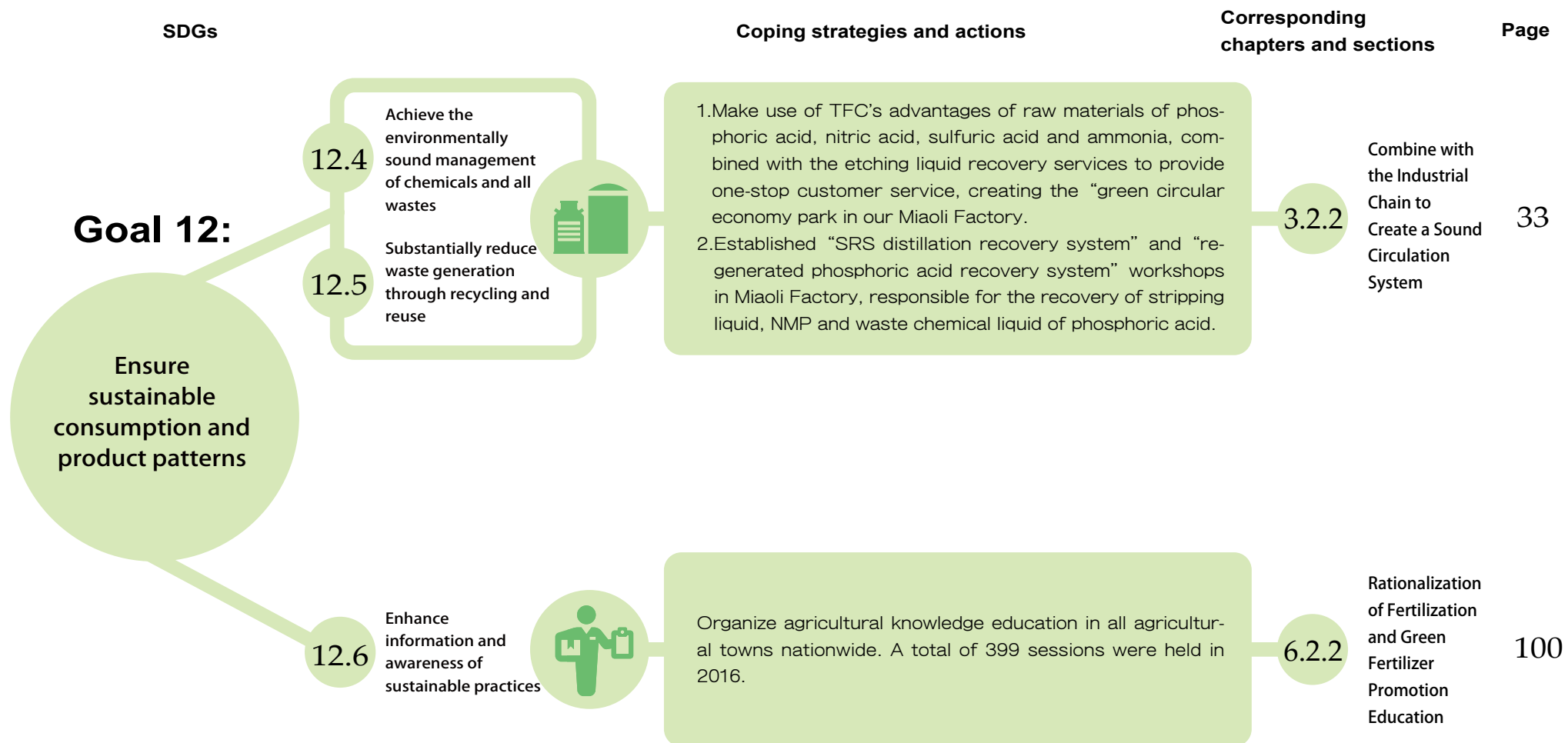
activities and keep our deep plowing scheme in charitable undertakings that take care of farmers and vulnerable groups. Moreover, we also look forward to working with communities and sharing the profits with the public. Since its establishment, TFC has always considered itself as “farmers’ good partner & the guardian of the land”. The quality products and our services win us the trust of the farmers. Our experience as an old brand and our expertise are our solid backing, and we will be more courageous for future innovation that can link up with social issues and national agricultural development policy. TFC will advance with the times and adjust its business strategy and direction, aiming at jumping to the international stage with Taiwan.

Chairman of Taiwan Fertilizer CO., LTD.



TFC's Actions concerning UN's SDGs





CSR Performance in 2016

Corporate Governance

100%

The training ratio of new staff reaches 100% in the integrity and anti-corruption training

NO.1

Largest market share in Taiwan's fertilizer market

12.2billion

The operating revenue in 2016 reached NTD12.2 billion

100%

The nomination system was comprehensively implemented for the Director and Supervisor Election

16times

A total of 16 sessions of emergency drills were organized in 2016, with a total of 428 participants

Social Aspect

1.67times

As of the end of 2016, TFC had employed 10 physically and mentally challenged people, exceeding the regulatory requirement number by 1.67 times

2.65%

The turnover rate in 2016 was 2.65% (retired employees excluded)

9,510hours

In 2016, the total number of staff education and training reached 9,510 hours, with an average of 13.96 hours of training for our employees

399times

TFC organized agricultural knowledge education, including rationalization of fertilization, organic farming and the promotion of green agricultural materials in all agricultural towns nationwide, with a total of 399 sessions held in 2016

NTD9,534,852

TFC Group and Taiwan Fertilizer Foundation invested NTD 9,534,852 to sponsor and organize charitable undertakings and activities

100%

The retention rate after parental leave reached 100% in 2016



Environmental Aspect

6types

In 2016, we launched a new organic fertilizer, with six organic fertilizer products in total. Among which, five passed the review and are recognized as being applicable to organic agriculture, and four of them are even selected by Council of Agriculture (COA) as the recommended brand of organic fertilizers.

14kinds

In 2016, trials of the organic farming techniques on 14 key crops were completed.

↓3.17%

The energy intensity in 2016 was 6.91E-04 MJ/tonne, a 3.17% decrease compared with 2015.

↓38.89%

The general industrial waste in 2016 amounted 363 metric tons, decreased by 38.89% compared with 2015, and the total amount decreased for two consecutive years.

ISO 50001

Taichung Factory completed the ISO 50001 Energy Management System.

↓3.39%

The GHG emission intensity of 2016 was 0.59, decreased by 3.39% compared with 2015.

↓10.71%

The total wastewater discharge in 2016 was approximately 150,000 metric tons, a 10.71% decrease compared with 2015, and the total discharge amount declined for two consecutive years.

↑5.51%

The ratio of the amount of recycled and reused materials to raw materials in 2016 was 27.67%, with an increase of 5.51% compared with 2015, and the ratio increased for two consecutive years.

↑6.46%

The water recovery rate in Taichung Factory was 12.96%, a 6.46% increase compared with 2015.

↓7.2%

The amount of water abstraction in 2016 amounted 620 thousand metric tons, a 7.2% decrease compared with 2015, and the total amount declined for two consecutive years.



2016 Moments of Glory



TWSE Corporate Governance 100 Index Constituent

Starting from 2015, TFC was selected as the “TWSE Corporate Governance 100 Index Constituent” for two consecutive years, giving TFC a high degree of recognition of its corporate governance performance.



Ranked top 20% in the Annual Corporate Governance Evaluation

Starting from 2014, TFC was ranked top 20% in the Annual Corporate Governance Evaluation for three consecutive years, showing TFC’s great governance effectiveness.

CSR 天下企業公民

CommonWealth's Corporate Citizenship Award

CommonWealth Magazine organizes Corporate Citizenship Award and comprehensive evaluation is made to select the most sustainable corporations in the four major aspects of Corporate Governance, Corporate Commitment, Social Engagement and Environmental Protection. TFC was selected one of the “CommonWealth’s 100 Best Corporate Citizens” in 2016, and is the only listed company in chemical industry being selected.





Taiwan Corporate Sustainability Award (TCSA)

Taiwan Institute for Sustainable Energy organizes TCSA annually, and the primary selection criteria include the completeness, credibility and communication efficacy of the CSR Report. In 2016, TFC was awarded the “2015 New Comer Sustainability Report Awards”, which fully shows the transparency, completeness and credibility of the disclosure of our corporate information.



TCIA Innovative Product Award

Taiwan Chemical Industry Association (TCIA) organizes Industrial Contribution & Innovative Product Award every year to reward enterprises for their contribution to Taiwan's chemical industry. In 2016, TFC's peat-added series of Organic Compound Fertilizer (Nitrophosphate) received the recognition and approval and was granted the Industrial Contribution & Innovative Product Award for its green fertilizer products.



National United Circle Competition

Silver Tower Prize of the National United Circle Competition

The National United Circle Competition is held by Corporate Synergy Development Center to evaluate the internal organization quality improvement or innovative practices and effectiveness among enterprises. TFC set the theme of “Improvement in the Machine Room Power” in the competition and won the Silver Tower Prize of the 29th National United Circle Competition in 2016.



/Chapter 1

Inheritance and Deep Plowing

In Taiwan's economic and agricultural development process, TFC has always been a solid supporter. After the completion of the stage task, TFC continues to facilitate the development of agriculture with high-quality fertilizers and to keep up with the global trend of the R&D of better quality fertilizer products to protect this land, and further to spread love and energy to social care, working on making contributions to inheritance and deep plowing for our homeland.

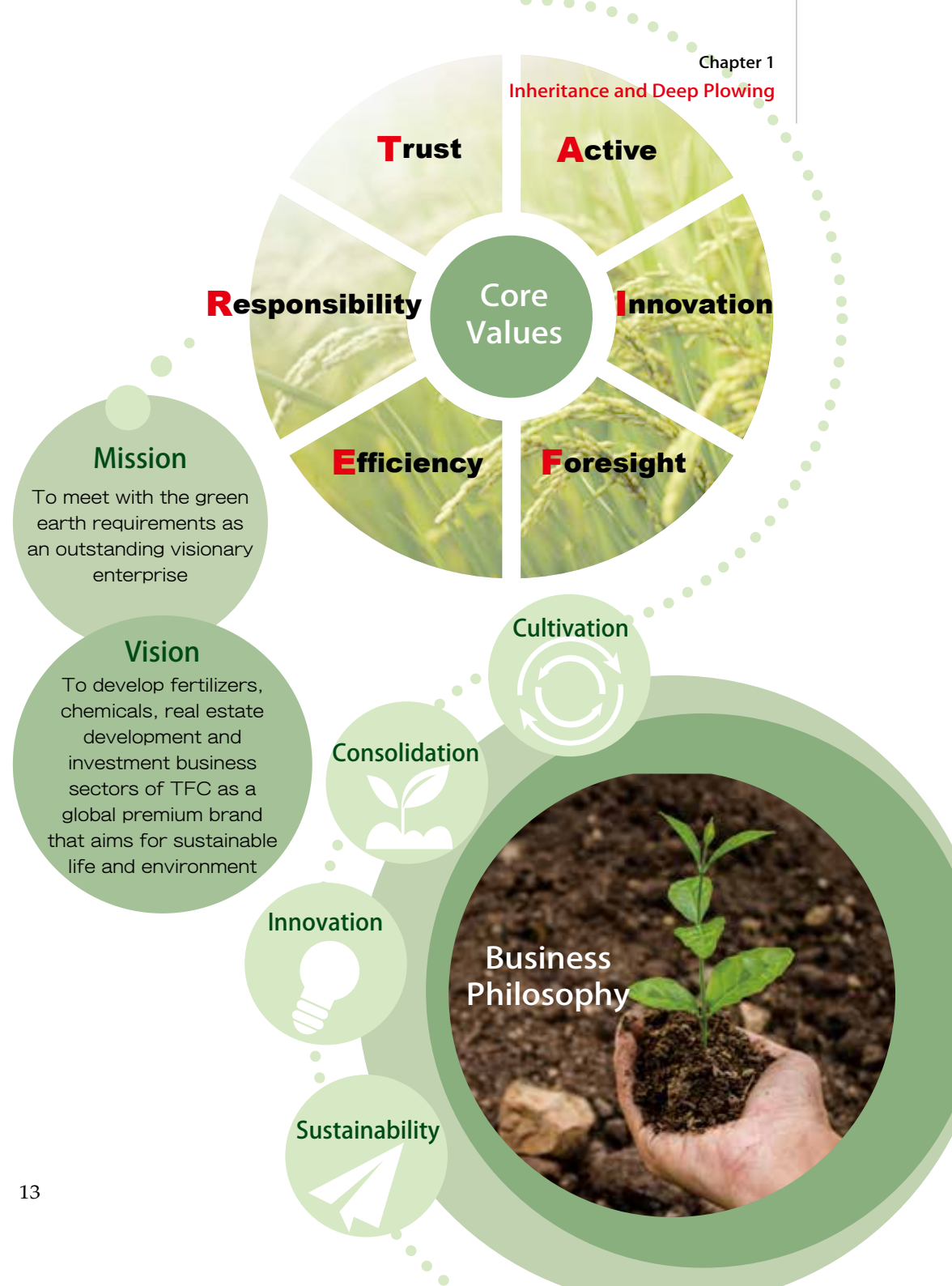
1.1 About TFC

Taiwan Fertilizer Co., Ltd. was established on May 1st, 1946. Originally a state-owned enterprise responsible for manufacturing and supplying domestic fertilizer products in line with the government's agricultural policy, TFC has established the largest scale of modern fertilizer production that fully supplies the fertilizer products necessary for the agriculture in Taiwan. TFC was officially privatized on September 1st, 1999 and was successfully transformed into a listed private corporation.

TFC's fertilizer series products account for more than 70% of total domestic demand, supplying more

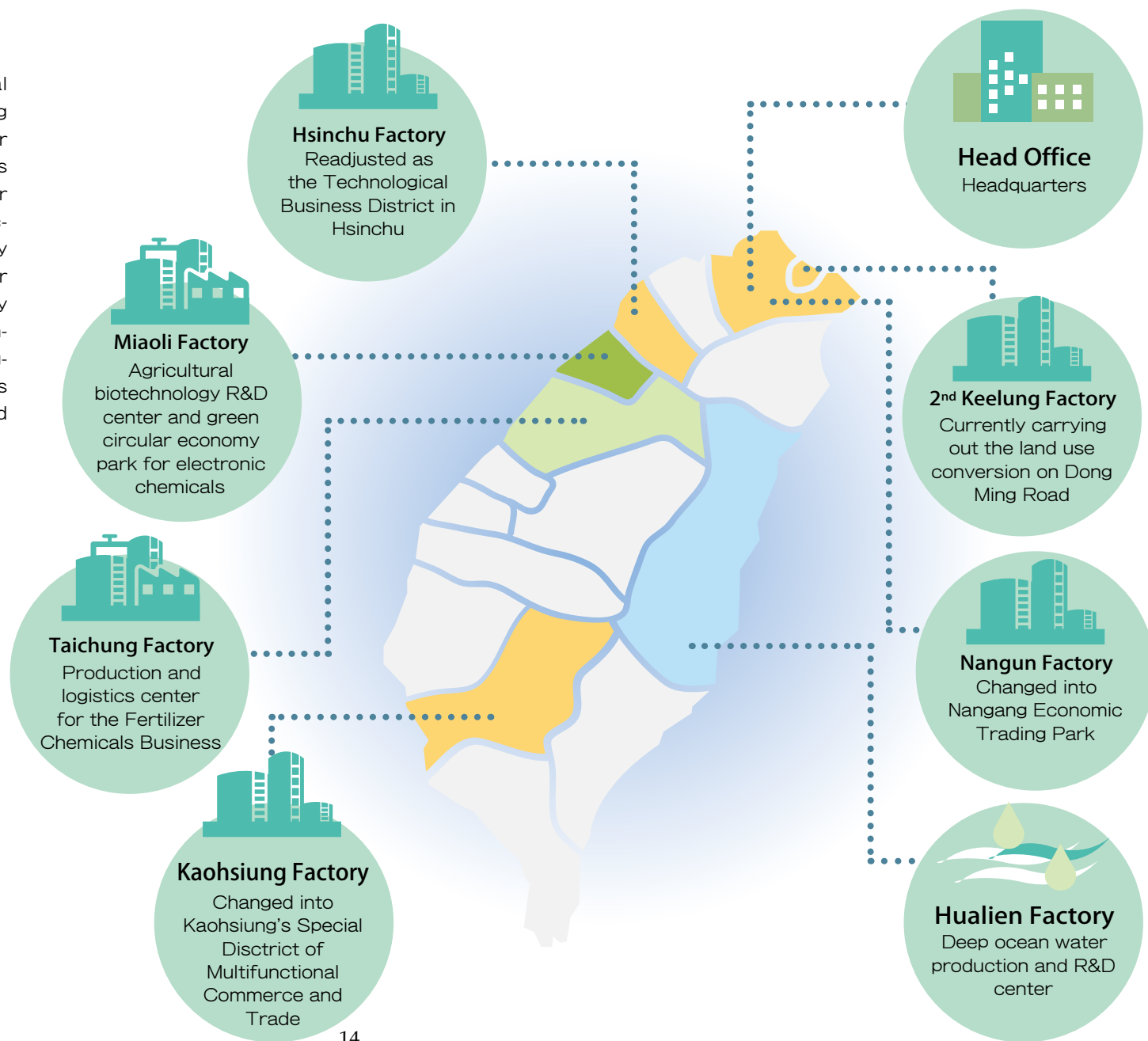
than 600,000 metric tons of fertilizers every year in the domestic market. TFC also imports and re-sells products of liquid ammonia and industrial grade urea. In addition, we also manufacture nitric acid and electronic chemicals for domestic and foreign markets. In response to the rapid changes in the economic environment and industrial trends, we actively promote diversified business management in the fields of real estate development, health products, biotechnology and so on to open up new prospects for the foundation of sustainability.

Name of Company	Taiwan Fertilizer Co. LTD.
Date of Establishment	May 1 st , 1946
Chairman	Hsin-Hong Kang
President	Yao-Hsing Huang
Capital	NTD 9.8 billion
Main Business	Manufacturing and sale of various fertilizers and chemical products and real estate development business
Largest Shareholder	Council of Agriculture, Executive Yuan (24.07%)
Number of Employees	681 employees (as of December 31 st , 2016)
Head Office	6F, No. 88, Sec. 2, Nanjing E. Rd., Taipei, 10457 Taiwan (R.O.C.)



Business Centers

Fertilizer chemical is the fundamental business of TFC. Currently, our Taichung Factory is the production center of fertilizer chemical production, Miaoli Factory serves as the agricultural biotechnology R&D center and green circular economy park for electronic chemicals, and the Hualien Factory serves as the production and R&D center for deep ocean water. This strategy successfully integrates the production efficiency that enables TFC to continue to upgrade and progress. Land development and related work is carried out actively in other decommissioned factories.





1.2 External Organization Participation

TFC participated in a total of 19 domestic and international industry associations and societies in 2016.

1	Taipei Agricultural Chemicals Association	11	Chinese Blood Donation Association
2	Taiwan Public Companies Stock Affairs Association	12	Taiwan Crop Protection Industry Association
3	Taiwan Acid and Alkali Industries Association Note 1	13	Taiwan Chemical Industry Association
4	Sino-Indonesia Cultural and Economic Association	14	Taiwan Institute of Chemical Engineers
5	Middle East Business Association	15	Chinese Society for Quality
6	Chinese National Association of Industry and Commerce, Taiwan	16	Taiwan Responsible Care Association
7	Chinese International Economic Cooperation Association	17	Chinese Petroleum Institute
8	Sino-Arabian Cultural & Economic Association	18	Taiwan Deep Sea Water Development Association Note 2
9	Taiwan Management Institute	19	Labor Safety and Health Promotion Council of Liquid Ammonia Transport
10	The Third Wednesday Club		

Note:

- 1.The objective of Taiwan Acid and Alkali Industries Association is to coordinate the peering relationship to increase the common interest and promote the industry's improvement plan for the purpose of promoting economic development. TFC is the founding company and has been the serving as the Chairman of the association for years
- 2.The chairperson of Taiwan Yes, Ms. Tina L. A. Huang serves as the President of Taiwan Deep Sea Water Development Association

1.3 Major Products and Service Markets

The main business of TFC includes manufacturing and sale of chemical products (nitric acid), fertilizer products (calcium superphosphate, nitro based compound fertilizer, ammonium sulfate) and import sales and procurement of liquid ammonia, urea, nitric acid, potassium chloride, and electronic chemicals. In addition, TFC has been actively engaged in activation of land assets and launched residential and commercial real estate and other products.



1.4 TFC Group Overview

Taiwan Yes Deep Ocean Water Co., Ltd.

Taiwan Yes Deep Ocean Water Co., Ltd. mainly develops deep ocean water (DOW) related products. It is devoted to becoming an expert in deep-sea minerals to introduce the health benefits of the natural deep-sea minerals to people all over the world. With the most advanced process technology, automated equipment and the largest deep ocean water manufacturing factory in Asia, Taiwan Yes produces high-quality deep sea natural minerals and high-quality packaged drinking water, high mineral contented water, deep sea salt, concentrated liquid and other deep ocean water series products.

Taifer (Cambodia) Co. Ltd.

Taifer (Cambodia) Co. Ltd. is mainly responsible for the import and export sale of the local fertilizer in Cambodia, aiming at speeding up the promotion of fertilizer and grasping the demands of fertilizer to facilitate the export of TFC's excellent fertilizer products as well as the fertilizer management techniques to ASEAN countries.

Mitagri Co.,Ltd.

Mitagri Co.,Ltd. is a national agricultural development company mainly focusing on exporting and supplemented by importing. In addition to establishing Taiwan's national brands and a national management team taking care of expanding external markets, it also actively conceives the layout of overseas production bases to promote local technology upgrade, the establishment of overseas sales bases as well as long-term overseas marketing plans and the plant export of agricultural technology.

Al-Jubail Fertilizer Company

Founded in 1979, Al-Jubail Fertilizer Company is a successful example of joint venture by TFC and Saudi Basic Industries Corporation (SABIC). It mainly manufactures products of urea, 2-EH and DOP, raw materials with low cost advantage for stable investment income.

Tai Chung Asset Management Development Co., Ltd.

Tai Chung Asset Management Development Co., Ltd. is mainly responsible for the development of real estate. In addition to the management of gas stations in Keelung and Miaoli, it also manages the commercial office building of "Taiwan Hall" in Ulaanbaatar, the capital of Mongolia. In the future, it will actively participate in the development and management of TFC's self-owned or self-developed real estate.

The background of the slide features a close-up of two hands, one on the left and one on the right, holding a chain of paper-cut human figures. The figures are connected by their hands, forming a continuous line. The lighting is warm and soft, creating a sense of unity and collaboration. The hands are positioned as if they are about to join or have just joined the chain.

/Chapter 2

Stakeholder Interaction and Management

TFC always makes deliberate planning and exploration because we think highly of our stakeholders. We make strict checks and inspections to ensure the product quality, and we certainly fulfill our corporate social responsibility.

We also uphold the principle of systematic organization and professional analysis to respond to the stakeholders' deep expectation.

2.1 Vision of Sustainable Development

TFC's vision of sustainable development is based on "Taking into account the sustainable business model for the economy, environment and society, reaching the world from Taiwan and becoming a global brand of excellence." TFC established the CSR Committee in 2015 to develop sustainability strategies, aiming at gradually fulfilling the vision of sustainable development.

2.1.1 CSR Committee

TFC's CSR Committee is the highest level project implementation organization within the company to promote CSR work. The company also established additional CSR Secretariat under the Board office to fully demonstrate our commitment to the practice of corporate social responsibility policy.

2.1.2 Mode of CSR Operation

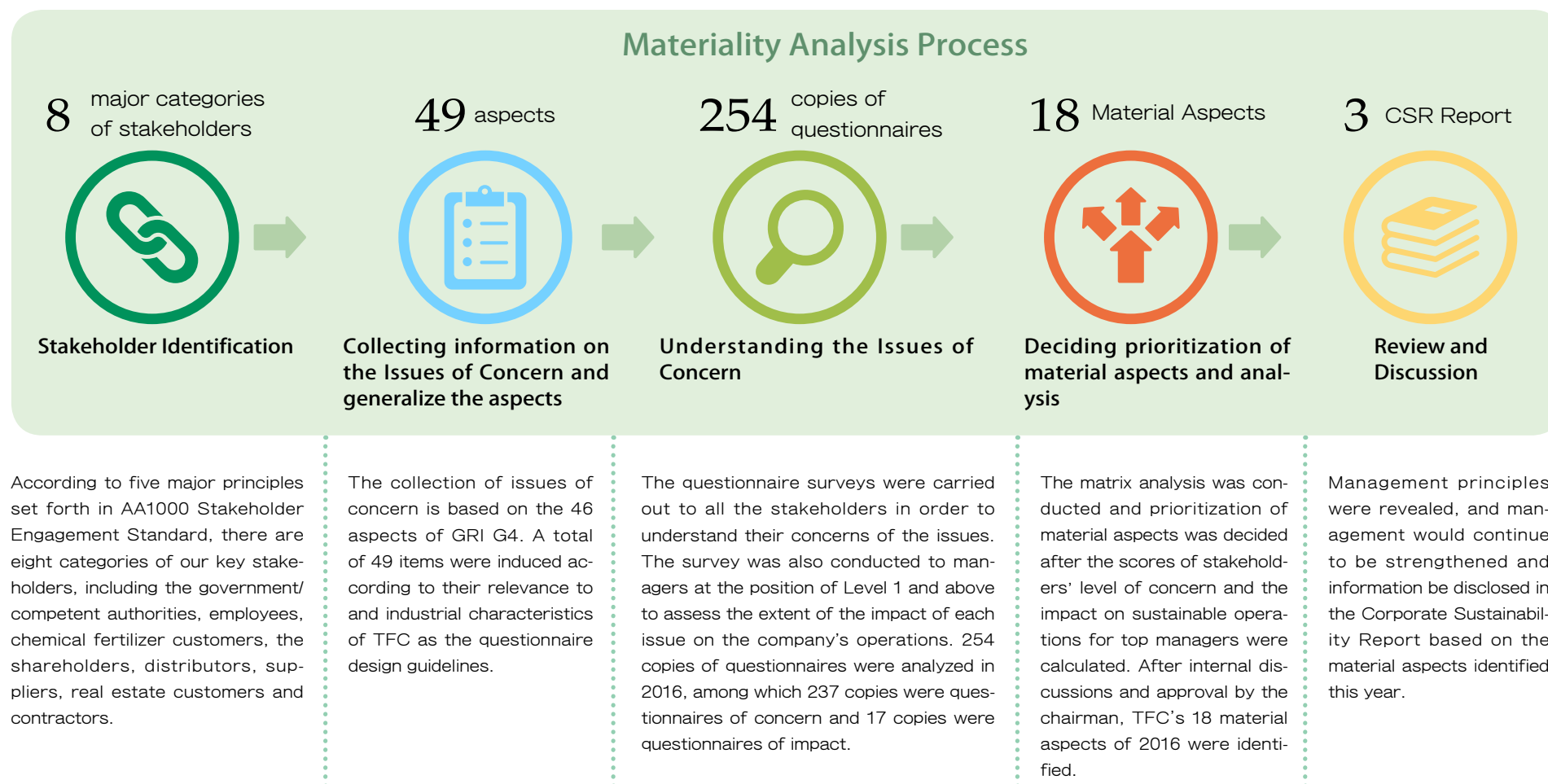
This CSR Committee, headed by the Chairman of the Board, with the president serving as the commissioner, is responsible for convening the meetings to decide CSR promotion directions. The vice president conducts performance evaluations through regular meetings to review CSR promotion strategies and related programs, such as management policy, key performance indicators (KPI) or other improvement proposals based on the results of stakeholder communication.



Representative	Chairman
Approval of CSR policies	Board of Directors
Mode of implementation	<ul style="list-style-type: none"> ● CSR Committee: Determine CSR policy directions and develop CSR policy ● Each Sub-committee: Key performance indicators (KPI), action plans and budgeting will be set, and finally each unit will promote and implement them according to its responsibility ● CSR Secretariat under the Board office: It is responsible for handling CSR education and training on a regular basis and assisting the Committee in the development and implementation of CSR policies
Approval of the Report	After CSR Secretariat under the Board office collects the information of each department for the compilation of the Report, the information is submitted to the Committee for revision and amendment. The Report is finalized and published after being read and approved by the chairman. It will also be submitted to the board for future reference.

2.2 Stakeholders and Identification of Material Aspects

TFC has established transparent, effective and diverse communication channels to engage in communication with our stakeholders. We focus so much on the stakeholders' interests that we even include their interests in the business development strategy to serve as a reference for the company's operation decisions, setting up a solid foundation for TFC's sustainable operation.



2.2.1 Identification of Stakeholders and Communication

TFC's eight major categories of stakeholders were identified based on the five major principles of the AA1000 Stakeholder Engagement Standard, namely the Dependency, Responsibility, Influence,

Diverse Perspectives, and Tension. Our eight major categories of stakeholders include the government/competent authorities, employees, chemical fertilizer customers, the shareholders, distributors, suppliers,

real estate customers and contractors. The descriptions of identification, communication channels and issues of concern of TFC's each category of stakeholder are illustrated as follows:

Stakeholders	Description	Communication Channels	Frequency	Top 5 Issues of Concern
1. Government	Council of Agriculture, Executive Yuan is the largest shareholder of TFC, which directly affects the execution and implementation of policies of TFC's agriculture and the sustainable environment.	State-owned shareholder meeting	Occasional	Transport
		Competent authority meeting	Occasional	Environmental Compliance
		Acts and specification	Occasional	Product and Service Labelling
		Exchange of official documents	Occasional	Sustainable Food
		Government audits	Occasional	Emissions
2. Employees	Our employees are our most important assets. We listen to the voice of the staff. We make immediate response to their issues of concern and fulfill the responsibility to take care of them.	Labor conference	Quarterly	Economic Performance
		Trade Union / Employee Welfare Association	Quarterly	Labor/Management Relations
		Education and training	Occasional	Education and Training
		Bulletin Board System/ e-mail	Occasional	Environmental Compliance
		TFC Quarterly	Quarterly	Social Compliance
3. Chemical fertilizer customers	Fertilizer Chemicals Business is our foundation and is closely related to Taiwan's agricultural development. We make continuous progress and promote growth momentum by understanding customers' needs and ideas.	Employee communication mailbox (HR@taifer.com.tw)	At all times	
		Sales Department and Business Units of all factories are responsible for communication.	At all times	Sustainable Food
		TFC official website	At all times	Product and Service Labeling
		TFC Quarterly	Quarterly	Customer Health and Safety
		Customer Service Hotline: Fertilizer products : 0800-883-300 (Sales Department) Chemicals: (02)2542-2231 (Trading Department) Electronic Chemicals: (04)2471-8607 (TFC Electronic Chemicals Business Marketing Group)	At all times	Social Compliance Product Compliance

Stakeholders	Description	Communication Channels	Frequency	Top 5 Issues of Concern
4.Shareholder	Shareholders are the owners of TFC, whose interests and the company's operating performance are closely related. Therefore, the shareholders have high expectations.	Shareholders' meeting	Annual	Sustainable Food Social Compliance Environmental Compliance Economic Performance Anti-corruption
		Investor conference	Occasional	
		Investor Relations Team is responsible for communication	Occasional	
		Annual report / Financial statements / Monthly sales report	Annual /Quarterly/ Monthly	
		TFC Shareholder Service Unit	At all times	
		TFC official website	At all times	
		TFC Quarterly Customer Service Hotline: (02)2542-2231#682(Stock Affairs Unit)	Quarterly At all times	
5. Distributors	Distributors are TFC's important sales channels. Among which, the Farmers' Association is our major and stable sales partner, working together with TFC to stabilize the supplies of fertilizers and balance the prices, shouldering the responsibility of supporting national agriculture with TFC.	Sales Department and Business Units of all factories are responsible for communication	At all times	Product and Service Labelling Customer Health and Safety
		TFC official website	At all times	Customer Privacy
		TFC Quarterly	Quarterly	Marketing Communication
6. Suppliers	The quality of the products and services provided by the suppliers directly affects the performance of the operation and production of TFC. We establish good communication channels with suppliers to make efforts for the common interests of both sides and to achieve the goal of sustainable growth.	Trading Department is responsible for communication with each factory	At all times	Social Compliance
		Procurement practices	Occasional	Anti-competition Behavior
		Supplier evaluation questionnaire	Annual	Supplier Assessment for Impacts on Society
		Field visits to suppliers	Occasional	Anti-corruption
		TFC official website	At all times	Product Compliance
7. Real estate customers	Real estate is one of the three major businesses of TFC. We listen to the real estate customers' feedback and opinions to know our customers' demands and make continuous progress.	Real Estate Development Department and Property Management Department are responsible for communication	At all times	Environmental Compliance Transport
		TFC official website	At all times	Product and Service Effluents and Waste
		Customer Service Hotline :0800-258-600 (Real Estate Development Department)	At all times	Climate Action
8. Contractors	With the trend toward professional division of labor of business behavior, contractors are important cooperative partners for TFC's operations, so we should understand their ideas and suggestions to create a sustainable win-win situation.	Site management unit is responsible for communication	At all times Monthly/	Procurement Practices Supplier Environmental Assessment
		Regular / occasional meeting	Occasional	Sustainable Food
		Field audit	Occasional	Emissions Biodiversity



2.2.2 Identified Material Aspects

Based on the analysis process of the material aspects of corporate social responsibility, including the 5 steps of the “Stakeholder Identification”, “Collecting Information on the Issues of Concern and Inclusion of Material Aspects”, “Understanding the Issues of Concern”, “Prioritization and Analysis of Material Aspects” and “Review and Discussion”, the material aspects and the prioritization of material issues were determined.

2016 Materiality Matrix



The Chapter and Section of Material Aspects and the Description of the Boundary of Considerations

Material Aspects		The Corresponding Index	Chapter and Section in this Report	The Boundary		
				Within the organization TFC	Other Affiliates	Outside the organization(Note 1)
Economy	Economic Performance	G4-EC1 G4-EC3	4.4 Financial Performance 6.1.1 Human Resources and Benefits	●	◎	△ Shareholders
	Environmental	G4-EN29	4.5 Compliance			
Environment	Compliance	G4-EN15/G4-EN16/	3.3.2 Environmental Friendliness			
	Emissions	G4-EN19/ G4-EN21	3.3.2 Environmental Friendliness			
	Effluents and Waste	G4-EN22/ G4-EN23	3.3.2 Environmental Friendliness			
	Energy	G4-EN3/ G4-EN5/ G4-EN6	3.3.3 Energy Saving Climate Action			
	Environmental Grievance Mechanisms	G4-EN34	3.3.2 Environmental Friendliness	●	◎	
	Circular Economy	G4-EN2	3.2 Circular Economy			
	Transport	G4-EN30	5.2 Transport Management			
	Product and Service	G4-EN27	3. Vitality and Green Innovation			
Society	Sustainable Food	G4-EN27	6.2.2 Rationalization of Fertilization and Green Fertilizer Promotion Education			
	Product Responsibility Compliance	G4-PR9	4.5 Compliance	●	◎	
	Social Compliance	G4-S08	4.5 Compliance			
	Labor/Management Relations	G4-LA4	6.1.2 Good Labor/Management Relations			
	Customer Health and Safety	G4-PR1/ G4-PR2				
	Product and Service Labeling	G4-PR3/ G4-PR4	3.4.2 Product Liability	●	A ○	△ Customers
	Marketing Communication	G4-PR6/ G4-PR7				
	Local Communities	G4-S01	6. Special Column: Make Proper Use of Land to Create Harmony between the Environment and the Community	●	◎	△ Community
	Occupational Health Safety	G4-LA5/ G4-LA6 / G4-LA7/ G4-LA8	6.1.3 Occupational Safety and Health	●	◎	○ Contractors

(Note 1) The extent of disclosure

● Related, with comprehensive disclosure

○ Related, with partial disclosure

◎ Expected to continue to collect information for gradual disclosure

△ With impact, qualitative description


A: Taiwan Yes Deep Ocean Water Co., Ltd.

B: Tai Chuang Asset Management Development Co., Ltd.

C: Mitagri Co.,Ltd.

D: Hasbo Biotech Co., Ltd





/Chapter 3

Vitality and Green Innovation

"There will always be a frontier where there is an open mind and a willing hand."

--Charles Franklin Kettering, American Inventor (1876-1958)

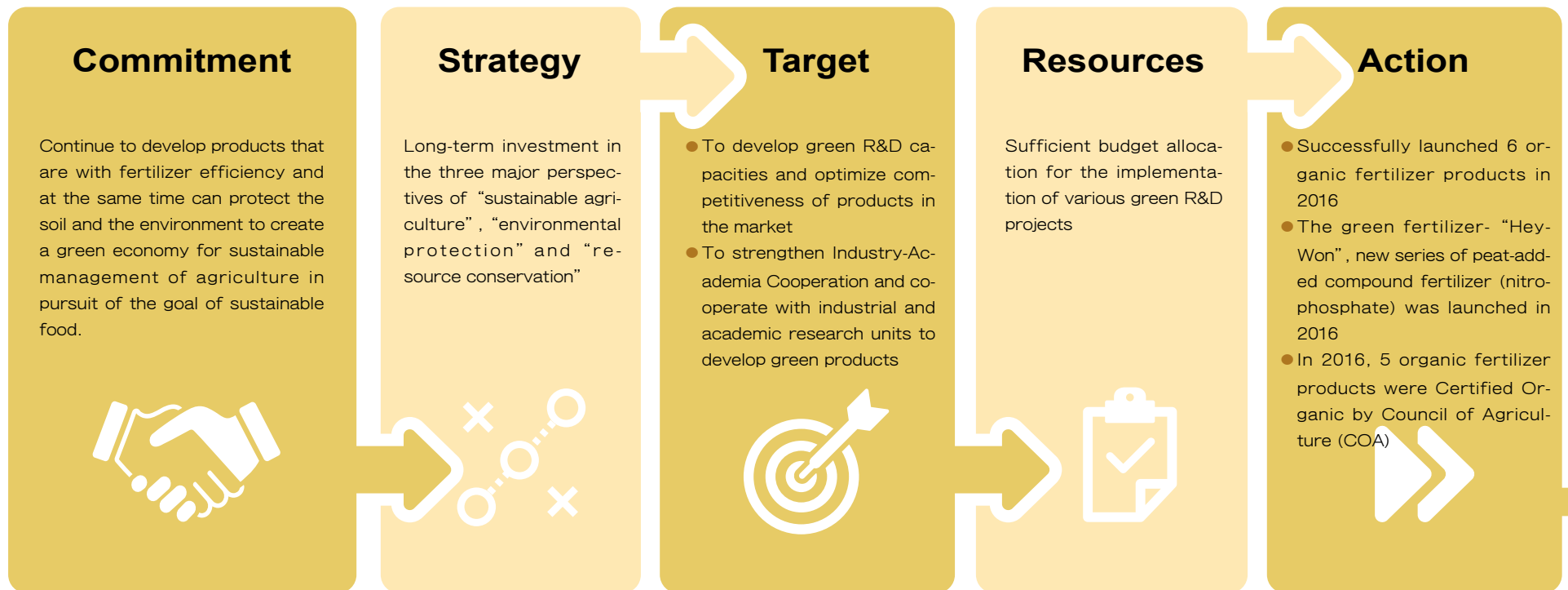
TFC flexibly makes use of professional knowledge in response to the world trends and continuously develops innovative products, concerns about vigorous actions to practice humanism, to embrace the land with sincerity and responsibility, and is dedicated to enable farmers to share the benefits with the land.

3.Vitality and Green Innovation

Taiwan Fertilizer Corporation has been striving to implement Goal 2 of SDGs, “End hunger, achieve food security and improved nutrition and promote sustainable agriculture” as one of our corporate goals from three major perspectives of “sustainable agriculture”, “environmental protection” and “resource conservation” and continues to research and develop processes and products with more benefits, fulfilling our commitment to sustainable agriculture.

Material aspects >>> Products and services, sustainable food

DMA (Disclosure on Management Approach)



3.1 Green Innovation and R&D

With the R&D philosophy of “fertilizer efficiency” , “maintenance of soil” and “environmental protection”, TFC has developed the “niche fertilizer products” through evolutionary innovation of the original products. In 2016, we have successfully launched new green fertilizer—new series of peat-added compound fertilizer (nitro-phosphate)—“HeyWon” Series. This new green fertilizer series not only takes care of the soil but also enhances the quality and increases the yields of crops, beneficial to both the environmental and economic development.

Recently, TFC has put more efforts into the

promotion of organic agriculture. Our company has not only established our own techniques of organic cultivation and production quality control process, we also have plans to expand the scale of the organic demonstration farm and teach farmers organic farming to maintain an environment for sustainable agriculture. Over the years, we have continued to invest in “microbial compound fertilizers” that are applied in aquaculture, and to further develop “biological pesticides” that are suitable for organic agriculture, aiming at making concrete contributions to Taiwan’s agriculture.

Organic Agriculture Techniques and R&D of Fertilizers

● Establishment of the Database of Organic Cultivation Techniques

TFC has set the Organic Agriculture Group under the R&D Section to be in charge of organic farming research, field trials, demonstration and promotion of organic farming.

The Company set up an organic demonstration farm in Miaoli to serve as the trial field for organic cultivation techniques and organic materials. The area of this demonstration farm is scheduled to be expanded to assist farmers to join the organic cultivation market more quickly to help Taiwan’s agriculture gradually move toward an environmentally friendly mode of operation. Currently, the organic demonstration farm has obtained organic verification from MOA international in 2017 April 2017.

Green R&D Policies and Objectives

Policy	Short-term goals (2016~2020)	Medium- and long-term goals (2020~2030)
To enhance and innovate the core technology and develop green products which are with fertilizer efficiency and at the same time can protect soil and the environment	<ol style="list-style-type: none"> 1.To implement R&D personnel training of green R&D capabilities. Each person receives at least 20 hours of training averagely every year 2.To cooperate with industrial and academic research units, setting the target of the development project at two projects in 3-year period to enhance our green R&D capabilities 	<ul style="list-style-type: none"> ● To expand and have access to green technology and to cooperate with industrial and academic research units, setting the goal at working on at least 2 projects together in 6-year period ● To continuously improve production processes, save energy and reduce carbon emissions ● To establish well-equipped laboratories and integrate R&D resources to maximize the synergy in R&D ● To implement industry- academia cooperation



TFC's R&D Expenditure



3.1.1 Creation of a Green, Non-toxic and Organic Environment

TFC has developed many good quality organic fertilizer and material products, creating a better organic and non-toxic environment for Taiwan’s agriculture and fishery.

We apply organic fertilizers on the organic demonstration farm (approximately 6 tons / 970 m²) for the land amelioration project. After soil sampling and analysis, it is found that the “organic matters” in the soil increased by 1.435%, and the proportion of other soil nutrients also increased at the same time, confirming that proper supplementation of soil organic matters can facilitate plant nutrient absorption.

Implementation Results of TFC's Establishment of Organic Farming Techniques

Item	Implementation result
Internal trial of the organic demonstration farm	6 trials
External field trial of organic farming	6 trials
Experiment on organic farming techniques of farms	14 kinds of major economic crops, such as paddy rice, leafy vegetables, melons and fruit
Overall crop yield of the organic demonstration farm	1,841 kg



The Launch of Various High-quality Organic Fertilizers

To improve the situation of soil acidification, we have set an “Organic Fertilizer Research Center” and made use of fermented agricultural waste such as beer lees and mushroom waste for the production of organic fertilizer. In addition, in 2016, the establishment of the factory for biotech organic fertilizer was completed (with an annual production capacity of 6,000 metric tons) to produce a number of high-quality organic fertilizer products, fulfilling our philosophy of the promotion of organic farming

and an environmentally friendly environment.

TFC has launched a total of six organic fertilizer products. Except for the “#7 Biotec Organic Fertilizer” which is still under the review, the other five products have passed the review and been selected as the recommended brand of soil fertility improvement materials by Council of Agriculture (COA). Four of them have even been selected as the recommended domestic brand of organic fertilizer products.

Tips : Organic Agriculture Classroom — What is organic farm?

We keep detailed records of organic cultivation techniques from the seed stage to nursery, pollination and even the fruit development stage. These documents along with the use of organic materials for disease control and crop pest control technology are all kept to establish a complete database of organic farming.



Description of organic farm certification



#2 Organic Fertilizer



#1 Biotec Organic Fertilizer



#3 Biotec Organic Fertilizer



#5 Biotec Organic Fertilizer



#7 Biotec Organic Fertilizer



#11 Biotec Organic Fertilizer

New Green Fertilizer

● New series of peat-added compound fertilizer (nitrophosphate), “HeyWon” Series for soil and environment protection

To achieve the balance between agricultural development and environmentally friendly environment, we continuously tested and adjusted the proportion of phosphorous and peat in the process. In 2016, the new series of peat-added compound fertilizer with humic acids was launched. This upgraded product emphasizes on the efficiency instead of the fertilizer content, and the humic acids in it can prolong the fertilizer efficiency, improving the soil structure of farm-



Specialties of “HeyWon” Series

Fertilizer is like food. Irregular intake of it will cause nutritional imbalance. The difference of chemical fertilizer and organic fertilizer lies in the fact that nitrogen, phosphorus and potassium in chemical fertilizer are the important source of nutrients for plants while organic materials contain the trace elements plants need to facilitate the digestion and absorption of plants.

One of the specialties of “HeyWon” is its efficiency and effects. The nitrophosphate in this peat-added compound fertilizer (nitric acid) is a kind of nitrogen, which is the element with best absorption effects for plants, enabling the crops to quickly absorb the nutrients. Another specialty it has is the long-term fertility effects, which can be attributed to the peat added in it. Peat contains humic acid that can grasp the nutrients and slowly release them. Without peat, nutrients can be easily washed away by water. Therefore, under the same amount of fertilizer, peat seizes the nutrients to extend the time for the crops to absorb more nutrients, and the yield is thus increased.

A 40kg pack “HeyWon” Series products contains about the same amount of humic acid as a 20kg pack of organic fertilizer products.

land in Taiwan, decreasing the amount of fertilizer applied while enhancing the crops yields and quality. Our new green fertilizer products indeed have the advantages of chemical fertilizer and organic materials.

The new “HeyWon” Series, our peat-added compound fertilizer (nitrophosphate) was even awarded TCIA’s Product Innovation Award in 2016. We are applying for its patent in China, Indonesia, Malaysia, Vietnam, Thailand, Cambodia and other countries.

● R&D of low-phosphorus fertilizer to prevent reservoir eutrophication

In 2013, TFC started to cooperate with Taipei Feitsui Reservoir Administration and Tea Research and Extension Station to provide low-phosphorus compound fertilizer for the experiment in the tea gardens in the catchment area for two consecutive years. The results show that the application of low-phosphorus compound fertilizer has no impact on the yield and tea quality, and the environmental benefit of it is the reduction of phosphorus accumulation in the soil. TFC has completed the formula of low-phosphorus compound fertilizer specifically for tea trees in 2016, and provides counseling and education promoting rationalization of fertilizer to tea farmers in the catchment area in Feitsui Reservoir in an attempt to follow the governmental policy with our core R&D capacities so as to reduce the environmental burden of the reservoir and to make efforts for environmental protection.

Innovative Application of Microorganism

● Taifer Biopower phosphate-solubilizing bacteria biofertilizer

The long-term application of phosphate fertilizer on Taiwan's farmland caused the accumulation of it due to little phosphate loss and that part of the available phosphorus cannot be absorbed by the crops. The Taifer Biopower phosphate contains phosphate-solubilizing bacteria and can simultaneously solubilize three types of unavailable phosphorus fertilizer accumulated in soil (calcium phosphate, iron phosphate and aluminum phosphate) and turn them into available phosphorus that can be used for plants to strengthen soil fertility.

Taiwan's annual application of phosphate fertilizer reaches 135,000 metric tons. The use of Taifer Biopower phosphate can help reduce 70,000 metric tons of phosphorus fertilizer application (a decrease of about 33%~50%, equivalent to NTD 180 million).

● Biopesticide Formulation

TFC works with Dr. Hsieh, Feng-Chia team in the Taiwan Agricultural Chemical and Toxic Substances Research Institute of COA and uses the strain of *Bacillus amyloliquefaciens* (BaBPD1) in the development of biofertilizer as the academia-industry collaboration project. In addition to the successful development of Taifer Biopower phosphatesolubilizing bacteria biofertilizer, it is also found that the strain of bacteria can produce high amount of antimicrobial substance (Iturin A) and have the characteristics of promoting crop growth.

We aim at the development of biopesticide for the prevention of strawberry gray mold, and have completed the biopesticide formula, pilot run, toxicologi-

cal test, physical and chemical property test and field trial of the pesticide efficacy of it. This Bio-pesticide is now under the pesticide registration and it is scheduled to be launched in 2018.

● Aquaculture Effective Microorganism Product

TFC has the aquaculture effective microorganism products of “#3 Taifer Aquaculture Biopower stimulant” and “#1 Taifer Biopower Aquaculture Effective Microorganisms”. Based on the laboratory data, the use of #3 Taifer Aquaculture Biopower stimulant in indoor farms can reduce organic pollutants in water while adding #1 Taifer Biopower Aquaculture Effective Microorganisms in the feeds can increase feed absorption rate, reduce fecal excretion and the amount of water change (saving 10% of water change amount every day). TFC's aquaculture effective microorganism products have good antagonistic effect against common aquatic bacteria, enabling the reduction of drug use and further reduce the amount of water change and electricity consumption (generally the aquaculture farmers have to change at least 50% of water after drug use).



Applying TFC's microorganism product increased the survival rate of the grouper.





Case sharing of using Aquaculture Effective Microorganism product

We track the results of using our products in 2016, and this case sharing is from a Chinese mitten crab farmer in Miaoli.

At the early growth stage of Chinese mitten crabs, it is not easy for stable culture of aquatic plants, resulting in early death of crab breeding and the disinfection also leads to large amount of water change. If water has to be changed due to disinfection three times at the early growth stage, the total amount of water change will reach 1,000 metric tons every 970 m². After trying #1 Taifer Biopower Aquaculture Effective Microorganisms during the farming process, there is no need for water change, and the chance of bacterial infection is reduced, increasing the survival rate by 10%.

Description of the results of applying microorganism product in Chinese mitten crabs farming

No application of the product

Change water three times, approximately 1,000 metric tons of water at the initial stage

3 times of morbidity on average in the pond annually

Application of the product

No need to change water at the initial stage

Increase the survival rate by 10%, and the profit increased by NTD 90,000 per 970 m². No need for drug use in the whole farming process



Taifer Quarterly
Legend in Aquaculture, Vitality for Deep Plowing

Green R&D Results

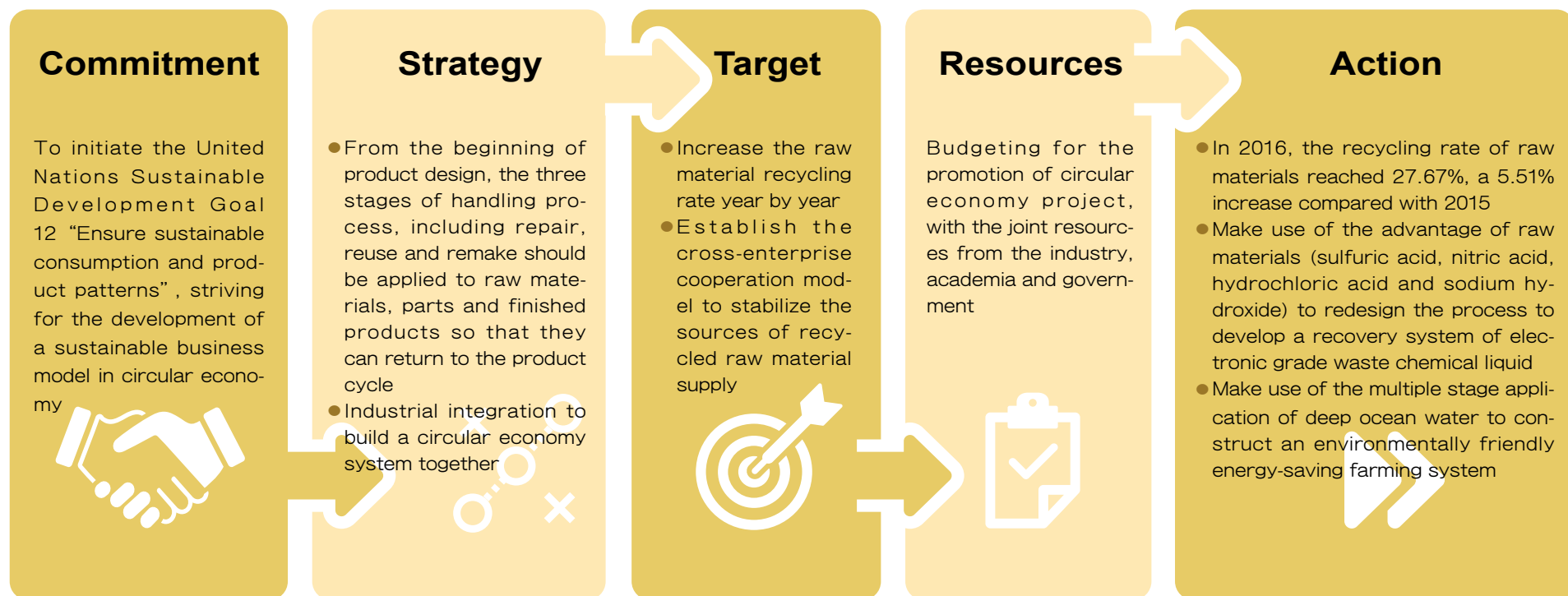
Item	R&D Results	Green Benefits
Organic agriculture technology and R&D	Completed trial of organic farming	Establish organic farming techniques of different
	Technology on 14 key crops in 2016	Crops and production quality control process to promote organic friendly agriculture in Taiwan
New green fertilizer	Developed six organic fertilizer products, in which five have passed the review as being applicable for organic agriculture, and four are even selected as the recommend brand of organic fertilizer	Improve the problem of insufficient content of organic matters in soil on farmland in Taiwan. Based on the internal research, long-term application of organic fertilizer can increase the organic matters in soil
	Launched the new series of peat-added compound fertilizer (nitrophosphate), the "HeyWon" Series	Supplement the soil organic matters, improve soil structure, reduce fertilizer use and ease off soil acidification
Innovative Application of Microorganism	Completed the formula for the compound fertilizer specifically for tea trees	Reduce the accumulation of phosphate fertilizers and ease off the problem of water eutrophication in the reservoir
	Launch the Taifer Biopower phosphate-solubilizing bacteria biofertilizer	Turn the unavailable phosphorus into available phosphorus, reducing 30% of phosphorus fertilizer use
	Completed the biopesticide formula and pilot run. It is scheduled to be commercially available in 2018	Reduce the use of chemical pesticides, reducing the impacts on the environmental and human health
	Successfully developed two aquaculture effective microorganism products with TFC's core technology of microbial liquid-state fermentation	No need to change water at the initial stage of farming, saving approximately 1,000 metric tons of water per 970 m ²

3.2 Circular Economy

To reach the United Nations Sustainable Development Goal 12 “Ensure sustainable consumption and product patterns”, TFC increases the waste recycling rate by pre-design, reduction, recycling and reuse. In the organic fertilizer production plant in Miaoli Factory, the raw material sources come from the agricultural waste such as the distiller dried grains, mushroom waste and dregs from soybean milk making. Our Hualian Factory makes use of its geographic advantage and overcame the technical obstacles and draws deep ocean water for multiple stage of aquaculture. In addition, Aquaponics is further developed to recycle water resources.

Material aspects>>>Circular Economy

DMA (Disclosure on Management Approach)



3.2.1 The Use of Recycled Raw Materials

The raw materials used for the production of fertilizer and chemical products are mainly divided into four categories, including raw materials, secondary raw materials, fillers, and packing bags. The amount of raw materials used in 2016 was approximately 514,837 metric tons, in which 142,436 metric tons belong to recycled raw materials, mainly from the by-product of sulfuric acid produced at the end of processing stage in TFC's production plants and domestic and foreign manufacturing plants.

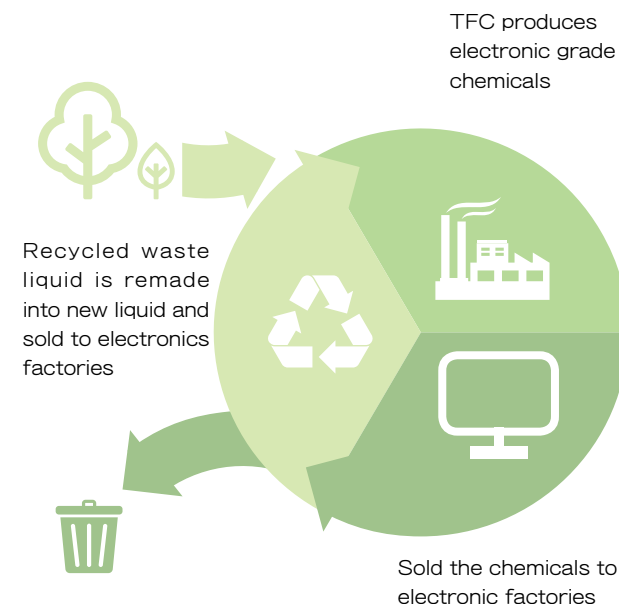
The rate of recycled raw material usage in 2016 was 27.67%, an increase of 5.51% compared with the 22.16% in 2015. The aforementioned raw materials are recyclable. Other raw materials, including natural minerals and products converted from natural gas are non-recyclable ones. The raw materials used are detailed as follows.

Category	Raw Material Item	Usage amount (Unit: tonne)
Category 1	The main raw materials	492,503
Category 2	Sub-materials (including fuel oil and molten sulphur)	17,157
Category 3	Production fillers (including peat)	2,587
Category 4	Packing bags (PP plastics)	2,590
Total		514,837

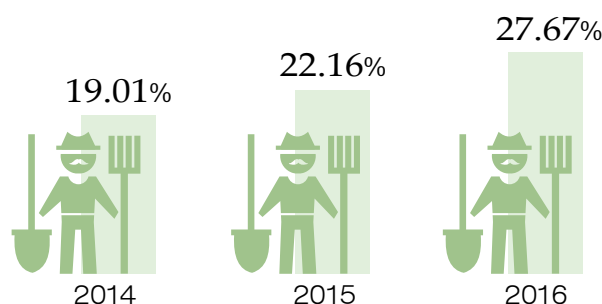
Note: The amount of PP plastics used in packing bags is obtained from the weighted conversion of the specification of the bags (mostly 25 kg and 40 kg) TFC uses and the PP consumption. Ton bags and paper bags less than 1% are not included

3.2.2 Combining the Industrial Chain to Create a Sound Circulation System

The Company has been actively developing electronic grade chemicals in the Miaoli Factory to supply customized products to domestic large panel, optoelectronics, solar energy and semiconductor manufacturers. Based on the solid chemical professional basis, TFC has established the "Stripper Recycle System (SRS)" and the "Recycle System for the Reproduction of Phosphoric Acid", providing one-stop service model for our customers in terms of production, sales and recycling, creating a circular economy system from supply to recycling.



The percentage of recycled raw material usage in TFC between 2014 and 2016



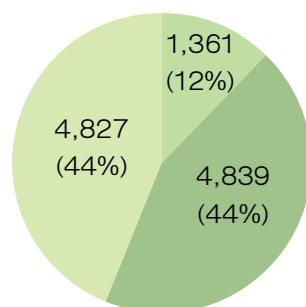
Stripper Recycle System (SRS)

Currently there are a 5KL and a 20KL SRS distillation columns in Miaoli Factory, providing services for the recycling, allotment, quality control and logistics services of STRIPPER needed in the panel industry. In order to achieve the goal of introducing the niche electronic chemicals into Miaoli Factory, TFC is working on the development of a one-stop shopping services providing the supply and recycling of NMP. In 2016, the amount of sales of reproduced liquid recycled from the Stripper Recycle System (SRS) was 1,361 metric tons, accounting for 12.34% of the total sales of TFC's electronic chemicals.

2016 Production Statistics of Electronic and Reproduced Products

Unit: metric ton

- Reproduced liquid
- Reproduced phosphoric acid
- Other electronic chemical products



Recovery System for the Reproduction of Phosphoric Acid

Miaoli Factory recycled the etching waste liquid at the end of the manufacturing process in the panel and IC industries and reproduced it into secondary industrial phosphoric acid by using the evaporation and circulation equipment. The waste aluminum etching solution can reach more than 99% recovery rate with pure recovery technology. In 2016, the amount of sales of reproduced phosphoric acid with this recovery system was 4,827 metric tons, accounting for 43.77% of the total sales of TFC's electronic chemicals.

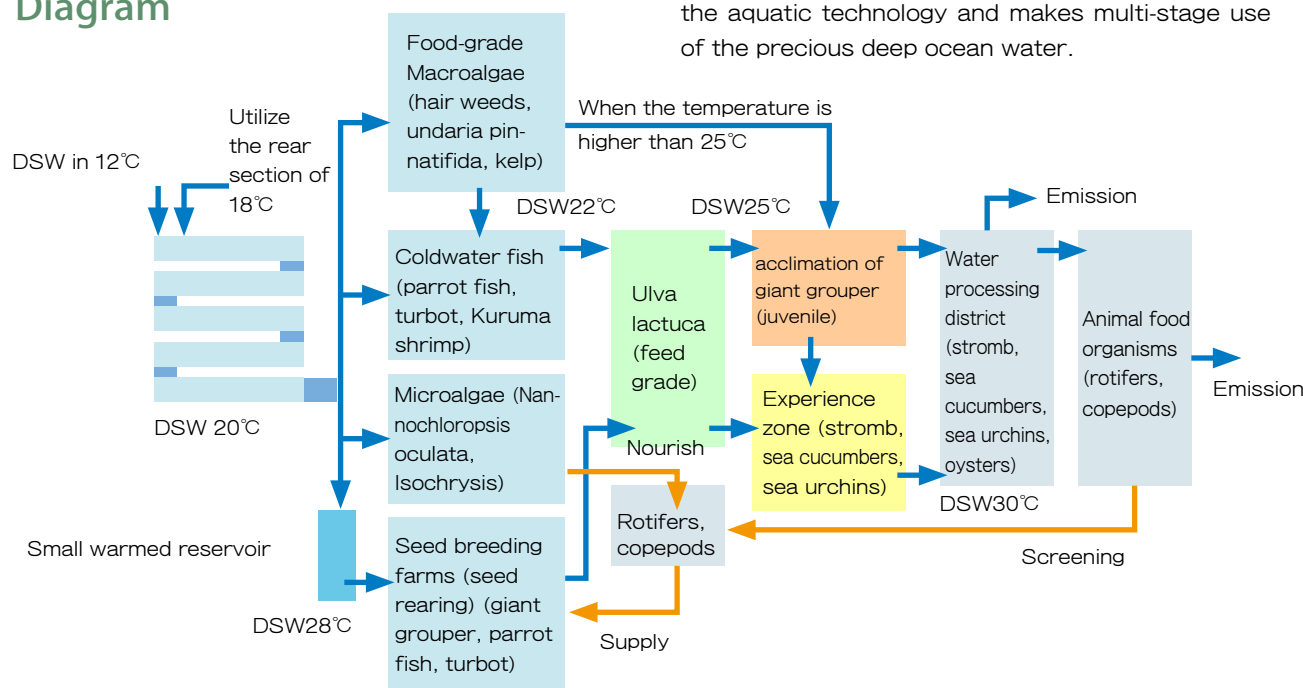
3.2.3 The Creation of Water Recycling and Reuse to Cherish Resources

TFC applies multi-stage use of deep ocean water as the raw material for health care products, for the usage plan of heat exchange of the air-conditioning system and for the development of aquaculture industry. In addition, with the concept of aquaponics, TFC's biotechnology expertise is also utilized to promote the water recycling system for the symbiosis of the aquaculture and agriculture industries.

Multi-stage use of deep ocean water for the construction of energy-saving farming system

Our Hualien Factory uses the cutting-edge technology to explore the east coast of Hualien, the western Pacific, in order to get the deep ocean water 662 meters below sea level to provide the raw material for TFC's subsidiary, Taiwan Yes Deep Ocean Water Co. Ltd. and also for the usage of cold energy needed for air-conditioning by using heat exchange in the Hualien Factory. In addition, for the R&D of aquatic technology, the Company simultaneously uses the precious deep ocean water resources for the research and development of the aquatic technology and makes multi-stage use of the precious deep ocean water.

DSW Multi-stage Culture System Diagram



The First Stage:

Use of low-temperature, make use of cold energy needed for air-conditioning by using heat exchange

The Company uses the front section of the extracted deep ocean water (about 12°C) to replace the chilling water and air conditioning system and applies the cold energy to the office building in Hualien Factory with the heat exchange technology to reduce the usage of air conditioning, achieving the goals of energy conservation and carbon reduction.

The Second Stage:

Use of temperature difference for aquaculture

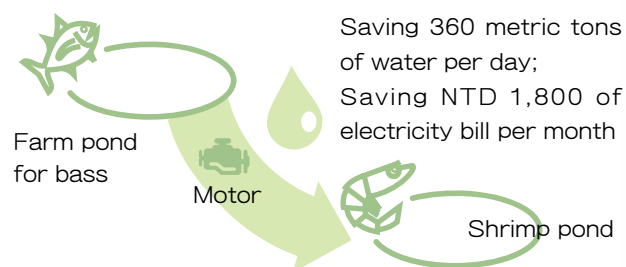
After the front section of deep ocean water is used for air conditioning for cold energy utilization, the temperature of the rear section is increased to about 18°C, and it is applied in the culture of

cold-water macroalgae. After being used to the culture of algae, the clean and warm water is then used for fry breeding, acclimation of juveniles or culture of shrimps or macroalgae such as *Ulva lactuca* (feed grade) or *Gracilaria* that can absorb too much organic matter and ammonia in the water body and discharge clean one. Every single unit of deep ocean water can be used for the culture of different aquatic species by using the temperature difference at different stages, which significantly reduce the environmental impact of the drainage water.

Take the bass and shrimp ponds for example, when using deep ocean water for outdoor fish farming, the low temperature and trace elements in deep

ocean water can easily produce diatoms and that leads to the phenomenon of red water color. Too many diatoms are not conducive to fish farming, and water must be changed by then. However, diatom water color is conducive to shrimp farming, so the changed water from the fish pond can be discharged into the shrimp pond for secondary use to save water consumption for shrimp farming. If the total amount of water in the bass farming pond is 1,800 tons of water body, with the daily 20% of water exchange rate, 360 metric tons of water can be saved every day with the application of multi-stage water usage.

Fig. 3. Diagram of multi-stage farming

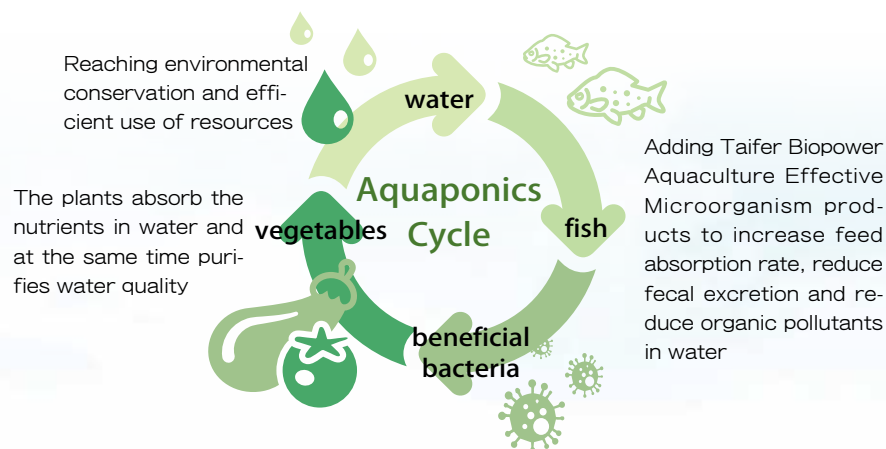


In the delivery process of this alternative utilization of water resource, we make use of the terrain of the factory and deliver the water body by using the water level difference to reduce the usage of the pumping motor, saving the consumption of energy.



Promotion of Aquaponics Farming

Our Company even guided fish farmers in Miaoli Areas to make use of idle farm ponds for fish farming. By adding the microbial fertilizers and Taifer Biopower Aquaculture Effective Microorganism products developed by TFC in the breeding field and by making use of the terrain to develop terrace fields, the aquaculture water rich in nutrients in the upper stream can be utilized at the downstream terrace layer for crop irrigation, enabling the integrated operation of aquaculture and agriculture. This not only increases the farmers' sources of income but also at the same time achieves environmental conservation and efficient use of resources.



Case Study Vitality Rice Plan in Shihu Town

Mr. Qiu Jing-Hong, a fish farmer in Shihu Township in Miaoli, added #1 Taifer Biopower Aquaculture Effective Microorganism to stabilize water color and prevent diseases, bringing in the trend of aquaculture in Shihu Township. Mr. Qiu makes use of the idle farm pond for the high-priced bass farming. Due to the non-use of drugs in the pond, the water can be used as the circulating water and introduced into the rice field for irrigation, aiming at transforming Shihu Township into a Township producing vigorous rice, creating new rural economy.

As of the end of 2016, Mr. Qiu developed two idle farm ponds into fish farm (about an area of 3,880 m²). Water is changed by making use of the height difference. No drugs are used in the whole



farming process, and the daily water exchange rate is merely 10%, saving 600 tons of aquaculture water every day.

The aquaponics system can not only activate idle farm ponds but also provide rice field the needed nutrients because of the nitrogen and phosphate fertilizers in the tail water, which is conducive to rice production.

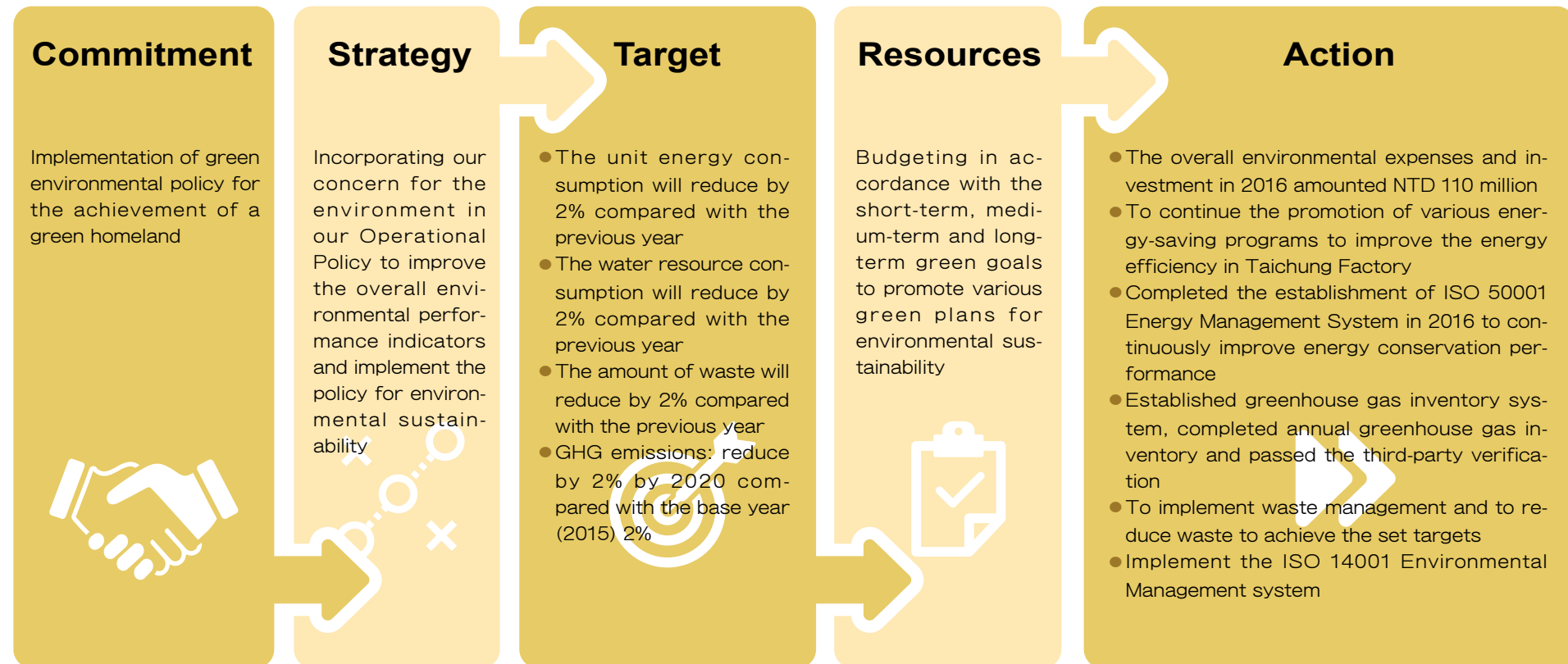


3.3 Guarding the Earth

In recent years, we have been promoting various projects for energy conservation and carbon reduction in Taichung Factory. We also introduce the ISO 50001 Energy Management System and ISO 14064-1 Greenhouse Gas Inventory System for the promotion of energy saving and waste reduction to achieve the goals of “zero pollution” and “sustainable development”.

Material aspects >>> Effluents and Waste, Emissions, Energy, Environmental Grievance Mechanisms

DMA (Disclosure on Management Approach)



3.3.1 Green Sustainable Management

We start green sustainable management, give priority to environmental policy and objectives and introduce ISO standard environment and energy management model to implement energy conservation and waste reduction and to improve energy efficiency.

Environmental Policy and Objectives

The Company actively works on the layout in fertilizer industry and undertakes a number of important investments in Taichung Factory. In the future, the capacity of Taichung Factory will gradually expand, and the energy and resources consumption will increase accordingly, which will make it more challenging to achieve the reduction targets. But our firm commitment to environmental production remains the same, and we will continue to promote energy conservation and waste reduction.

Policy	Short-term goals (2016~2020)	Medium- and long-term goals (2020~2030)
Compliance and priority to environmental protection	Actively review and improve cases of violations and penalties, working on not to make the same mistake twice	To reach zero violation and zero penalty
Introduction of the PDCA Cycle for the system	Complete the establishment and verification of ISO 500001 in Taichung Factory and Miaoli Factory	To continue the promotion of ISO 500001 Energy Management System and to enhance energy efficiency and improve energy performance through PDCA cycle
Strengthening management and autonomous improvement	Implement the ISO 14001 Environmental Management system to strengthen management and reach no pollution and zero spill during production through PDCA Cycle	To continue no pollution and zero spill during production
Continuous implementation of energy conservation and waste reduction	<ul style="list-style-type: none"> ● The unit energy consumption will reduce by 2% compared with the previous year ● The water resource consumption will reduce by 2% compared with the previous year ● The amount of waste will reduce by 2% compared with the previous year ● GHG emissions: reduce by 2% by 2020 compared with the base year (2015) 	<ul style="list-style-type: none"> ● The unit energy consumption is expected to reduce by 5% by 2020 compared with 2015 ● The water resource consumption will reduce by 5% by 2020 compared with 2015 ● The amount of waste will reduce by 5% by 2020 compared with 2015

Operation of Environmental Safety and Health Organization

We have set up “TFC’s Industrial Safety and Health Management Measures” and also established the Industrial Safety and Health Department in the head office as the first-level unit for environmental and health management, which is responsible for the planning and management of environmental safety and health. In addition, Environmental Safety Unit is also established at each production factory, in charge of matters concerning environmental safety at each factory.

The Company holds the bi-weekly Industrial Safety and Environment Meeting regularly, and a total of six meetings were convened in 2016. The president convenes meetings among relevant directors from the Head Office to regularly review the company’s operations in terms of safety and health, environment, and energy and to follow up on schedules and review improvement, aiming at establishing a safe and healthy working environment.

Introduction of Environmental Management System (ISO 14001)

We have completed the establishment and verification of ISO 14001 environmental management system in Taichung Factory and Miaoli Factory and through the PDCA (Plan-Do-Check-Act) management model, we continue to promote improvement of environmental management and achieve the goals of environmental performance improvement, energy conservation and waste reduction.



Assurance of ISO 14001 Certificate of Taichung Factory



Assurance of ISO 14001 Certificate of Miaoli Factory

Introduction of Energy Management System (ISO 50001)

Starting from 2015, the Company started to introduce Energy Management System ISO 50001 into Taichung Factory, and the establishment and verification of the system has been completed in 2016. This energy management system will continue improving the performance of energy conservation in daily work and operations and reduce the costs of energy consumption to achieve the goals of energy conservation and carbon reduction.

3.3.2 Environmentally Friendly Environment

TFC has set strict standards to promote environmentally friendly project meeting the requirements of environmental regulations, moving toward the goal of “zero pollution”. In recent years, the extreme weather has caused instable domestic water supply. Therefore, we will work hard to improve water conservation and to increase the percentage of water recycling.





Greenhouse Gas Management

The ISO 14064-1 Greenhouse Gas Inventory System was introduced in 2016 for the 2015 comprehensive GHG inventory at all factories and passed the third-party verification. The year 2015 was set as the base year for GHG reduction, and GHG management project is thus made based on the related data in 2015, aiming at reducing GHG emission year by year.

The statistics of the direct greenhouse gas emission (Scope 1) and indirect greenhouse gas emission (Scope 2) at TFC are calculated from the data obtained from the actual inventory and are all verified by a third party. Scope 1 includes the emission from production process and fossil fuel combustion, and the statistics are mainly for CO₂, N₂O and a small amount of CH₄. Scope 2 is mainly for purchased electricity, which is 100% purchased from Taipower. Due to the increase of capacity and product line in Taichung Factory, the emission in 2016 increased by 22,782 metric tons compared with 2015, yet the emission density decreased by 1.03%, which indicated the effectiveness of the company's emission control. In the future, the year 2015 will serve as the base year to reduce GHG emissions year by year for the implementation of energy conservation and carbon reduction.

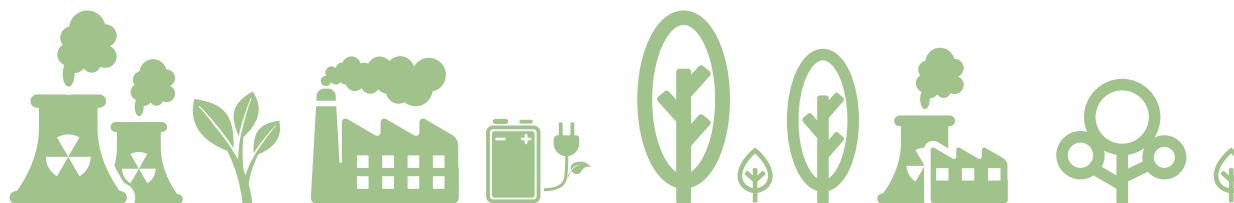
GHG emission equivalent

(Unit: tonnes CO₂e)

Category		2015	2016
Scope 1	Direct greenhouse gas emissions	397,494	422,618
Scope 2	Indirect greenhouse gas emissions	42,674	46,577
Annual total		440,168	469,195
Output of products (tonne)		754,275	812,361
Emission intensity (annual emission/annual output)		0.584	0.578

Note:

- 1.The greenhouse gas inventory included all production factories of TFC, including Miaoli Factory and Taichung Factory
- 2.Scope 3 includes sources of greenhouse gas emissions not directly owned or controlled by the organization. Scope 3 is not included in the calculation
- 3.The results of 2016 GHG emissions come from TFC's internal inventory, and has not yet verified by a third party
- 4.The 2015 GHG emission data revealed in this Report have obtained a third-party verification, which is different from the data from internal inventory as revealed in our 2015 CSR Report



Air Pollutant Emissions

All factories of TFC will operate and maintain the equipment and facilities for the prevention of stationary pollution source in accordance with the content in the Stationary Pollution Source Operating Permit, and regular test and inspections will be conducted as required by regulations to ensure that the gas emission in the factories comply with legal regulations.

Waste Management

The general industrial waste in every factory of the Company mainly include waste liquid, sludge and solid waste. Every factory manages the waste in accordance with the legal requirements, and the waste



Statistics of total amount of air pollutant emissions in Taichung Factory and Miaoli Factory between 2014 and 2016 (Unit: tonnes)

Item	2014		2015		2016		Statutory Value	
	Taichung Factory	Miaoli Factory	Taichung Factory	Miaoli Factory	Taichung Factory	Miaoli Factory	Taichung Factory	Miaoli Factory
Nitrogen Oxide (NOx)	72.20	4.39	87.10	6.55	79.30	5.24	250.00	250.00
Oxysulfide (SOx)	11.10	5.18	18.46	8.40	22.23	6.64	300.00	300.00
Volatile Organic Compounds (VOCs)	0.00	1.48	0.00	2.25	0.00	1.72	150.00	1000.00
Particles	0.77	1.34	3.44	0.54	15.00	0.40	50.00	100.00

is cleaned and treated in accordance with the law by legitimate vendors and supporting documents are also submitted to prevent environmental pollution problems from occurring.

In addition, we actively promote the garbage classification and recycling system. We reduce the amount of industrial waste by process improvement. Compared with 2015, the general industrial waste of TFC in 2016 decreased by 231 tonnes, which was approximately a 38.89% decrease. In the waste management, the Company has achieved the target of reducing waste by 2% for two consecutive years.

Water Resources Usage

The water source of Keelung Factory, Miaoli Factory and Hualien Factory is tap water, while that of Taichung Factory is from both seawater and tap water. TFC's total water intake in 2016 was 38,285 kilotons, in which seawater accounted for approximately 98.38% and tap water accounted for approximately 1.62%.

The quantity of seawater usage in 2016 amounted 37,666 kilotons, which was only extracted for heat exchange in Taichung Factory, and the extracted seawater was discharged to the ocean without being consumed. We strictly require the discharge temperature to be no higher than 34°C by stringent self-control, which is better than the required discharge temperature that must be less than 38°C as stated in Environmental Impact Statement. Excluding the seawater usage, the total quantity of water usage of TFC in 2016 was only 620 kilotons. Compared with 2015, the total quantity of water usage decreased by 7.2%. In water resources management, the Company has achieved the target of water resources reduction for two consecutive years.

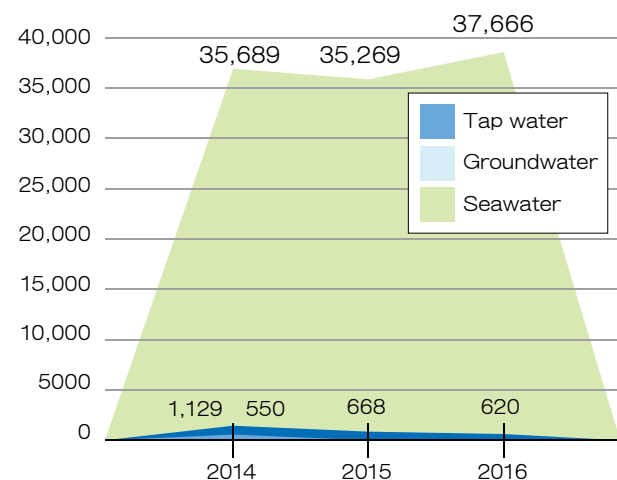
Statistics of total amount of waste in TFC (Unit: tonnes)

Item	2014	2015	2016
General industrial waste	1,174	594	363
Hazardous industrial waste	5.56	0.098	0
Reduction rate (%) compared with the previous year	—	49.40%	38.89%



Water Resources Use from 2014~2016

(Unit: Kilotons)



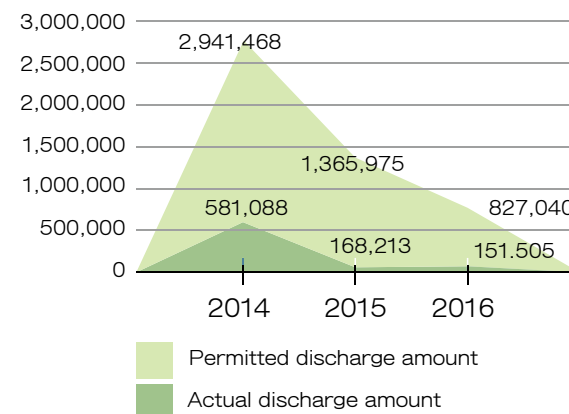
Note: After Hsinchu Factory was decommissioned, there was no use of groundwater. Therefore, only the information of tap water has been disclosed since 2015

Wastewater Treatment

The total amount of discharged wastewater in 2016 was approximately 150,000 metric tons, a 10.71% decrease compared with 2015, and the amount was far below the allowance amount. The wastewater has been discharge by each plant after being properly processed by the plant's wastewater treatment facility. The wastewater testing will be conducted on a regular basis. After the completion of wastewater treatment, the wastewater will be discharged into rivers or waters nearby in accordance with the provisions. The total discharge amount of wastewater of the Company in 2016 amounted about 150 thousand tons, which decreased by 10.71% compared with 2015 and was far below the permitted emissions.

Wastewater discharge amount

(Unit: tonnes)



Our wastewater discharge is measured quarterly at the discharge point by qualified vendors, and the testing of raw wastewater is conducted every six months. The average concentration of pollutants is lower than the effluent emission standards.

TFC's average values of the concentration of water pollutants in regular tests between 2014~2016

Item	2014		2015		2016		Statutory Value
	Taichung Factory	Miaoli Factory	Taichung Factory	Miaoli Factory	Taichung Factory	Miaoli Factory	
SS	17.20	17.10	17.50	12.60	17.70	10.75	30.00
COD	19.80	37.70	20.60	23.50	20.10	26.45	100.00
BOD	8.60	16.90	8.10	19.80	8.00	8.70	30.00



Wastewater Recycling

Due to the shortage of water resources in recent years, TFC has been implementing various water-saving measures. Through the adjustment and improvement in the manufacturing process, the efficiency of water treatment system is enhanced to reduce the consumption of water resources. In addition, water recovery equipment is also installed to enable the cooling water used for heat exchange during the manufacturing process to flow back so that the water used in the cooling system can be recycled.

Due to the increase of capacity and product line in Taichung Factory, the amount of tap water used in 2016 increased by 68,429 metric tons compared with 2015, yet the water recovery rate increased from 6.50% in 2015 to 12.96% in 2016.

Water consumption intensity at TFC's Taichung Factory

Item	Output	Tap water	Water intensity
2014	194,725	413,244	2.1222
2015	428,650	396,361	0.9247
2016	470,212	464,790	0.9885

Output Unit: tonnes

Water unit: m³

Water intensity = tap water / output
(unit: m³ / tonne)

Statistics of water recovery

Item	Recycled water	Water reuse rate	Demineralized water	Steam condensate recovery	Steam condensate recovery rate
2014	4,494	1.09%	162,671	6,081	3.74%
2015	25,776	6.50%	119,614	47,760	39.93%
2016	60,225	12.96%	161,027	16,763	10.41%

Water reuse rate = recycled water / tap water

Steam condensate recovery rate = steam condensate recovery / demineralized water

Demineralized water standards: (1) total hardness: Trace; (2) electric conductivity: <5 μs / cm; (3) pH: 7 ~ 9; (4) SiO₂: <50ppb; (5) Cl⁻: <4.0 ppm

Handling of Environmental Related Grievance

Environmental related grievance hotline is available at all TFC's factories. Once the grievance is received, investigation will be immediately conducted for improvement.

- Grievance hotline for Miaoli Factory: 037-260-601
- Grievance hotline for Taichung Factory: 04-2521-8588

Overall Environmental Expenses and Investments

Item	2016	2017	2018
The content of environmental protection expenditure and investment	<ul style="list-style-type: none"> ● Air pollution control and wastewater treatment equipment improvement ● Facilities for cleaning, processing and reusing of waste ● Improvement in the manufacturing process in production factories ● Improvement in and reduction of pollutant emissions ● Implementation of the commitments in Taichung Factory's EIA statement 	<ul style="list-style-type: none"> ● Air pollution control and wastewater treatment equipment improvement ● Facilities for cleaning, processing and reusing of waste ● Improvement in the process in danger of contamination in production plants ● Improvement in and reduction of pollutant emissions ● Implementation of commitment items stated in the Environmental Impact Statement of Taichung Factory 	<ul style="list-style-type: none"> ● Facilities for air pollution control ● Wastewater treatment equipment improvement ● Facilities for cleaning, processing and reusing of waste ● Improvement in the manufacturing process in all production factories
Amount	NTD 110 million	NTD 125 million	NTD 120 million



Sustainable Green Buildings, Ecological Symbiosis

TFC's 2016 project of the Hsinchu Tech Business Park for the safest, healthiest, most efficient and comfortable commercial building with the minimum environmental load is the example and proof of our commitment to sustainable buildings.

Life X Ecology X Production--3-in-One Green Technology Park

TFC's project of the Hsinchu Tech Business Park is located at the original site of Hsinchu Factory. The first phase is the construction of the commercial office complex "TFC ONE", a building with 14 floors and 3 underground floors. The area of construction base is approximately 3,500 pings, and the total floor area is about 21,000 pings. With the exploration of elements of energy saving, ecology, leisure, R&D and art & culture and the overall planning approach, and considering the configuration, design, building mass form and the surrounding environment, this project is incorporated with double-layer green corridor, green canal, detention pond and other elements to create a 3-in-one green

technology park with the ideas of "Life, Ecology and Production". Details of the design is described as follows.

● Design of Greenspace with Eco-diversity:

This project sets more than 150 arbors of different sizes, using native species, including Fragrant Maple trees, Formosan Ash trees, Oliver Maple trees and other species, along with shrubs of small-leaved common jasmine orange, mock lemon, golden dewdrop and others, creating a greenspace with an area of more than 3,000m². At the same time, the diverse species design, plantation of native plants, and bird-attractive and butterfly-attractive plants enrich the diverse ecological base, increasing the ecological diversity potential of the base.

● On-site water retention design:

This base adopts permeable design and set retention-infiltration ponds to facilitate water circulation, improve ecological environment, adjust the micro-climate and mitigate high temperature phenomenon in the

urban area. In addition to the permeable design of the green space, the garden soil also has rainwater interception facilities, the pedestrian trails are with permeable pavement, and the gutters are of permeable side ditch design.

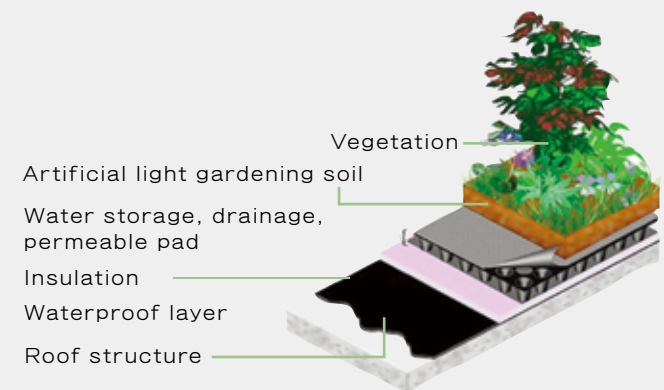
● Water conservation:

The roof rainwater storage system collects rainwater to the landscape underground storage tank. It also collects water from air conditioning condensate, and after filter treatment, the collected water is used in the sprinkler, reducing the use of tap water. The sanitary ware in the building are water-saving products to effectively reduce water consumption.

● Roos Greening:

The roof adopts thin layer greening design, laying shallow artificial light gardening soil and with multi-layer greening techniques of native bird-attractive and butterfly attractive plants to enrich the ecological diversity and sustainability.

Thin-layer roof greening design



TAIWAN FERTILIZER CO., LTD



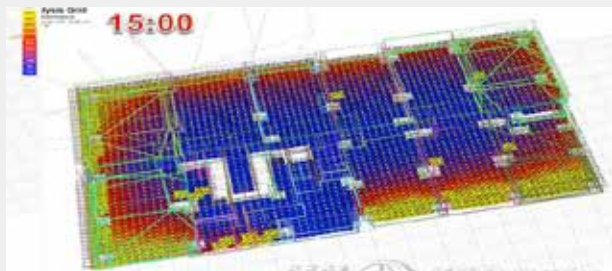
● Energy Conservation:

We reduce building energy consumption from the design of the project. The exterior walls use sun shade grilles to reduce the direct sunlight into the room, and the glass facade is made of double-layer of Low-E coatings (8+12+8mm) that is anti-light damage and can play the role of heat insulation. In addition, the insulation materials are also added in the back of granite and aluminum plates, effectively reducing the cooling load of air conditioning and increasing indoor lighting.

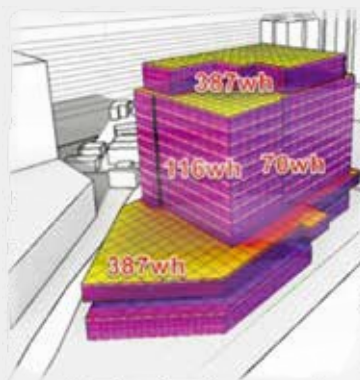
The office area is equipped with energy efficient variable air volume conditioning system with the advanced inverter compressor, which not only meets the green building design but also saves electricity for air conditioning. The whole building uses a digital meter, and the central system can make analysis to know reasons for abnormal power consumption to avoid unnecessary waste of energy.

● BIM (Building Information Modeling) Pipeline Review:

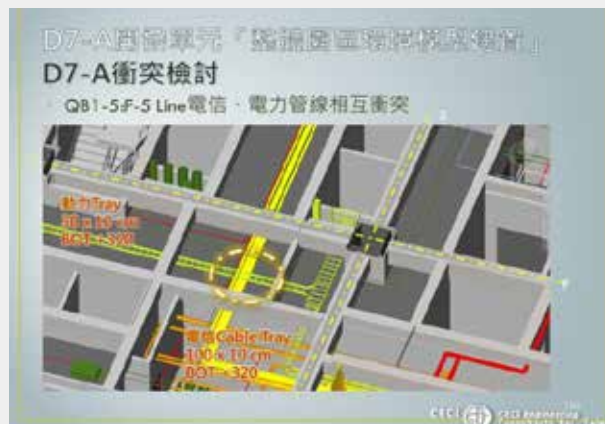
BIM system was utilized to draw architectural structures and electromechanical pipelines to stimulate the actual engineering situations in the design stage of this project to reduce the planning error or complex interpretation of the drawings that can lead to loss or waste due to the need for site dismantling.



Analysis of natural illumination



Analysis of solar thermal radiation



BIM pipeline review: to identify pipeline conflict points for the design unit to use as reference



Gold Green Building Candidate Certificate

TFC One was under the review of Green Building Candidate Certificate by Taiwan Architecture & Building Center (TABC). After the assessment of the indices of greening, base water retention, daily energy conservation, CO₂ reduction, indoor environment, water resources, sewage and waste improvement, the Gold Green Building Candidate Certificate was obtained.



Silver Smart Building Candidate Certificate

TFC One was under the review by Taiwan Architecture & Building Center (TABC). Assessment was made focusing on the four infrastructure indicators of wiring, information communication, system integration and facility management. In addition, the two functional indices of safety disaster prevention and energy conservation management also reached excellent intelligence level, and the Silver Smart Building Candidate Certificate was successfully obtained.

Environmentally Friendly Building: Awarded Green Building and Smart Building Candidate Certificate

TFC's commercial office complex "TFC ONE" adopts various environmentally friendly design, and the energy-efficient design is also incorporated into the project, enabling this project to obtain the Gold Green Building Candidate Certificate and Silver Smart Building Candidate Certificate. This building is scheduled to obtain the building occupation permit, green building label and smart building label.



3.3.3 Energy Saving Climate Action

Taichung Factory is the important flagship base of TFC's core business, it is also the model factory for the implementation of green production and energy-saving actions. We actively integrate resources and promote programs for energy-saving and carbon reduction, making good use of the synergy of this green production value chain.

Green Action Plan for Energy Conservation

After the integration of TFC factories, we actively invest a lot of manpower and resources to promote various energy-saving programs in Taichung Factory from 2014. Starting from 2016, we added three more energy saving programs, including "IWS System Improvement in the Nitric Acid Plant", "Improvement in the Water Trap of the Exhaust Feed

Heater in the Nitrobenzene Plant" and the "Simplification of Phosphate Fertilizer Washing System". Among them, the program of "Improvement in the Water Trap of the Exhaust Feed Heater in the Nitrobenzene Plant" is associated with steam utilization, and it is thus incorporated into the "Steam Energy Efficiency" program for the disclosure of its energy—saving efficiency.

● Utilities System Energy Improvement Program

TFC started the implementation of utilities system energy improvement programs in 2015 and set the systems at the optimum mechanical operation mode. After the implementation of the program, the electricity consumption was effectively reduced in the same year and also in 2016. The electricity used to produce every tonne of products consumed 30.83KWH/ tonne of electricity in 2016, showing a decrease of 6.91% compared with 2015.

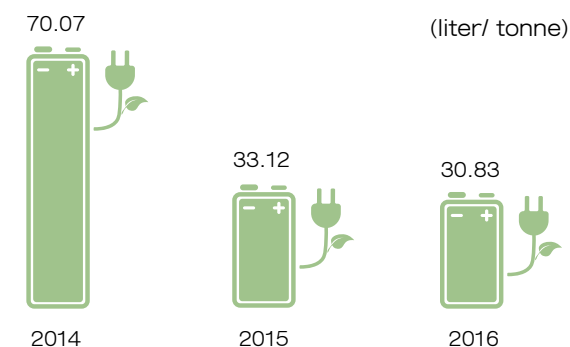
Efficiency of energy-saving programs in Taichung Factory

Program	Type of energy saved	2014	2015	2016	Energy-saving efficiency (2015-2016)
Steam Energy Efficiency	Fuel oil	4.05 liter/ tonne	2.68 liter/ tonne	2.10 liter/ tonne	21.64%
Utilities System Energy Improvement Program	Electricity	70.07 KWH/ tonne	33.12 KWH/ tonne	30.83 KWH/ tonne	6.91%
Energy Management Program for the Warehouse Desiccant Air Conditioning Operation	Electricity	12.10 KWH/ tonne	6.74 KWH/ tonne	6.83 KWH/ tonne	—
IWS System Improvement in the Nitric Acid Plant	Electricity	60.31 KWH/ tonne	55.9KWH/ tonne	54.95KWH/ tonne	1.70%
Total amount of energy saved(MJ)		675.60	452.38	417.75	—

Note:

- 1.The energy-saving efficiency presented in this table shows the comparison between the energy needed for the production of every tonne of products in different years
- 2.The program of "Energy Management Program for the Warehouse Desiccant Air Conditioning Operation" has reached the stable stage, and its energy saving efficiency was observed in 2015. The figure in 2016 was slightly higher than 2015, yet the difference is within the error, and therefore, this item will be excluded in the future
- 3.Due to the fact that the Phosphate Fertilizer Plant has just started operation since June, 2016, and there is no data to refer to in terms of the program of "Simplification of Phosphate Fertilizer Washing System". Its energy saving efficiency will be revealed in our next CSR Report

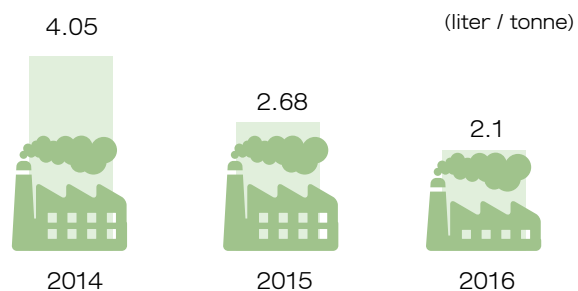
Efficiency of steam utilization scheme



● Scheme of Utilizing Steam from Exhaust Heat

The fertilizer manufacturing process requires a lot of steam, which mostly comes from the boiler heating using fuel oil as the energy source. In order to reduce fuel oil use, during the planning stage of Taichung Factory, we set up a Nitric Acid Plant that can produce a large amount of steam during the production process, and through the Public Plant, the steam from the exhaust heat can be collected, and in coordination with the production schedules of the Nitric Acid Plant and the schedules of operation period and idle period with other plants, the steam can be deployed for proper use. This scheme can

Efficiency of steam utilization scheme



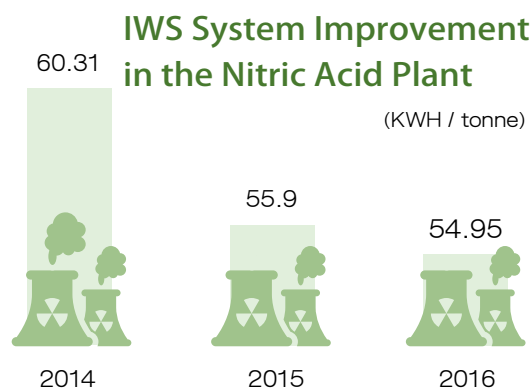
increase the efficiency of the steam from exhaust heat in the Nitric Acid Plant, and boiler usage and fuel oil usage can thus be reduced.

To improve the efficiency of steam utilization, TFC conducted the Improvement in the Water Trap of the Exhaust Feed Heater Program in the Nitrobenzene Plant. By enlarging the water trap and modifying the rear section of condensate recovery pipeline, improvement can be made to solve the problem of the insufficiency in heating capacity of the exhaust feed heater (X-401) that led to the open status of the bypass valve by the water trap, causing the loss of steam. Before the improvement, the total amount of steam required in the manufacturing process of the Nitrobenzene Plant was 10 MT/hr. After the improvement action, the total amount required dropped to 7.3 MT/hr, effectively reducing the amount of energy consumption.

After the implementation of the programs of Utilizing Steam from Heat in the Nitric Acid Plant and Improvement in the Water Trap of the Exhaust Feed Heater in the Nitrobenzene Plant, fuel oil needed to produce every tonne of products was 2.1 liter/tonne in 2016, reduced by 21.64% compared with 2015.

● IWS System Improvement in the Nitric Acid Plant

To meet the air emission standards, installation of the IWS system is made in the nitric acid plant in Taichung Factory. Under the premises of stable manufacturing process and no impacts on the discharge smoke quality, the operating voltage is adjusted to 25KW (the original IWS rated operating voltage was 40 KV, and the current value was 250 mA). After the adoption of this program, the electricity used to produce every tonne of products consumed 54.95KWH/ tonne of electricity in 2016, showing a decrease of 1.70% compared with 2015.



ESCO Project

In order to implement the green production targets, TFC joined the 2016 Taiwan Industrial Greenhouse Gas and Energy Saving Service Corps (ESCO) project. This Corps is composed of staff of NCKU Research and Development Foundation and experienced technicians and professionals as a technical counseling team to provide energy consumption testing operations in Taichung Factory, aiming at diagnosing the use of energy and the GHG emission conditions so as to provide various advise and suggestions for improvement in energy conservation and carbon reduction performance in the future.



Energy Use

The energy use of TFC includes electricity, steam, fuel oil, diesel oil, etc. The generation of steam relies on the fuel oil. On energy use, the use of electricity of TFC in 2016 reached 94 GWh, the use of fuel oil 5,513 kiloliters and diesel use 34 kiloliters. After conversion, the total energy usage equals 560.95 mega-joules. Our energy use is mainly based on electricity, with the total annual electricity consumption of 94 GWh, which accounted for approximately 60% of total energy consumption, followed by fuel oil (5,975 kiloliters) which accounted for about 39% of total energy consumption. The consumption of diesel oil accounted for less than 1% of total energy consumption.

After October 2014, Hsinchu and Kaohsiung Factories gradually stopped production, and Keelung Factory stopped production in April, 2016. Currently, Miaoli Factory, Taichung Factory and Hualien Factory continue the production. Therefore, the integration of energy efficiency was the most obvious in the entire year of 2015 compared with 2013 and 2014. The integration of energy efficiency has been stabilized in 2016. From the data, the energy use in 2016 reduced by 0.31% compared with 2015.

Statistics of energy use and intensity

Year	Total consumption of electricity (MJ)	Total consumption of fuel oil (MJ)	Total consumption of diesel oil (MJ)	Annual consumption (MJ)	Product output (metric tons)	Energy intensity (annual consumption/annual product output)
2014	447.19	375.12	3.75	826.06	990,044	8.50E-04
2015	319.80	239.97	2.93	562.70	754,275	7.13E-04
2016	338.28	221.46	1.21	560.95	812,361	6.91E-04

Note: 2013 statistics recorded data from Keelung Factory, Hsinchu Factory, Miaoli Factory, Taichung Factory, Kaohsiung Factory and Hualien Factory

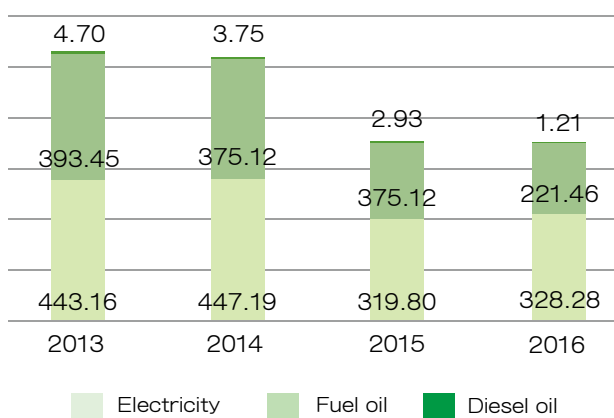
2014 statistics recorded data from Keelung Factory, Hsinchu Factory, Miaoli Factory, Taichung Factory, Kaohsiung Factory and Hualien Factory

2015 and 2016 statistics recorded data from Keelung Factory, Miaoli Factory, Taichung Factory and Hualien Factory

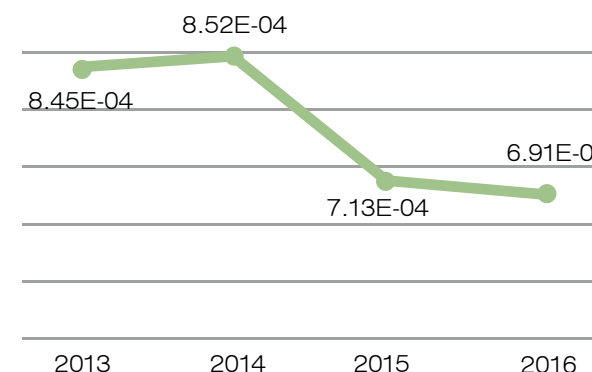
The energy intensity is calculated by dividing our total energy use by our product output for the analysis of energy efficiency. Our product output in 2016 was about 812,361 tonnes. After calculation, the en-

ergy intensity in 2016 was 6.91E-04 MJ / tonnes, a 3.17% decrease compared with the 7.13E-04 MJ/tonnes in 2015. The integration of the production factories into Taichung Factory showed to be effective from the statistics shown here. The consumption of energy needed for production per unit was gradually stabilized in 2016.

Total energy usage of TFC (Unit: MJ)



Energy intensity of TFC (Unit: MJ / tonne)

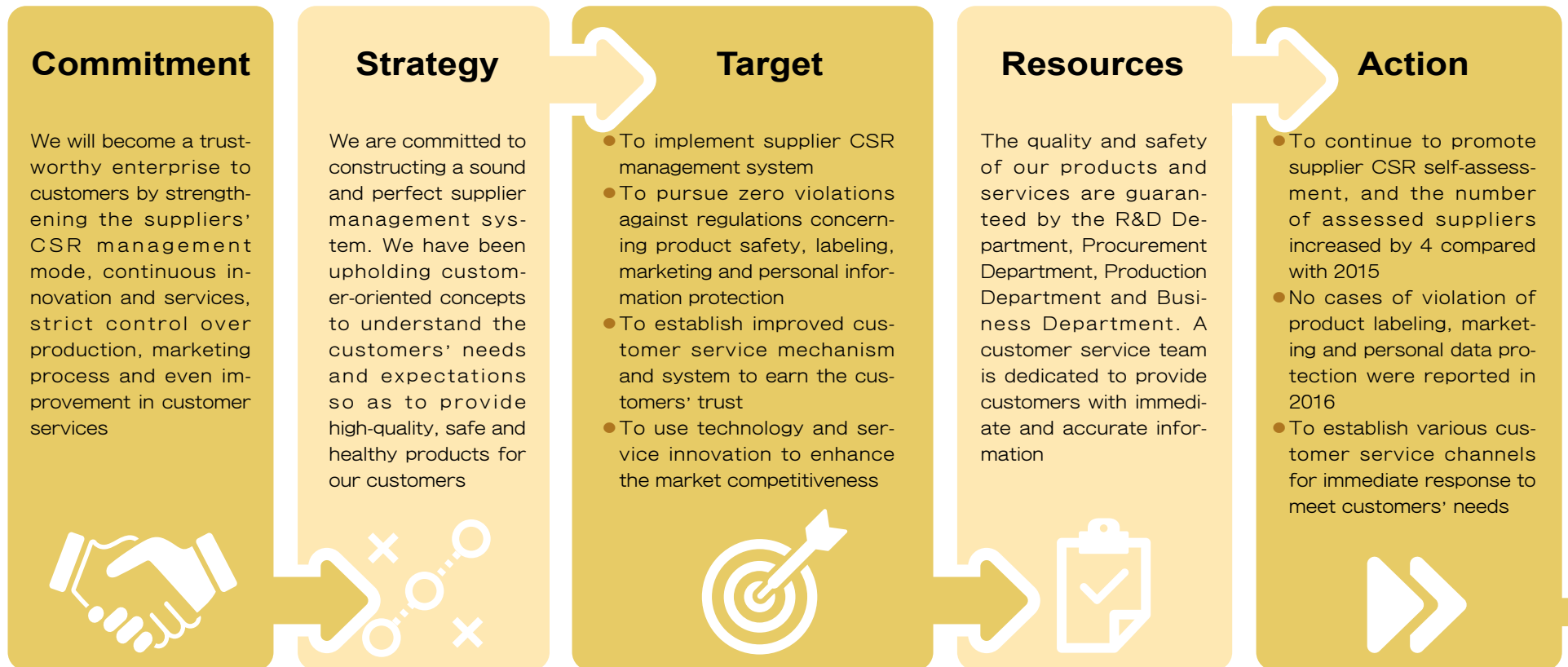


3.4 Walking Hand in Hand toward Sustainability

TFC has the responsibility to understand the suppliers' performance concerning environmental protection, human rights protection, and employee care. Through the screening process, management and guidance, we aim at working together with our suppliers to create a supply chain system that focuses on environmental protection and maintenance of labor rights.

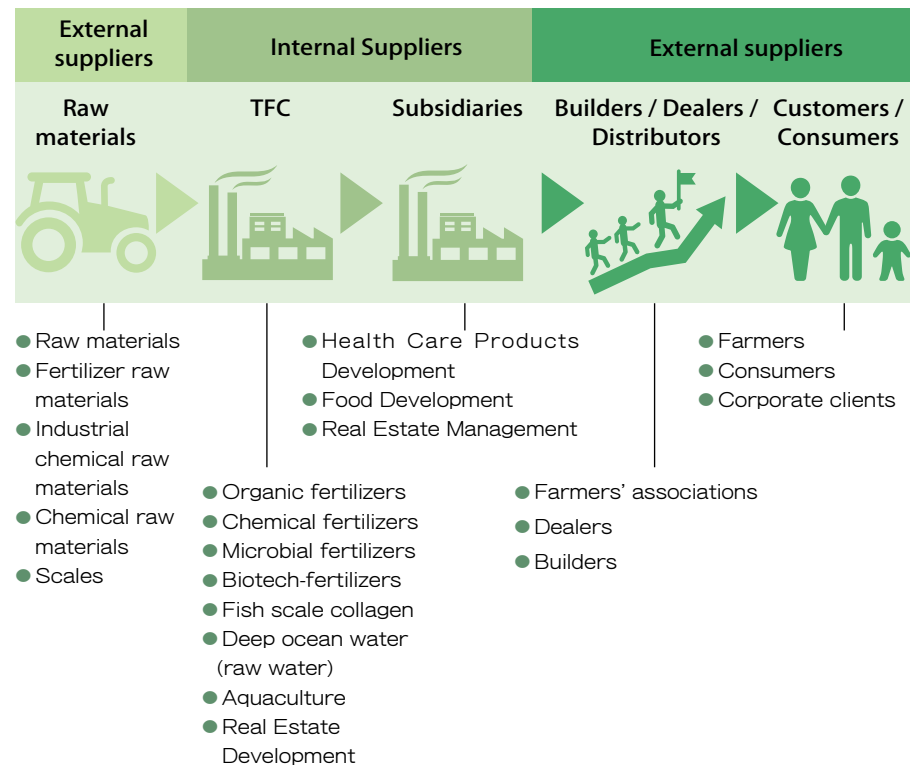
Material aspects>>>Customer Health and Safety, Product and Service Labeling, Marketing Communication, Customer Privacy

DMA (Disclosure on Management Approach)



3.4.1 Supplier Management and Procurement

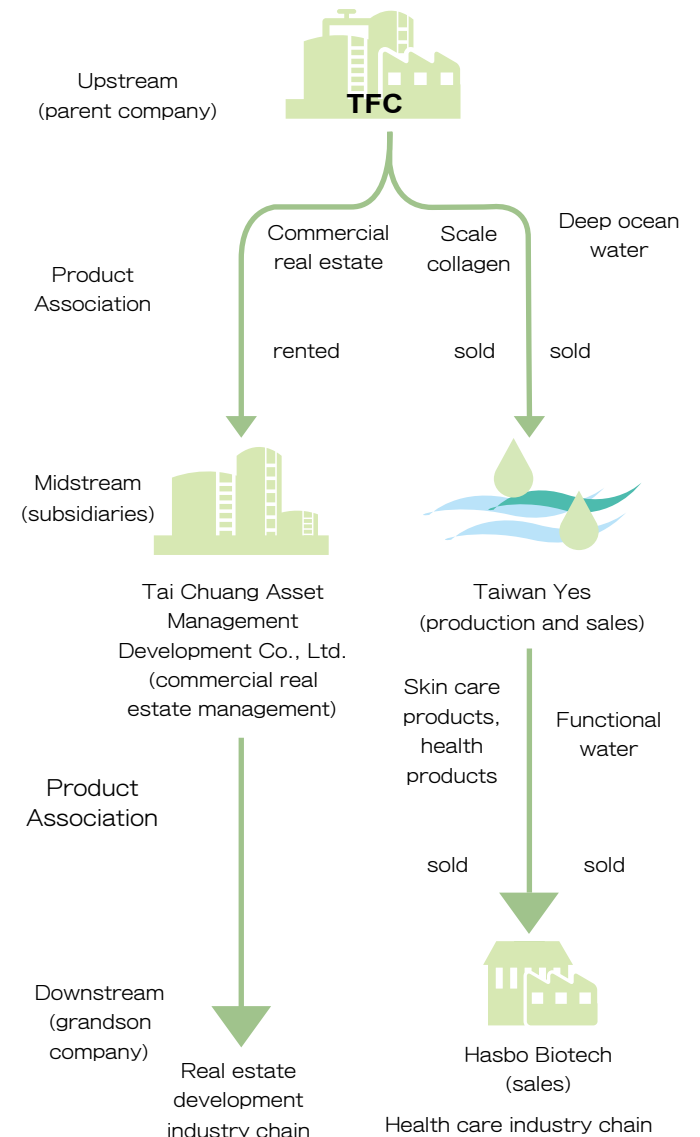
TFC is the major domestic fertilizer supply and marketing company. The business layout in the Group is expanded to the supply and marketing of chemical products, real estate development and supply and marketing of health care products. TFC supply chain is divided into the internal supply chain and external supply chain.



Internal Suppliers Management

TFC has branched out to different business units with its wholly-owned subsidiary companies to develop an internal supply chain of Health Care, Real Estate Development and so on. TFC serves as the provider of raw materials and products to its subsidiaries for sale or management, and substantial control is generated through the Group system. Every detail from the front-end R&D to the terminal sales can be strictly controlled to ensure product safety and quality.

We have actively promoted CSR of subsidiaries in "Internal Industry Chain". We require the operating activities of TFC and its subsidiaries to comply with "Corporate Social Responsibility Code of Practice" developed by TFC.



Instructions of Bulk Raw Material Suppliers Management

Management	Management Methods	Implementation results
The development and introduction of new suppliers	<ul style="list-style-type: none"> Conduct credit investigation for new suppliers and on-site visits and evaluation for performance ability Require new suppliers to provide samples. The results will be used as the basis for selection and evaluation of the suppliers When the supplier evaluation meets the requirements, they can be incorporated into the vendor list in TFC 	Six new suppliers passed the evaluation in 2016
The management of existing suppliers	<ul style="list-style-type: none"> Conduct the assessment regarding supply quality, delivery time and services respectively and the results are provided to the Purchasing Department as a reference for inquiry and judgment of whether to suspend the business dealings later 	A total of 51 existing suppliers received the assessment, and 49 of them passed the evaluation

In the future, TFC will target at introducing the CSR supply chain management system to gradually implement the phased planning.

External Supplier Management

We have acted as the producer of midstream products in the chemical fertilizer industry. We have developed and produced products with raw materials provided by the suppliers of raw materials, while the production of some products of subsidiaries have been outsourced and then sold to clients in the downstream. In terms of the real estate development business, we are both the landlord and the builder. Constructors are contracted to build the residential or commercial buildings by TFC. The purchase amount made to raw materials suppliers accounted for 90.5% of the total purchase amount in 2016, while that to engineering services suppliers accounted for 9.5%.

● The Management of New and Existing Suppliers

We have developed “Supplier Management Rules” and “Guidelines on New Bulk Raw Material Suppliers Review” to regulate the development, selection and assessment of suppliers to ensure stable quality of materials and material sources. Our “Corporate Social Responsibility Code of Practice” especially requires CSR assessment and screening of suppliers. When considering new suppliers in the future, we will add CSR assessment as the reference for supplier selection and evaluation.

● Supplier CSR Management

We have introduced the “Self-assessment Questionnaire of Supplier CSR Status” in 2015 and invited our major domestic suppliers to conduct self-assessment in terms of environmental aspect, labor aspect, human rights, social aspects and product

liability impact. Through self-examination, the supplier’s implementation and management of CSR and operational risks can be understood.

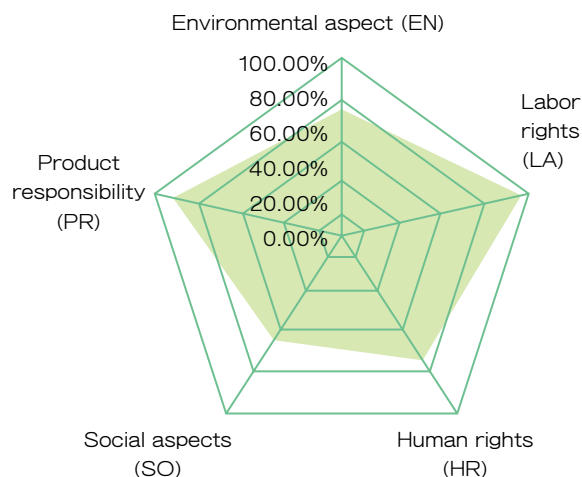
In 2016, TFC divided the suppliers into three levels: excellent, qualified and to be improved based on their results of the self-assessment, with a total of 15 suppliers introducing this self-assessment, an increase of four suppliers compared with 2015. A total of eight suppliers scoring more than 85 points while seven suppliers scoring more than 60 points, with a 100% passing rate.

For two years in a row, the results of supplier assessment scored better than the passing score in every aspect, including the environmental aspect, labor rights, labor rights, social aspects and product liability aspect.

2016 Questionnaire Results Unit: (%)

Aspect	Score	Room for improvement	Total score
Environmental aspect (EN)	76.67	23.33	100.00
(LA) Labor rights (LA)	88.57	11.43	100.00
Human rights (HR)	76.25	23.75	100.00
Social aspects (SO)	68.00	32.00	100.00
Product responsibility (PR)	92.00	8.00	100.00





Classification of information disclosure of suppliers

Excellent
53%



Qualified
47%



Supplier CSR Assessment and Management Planning and Implementation Goals

Short-term goals	Mid-tem to long-term goals
<ul style="list-style-type: none"> Implement the survey on the suppliers' implementation in terms of human rights and environmental aspects. Suppliers with the purchase amount over \$ 10 million must fill out "The Self-assessment Questionnaire of Supplier CSR Status" Conduct CSR assessment for new suppliers 	<ul style="list-style-type: none"> The contract will include CSR clauses, requiring suppliers to focus on the protection of human rights and labor rights Set up supplier management and incentive mechanism Revise Supplier Management Guidelines to incorporate supplier CSR assessment
Implementation	
<ul style="list-style-type: none"> TFC requires all suppliers with the purchase amount over \$10 million to fill out "The Self-assessment Questionnaire of Supplier CSR Status". A total of 15 suppliers completed the questionnaire in 2016 Inform the suppliers of the promotion of CSR management system Add CSR clause in the contract and ask the suppliers to sign the terms 	

● OEM Management

To ensure the quality and safety of our products, we handle quality management operations in accordance with "Operation Directions for Outsourcing Manufacturers' Audit and Quality Management". The Health Management Division of the Industrial Safety and Health Department is responsible for the inspection operations.

Description of TFC's OEM Management

Item	Content of management
The selection of OEMs	Choose excellent manufacturers with a good reputation. There are currently 2 outsourcing manufacturers
The control of raw materials	Require manufacturers to provide complete product formula, the whole composition of raw materials specifications (including supplier information), raw material efficacy and related certification, which clearly details the quality requirements and the control method of raw materials and provide inspection reports or affidavit to avoid violations of the relevant laws and regulations or any fact that causes a consumer hazard
Process audit	When the first batch of products are manufactured, the product development staff will check the manufacturing process in the outsourcing manufacturers. For the official mass production, the process conditions and control specifications need to be ensured
Product specifications	Develop clear product "specifications" (standards or instructions), establish quality requirements, control points, control and inspection methods and acceptance criteria. Samples of each batch should be sent to Quality Assurance and Health Department for inspection to ensure the quality of each batch
Audit team	Send employees to receive ISO-related internal audit or the lead auditor training, and establish human resources database of auditors in order to conduct audits exactly The audits are categorized into first, regular and occasional ones. The frequency of audit should be at least once a year

Statistics of the audit results of the OEMs

Product category	# of OEM	# of audited manufacturers	Audit rate	Audit result
Fertilizer production	2	2	100%	Passed, and can continue the co-operation with TFC

TFC has two OEMs in total, and they mainly assist with the production of some fertilizer items. In 2016, we conducted an audit in the two OEMs, and both OEMs passed the audit.

Local Procurement

Raw materials for fertilizer production are mostly natural minerals, natural gas and other derivative products that Taiwan lacks. Therefore, these types of raw materials have to be purchased overseas. TFC totally purchased approximately NTD 5.05 billion of raw materials for Fertilizer Chemical Business in 2016. Except for the natural minerals and energy (such as liquid ammonia, urea, phosphate and potassium chloride) purchased from overseas suppliers, the total amount for other raw materials was NTD 450 million.

The suppliers of the fertilizer bags are mostly manufacturers in Yulin, Changhua and other central and southern counties and cities, which helps the creation of local jobs opportunities. In 2016, the amount for purchasing fertilizer bags was NTD 140 million, and all the procurement was made from domestic suppliers, reaching 100% of local procurement.

TFC's ratio of local procurement

(Unit: NTD 100 million)

Item	2014	2015	2016
Domestic procurement (A)	4.3	2.9	2.3
Total amount of procurement of products Taiwan lacks or not produced in Taiwan (B)	5.6	4.3	4.5
Domestic procurement ratio (A/B*100%)	77%	67%	52% ^{Note}

Note: Due to the abnormal weather in 2016, there were super cold wave and heavy rain. The post-disaster rehabilitation caused increased demands for fertilizers, so the amount of compound fertilizer use also increased. TFC's capacity could not meet the huge market demands, so part of the compound fertilizer products were imported to meet the gap between supply and demand. The procurement of foreign compound fertilizer in 2016 was about NTD 160 million, resulting in the decline of domestic procurement ratio

Policy and Objectives of Product Liability

Policy	Short-term goals (2016~2020)	Medium- and long-term goals (2020~2030)
Integrity: Insistence on providing high-quality, safe and healthy products to customers. We ensure absolute compliance with legal requirements in terms of product labeling, marketing and quality Innovation: Innovation is made through continuous innovation and technical services, strict control of production and marketing processes and enhancement of customer service policy Responsibility: We uphold a customer-oriented philosophy to understand customers' needs and expectation to fulfill our responsibilities as a trustworthy business	To pursue the goal of zero violation of regulations concerning product safety, labeling, marketing and personal information	<ul style="list-style-type: none"> ● To establish customer service evaluation mechanism and system to improve customer service performance through PDCA Cycle so as to win customers' trust ● To propose technical solution and service innovation programs to strengthen our market competitiveness

3.4.2 Product Liability

We have been upholding the core values of "Integrity, Innovation and Responsibility" to produce good-quality, safe, non-toxic, and environmentally friendly products and established great and attentive customer services to maintain long-term and stable cooperative relationship with our customers.

Product Quality Management

We have established the Production Management Section of Industrial Safety and Health Department to be responsible for the supervision of the quality control of the production factories. Every factory should also set up a Quality Control Unit for Raw Material Quality Control, Process Quality Control and Finished Product Quality Control based on TFC's "Guidelines for Quality Management Operations" and conduct quality testing operations at every stage of production. The monthly meeting on quality should be regularly convened for the discussion and review of the quality issues to strictly control and manage the product quality.



Taichung Factory



Miaoli Factory

In addition, we introduced ISO 9001 International Quality Management System into Taichung Factory and Miaoli Factory. Currently, the ISO 9001 verification has been obtained in both factories.



Product Labeling

Our products are fully compliant with the Trademark Law and Fertilizer Management Act. We provide full information of the names of the materials, the ingredient contents, instructions and amount of application on the labeling as prescribed so that the farmers and our consumers can make safe and correct use of our fertilizer to avoid ineffectiveness of fertilizers.

Our Marketing Department is the unit responsible for the product labeling management, review and supervision. In addition, we cooperate with COA and other local authorities in county or city governments and conduct regular or occasional inspections to check whether the product labeling is in line with legal regulations. In addition, for the convenience of the public, instructions for the use of fertilizer and other information can also be available on our official website.



Instructions for the use of fertilizer
and other information



Product Marketing

Integrity is one of TFC's core values. We will never sell banned or controversial products and will always abide by the laws and regulations in the product promotion process. Consumers are also informed of detailed information of product contents to avoid misleading information. No violation against laws or regulations concerning product sales was reported in 2016.

Customer Services

TFC is the largest domestic fertilizer producer and supplier. Our customers are mainly the farmers' associations nationwide and specialty stores of fertilizers for the resale to farmers and consumers. We have established service centers for each area and

built a multiple customer service channel through the Internet and social media. Meanwhile, we also provide a sound and immediate handling mechanism for customer grievance to respond to and deal with customer comments.

● Construction of a Complete Customer Service Network

Our service system is composed of the three business service units, including the business centers in Northern, Central and Southern Taiwan and also the Exhibition Center in the South. We assign experienced and professional sales people to the first line of customer services, taking care of fertilizer sales problems, product coordination, product use and complaints.

TFC's Business Service Units for fertilizer products



Northern District Sales Office

Address: 36053 No. 210, Fuxing Miaoli City
Tel: (037)269-345
Fax: (037)246-933



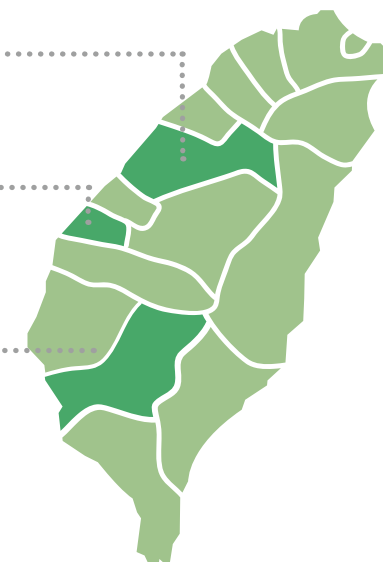
Central District Sales Office

Address: 63147 No.2, Fengchang St., Dapi Township, Yulin County
Tel: (05)591-6992
Fax: (05)591-7528



Southern District Sales Office

Address: 80047 3rd Floor, No. 38, Minzu 2nd Rd, Xinxing District, Kaohsiung City
Tel: (07)222-0128
Fax: (07)222-0568



● Accessible Customer Service Hotline

In addition to making inquiries or providing feedbacks and comments on TFC products through Farmers' Association, our customers can also make use of the toll-free customer service hotline. Our professional staff will answer the phone to provide professional suggestions or respond immediately for proper handling.

Under TFC's diversification management in different sectors, we provide customer service lines to provide customer-oriented services so as to provide timely services and proper handling of problems to enhance customer satisfaction.

TFC Customer Service Line

Product Category	Customer service line	Unit in charge
Customer service line fertilizer products	0800-883-300	Sales Department
Customer service line chemical products	(02)2542-2231	Trading Department
Customer service line for electronic chemical products	(04)2471-8607	Marketing Department of Electronic Chemical Products, Sales Department
Customer service line for residential development projects	0800-258-600	Real Estate Development Department

Taifer Quarterly is published every quarter. This is not only an internal communication channel but also an important medium for farmers to exchange knowledge and techniques. Through this publication and through the field interviews with the farmers, Taifer Quarterly enables a two-way interactive mode to listen to the farmers' ideas and get close to the farmers' needs.



Taifer Quarterly



Manual of Fertilization of TFC Fertilizer Products for Major Crops

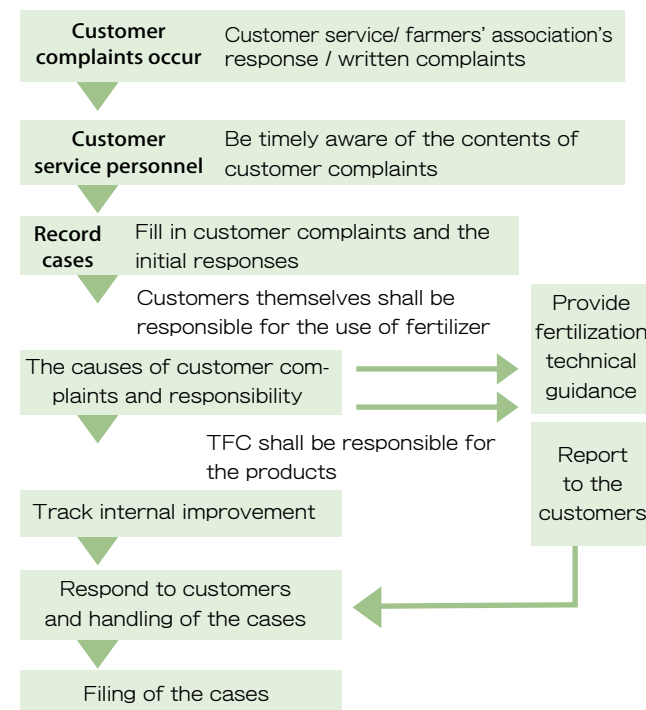
● Diverse Customer Service Channels

Our customers can make use of the Company's official website or contact us for relevant information about the products. They can also check the "Blog of TFC Fertilizer Products" at <http://tfcfert.pixnet.net/blog> for relevant information, including the characteristics of fertilizer products, use instruction, rationalization of fertilization, product presentation, demonstration farm and other information.

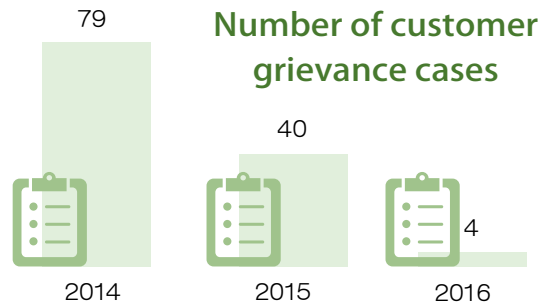
We also compiled our R&D results of agricultural knowledge in the "Manual of Fertilization of TFC Fertilizer Products for Major Crops", which is provided to farmers free of charge. This manual is also available at TFC's official website for the users to download.

Handling Customer Complaints

In addition, TFC has set "Customer Relationship Management Rules" and "Business Management Guidelines" as the basis for customer complaint handling procedures for our customer service personnel to make preliminary handling and response. After that, the reported case should be registered and reported to the unit director who will assign a person in charge of this case, aiming at solving the problem in the shortest time possible. In addition, an internal program for improvement will be established by the production unit and implemented through processes of admissibility, improvement and tracking, such as adjusting the production parameters or the process formula. The production unit has to strive to improve the quality within a time limit to prevent similar cases from happening again.



In our effort to conduct and strengthen customer relationship management, cases of customer grievance decrease year by year. In 2016, only four cases of customer grievance were reported (the number in 2014 was 79, and in 2015 was 40), showing significant results.



Customer Privacy Management

To strengthen protection of customer privacy and related business information, we have set “Execution Points of Confidentiality” for appropriate management of customer information. In 2016, we set the new “Personal Data Protection Act” and set up the “Personal Data Protection Management Committee” to draw up the policy and system for personal data protection, appropriate internal use of personal information, authority setting for internal data usage and education and training sessions on personal data protection.

Information Security and Protection

We attach great importance to information security protection, and we organize personal information protection education and training to ensure that the practitioners are fully aware of the scope of confidentiality for business implementation and related penalty for any breach of it. New staff also receive training to avoid any leak of personal data and confidential documents that may affect the company’s operations and customers’ interests.

TFC's Management of Personal Data

Item	Management method	Result
Management of physical personal data	<ul style="list-style-type: none"> Physical personal information is properly stored in the file cabinet which is properly locked. The personal data manager is responsible for the safekeeping of it In the event of staff redeployment, the custodian shall register the information by item, and shall keep the confidentiality requirements 	TFC strictly enforces the confidentiality inspection on a regular basis to ensure the customer privacy is secured. As of 2016, there has not been any grievance against breaches of customer privacy in TFC
Management of electronic data	<ul style="list-style-type: none"> Personal information stored in the information system and electronic files should be encrypted for management When the storage device is discarded or not used, personal data should be deleted by the information staff 	
Unified management	<ul style="list-style-type: none"> The collected personal data are only used by the staff in charge of that specific business, and the staff in particular also serve as the contact window. Non-directly related personnel do not have the access to the personal data 	
Education and training	<ul style="list-style-type: none"> New staff all receive the training for the concept of personal data protection Implementation of education and training to ensure the employees are equipped with the required legal literacy and concepts of proper use of personal data files 	

TFC's Information Security Management Methods

- Establish the Information Department for information security management and protection
- Install an integrated information security gateway equipment, deploy network firewalls, intrusion detection systems, and active blocking of known threats to block known attacks, malicious programs, malicious URLs and C & C activities
- To prevent Advanced Persistent Threat (APT), we also analyze internet files to identify new types of threats for the execution of immediate defense
- Regular disk backup of data and regular geo - replication drills are conducted. TFC conducted 1 geo-replication drills in 2016 and the system backup and data validation were successfully completed
- Installment of anti-virus software to provide a safe computer operating environment

/Chapter 4

Corporate Governance

We attach great importance to "Integrity", and regard it as an iron law.

We focus on "Sustainable Management" and implement it in risk management, financial performance management and compliance with social regulations. We cherish our "Reputation" and always bear it in mind deep in our heart.

This is TFC's never-changing philosophy for seven decades and many years to come.

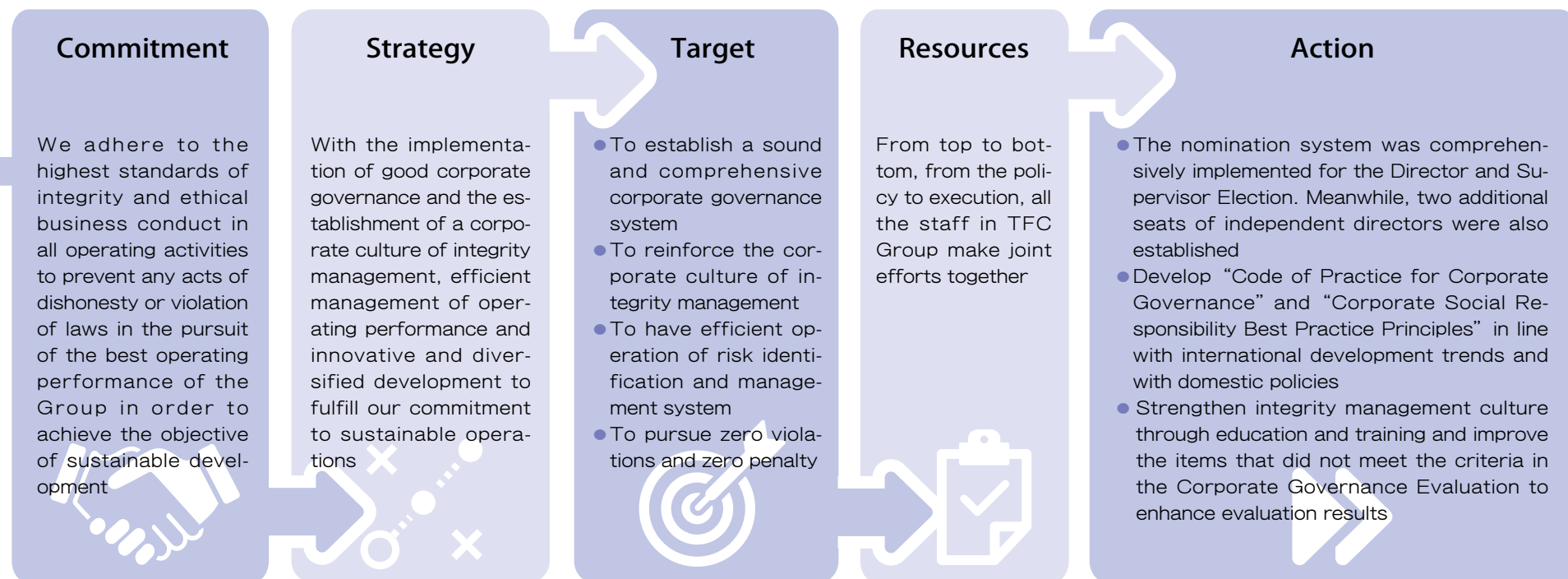


4. Corporate Governance

TFC's Board members are multi-disciplinary, professional and complementary. We uphold an open attitude to providing complete and transparent information and have established mutual trust and great communication with our stakeholders, laying a solid foundation for sustainable development. We uphold the principle of integrity from top to bottom, abide by the rules and regulations in business activities, and develop a comprehensive risk management system.

Material aspects: >>> Economic Performance, Environmental Compliance, Product Liability Compliance, Social Compliance

DMA (Disclosure on Management Approach)



4.1 The Operation of Corporate Governance

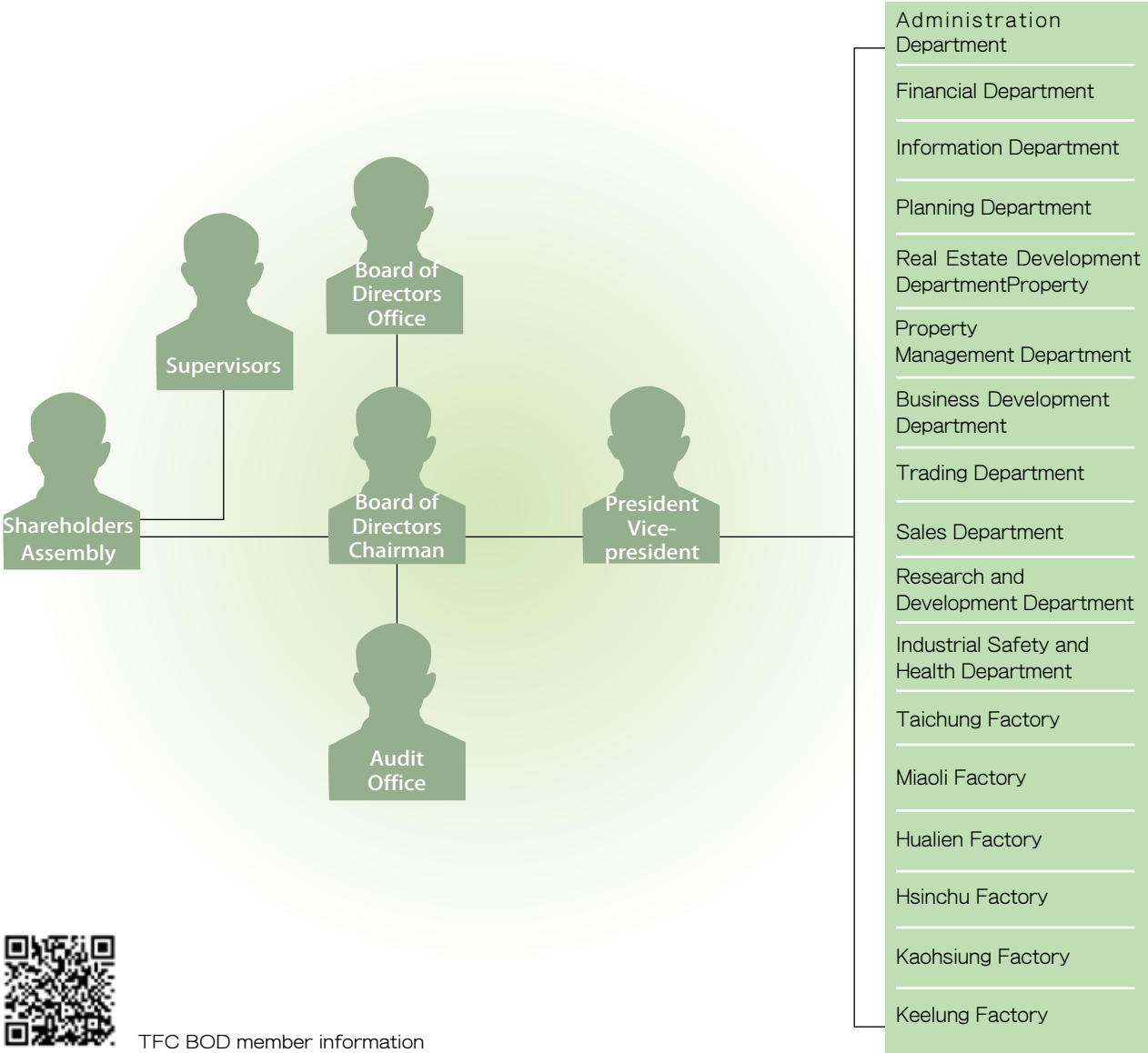
TFC has developed the Code of Practice for Corporate Governance as a guideline for the construction of a sound corporate governance system aiming at achieving the five goals of “safeguarding shareholders’ rights”, “enhancing the functions of the Board”, “exercising the functions of the supervisors”, “respecting the interests of stakeholders”, and “enhancing transparency of information” .

4.1.1 TFC Governance Organization

The Board of Director is set under the Shareholders’ Meeting and serves as the highest governance organization of the Company, leading the management team to strive for the best interests of the Company, shareholders and other stakeholders to achieve its business objectives and sustainable management. The organizational structure is shown in the figure on the right.

4.1.2 The Multi-professional Board of Directors

The Board of Directors is composed of nine directors (including 2 independent directors) whose expertise involve in senior management, accounting, law, agriculture, biotechnology and risk management. The members include a female director, and are mainly between the ages of 55 and 65 years. Please refer to our official website for detailed information about our BOD members.



Directors' Attendance Rate in 2016 and Field of Expertise

Title	Name	Attendance Rate	Expertise
Chairman(Representative of a juridical person director)	Kang, Hsin-Hong	75%	Business and Management
Representative of juristic person director	Chen, Chi-Chung	100%	Agriculture
Representative of juristic person director	Huang, Hsu-Hung	80%	Business and Management
Representative of juristic person director	Yang, Zhen-Min	100%	Business and Management
Representative of juristic person director	Hsu, S. M.	100%	Agriculture
Director	Tsai, Chang-Hai	50%	Business and Management, Medical Biotechnology
Director	Hsu, Chin-Lien	86%	Law
Independent Director	Hsu, Ming-Tsai	86%	Business and Management, Risk Management
Independent Director	Shen, Hui-Ya	100%	Law



Note: The information of this table contains the name list of the 33rd Directors of TFC for the term of July 1st, 2015 ~ June 30th, 2018

4.1.3 Nomination System for the Election of Directors and Supervisors

In order to make the election information transparent and to treat shareholders equally, the nomination system was comprehensively implemented for the 33rd Board of Directors. Meanwhile, two additional seats of independent directors were also established (the seats of directors are increased from 7 to 9 seats in total) in order to strengthen the independent supervision mechanism and operation efficacy of the Board of Directors.

4.1.4 The Operation of the Board of Directors

The BOD holds a regular session at least once a month to hear the company's major business strategy, operational reports and audit reports to review and monitor business and financial policies and track policy implementation. The company held a total of 14 board meetings in 2016, and among all the directors, 8 directors had the attendance rate of more than 75%.

The chairman of TFC does not concurrently serve as the manager of the company. Huang, Yao Hsing was appointed by the Board as the President to uphold the operating principles and decisions of the Board for the overall management of all company operations.

4.1.5 Training for Directors and Supervisors

The total hours of training of TFC's directors in 2016 amounted 78 hours, with an average of 8.6 training hours.



The training of TFC directors

4.1.6 Directors Liability Insurance

TFC has been responsible for the directors and supervisors' liability insurance since 2007, which is stipulated in the "Code of Practice for Corporate Governance" as revised in 2016.

4.1.7 Equal Treatment of Shareholders

Since the beginning of 2014, the Company has started to promote the electronic voting system. The proportion of shareholders who participated in the shareholders' meeting via the electronic voting system remained at about 47% for two consecutive years, and the proportion increased to 50.89% in 2016.

4.1.8 Remuneration of Directors and Supervisors

Our remuneration policy of the directors and supervisors is set out in TFC's Corporate Charter, which stipulates that the remuneration of the chairman shall be calculated on the basis of the income received by the president and shall be paid at 1.25 times of that amount. The remuneration of the other directors and supervisors shall not exceed the highest salary level in the salary table. The surplus distribution of the directors and supervisors shall not be more than 1.6% of the profit of the Company for the year. The independent directors are not involved in distributions from the earnings of the company. As there was no profit in 2016, we did not issue remuneration allocated from the earning of the company for the year.

4.1.9 Functional Committee

The Remuneration Committee is under the Board of Directors and it is planned to set up the "Audit Committee" in 2018 in line with the 34th directors and supervisors' election to enhance the operation of the Board of Directors.

The Remuneration Committee is composed of 3 members, who are both professional and independent and are all appointed by the Board of Directors.

The Main Responsibilities and Performance of Remuneration Committee

	Member	Title	Main Responsibilities	Performance in 2016
Remuneration Committee	Hsu, Ming-Tsai	Convener	<ul style="list-style-type: none"> ● To regularly develop and review the policy, system, standard and structure of the performance evaluation and remuneration of directors, supervisors and managers ● To regularly assess and define remuneration for directors, supervisors and managers 	A total of three meetings were held to review the remuneration of the directors and supervisors, the remuneration and the bonus of the managers, and the managers' withdrawal criteria
	Wang, Ming-Ting	Member		
	Wang, Ri-Chun	Member		

Note: This term of office of the members starts from July 1, 2015 to June 30, 2018

4.1.10 Internal Audit and Operation

TFC's Audit Office is an independent unit directly responding to the BOD. The Audit Office is composed of the Auditor General and three full-time auditors.

Audit Office is in charge of internal audit operations, including funds and loans, insider trading and regulatory compliance on a monthly basis, and submits the results to the Board of Directors.

The Audit Office will occasionally check and supervise the procurement procedures of each unit, which included bargaining supervision, monitoring

bid opening meetings and signing and approving procurement documents to prevent the possibility of corruption and dishonest acts.

The audit unit shall supervise and review the internal units and subsidiaries and shall conduct internal evaluation at least once a year as the reference for the Board of Directors and the president to evaluate the effectiveness of the overall internal control system and as the main basis for the issuance of the internal control system statement. (Please refer to P36 of the 2016 Annual Report).



4.2 Integrity Management

“Integrity” is TFC’s important core value. These principles are the foundations of business strategy development and business activities.

4.2.1 Integrity Management

We develop organizational rules and regulations, set up responsible units, strengthen the integrity education, provide a channel for grievance and establish punishment system for strict precautions against dishonest behavior.

4.2.2 Mechanism for Insider Trading Prevention

TFC has developed the “Internal Major Information Processing Procedures” for the directors, supervisors, managers and all employees of the Company, which stipulates that those who know the major information shall not disclose to others or inquire or collect the significant information that the Company did not disclose and is not related to personal duties in order to implement the prevention of insider trading management operations.

4.2.3 Integrity and Anti-corruption Training

We arrange integrity and anti-corruption advocacy courses in orientation training, and the training ratio of new staff reaches 100%. In 2016, the number of new staff receiving the training accounted for 7.08% of the total number of employees.

The training is regularly scheduled and also promoted occasionally through meetings and educational trainings to advocate our philosophy of integrity management and to completely eliminate corruption incidents.

Organizational rules	<ul style="list-style-type: none"> ● Ethical Corporate Management Best Practice Principles ● Code of Conduct and Ethics for Directors, Supervisors and First-level Managers ● Work Rules for Employees in TFC ● Regulations for Employee Performance Evaluation in TFC
Unit	<ul style="list-style-type: none"> ● Audit Office: Planning of the Report System to ensure the effectiveness of implementation ● Board of Directors Office: Development of business strategies with integrity and ethical values ● Administration Department: Promotion of integrity policy advocacy and training
Staff training	<ul style="list-style-type: none"> ● Training courses for new employees include ethical education, company internal regulations and codes of conduct ● Regularly carry out integrity education and training, promote moral conducts, disciplines and corporate culture education
Report system	<p>We encourage our employees to report any unethical conduct. When an employee suspects or finds a violation of the laws and regulations or the code of conduct and ethics, the whistleblower shall report such situation to supervisors, managers, internal audit supervisors or other appropriate personnel. When such case is verified, the whistleblower will be rewarded in accordance with the relevant regulation, and the identity and security of the whistleblower will be protected</p>
Dealing with dishonest behavior	<p>It will be submitted to the Personnel Review Committee for review to decide follow-up punishment</p>



Special Column:

Integrity Course — Participation by All TFC Members

In order to establish the corporate culture of integrity, in November 2016, the Company invited Mr. Xie, Xian-Jie, a lawyer with the experience of local court judge and prosecutor to hold the lecture on “TFC’s Codes of Integrity Management”, guiding the participants to identify dishonest behavior and prevent the occurrence of it, strengthening the concept of compliance to lay the foundation of the culture of integrity.

This course got an enthusiastic participation, and was attended by 12 directors and supervisors (including 7 directors and 2 supervisors), the management, including the president, three vice presidents, the first-level managers and employees. We also overcame space constraints in the form of video lecture for live transmission of the lecture to our factories in Taichung, Miaoli and Hualien. TFC leads all the staff from top to bottom to recognize the importance of integrity management and develop the culture of integrity.



Chairman Kang, Hsin-Hong personally attended the Integrity Management Course and sent greetings to the participants.



Directors, supervisors, first-level managers and the employees attended the Integrity Course enthusiastically and listened carefully to the contents.

4.3 Risk Management

The risk management control operations are conducted in accordance with the “Regulations Governing the Establishment of Internal Control Systems”. With a clear division of labor for risk identification and evaluation at all levels, and through the establishment of oversight responsibility, assignment of rights and responsibilities and the reward-punishment system, the control environment is built for the effective establishment of TFC’s risk management protection network.

4.3.1 Risk Management System

The Company has set up an Audit Office to promote and revise the internal control system, targeting at effective risk control. The Audit Office implements the audit operations in accordance with the annual audit plans. When discovering internal control deficiencies and risk events in the process, it is responsible for urging the various units to formulate improvement plans and make follow-ups on a regular basis to effectively control the risks.

4.3.2 Risk Management Organizational Structure

The Company has established an independent and comprehensive structure of risk management and also set the hierarchical authority for the implementation of the risk management system.

Item	Responsible person / unit	Responsibilities
The first management mechanism	Competent business unit or person in charge (direct unit of risk control)	Initial risk assessment and implementation of risk management procedures
The second management mechanism	Managers (the president and vice presidents)	In charge of monitoring of risk management
The third management mechanism	Board of Directors and Audit Office	Risk inspection, assessment, supervision, improvement and follow-up and reporting



4.3.3 Risk Items and Countermeasures

Category	Description	Countermeasures
Economy	Risks that impact on the operational stability in the rapidly changing international political and economic environment	<ul style="list-style-type: none"> ● Enhance the green R&D innovation ability, develop product differentiation and niche products and improve market competitiveness ● Strengthen the upstream and downstream vertical and horizontal integration, improve the marginal efficiency of production and reduce the marginal cost to effectively control the operational risk ● Develop real estate business, promote the development of real estate in the appropriate development order to maximize the added value for the company's industry and investment funds ● Continuous improvement in production management and process to increase productivity and reduce operating costs ● Promote the "Investment Plan of West Wharf Area, West 10 of Taichung Harbor" to expand green fertilizer production, making good use of the terminal equipment at Taichung Harbor to expand the chemical trading and logistics business
	Risk of raw material price fluctuations and centralized purchasing	<ul style="list-style-type: none"> ● Regularly collect information of international raw material prices, pay close attention to changes in prices and increase the safety coefficient of raw material safety stock ● Adoption of diversified material purchase programs, seek alternatives of important imported raw materials to reduce the risk of centralized purchasing and procurement costs ● Strengthen the purchasing function, actively look for new suppliers to gradually strengthen the backup supplier list so as to reduce the risk of centralized purchasing
Environment	Impacts caused by climate change	<ul style="list-style-type: none"> ● Introduced ISO 50001 Energy Management System into Taichung Factory in order to continue the improvement of energy performance, reduce GHG emissions and other environmental impacts ● Continue the energy integration and energy conservation programs and procure energy-saving equipment to achieve the goals of reducing energy consumption and carbon emissions ● Establish the Disaster Response Procedure to strengthen the abilities of natural disaster prevention, including the maintenance and replacement of equipment and the establishment of disaster prevention concept ● Establish the GHG Inventory Team and introduce the GHG inventory system of ISO 14064-1 for energy declaration and voluntary GHG inventory to track carbon emissions regularly and review the emission reduction measures ● Implement Water Shortage Response Plan and install additional water recycling equipment
	Impacts of increasingly stringent environmental regulations on operations	<ul style="list-style-type: none"> ● Introduce the GHG inventory system of ISO 14064-1 for voluntary GHG inventory and energy declaration ● Implement energy-saving programs to acquire the incentive of expanding emission allowances for substantial reduction of emission ● Taichung Factory took the lead in implementing the Counseling Plan of Energy-consuming Equipment Efficiency Testing to assist the factory to test the energy efficiency of energy-consuming equipment with the use of test equipment for the reference of energy efficiency improvement in the factory ● Comply with ISO 14001 Environmental Management System, and actively invest in company resources for good pollution control, waste management, water resource management and industrial safety management to avoid environmental pollution



Category	Description	Countermeasures
Environment	Reduction of yearly chemical fertilizer amount in response to the promotion of organic agriculture by the government	<ul style="list-style-type: none"> ● Promote the development of organic fertilizer products, and achieve the goal of obtaining the organic fertilizer certification from Council of Agriculture (COA) and being selected by COA as the recommended brand with new products ● Establish organic cultivation techniques and quality control process, teach farmers agricultural organic farming, and gradually set up organic demonstration farms to develop organic agriculture ● Combine organic materials with the microbial technology for the development of related green fertilizer products that gradually replace the chemical fertilizers ● Continue to promote Rational Fertilization education and gradually establish the concept of the correct fertilization practices of farmers
Society	Increasing requirement for product safety from customers	<ul style="list-style-type: none"> ● Conduct product development with the core competency for the development of safer and healthier products ● Introduce international production quality and food safety related management systems to implement internal operating procedures ● Continue to improve production management and process to improve production quality and safety ● Implement quality inspection of the outsourcing manufacturers to make sure of raw material supply and safety ● Obtain third-party verification to increase consumers' trust
	Rising environmental awareness of community residents	<ul style="list-style-type: none"> ● Actively communicate with community residents to listen to their opinions and to respond immediately in order to resolve disputes so as to build mutual trust and to seek recognition from the residents ● Disclose open and transparent information for the residents to access to instant and accurate information to reduce misunderstanding caused by asymmetric information and chances of incident occurrence
	Technology heritage and labor shortage	<ul style="list-style-type: none"> ● Start the systematic and long-term policy implementation for Talent Cultivation to reduce the impact of human resources shortage on the company ● Attach great importance to employee education and training, and actively train professionals with various skills ● Implement the knowledge and experience heritage system by utilizing Knowledge Management (KM) System to record and retain important technologies and experience systematically





4.4 Financial Performance

We are prudent and pragmatic and positively manage and regularly track and review the Company operations and unit performance, striving to achieve satisfactory annual operating performance.

4.4.1 Company Operating Policies and Objectives

The chairman and the president hold the meeting to track and review the company management system and the business performance of each unit on a monthly basis. The executives are responsible for improvement program proposals, aiming at achieving the overall annual profit target through the active operation of performance management in order to meet the shareholders and stakeholders' expectations.

Policies	Short-term goals (2016~2020)	Medium- and long-term goals (2020~2030)
Profit growth <ul style="list-style-type: none"> Strengthening the core business Developing diverse businesses The layout of overseas markets Effective costs control Optimization of Competition <ul style="list-style-type: none"> Improvement of product quality Flexible marketing strategies Active and innovative research and development Sustainable development <ul style="list-style-type: none"> Strengthening environmental safety and health system Improving human resources Effective financial management Reinforcing e-operations Enhancing the corporate image 	<ul style="list-style-type: none"> The fertilizer chemical business continues to improve product quality and effectively integrate energy use to reduce production costs, enhance customer recognition, improve the domestic sales of niche products, expand overseas markets and business opportunities and gradually achieve the goal of profit normalization Continue to invest in commercial offices and residential development and implement the strategy of land optimization in real estate business Enhance reinvestment management and improve business performance Enhance the diversified allocation of funds to improve profit performance Develop innovative green businesses and promote organic agricultural and fishery materials to fulfill our corporate social responsibility 	<ul style="list-style-type: none"> Add new capacities to fertilizer business, promote niche fertilizer; expand the items of chemical products and electronic chemicals as well as the sales of these products Make good use of Taichung Port Free Trade Zone to develop logistics business of chemical storage tank trading Stabilize property rental income, speed up the land development operations of land rezoning and land change, and continue the introduction of residential and commercial real estate products Operate in coordination with the government's agri-food policy to ensure balanced demand and supply and stabilized prices in the fertilizer market Develop the business of green innovation, focus on agricultural biotechnology and chemical core expertise and make use of official and academic resources to promote green products and process R&D related work





4.4.2 Financial Performance

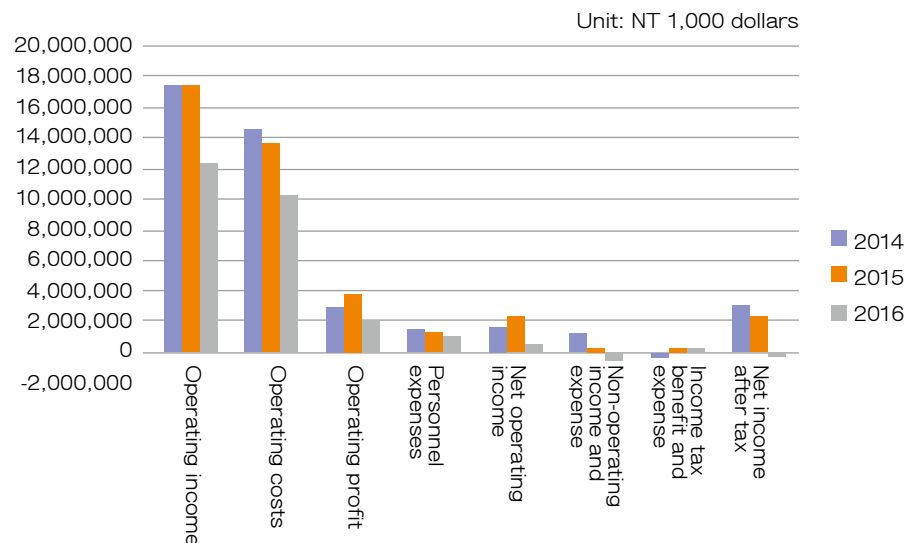
In 2016, with the tireless efforts of TFC's management team, the profitability of fertilizer chemicals and property rental income increased significantly, but the income of real estate development dropped by 30.00% compared with 2015. The operating prof-

it and net operating income were lower than those of 2015 by 48.23% and 74.60% respectively. In addition, the loss of reinvestment in Al-Jubail Fertilizer Company and decreased recognition of income caused by the goodwill impairment of Taiwan Yes

Deep Ocean Water Co., Ltd. resulted in the consolidated non-operating loss, with the final settlement of net loss of NTD 129,503 thousand in 2016.

Item	2014	2015	2016
Operating income	17,510,273	17,487,077	12,240,920
Operating costs	14,597,642	13,612,077	10,234,666
Operating profit	2,912,631	3,875,000	2,006,254
Personnel expenses	1,334,220	1,209,191	1,054,548
Net operating income	1,659,950	2,345,012	595,694
Non-operating income and expense	1,187,303	174,718	-616,713
Income tax benefit and expense	221,093	-92,647	108,484
Net income after tax	3,068,346	2,427,083	-129,503

Unit: NT 1,000 dollars



4.4.3 Earning Distribution

The company's future financial situations are mainly considered when it comes to the distribution of shareholders' dividends. Based on the steady dividends and the needs for corporate transformation, at least 50% of the distributable earnings taking out from the legal reserves and appropriated retained reserves should be distributed to shareholders. Among which the ratio of cash dividends shall be no less than 10% of the gross amount of dividends of the current year. It shall be done after approval by the shareholders' meeting.

In terms of the TFC's earning distribution in 2016, based on the undistributed earnings in the previous year and that a proper amount of the originally set aside special reserve was reversed to distributable earnings, the cash dividend was NTD 2.1 per share, with the total amount of NTD 2,058,000 thousand distributed.

4.5 Compliance

We have excellent compliance DNA and the whole company from top down strictly abides by laws and regulations and upholds the principles of handling operational affairs with fairness and justice.

4.5.1 Objective of Compliance

Short-term goal (2020~2030)	Medium- and long-term (2016~2020)
Actively review and improve cases of violation and penalties, working on not to make the same mistake twice	To reach zero violation and zero penalty annually

4.5.2 Management Approach

We follow the domestic laws and regulations, international initiatives and trends to develop internal laws and regulations, and hold education and training, supplemented by the prosecution system to prevent the occurrence of dishonesty.

Management Approach	Content
Develop relevant internal regulations	<ul style="list-style-type: none"> ●The company developed various internal specifications of operating procedures, management standards, implementation measures and operation directions in the fields of "Personnel", "Finance", "Purchasing" and "Business" for the employees to base on when making decisions and conducting business
Carry out compliance education and training	<ul style="list-style-type: none"> ●Pursuant to TFC's "Key Points for Employee Training", all the new employees must participate in the new staff orientation in which compliance education is focused ●In addition, the company holds training in regulation education company-wide occasionally to strengthen the employees' concept of compliance and to shape the corporate culture of integrity
Control the compliance process strictly	<ul style="list-style-type: none"> ●The matters related to legal rights and obligations shall be discussed in advance with the legal personnel. The legal personnel shall examine and submit the professional opinions as the important reference for the supervisor's decision after the relevant plan is submitted by each unit ●The Audit Office verifies the compliance through the self-assessment of each unit and the Audit Office to ensure that the company fully complies with the laws and regulations when conducting various operational activities





4.5.3 Domestic Compliance

The Company's compliance in social, products and environment aspects in 2016 is detailed as follows.

Social Compliance

In 2016, there were four cases of violation of social compliance, and the Company has conducted internal self-review for improvement. The treatment and precautionary measures are described below, and strict compliance by the competent units and personnel in charge was required to avoid the recurrence of similar situations.

Regulation or law violated	# of case	Amount	Description	Treatment and preventive measures
Labor Standards Act	1	NTD 40,000	The overtime pay was not paid as regulated	The Company has calculated and paid overtime to employees in accordance with the Labor Standards Act as revised in December 2016
Building Act	1	NTD 30,361	The miscellaneous license for multifunctional outdoor ponds was not applied	The improvement has been completed and a miscellaneous license has been obtained in line with the provisions of the law
Fire Services Act	1	NTD 12,030	Fire equipment failure, which violates Standards for Installation of Fire Safety Equipment Based on Use and Occupancy	The faulty equipment has been repaired or replaced and the periodic inspection and testing of the equipment has been strengthened
Income Tax Act	1	NTD 750	Year end party's prizes are not declared with non-withholding tax statement	1.The internal audit of the company found the missing declaration, and actively declared it to the IRS 2.Strengthen internal management to prevent recurrence of such violations

Product Compliance

There were a total of six cases of violation of Fertilizer Management Act in 2016. In accordance with government regulations, the inspection of product compositions in the factory is required before the fertilizer products are being distributed to various channels. However, as the inspection methods of the government differ from those of TFC, sometimes the results of the product compositions are not consistent with those of the inspection unit. The Company has conducted a comprehensive review of the inspection methods, revised the inspection methods and improved the relevant inspection standards to prevent similar situations from happening again.

Environmental Compliance

TFC had no major spill in 2016. In terms of environmental compliance, there were 3 cases of environmental penalties in 2016, decreased by 12 cases compared with 2015, with the total amount of the fines at NTD 260,000.

Regulation or law violated	# of case	Amount	Description	Treatment and preventive measures
Fertilizer Management Act	4	NTD 200,000	The proportion of compositions of the fertilizer products produced by Keelung Factory did not comply with the regulation	<ul style="list-style-type: none"> ● Unqualified finished product were recalled ● The processes of the production plants are adjusted and improved. Besides, testing standards of the finished products are improved and fertilizer formulations are properly adjusted to ensure that the compositions meet the criteria as stipulated
Fertilizer Management Act	1	NTD 50,000	The contents of composition of the fertilizer products produced by Miaoli Factory did not comply with the regulation	
Fertilizer Management Act	1	NTD 50,000	The contents of composition of the fertilizer products produced by Taichung Factory did not comply with the regulation	

Regulation or law violated	# of case	Amount	Description	Treatment and preventive measures
Air Pollution Control Act - Keelung Factory	1	NTD 100,000	The discharge smoke detection did not comply with regulations	We improved the pollution control equipment in compliance with regulations
Air Pollution Control Act - Taichung Factory	1	NTD 100,000	Factory emissions did not comply with regulations	We reviewed the cause and improved the control equipment
Water Pollution Control Act - Miaoli Factory	1	NTD 60,000	Wastewater treatment did not conform to the permit registration	We completed permit registration and included the relevant operating practices



4.6 Support for and Compliance with International Initiatives

4.6.1 The United Nations Global Compact

The Company supports and is committed to the compliance with the UN Global Compact under the 9 principles in three areas of Human Rights, Labor and Environment and we are committed to compliance with the principles and the protection of the rights of the employees, contractors and suppliers, and will absolutely abide by domestic laws and comply with international statute. In 2016, TFC and its suppliers did not have any violation of human rights issues, including discrimination, violation of freedom of association, the use of child labor and forced labor.

4.6.2 United Nations' Sustainable Development Goals

TFC supports and advocates the 17 sustainable development goals (SDGs) officially launched by the United Nations in 2016. As a leading fertilizer producer in Taiwan, TFC is committed to the promotion of the United Nations Sustainable Development Goal 2, "End hunger, achieve food security and improved nutrition and promote sustainable agriculture", and invests in resources to fulfill our corporate social responsibility.

In addition, for the United Nations Sustainable Development Goal 12 "Ensure sustainable consumption and product patterns", the company has been committed to improving the process design, waste recycling and striving to implement the concept of circular economy in recent years.



Source: United Nations website



/ Chapter 5

Emergency Response and Transport Management

We cherish our family and partners, and strive to ensure safety and security in every aspect.

The highly systematic “emergency response organization” and rigorous emergency management process are established in place for the sake of personnel safety. This concept of safety management is meticulously implemented in the transport management, striving for safe delivery of our products.

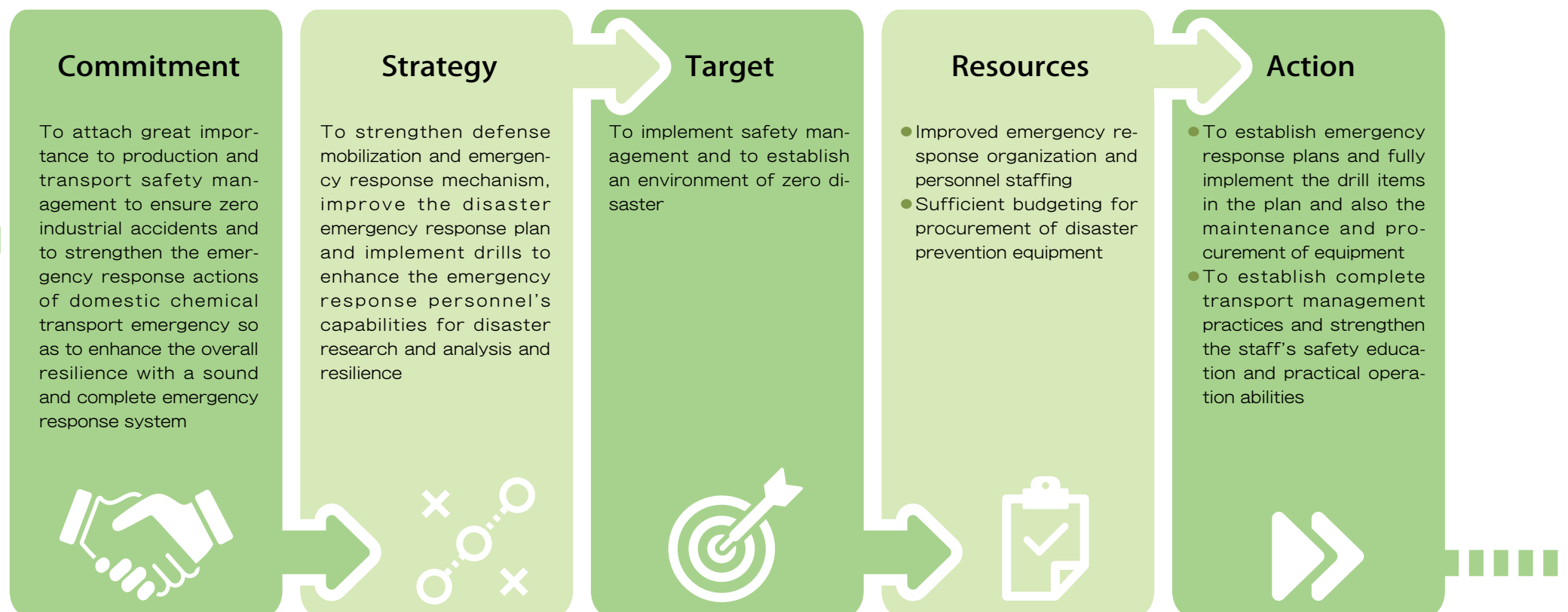
5. Emergency Response and Transport Management

TFC has a sound and complete emergency response management system and sufficient drills to ensure that the employees and residents in the communities can safely, rapidly and properly take response actions when incidents occur. In addition, the factory safety management is strictly implemented. After the

products leave the factory, the shippers are also strictly required to comply with the transport safety regulations. When accidents occur during transport, TFC will provide assistance with the knowledge of the chemicals we produce and related equipment in the handling of accidents to reduce its environmental impact.

Material aspect >>> Transport

DMA (Disclosure on Management Approach)



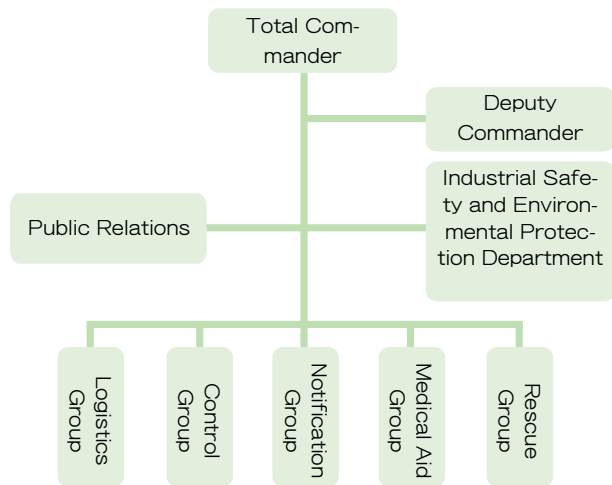
5.1 Emergency Management

TFC has a complete emergency response system and organizational planning that has been constantly updated and carried out via drills, and the Disaster Recovery Plan is also in place. Meanwhile, TFC also joins the Mutual Defense in the industrial area to effectively enhance its emergency response capabilities.

5.1.1 Emergency Management Organization

The Company has developed “Guidelines on Disaster Prevention and Response Operation” for emergency operation of all types of disasters and emergency of TFC (including subsidiaries and overseas offices) and set up “Disaster Prevention and Response Operation Team” in each factory to facilitate immediate responses so as to reduce disaster losses.

TFC's Emergency Response Organization Chart



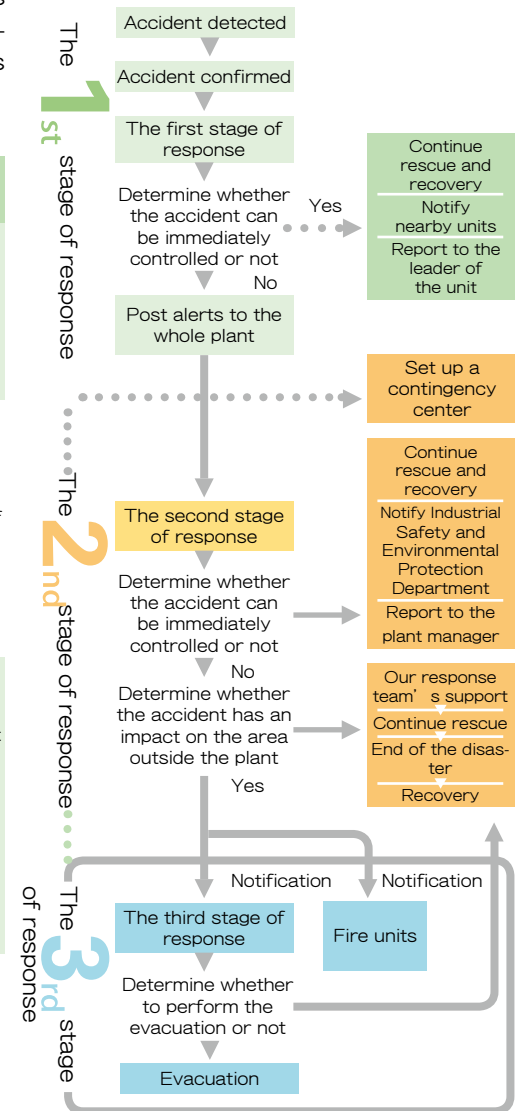
5.1.2 Hierarchical Management System for Disasters

We adopt a hierarchical management system for disasters to ensure that the manpower and resources in and outside the factory can be promptly combined to take proper contingency measures to deal with emergency and disasters when incidents occur, and we also work closely with the employees in and outside the factory, residents in the community, nearby factories and local authorities to jointly take emergency response actions.

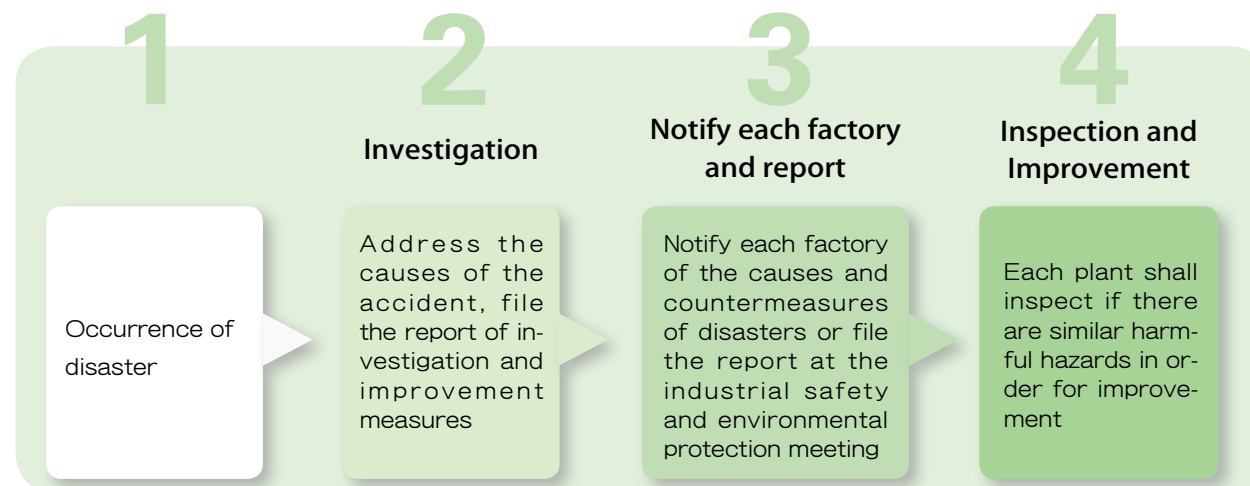
Stage	The impact and scope of the contingency	On-site response mechanism	Notification scope
Stage 1	When a disaster occurs, the unit involved in the accident is capable of controlling and does not need support from other units	<ul style="list-style-type: none"> Confirm the occurrence of disaster (including the type and the extent of the disaster) Be alert of the water sources, turn off fire and stop all hot work Direct relief work on-site 	Start internal reporting procedures
Stage 2	The contingency has greater harm or is in a greater area and may result in threats to human lives and property, and support from other units are required	<ul style="list-style-type: none"> The total commander sets up an emergency command center and ask the response groups to stand by Prepare response equipment Set the control area to control personnel access Determine whether emergency shut-down is needed Perform various contingency measures 	Increase the level of internal reporting
Stage 3	The impact area is huge and the contingency has serious impacts on human lives and property safety, and the manpower as well as the rescue equipment cannot respond accordingly and support from outside is required	<ul style="list-style-type: none"> Request external support, notify the government, fire department, labor inspection and environmental protection units Expand the scope of alert When the external supporting unit arrives for rescue, the command is transferred to the commander of the supporting unit Assisting the supporting unit in the relief work 	<ul style="list-style-type: none"> Local government response center Fire departments Labor inspection units Environmental protection units

Note: Based on different stages, the scope and level of the response units and notification objects will be classified into different levels

TFC's Three-stage Emergency Management Operational Process



5.1.3 Disaster Investigation and Improvement Procedure



5.1.4 Emergency Drills

Before the end of each year, every production plant submits the plans of disaster prevention and emergency drills and budgets for purchasing protective equipment. Various emergency drills are conducted as scheduled annually.

After the completion of the emergency drill, a review report is prepared by the Industrial Safety and Environment Department of each plant, working on the improvement and correction of the emergency response procedure to enhance the resilience capabilities in the face of emergencies.

TFC held a total of 16 sessions of emergency drills in 2016, with a total of 428 participants.

Liquid ammonia leakage drill with the Fire Department at Keelung Factory



The rescue staff use portable water monitor to absorb the leaked ammonia with mist on-site



The fire brigade set up a command center in the factory



The fire brigade marked the hazard zone



The fire brigade returned from the hot zone for subsequent decontamination

Nitric acid leakage drill at Taichung Factory



Protective clothing for emergency personnel



Inspected leakage point and turned off the valve



Emergency repairs of leaking pipes



Decontamination of emergency personnel

5.2 Transport Management

For the uploading, deliver and the transport of the raw materials necessary for the production of fertilizer products and chemicals, such as liquid ammonia, sulfuric acid, nitric acid and phosphoric acid, RFC has set up a complete management practices to manage the operation process. In addition, the safety and health management of every transport process is also emphasized to reach the goal of zero disaster and zero accident.

Operational phase	Key points of Management
Operations before unloading	<ul style="list-style-type: none"> ● Monitor the temperature and control the unloading pipeline ● Monitor the weather condition onsite. The loading and unloading operations will be suspended when the weather condition is poor ● Check each and every piece of equipment needed for unloading onsite ● Confirm the field workers' safety equipment
Operations during unloading	<ul style="list-style-type: none"> ● Regularly inspect whether there is leakage in the piping for the tank or in the pipe fittings. Monitor the temperature and control the unloading pipeline ● Regularly confirm whether the pressure in the gauge is normal. equipment
Operations after unloading	<ul style="list-style-type: none"> ● Remove the residues in the pipes after unloading ● Wash and clean out the site after unloading ● Inspect and maintain the equipment and devices needed for unloading regularly

5.2.1 Management of Unloading Materials

Raw materials needed for fertilizer production mainly depend on imports from abroad through shipping. Our Taichung Factory is located in Taichung Port Area, and with the port access advantage, our business operations also include warehouse & transit and trading services. In order to improve the safety of terminal unloading operation, TFC has set up Standard Operating Procedures (SOPs) for material unloading operation to ensure the safety during the process of loading and unloading materials. There were no significant accidents in the transport and loading and unloading operations in 2016.

5.2.2 Management of Tank Vehicles

The chemicals sold in the Company are transported by tank vehicles arranged by the clients to take delivery of goods at TFC's factories. The Company has set up "Industrial Safety and Health Management" and "Points for Safety Management of Hazardous Materials Transport on the Highway". Transport vehicles entering TFC factories should comply with related safety and health regulations, and after leaving the factories, the tank vehicles should strictly abide by the government regulations and TFC's management rules to prevent the occurrence of transport accidents.



Item of management	Key points for management
Compliance	<ul style="list-style-type: none"> ● Strictly request the carriers to comply with relevant laws and regulations of the government for the carriage operations of dangerous goods and receive training, inspection and supervision from the competent authorities and the Company ● The vehicles for carrying the goods should pass the inspection from the Motor Vehicles Service Station and before the transport of goods, application for the issuance of a “Pass” should be submitted to the local Motor Vehicle Office of Directorate General of Highways
Personnel management	<ul style="list-style-type: none"> ● The drivers the carriers hire should possess relevant licenses, receive dangerous goods transport training, be physically and mentally healthy and physically capable of the job ● When the carrier enters the factory to take delivery of goods for the first time, the person in charge or the designated agent and the driver should receive safety and health training from the Industrial Safety and Environmental Protection Department in the Company’s factories and the hazard notification is also given ● Tanker drivers and the field workers should confirm the safety equipment before the loading and unloading operations
Equipment management	<ul style="list-style-type: none"> ● Vehicles and tanks should be inspected routinely. Observe the tank safety valve and pressure gauge at all times to make sure they function well. In addition, important car parts, such as breaks and wheels should also be checked ● Check the vehicles and tanks before and after loading and unloading should be made on the pressure gauge, safety valves, loading and unloading valves, loading and unloading pipes, ground wire of the tank car and the removal of the unloading pipe after unloading and before driving. Avoid transporting goods during rush hours ● The carrier should prepare personal protective equipment onboard depending on the nature of the hazardous goods ● Strictly request the drivers to follow the rule of “No open flames”

Item	Assistance and key points for management
When the incident occurs	<ul style="list-style-type: none"> ● When notified of the tank accident, a rescue team is immediately set up to confirm the situation of the accident and prepare rescue equipment and protective gear in order to help rescue as soon as possible ● Prepare the needed response equipment such as the rescue (repair) equipment and the safety equipment which are checked, maintained and test run every month as recorded in the records to ensure they are in good condition ● Regularly train the rescue team members, and hold the rescue exercise at least once a year to strengthen their contingency skills and improve their response capabilities ● TFC’s rescue team receives the commands from the total commanders on the scene to help deal with the accident
After the incident	<ul style="list-style-type: none"> ● After handling the accident, a written report on the situation of the accident and the rescue process will be presented to the company

5.2.3 Pipeline Management

In accordance with the provisions of the national standard of CNS 9329 for pipeline identification, we have set up “Key Points for Identifying Units in Charge of the Pipelines”. We use graphic expressions and colors to identify the pipelines for raw materials or fluids for production use to different factories so that the field workers can soon be aware of the materials in the pipelines, the properties of the materials and the degree of risk. There is a dedicated unit in charge of the maintenance of the pipelines to ensure the normal operation of the pipelines.

With our complete pipeline management system and the emergency response mechanism, mistakes in pipeline system operation can be avoided to protect the safety of the personnel and property.



To assist the carriers and our clients with the contingencies in transit, internal regulations for handling chemical tank accidents are set up. The Company will make use of the expertise in chemicals and complete response equipment to help deal with the contingency to fulfill the corporate social responsibility.

/ Chapter 6

Care and Concern

TFC cares for and concerns about its employees and also the society.

We have regarded our employees as the most valuable resources, and we firmly believe the idea of "What is taken from society has to be used for the society."

In this big family at TFC, the employee benefits and development are equally important.

When it comes to the society, TFC family spares no efforts to participate in public welfare activities, using our products and environmental education to protect and safeguard this land of ours.

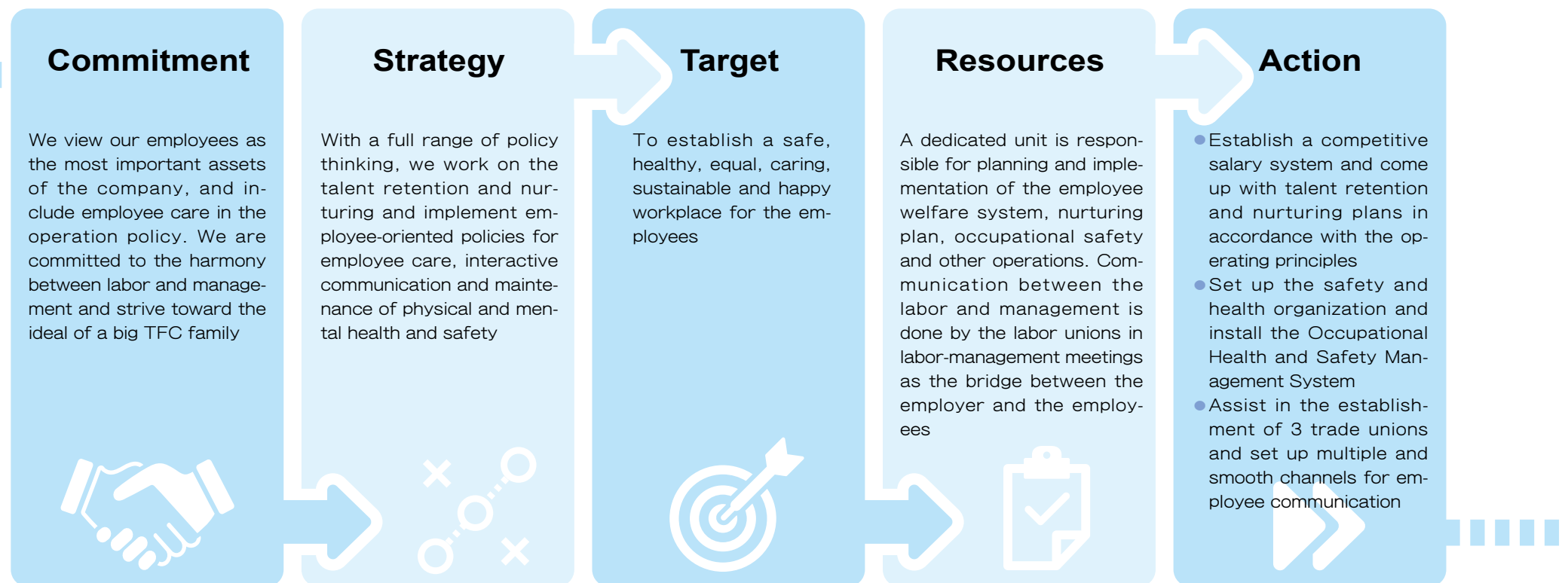


6.1 TFC Family

The employees are not only our most valuable assets, but also a key cornerstone of TFC's sustainable development. Therefore, it is our management goals and objectives to create a safe and happy workplace and a learning environment for personal growth as well as to establish the good labor relations with mutual trust so as to ensure that the working positions of all the employees fit their abilities and that they can develop their capabilities and bring their talents into full play.

Material aspects >>> Employment and labor relations, Labor / Management Relations, Occupational Health and Safety, Training and Education

DMA (Disclosure on Management Approach)



6.1.1 Employee Care

Employees are the most valuable assets of TFC. We promote the six major human resource policies for recruiting talents and provide a good salary and welfare system and a safe working environment to encourage and retain talents.

The Hire of Employees

By the end of 2016, the total number of employees at TFC reached 681, including 639 formal employees and 42 contract employees. Compared with 671 employees in 2015, the number slightly

increased by 10 in 2016; compared with the 63 contract employees in 2015, the number reduced by 21 mainly because the contract employees hired in the construction project of Taichung Factory in 2015 were promoted to formal employees. Besides, we also hire a few dispatched employees who are mainly engaged in farming, planting and cleaning related work.

In terms of the gender of employees, as TFC is in manufacturing industry, we mostly recruit the professionals or technicians with university or col-

lege degree in science and technology. Most people who get the degree in science and technology are male, so the majority of employees are male. Therefore, the proportion of men and women in the company is quite different. Males account for 80.6% of the total number of employees, while women 19.4%. However, in terms of labor force, we have complied with the international principles of human rights protection and domestic laws and regulations. There is no differential treatment or discrimination against gender difference.

Six major HR Policies

Equal and Friendly Working Environment

Healthy and Happy Workplace

Competitive Remuneration System

Complete Personnel Training System

Complete Employee Welfare and Care

Open Labor Communication Channels

Creation of a happy workplace in TFC

The 2016 analysis of category, age and gender of employees in TFC

Gender	Age	Formal employees		Contract employees		Total	
		No.	Percentage	No.	Percentage	No.	Percentage
Female	25~29 years old	11	1.6%	2	0.3%	13	1.9%
	30~39 years old	49	7.2%	5	0.7%	54	7.9%
	40~49 years old	24	3.5%	0	0.0%	24	3.5%
	50~59 years old	25	3.7%	0	0.0%	25	3.7%
	60~64 years old	16	2.4%	0	0.0%	16	2.4%
Female Total		125	18.4%	7	1.0%	132	19.4%
Male	Under 24 years old	1	0.2%	3	0.4%	4	0.6%
	25~29 years old	42	6.2%	9	1.3%	51	7.5%
	30~39 years old	185	27.2%	22	3.2%	207	30.4%
	40~49 years old	112	16.5%	4	0.6%	116	17.0%
	50~59 years old	92	13.5%	0	0.0%	92	13.5%
	60 years old and above	79	11.6%	0	0.0%	79	11.6%
Male Total		511	75.0%	38	5.6%	549	80.6%
Total		636	93.4%	45	6.6%	681	100.0%



Talent Cultivation Program

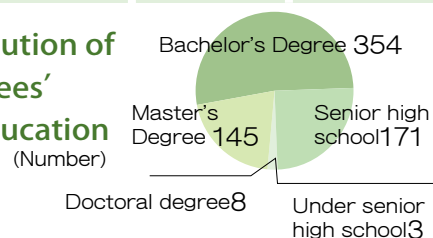
TFC is a long-lasting enterprise which follows the principle of prudent operation. In order to cope with the crisis of aging population and labor shortage, we have launched the "Talent Cultivation Program" in recent years. We have hired a large number of young and middle-aged employees with outstanding talents, organized a reserve cadre training program and developed a large-scale employees' early retirement programs to accelerate the change of manpower in the elderly and improve labor structure. After years of efforts, the average age of employees in TFC has dropped significantly. The age distribution of the employees focuses on 30 to 39 years old, accounting for 38.33% of the total number of employees.

In accordance with Staff Statistics in 2016, the average age of employees at TFC was 42.98 years old, while the average length of service was 14 years. The distribution of education background focused on bachelor's degree, accounting for 51.98% of the total number of employees, followed by those with high school and lower (inclusive) and with a master's degree, accounting for 25.11% and 21.29% respectively.

Distribution of average age, seniority and education background of employees

Average age		42.98	
Average seniority		14.00	
Education	Item	Number	Percentage
	Doctoral Degree	8	1.17%
	Master's Degree	145	21.29%
	Bachelor's Degree	354	51.98%
	Senior high school	171	25.11%
	Under senior high school	3	0.44%

The distribution of employees' level of education



Healthy Manpower Turnover

We recruit talents every year. There were 48 newly recruited employees at TFC in 2016, accounting for 7.08% of the total number of employees (i.e. employment rate).

The number of retired/resigned employees at TFC in 2016 reached 38 people, including 19 retired employees, 4 laid-off employees, 14 resigned employees and 1 death (died of illness, not of occupational accident). The turnover rate was 5.46%. Most employees have long worked in TFC until retirement. Therefore, the employees' coherence and recognition of the company are also reflected in the low turnover rate (the industry average turnover rate is 13.4%).

The company has recently relocated Keelung Factory, Hsinchu Factory and Kaohsiung Factory to Taichung Factory in accordance with the production value chain integra-

New employees - by gender and age

Gender	Age	No.	Percentage
Male	Under 30 years old	18	37.5%
	Above 30 and under 50 years old	22	45.8%
	50 years old and above	2	4.17%
Total number of male employees		42	87.5%
Female	Under 30 years old	3	6.25%
	Above 30 and under 50 years old	3	6.25%
	50 years old and above	0	0.00%
Total number of female employees		6	12.5%
Total		48	100%
The average number of employees at the beginning and the end of 2016		678	
Employment rate in 2016		7.08%	

Note: The formula of employment rate: The number of new employees / the average number of employees at the beginning and the end of 2016

tion project. We have specifically developed "Regulations regarding employees' early retirement program" and implemented the system of additional pension to encourage qualified staff to apply for this program, which not only protects the rights and interests of employees but also speeds up the turnover.

Retired/resigned employees- by gender and age

Gender	Age group	Resignation	Lay-off	Retirement	Death	Percentage
Male	Under 30 years old	3	0	0	0	5.45%
	Above 30 and under 50 years old	6	3	0	1	3.10%
	50 years old and above	5	0	14	0	11.11%
Total number of male employees		14	3	14	1	5.83%
Female	Under 30 years old	0	0	0	0	0%
	Above 30 and under 50 years old	0	1	0	0	1.28%
	50 years old and above	0	0	5	0	12.20%
Total number of female employees		0	1	5	0	4.55%
Total		14	4	19	1	—
The average number of employees at the beginning and the end of 2016		678				
Turnover rate 1 (excluding the number of retirement and deaths)		2.65%				
Turnover rate 2 (excluding the deaths)		5.46%				

Note:

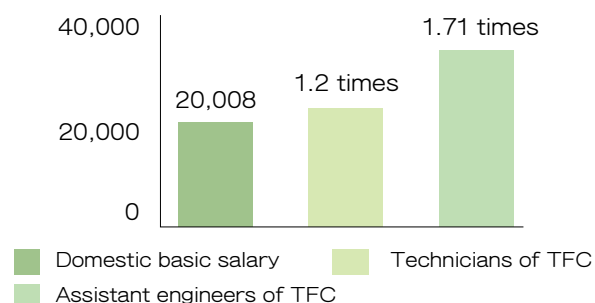
1. The formula of turnover rate: The number of the retired or resigned employees/ the average number of employees at the beginning and the end of 2016
2. Retired/resigned employees do not include contract employees who have been promoted to formal employees and employees who have transferred to subsidiaries.

Competitive Remuneration System

In order to retain the best talents, we provide a competitive remuneration system at TFC. Therefore, we amended TFC's "Employees' Payroll Management Approaches" and newly appointed personnel can enjoy more flexible salary adjustment system. Meanwhile, the cap for salary raise at the same position or for promotion is also increased so that basic-level employees who have a good performance can get more incentives. The starting salaries of the basic-level employees of TFC are higher than the standard domestic basic monthly salary of NT \$ 20,008 dollars.

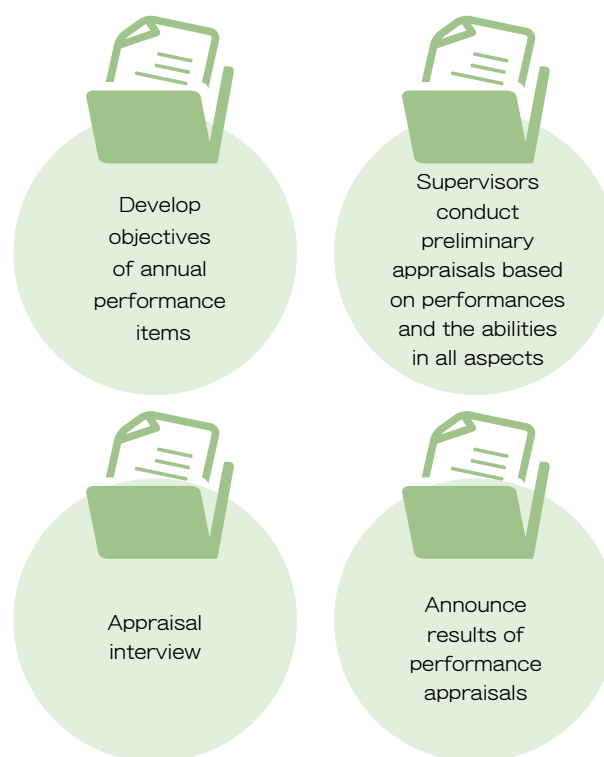
Position	Standard Salary Level
Technician and clerk	The standard salary is about 1.20 times the domestic basic monthly salary
Assistant engineer and assistant clerk	The standard salary is about 1.71 times the domestic basic monthly salary

The salary of the basic-level employees of TFC



Performance Appraisal System

We carry out the appraisal system for all TFC employees, and the results of the performance appraisals will be the basis for bonuses. Performance bonuses will be allocated on a quarterly basis based on performance assessment results of each unit, while year-end bonuses will be allocated every year based on the TFC operating performance reported to the BOD. Personal performance bonuses and year-end bonuses are approved and given based on assessment results of personal job responsibilities and contributions. In addition, individual assessment results are provided as the basis for salary adjustment, promotion and career development planning.



Pay Equity

Our human resources policy puts emphasis on gender equality, the implementation of equal remuneration for women and men and the establishment of a friendly and equal working environment. The salary of TFC includes base salary, additional pay for managers/directors and meal allowances. The salary will be given according to the approved positions and personal experience, professional skills, seniority, ability, workload and work performance and be adjusted with the changes of jobs regardless of gender differences.

Our standard starting salary for men and women is the same. The ratio of the overall average salary gap between men and women is less than 1%, TFC shows no wage gap between women and men.

The following table shows the gender statistics of the average salary of employees at all ranks.

The gender statistics of the average salary of employees at all ranks

Position	Female	Male
Vice president and above	—	1
Top-level executives (Director, associate vice president)	1.1251	1
Mid-level managers (Supervisor)	0.9967	1
Primary supervisor (Section chief)	0.9544	1
General employees	1.0438	1

Notes:

1. The table is presented in multiples; the scope of information analyzed is within Taiwan
2. The vice president and above position holders of the company in 2016 are all males
3. The salary of TFC includes base salary, meal allowances and additional pay for managers/directors





Gender Ratio of Managers

The managers in the Company totaled 118, accounting for 17.40% of the total number of employees. There are 107 male managers, accounting for 90.68% and 11 female managers, accounting for 9.32 % of all employees. The proportion of female managers in 2016 is comparable to that of 2015. The Company employs talents regardless of gender.

The Analysis of Gender of Managers in 2016

Item	Male		Female		Total	
	No.	Percentage	No.	Percentage	No.	Percentage
Managers	5	4.24%	0	0.00%	5	4.24%
Senior executives	14	11.86%	4	3.39%	18	15.25%
Chiefs and lower	88	74.58%	7	5.93%	95	80.51%
Total	107	90.68%	11	9.32%	118	100%

Note :

- 1.Managers include the President and Vice President
- 2.Senior executives include mid-level executives and above
- 3.Chiefs and lower include basic-level managers, such as supervisors, directors, section chiefs and foremen at different levels

Providing job opportunities surpassing law requirement to people with disabilities

In accordance with “Physically and Mentally Disabled Citizens Protection Act”, TFC should employ six persons with disabilities. By the end of 2016, the number of actual employment is 10 persons with disabilities, far above the regulatory requirement.

Demographics of Employment of Persons with Disabilities in 2016

Unit	No. of employees	No. of persons with disabilities that should be hired	No. of actual employment of persons with disabilities
Keelung Factory	12	0	0
Hsinchu Factory	1	0	0
Hualien Factory	18	0	1
Miaoli Factory	89	1	1
Taichung Factory	329	3	5
Head Office	231	2	3
Total	681	6	10

The Welfare of TFC

We include the benefits in the internal regulations. We develop a full range of employees' welfare system and activities based on the concept of "One Big TFC Family" and provide employees quality and caring welfare activities through the establishment of Employee Welfare Association.

Birthday bonuses

Provide employees birthday bonuses through Employee Welfare Association



Club activities

TFC has 14 clubs which flourish with rich and diverse activities, such as sports, health and educational activities. They provide employees the opportunity to cultivate interests and also their mind



Employees' discount

The health and care products of TFC's subsidiaries are provided with an "employees' discount" for our employees in order for the maintenance of their health



Employees travel

Employee Welfare Association will organize annual employees travels to help enrich employees' mind, broaden their horizons and enhance their interpersonal communication



Scholarships

Provide scholarships to encourage employees and their children for further education and learning



Nursing rooms

In response to the government policy to encourage fertility, the Company has set up nursing rooms, providing parenting female employees comfortable breast-feeding places



Childbirth allowances

In order to continuously respond to the government policy to enhance fertility, employees will be given childbirth allowance of NT20,000 dollars per baby



Recognition events

Hold the recognition events for outstanding practitioners and employees of the year, arrange incentive trips and distribute a souvenir to each employee on Labor Day



Uniforms

Issue staff uniforms every 2 years



Issue retirement cards

Issue retirement cards to retired employees so that they can buy related products and enjoy the discount



Special contract partners

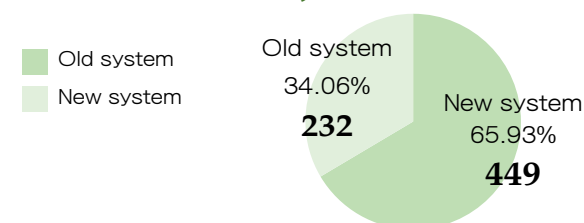
TFC has signed a special agreement with special contract partners through the Employee Welfare Association, providing serving and retired employees exclusive TFC business discount on food, clothing, housing, transportation, education and entertainment



Retirement benefits

The number of employees applying for the new system was 449, and that applying for the old system was 232. Compared with 2015, the proportion of employees applying for the new system increased slightly by 3.49%, mainly because the employees retired in 2016 mostly applied for the old system while the new employees in 2016 applied for the new system.

Distribution of Employees Applying for New and Old Systems in 2016



• The Pension Fund Management of Employees Applying for the Old System

TFC contributes the pension fund for the old system in accordance with the Labor Standard Act, and 9% of the total monthly salary of the employees is contributed to the laborers' pension fund accounts in Bank of Taiwan. The Labor Pension Fund Supervisory Committee has been set up in accordance with Regulations of Employees Retirement, Compensation and Severance, which holds a quarterly meeting and conducts supervision and management of the old-system pension funds. Besides, it also requires professional accounting advisers to calculate and prepare enough reserves every year. By the end of 2016, the fair value of the planned assets was NTD 447,829 thousand dollars, and the amount recognized was NTD 35,130 thousand dollars. The amount of insufficient contribution was set out in the accrued pension liabilities. The net defined benefit liability was NTD 94,353 thousand dollars.

• The Pension Fund Management of Employees Applying for the New System

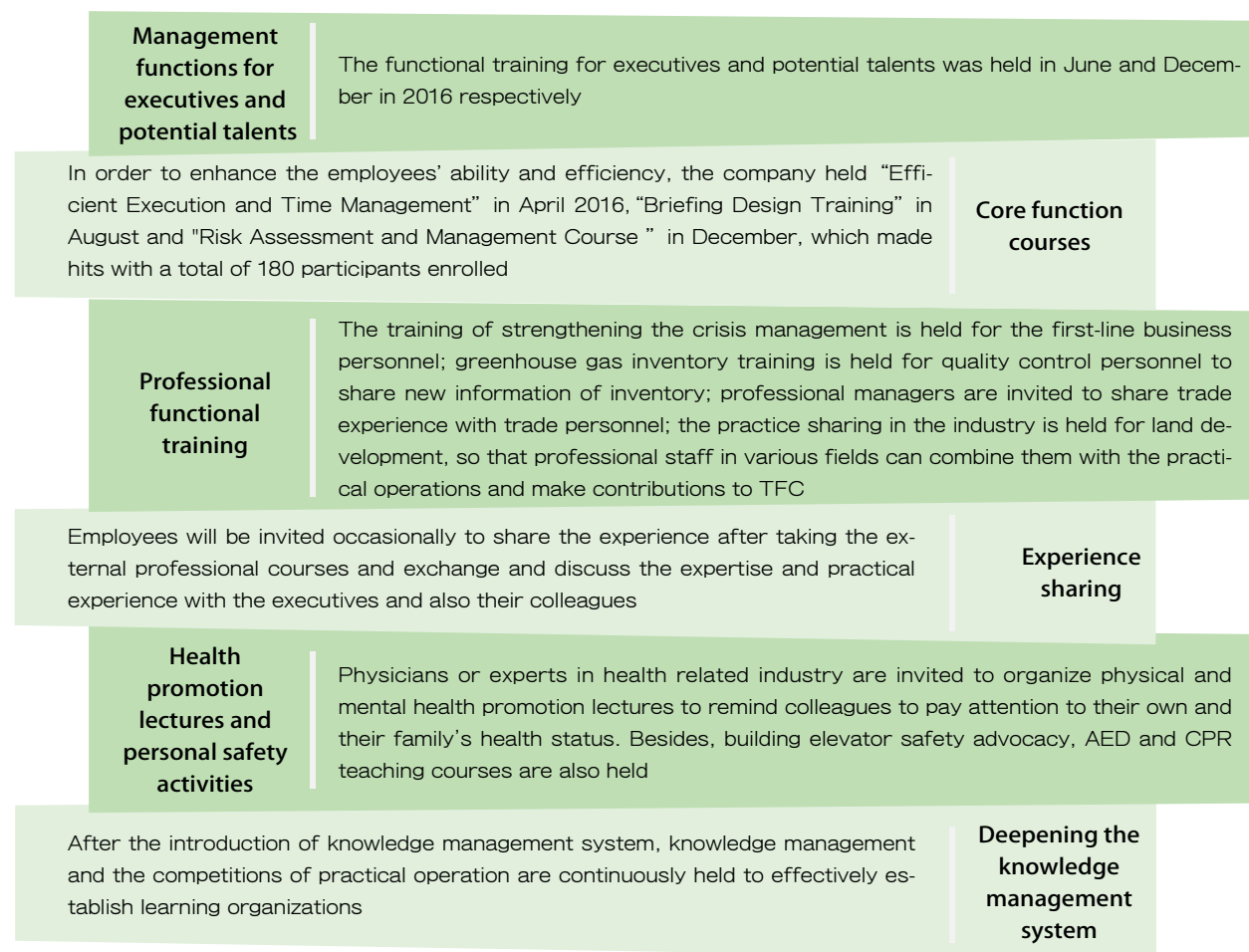
Since the enforcement of the Labor Pension Act in 1 July 2005, the Company has provided 6% of monthly salary to individual pension accounts for employees applicable to the Act. By the end of 2016, the amount recognized was NTD 20,555 thousand dollars.



Comprehensive Personnel Training System

Fostering talents and providing systematic training are the main strategies of the Company's manpower management. We systematically implement the annual staff education and training through a strategic approach.

Our employees are divided into four categories: new employees, general employees, management level and executive level, and all levels are given specific training courses. Different categories of employees will receive different courses, such as courses for core functions, professional functions, management functions and self-development to gradually develop all kinds of functions.



The number of training hours of education and training amounted 9,501 hours in 2016 and the number of average training hours was 13.96 hours. The average number of training hours for male employees was 13.66 hours while that of female employees was 15.16 hours.

The number of training hours of education and training of employees in 2016

Item	Managers		Executives		General employees	
	Male	Female*	Male	Female	Male	Female
Number	5	1	102	11	442	121
The total number of training hours (hr)	38	5	2,085	336.5	5,377.5	1,659
The average training hours per person (hr)	7.6	5	20.4	30.6	12.2	13.7

Note: Our female president who was transferred to the subsidiary as the chairperson in June 2016. The record of her training is still included in this table

Reinstatement and retention rate after parental leave

The number of employees who applied for parental leave without pay in 2015 was 2 (3 applied for parental leave without pay in 2016). Currently 2 are reinstated and they have stayed for more than 12 months. Both reinstatement rate and retention rate after parental leave reached 100% in 2016.

TFC's statistics of parental leave without pay during 2015-2016

Item	Male	Female	Total
(1)The number of employees eligible to apply for parental leave without pay in 2016	66	22	88
(2)The number of employees who actually applied for parental leave without pay in 2016	0	3	3
(3)The number of employees who were expected to be reinstated after parental leave without pay in 2016	1	4	5
(4)The number of employees who were actually reinstated in 2016	1	4	5
(5)The number of employees who were actually reinstated in 2015	0	2	2
(6)The number of employees who were actually reinstated in 2015 and had been reinstated for 12 months by 2016	0	2	2
Reinstatement rate =(4)/(3)	100%	100%	100%
Retention rate =(6)/(5)	100%	100%	100%

6.1.2 Good Labor/Management Relations

TFC not only has diverse and smooth communication channels but also established a number of trade unions to enable the labors to fully express their views and fight for their interests.

Smooth Communication Channels

We have set "Points of the Implementation of Labor Relations Forum". Every year, the President leads the top-level executives and convenes the labor forum to communicate with the labor representatives from trade unions together about major labor-management issues. Following the meeting discussing the arrangement for human resources after the shutdown of three factories in 2014 and 2015, the Labor Relations Forum was adjusted and turned into communication and coordination meetings in each factory.

The labors' comments and suggestions can be conveyed and expressed in the regular trade union member representative assembly, directors and supervisors meetings and the joint meetings of the chiefs. The Company will reply formally in written forms and start working on the improvement.



Method of communication	Frequency	Important issues
Labor Relations Forum	Once/ annually	<ul style="list-style-type: none"> Discussions on the arrangement of human resources after the shut-down of three factories
Labor- Management Meeting	Once/ Quarterly	<ul style="list-style-type: none"> Business overview and exchanges Discussions on employee benefits and other related matters Suggestions for employee education and training courses
Trade Union Member Representative Assembly	Once/ annually	<ul style="list-style-type: none"> Resolution of the annual settled account of the previous year Resolution of annual work calculation Resolution of budget for Revenues and Expenditures Revision of the Trade Union Constitution
Trade Union Council Meeting	Once/ Quarterly	<ul style="list-style-type: none"> 2016 Model labor selection and consideration Deliberation of re-election of union representatives Request for TFC to review the improvement measures of penalties of labor inspection Negotiate overtime and legal mechanism of overtime pay with the company
Joint Meetings of the Chiefs	Once/ Quarterly	<ul style="list-style-type: none"> To ask the company to amend the overtime payment mechanism To advise the company to develop a mechanism to inform retired colleagues of retirement conditions Matters concerning the election of the chiefs in 2016

Trade Union

Pursuant to the provisions in Labor Union Act, the Enforcement Rules of Labor Union Act and Civil Organization Act, the employees of TFC spontaneously set up three unions. All employees (including contract employees) are all members of the trade unions.

Name of trade union	Time of establishment	Members
Taiwan Fertilizer Corporation Trade Union (hereinafter referred to as the Trade Union)	December, 1993	The employees working at the Head Office
Taiwan Fertilizer Industry Trade Unions (hereinafter referred to as the Fertilizer Industry Trade Union)	July, 1961	The employees in Miaoli Factory and Hualien Factory
Taiwan Fertilizer Corporation Taichung Factory Trade Union (hereinafter referred to as the Taichung Factory Trade Union)	July, 2015	The employees in the Taichung Factory

Legalization of Employees' Rights

In accordance with the Collective Agreement Law, the Trade Union signs a collective agreement with TFC. On March 19, 2015, the chairman of the TFC trade union and the employer representative of TFC signed a collective agreement which was submitted to the Department of Labor, Taipei City Government for future reference. The ratio of employees in the Head Office being protected by the collective agreement reaches 100%. This collective agreement contains provisions in the aspects of the working hours, vacation, pay and benefits, working conditions, health and safety, recruitment, retirement and industrial health and safety. There are 4 Articles concerning health and safety in the agreement, accounting for 13% of the 30 articles in this agreement.

Communication about Significant Operational Change

The Company's changes in operations may have the impact on the employees. Therefore, according to the "Labor Standards Act" and other relevant laws and regulations, the Company must give a prior notice to the employees before the termination of the labor contract. The relevant regulations are listed in the collective agreement.

In 2005, the Company published the information on the major operation changes of "relocation of factories to Taichung Harbor". In order to take care of the impacted employees, we have been conducting employee communication meetings, willingness survey on job transfer and related supporting measures since 2008. TFC fully communicated with the impacted employees. In addition, TFC also completed the overall adjustment of manpower and provided preferential retirement projects.

Hsinchu Factory and Kaohsiung Factory were shut down one after another during 2014 and 2015 while Keelung Factory completed the shutdown and acted as a backup production in 2016. We actively assist the impacted employees with their next stage of career or career planning. First, through the manpower allocation and the re-adjustment of rear personnel, some of the employees are able to continue their work at the same factories. In addition, internal work matchmaking has been conducted through surveys, briefings and interviews, and those who have the willingness and competence for new positions are arranged to work in the Head Office or other factories while preferential retirement projects are also provided for the employees to choose from in order to fully protect their labor rights.

Item	The description of re-adjustment of rear personnel after the three factories were shut down in 2016
Hsinchu Factory	There were a total of 7 rear personnel in Hsinchu Factory, among which 1 person was retired and the remaining six were transferred to Miaoli Factory
Kaohsiung Factory	<ul style="list-style-type: none"> ●The first "interview session for the redeployment of rear personnel" in Kaohsiung Factory was held on April 27, 2016 ●The second "interview session for the redeployment of rear personnel" in Kaohsiung Factory was held May 9, 2016 ●There were a total of 25 rear personnel in Kaohsiung Factory, among which 8 applied for preferential retirement or resignation, 12 were transferred to Miaoli Factory, 2 were transferred to the Research and Development Department, 2 were transferred to Hualien Factory and one was transferred to Taichung Factory
Keelung Factory	<ul style="list-style-type: none"> ●Keelung Factory was shut down on May 1, 2016, leaving a total of 13 people. The factory acted as backup production factory for Taichung Factory ●The employees of Keelung Factory are expected to stay until July 31, 2017. After the date, the manpower adjustment will following the communication measures of the Hsinchu Factory and Kaohsiung Factory

Table of 2014-2016 manpower redeployment in three Factories

Transferring Unit Factory	Left Manpower	Taichung Factory	Miaoli Factory	Head Office	Retire ment	Total
Keelung Factory	13	4	1	-	15	33
Hsinchu Factory	6	-	19	1	37	63
Kaohsiung Factory	31	22	2	5	35	95
Total	50	26	22	6	87	191



6.1.3 Occupational Safety and Health

TFC sets up a safety and health unit and sets a full budget to implement safety and health work through the establishment of a sound occupational safety and health policies and systems.

Safety and Health Policy and Objectives

Our safety and health policies aim at “job security and zero disaster” and we strive to achieve the goal.

- 01 Providing a safe and healthful workplace is the responsibility of managers at all levels.
- 02 Follow safety and health-related regulatory requirements, and strengthen automatic inspection and industrial safety check.
- 03 Implement autonomous safety and health management system, and continue to enhance performances of safety and health.
- 04 Implement risk assessment and standard operating procedures, and identify and eliminate potential hazards.
- 05 Implement safety and health awareness training and exercises to strengthen the security awareness and response capabilities.
- 06 Strengthen safety management of contractors to ensure safe construction operations.

TFC's safety and health goals

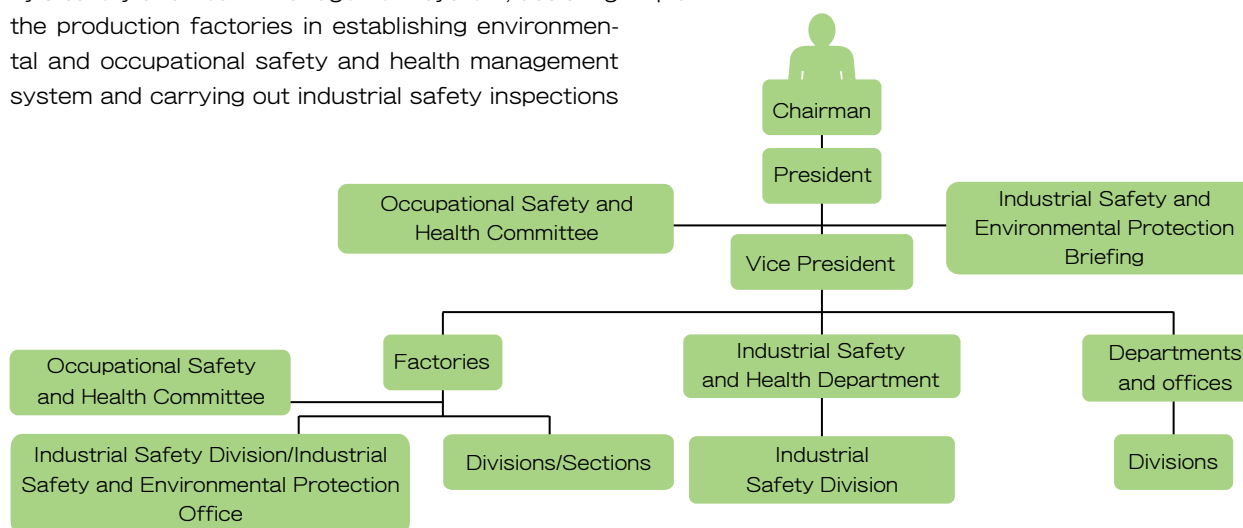
Short-term goal (2016~2020)	Medium- and long-term goal (2020~2030)
Our goals: Injury rate (IR)=0 ● Lost day rate (LDR)=0 ● Occupational diseases rate (ODR)=0 ● Emergency response drills > 10 times ● Environmental, health and safety inspections >20 times* ● More than 4 health promotion activities / year	● Aiming at excellent safety and health performance of zero disasters and accidents ● The frequency of the safety and health management activities is expected to increase by 5%

Note: To follow shutdown schedules of Keelung, Hsinchu and Kaohsiung factories, the target value of health and safety inspections was revised to 20 times

The Operation of Safety and Health Organization

TFC has developed “Guidelines on Industrial Safety and Health Management”. Industrial Health and Safety Department has been set up at the Head Office, which is dedicated to promoting the company’s safety and health management system, assisting the production factories in establishing environmental and occupational safety and health management system and carrying out industrial safety inspections

and counseling. In addition, the Environmental Safety Unit has been set up in each production plant of TFC, responsible for the affairs regarding industrial safety, health and environmental protection of each plant.



Occupational Safety and Health Committee

We have set up “Occupational Safety and Health Committee” composed of the employer and employees. The president or the factory director is appointed as the chairperson. To enhance the participation of the labors, Guidelines on Establishing the Occupational Safety and Health Committee of the Head Office was revised in 2016. The number of the labor representatives increased from 3 to 4. Although the number of workers in Miaoli Factory is less than 100 people, we still established Occupational Safety and Health Committee, which is superior to the laws and regulations. The meeting is held every three months, and the main responsibilities are to give advice regarding safety and health policies developed by the Company and to review, coordinate and advise safety and health related matters.

To manage and track the progress of the industrial safety and health tasks, Industrial Safety and Health Department will convene regular meetings of “Industrial Safety and Environmental Protection Briefing” every two months, which is chaired by the president. The members include the directors of the

factories, the supervisors of environmental safety units and maintenance units. Environmental safety and maintenance related work will be reported, the

The Percentage of Members of the Occupational Safety and Health Committee of the Head Office in 2016

Occupational Safety and Health Committee	No. of members	Percentage
Labor representatives	4	40%
Employer representatives	6	60%
Total	10	100%

The Percentage of Members of the Occupational Safety and Health Committee of Taichung Factory in 2016

Occupational Safety and Health Committee	No. of members	Percentage
Labor representatives	8	30%
Employer representatives	16	70%
Total	24	100%

The Percentage of Members of the Occupational Safety and Health Committee of Miaoli Factory in 2016

Occupational Safety and Health Committee	No. of members	Percentage
Labor representatives	3	30%
Employer representatives	6	70%
Total	9	100%

information of decrees and other related cases of occupational injury will be advocated and advice related to safety, health and environmental protection will be given and reviewed in the meeting.

International and Domestic Safety and Health Management System Certification (OHSAS 18001/ CNS 15506)

Taichung and Miaoli Factories have both obtained OHSAS 18001 and CNS 15506 Occupational Safety and Health Management System Certification.



Taichung Factory
OHSAS 18001/
CNS 15506



Miaoli Factory
OHSAS 18001



Miaoli Factory
CNS 15506

The Promotion of 6S Activities

With the spirit of continuous improvement, the Head Office and the factories are actively promoting the 6S assessment activities to enable employees to improve their sanitation through assessment and to create a comfortable and safe workplace for themselves.



Publication of Industrial Safety Newsletter

TFC has issued Industrial Safety Newsletter every month since 2016. The issues concerning industrial safety will be discussed in detail in each issue of the newsletter. With the texts and case description, the employees are taught to understand the correct concept of industrial safety and important industrial safety policies or measures are also conveyed to our employees. We hope to achieve the purpose of industrial safety education immediately by the newsletter so that industrial safety awareness can turn into the company's core business value.



Plant Safety and Health Management

TFC has established a sound safety and environmental system and constantly improves the safety and health work, aiming at the goal of "Zero Disaster, Zero Harm" to provide employees a safe and healthy workplace.

● Establishment of a safety and health management system

The Company has established sound safety and health management regulations and system. In 2016, the "Key Points Governing Non-Smoking Management" was established. The factory will be completely free from smoking for maintenance of a healthy working environment and factory safety except designated areas.

● To strengthen the implementation of self-inspection of production plants

We strengthen the implementation of self-inspection in the production plants to ensure the safe use of equipment. In addition, we require employees to wear the necessary protective equipment in accordance with regulations to avoid injury or harm at work. The company regularly monitors the staff working environment to ensure that the working environment is safe and secure.

● Mutual inspections among units

6S / TPM assessment activities are carried out in each factory by the Head Office every two months. The factories that are not arranged for the assessment will serve as the inspectors. By the mutual check of all the factories, the advantages of each plant can be learned and potential hazards can be discovered.

● To regularly organize safety and health education training and disaster prevention & rescue exercises

In 2016, 823 participants attended the safety and health education training, disaster prevention & rescue exercises and external training. There was only 1 industrial injury of TFC in 2016. Compared to 2015, the total number of industrial injury reduced by 2.

Industrial Injuries Statistics of TFC

Industrial Injury/ Year	2014	2015	2016
Contractors	1	0	0
TFC employees	0	3	1
The total number of industrial injuries	1	3	1

Description of Industrial Injuries and Improvement

Number of case	Only 1 industrial injury occurred in 2016
Incident description	An employee accidentally fell from the stairs when using the stairs
Improvement	<ul style="list-style-type: none"> ● All units have been requested to strengthen the inspection of the safety of the passageways and stairs ● The employees are strictly prohibited from playing and answering the cell phone when using the stairs and they should pay attention to the steps ● The education and training and advocated are organized to strengthen the safety awareness of employees



TFC's EHS Performance

In order to implement safety and health management, Industrial Safety and Health Department has set annual target values as performance indicators. The Company's EHS performance indicators in 2016 all meet the set target values.

EHS Performance in 2016

Item	Throughout TFC	Miaoli Factory	Taichung Factory
Injury rate (IR)	0.17	0	0.32
Lost day rate (LDR)	11.22	0	20.68
Occupational diseases rate (ODR)	0	0	0
Injury deaths	0	0	0

Note:

- *1. Injury rate (IR) = (total disabling injuries / total working hours) x 200,000
- *2. Lost day rate (LDR) = (total lost days / total working hours) x 200,000
- *3. Occupational diseases rate = (total occupational diseases / total working hours) x 200,000
- *4. Traffic accidents are not included in the statistics

Health and Safety Management for Contractors

We have developed "Guidelines for Management of Safety and Health for a Variety of Engineering and Operations Contractors" and required the guidelines to be incorporated into the "Tender Notice" and "Service Agreement" of the project as a basis for the implementation of the management operations. To ensure the safety of the contractors, "Health and Safety Code for contractors' construc-

tion" has been developed in the above-mentioned guidelines. Contractors shall apply for permission of construction regarding the operations with the higher risk, such as fire, high-elevated operations, confined space and the overhaul of pipelines before they start. There should be safety labels within the area of construction to prevent misconduct from causing industrial safety events.

As for various contractors, we hold regular consultative organizational meetings to negotiate and advocate the issues related to health and safety management. Before contractors formally start construction, they should accept health & safety education and hazard notice training in our Industrial Safety and Environmental Protection Department and sign Work Safety Commitment for Contractors. A total of 1,155 trainees from contractors participated in hazard notice training in 2016.

Contractors' EHS Performance in 2016 (Statistics between January and December in 2016)

Item	Throughout TFC	Miaoli Factory	Taichung Factory
Injury rate (IR)	0	0	0
Lost day rate (LDR)	0	0	0
Occupational diseases rate (ODR)	0	0	0
Injury deaths	0	0	0

Note:

- 1. Injury rate (IR) = (total disabling injuries / total working hours) x 200,000
- 2. Lost day rate (LDR) = (total lost days / total working hours) x 200,000
- 3. Occupational diseases rate = (total occupational diseases / total working hours) x 200,000
- 4. Traffic accidents are not included in the statistics



Employee Health Management

We have developed “Guidelines for Employee Health Management” in order to protect the physical and mental health of employees and prevent occupational diseases.

We actively establish and understand the employees’ basic health information as a reference to the arrangement of work and improvement of the working environment. All employees accept the annual health check at our expense, while dependents of employees can also enjoy the same preferential prices and accept the health check at their own expense. The frequency of health checks and tests are far superior to the laws and regulations.

The special health check will be conducted annually for employees who work in the workplace with noise or dust. The working environments would be monitored on a regular basis and the operators on site shall wear personal protective equipment as proclaimed. If employees of the third level and above are diagnosed with diseases in the special health check, professional medical specialists will be required to carry out health tracking check. We will conduct work site assessment if necessary and provide health management information like health counseling and health education. No employees reported any occupational diseases in 2016. The Company’s absence rate (AR) in 2016 was 0.35%. (Note: absence rate = the hours of sick leave and injury leave / total working hours)

2016 Statistics of Absence Rate (AR)

Factory	Total attendance (hours)	Total sick leave (hours)	Total injury leave (hours)
Hualian	28,767	107	0
Miaoli	153,083	66	0
Taichung	628,636	2,448	520
Head Office	348,311	1,398	0
Total	1,158,797	4,019	520
Absence Rate(AR)	0.39%		

Labor Health Protection Rules

Age	Frequency	TFC Practices
65 years old and above	Once a year	<ul style="list-style-type: none"> ● We provide in-service workers health checks once a year regardless of the age level, which is superior to the laws and regulations ● The special health check will be conducted annually for employees who work in the workplace with special health hazards
40~65 years old	Once every 3 years	
Under 40 years old	Once every 5 years	



At the regular health check conducted for the employees at the Head Office in 2016, we also asked the Health Service Center in Zhongshan District to send the Pap smear car to our company to check for our female employees free of charge. At the same time, the female employees from other companies in the same office building were also welcome to receive the health check. The campaign of “free influenza vaccination for employees aged 50 years old and above” was also held in November. The event was also open to other employees working in the same office building.



Free Pap smear for female employees



Free influenza vaccination for employees aged 50 years old and above

Health Promotion Activities

We have organized 7 health promotion activities such as CPR and AED operation training, tobacco control and health lectures. There were a total of 373 participants with 746 training hours in total.

The Company plans to use the “Calorie consumption mark” and the incentive slogan at the staircase to encourage the employees to use the stairs so as to indirectly reduce the times of using elevators for energy saving and carbon reduction.



Photos taken at health promotion activities in 2016

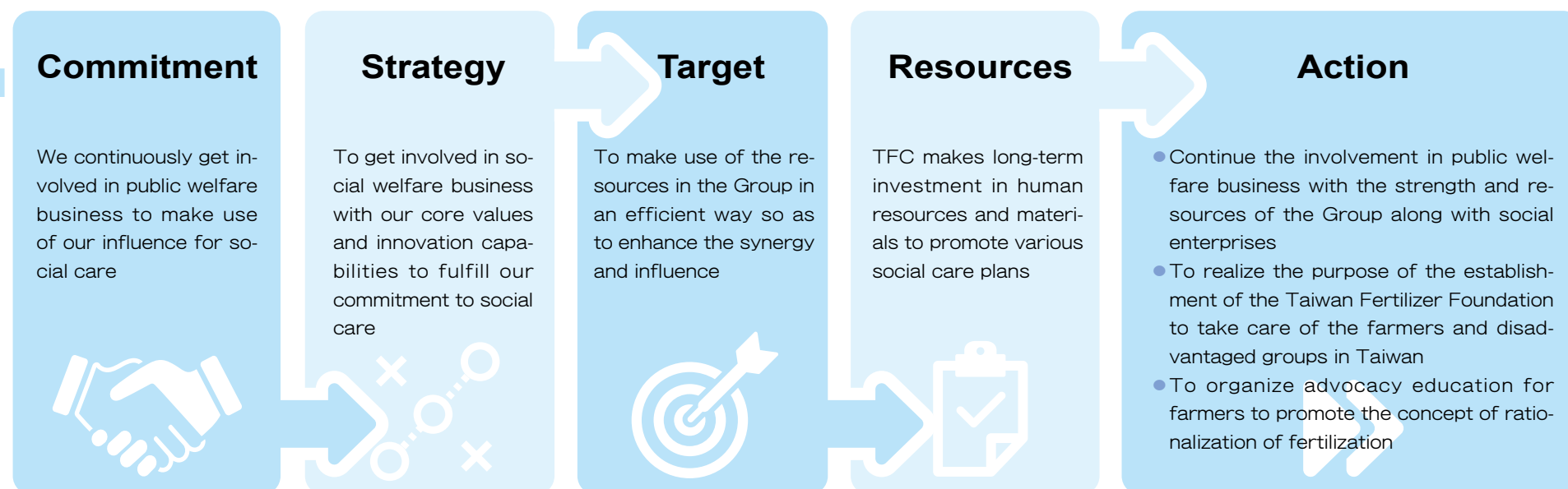


6.2 Selfless Love

TFC Group and the TFC Foundation have been dedicated to the social welfare activities for many years and spared no effort to take care of domestic farmers and vulnerable groups. In order to make the resources more efficient and expand the effectiveness and influence, we use our own core competencies to systematically carry out a series of social participation activities in the agricultural field in an innovative and professional way.

Material aspect >>> Local Community

DMA (Disclosure on Management Approach)



6.2.1 Care and Love that Never Stop

TFC has supported the public welfare and properly taken care of farmers and vulnerable groups in a systematic way for years. TFC Foundation was set up on July 24, 2007. The Foundation not only encourages various academic and artistic activities related to agriculture but also provides bonuses for research and development of fertilizers. In addition, we cooperate with the community to share the results with the society.



Social Participation of TFC Group and TFC Foundation

In 2016, the total donation and participation in public welfare undertakings of TFC Group and TFC Foundation totaled 25 cases, with a total amount of investment of NTD 9,534,852. Among them, "Sports Promotion" accounted for the largest amount of investment in 2016. This is because that TFC sponsored the deep ocean water based health products developed by TFC Group to the National Training Center for the training of Olympic athletes to support national sports development.

TFC donations in 2016

Item	No. of cases	Ratio in all cases	Amount (NTD)	Amount Ratio
Donation to charities	9	60.00%	3,608,150	46.41%
Community construction	1	6.67%	30,000	0.39%
Concern for the disadvantages	2	13.33%	70,000	0.90%
Arts promotion	1	6.67%	100,000	1.29%
Sports promotion	2	13.33%	3,966,400	51.02%
Total	15	100.00%	7,774,550	100.00%

2016 TFC Foundation donations

Item	No. of cases	Ratio in all cases	Amount (NTD)	Amount Ratio
Care for the disadvantaged groups	2	20.00%	160,452	9.12%
Care for the farmers	4	40.00%	996,950	56.64%
Community construction	4	40.00%	602,900	34.25%
Total	10	100.00%	1,760,302	100.00%



Putting ourselves in others' shoes--Helping farmers in Chungpu Township, Chiayi County to rebuild the wind-resistant loofah shed

When Typhoon Megi hit Taiwan on September 27, 2016, the loofah in Chungpu Township, Chiayi County which was about to harvest was seriously damaged by the strong wind and heavy rain. TFC took the initiative to assist the farmers to rebuild the wind-resistant loofah shed so that farmers could speed up the reconstruction work and return to normal life.



TFC advocates child protection issues- supporting 【Housing & Homeless Shelters in Hualian City 428! Yes, Children Protection! Parent-child Hiking Activity】

TFC Group has responded to 428 Children Protection Activity held by Housing & Homeless Shelters in Hualian City for two consecutive years. The “428! YES Children Protection” walking activity was held in the Deep Water Park operated by TFC Group. Hundreds of Hualien residents wearing red T-shirts participated in the hiking activity with their children and together swore the “Convention on the Rights of the Child” to let children know how to share their love and happiness with their words and deeds. Some games were also arranged in the activity so that children could understand the meaning of activity through the games. Besides, children protection funds were also raised to speak out for children protection.

TFC spared no effort to not only provide their own Deep Water Park operated by TFC Group as a venue, but also offer deep water and seaweed popcorn produced by the subsidiary for the public as nutritional supplements. In addition, our employees also acted as volunteers in the activity.



TFC provided Hualien Factory as a venue of the activity

The adults and children learned how to care for abused children in the game



TFC was awarded certificate of appreciation by Housing & Homeless Shelters in Hualian City



TFC provided the Deep Water free of charge for the people participating in the activity to quench their thirst



Participants all wear red T-shirts to take an oath for the protection of children's rights

TFC will turn its heart that loves the land, nature and human beings into the driving force of sustainable management, hoping to instill more humanistic atmosphere with healthy and beautiful cultural elements into this beautiful island



Promoting Friendly Farming and Supporting Food and Agricultural Education

To cultivate the local agriculture, TFC Foundation supports the promotion of food and agricultural education. We purchased non-toxic rice cultivated by environmentally friendly farming from a young farmer, Miss Wu, Jia-Ling, in Yilan County and then donated it as lunch to Shen-Gou Elementary School in Yilan County and Puhe Elementary School in Hsin-chu County, two schools actively promoting food and agricultural education on the campus.

In addition, TFC Foundation organized the “2016 Good Agriculture and Food Promotion” on November 22, 2016 and invited Miss Wu Jia Ling and the principal of Shen-Gou Elementary School, Mr. Huang, Zeng-Chuan to the Head Office to share the experience of working in the field of agriculture and promoting food and agricultural education and to share their experience witnessing the profound mu-



Miss Wu, Jia-Ling shared the experience of environmentally friendly farming practices.

tual influence between people and the environment with employees in TFC. Environmentally friendly farming products samples were also provided.



The principal of Shen-Gou Elementary School, Mr. Huang, Zeng-Chuan shared the experience of promoting food and agricultural education.



Group photo of Mr. Kang, Hsin-Hong, Chairman of TFC (third from the left), Mr. Chen, Chi-Chung, Deputy Minister of Council of Agriculture (fifth from the left, also the director of TFC), Mr. Huang, Yao-Xing, President of TFC (third from the right) and Miss Wu, Jia-Ling, the young farmer.

Through practical sharing and experiencing activities, our employees' awareness and knowledge of environmentally friendly farming was strengthened.



6.2.2 Rationalization of Fertilization and Green Fertilizer Promotion Education

Since 1955, TFC has invested a lot of manpower and resources in rationalization of fertilization education in agricultural towns nationwide. In recent years, the Company has introduced a variety of green fertilizers with the R&D concepts of “fertilizer efficiency”, “soil maintenance” and “environmental protection”. In addition to rationalization of fertilization education, it has been promoted to farmers by means of professional crop fertilizer cultivation technology to assist our farmers in establishing the correct fertilization concept and practices to achieve the goal of sustainable agriculture in Taiwan.

More than one hundred sessions per year to pass the core concept of rationalization of fertilization

The so-called “rationalization of fertilization” is to adjust the amount of fertilizer, items, fertilization methods and fertilization time in accordance with different cultivated land conditions and crop types. In other words, it is “to apply right amount of fertilizer at the right time”.

For so many years, we have continuously visited various agricultural villages and towns to promote rationalization of fertilization and demonstrate the correct method for fertilization. The farmers can not only mitigate the damage to the soil environment under the proper use of fertilizers, but also allow the crops to completely absorb the nutrients and reduce the damage by fertilizers. Therefore, farmers’ fertilizer costs can be reduced, reaching the goal of land protection and cost reduction for farmers.

The Fertilizer Promotion Committee was estab-

lished in 1955 to hold the fertilization sessions in the agricultural villages and towns. We will continue to promote rationalization of fertilization education through the sessions. It is currently promoted by the Agricultural Promotion Office of the Sales Department which holds more than one hundred sessions per year.

In 2016, we held 292 sessions of workshops on rationalization of fertilization and had demonstration plots in agricultural villages and towns in Taiwan, with more than 10,000 farmers participated to achieve the goals to change fertilization habits and to deepen the concept of rational fertilization. This can not only improve efficiency and reduce farmer fertilization costs, but also take care of production and quality to make land resources sustainable. In addition, consumers can also enjoy food security, creating a win-win situation for all.

Statistics of workshops on rationalization of fertilization and demonstration plots

Item	Content	2014	2015	2016
Rationalization of Fertilization Workshops	Held workshops on rationalization of fertilization nationwide	115 sessions	147 sessions	292 sessions
Demonstration plots for rationalization of fertilization	Demonstration plots of paddy rice, melons, strawberries, green onions and watermelons	34 sessions	44 sessions	107 sessions





Providing services of testing the soil to help farmers better know the land conditions

In addition to conveying the correct concept of fertilization, we send staff to the farmland to provide services of testing the pH value in soil and the electric conductivity in the farmland and also provide test results and fertilizer use recommendations, enabling the farmers to know the farmland soil conditions better. In 2016, TFC conducted soil fertility testing for farmers at 144 locations in total.

Item	Content	2014	2015	2016
Testing of pH value and electric conductivity of cultivated land	Help farmers test the pH value and the electric conductivity of the cultivated land to serve as a reference for the amount of fertilizer use	Tested 113 locations	Tested 130 locations	Tested 144 locations

Soil Fertility Test Items

Item	Standard Value	Statement
pH value	pH value 5.5-6.8	The high pH value in soil indicates the serious degree of acidification, and the crop absorption efficiency is lower and the soil nutrient element is difficult to be absorbed.
Electrical Conductivity	< 0.6 ms/cm	The value of electric conductivity is used to understand the amount of residues of fertilizer in soil.

Green Fertilizer Promotion

TFC has continued to introduce new green fertilizer products (such as “Hey Won” nitrophosphate organic compound fertilizer series) in recent years while the rationalization of fertilization education is also being conducted, green fertilizer being promoted so that farmers can choose eco-friendly green fertilizer with high fertilizer efficiency, which enables low amount of fertilizer application and also cost reduction in fertilization. In addition, it can enhance the yield and quality of the crops for common sustainable development of Taiwan’s agriculture.

● Organic Fertilizer Materials Promotion

At present, there are six organic fertilizers which have passed organic agriculture reviews. At the same time, we have set up the “organic demonstration farm” in Miaoli Factory. We build organic farming techniques by using organic fertilizer farming technology and agricultural product quality management process. In addition, we have a professional team for crop cultivation, which provides farmers with professional advisory services to support the development of domestic organic agriculture.

● Microbial Fertilizer Promotion

TFC launched microbial fertilizer products of Taifer Biopower phosphate solubilizing bacteria biofertilizer in 2015. They can turn unavailable phosphorus in soil into available phosphorus and release accumulated phosphate for the effective absorption of crops. We also promote microbial fertilizer products to farmers through agricultural knowledge lectures and encourage farmers to use them to enhance the crop yield and quality and to ensure the safety of agricultural products for promote people’s health.

● The Promotion of New Green Compound Fertilizer Products

We add a large amount of humic acid (peat) into the original Organic Compound Fertilizer (Nitrophosphate Route). In addition to retaining its original function, it will also increase the organic matters in the soil, increasing uptake efficiency of the nutrients and reducing the loss of fertilizer in order to further improve the soil physical properties, increase soil permeability and water retention and strengthen crop root growth.



The Assessment of the Impact on TFC itself and the Community

TFC has been committed to promoting the rationalization of fertilization education for many years (including soil

Data of the Social Influence of the Promotion of Rationalization of Fertilization

Estimation of Social Influence	Effectiveness
The reduction in the application amount of fertilizer *	10,749 metric tons / year
The reduction in farmers' fertilizer expenditures	95,397,375 dollars / year
The reduction in CO ₂ emissions	99,965.7 metric tons of CO ₂ / year

Note:

1. The annual average value of the figure obtained from the difference between the amount of domestic application of chemical fertilizer from 1990 to 2015 according to statistics of COA multiplied by TFC's market share of the fertilizer market
The average value after the difference between the amount of domestic chemical fertilizer from 1990 to 2015 according to statistics of Council of Agriculture multiplied by the fertilizer market share of TFC
2. The cost of fertilizer is calculated based on the Company's largest sales volume of #1 Organic Compound Fertilizer (Nitrophosphate), which is NTD 8,875 / metric tons
3. The fertilizer life cycle coefficient is 9.3 kg CO₂ / kg according to a study of fertilizer carbon footprint coefficient by Norwegian fertilizer producer Yara International

testing and green fertilizer promotion). We invest a lot of human resources and costs every year and have obtained good results. According to the statistics, a total of 1,168 people carried out promotional activities with the expenditure of NTD 2.66 million dollars in 2016. A total of 399 sessions of workshops on rationalization of fertilization and demonstration plots were held.

After many years of efforts, the farmers can accept the concept of the rationalization of fertilization and carry it out. TFC conducted the analysis of chemical fertilizer application rate of domestic farmers from 1990 to 2015. The promotion of the rationalization of fertilization reduced

the use of fertilizer by 10,749 metric tons / year. When converted into fertilizer prices, it saved fertilizer costs of NTD 95,397,375 dollars for the domestic farmers per year while the CO₂ emissions were reduced by 99,965.7 tons relatively.

The promotion of rationalization of fertilization not only helps farmers to establish the concept of correct fertilization and reduce farmers' fertilizer and labor costs, but also increases production and enhances farmers' income. We strive to create the win-win situation among the environment, farmers and our management and pursue sustainable development with the society.



TFC Organic Fertilizer and the CSR Project of Non-toxic Rice Donation

Since August 2016, TFC has promoted the TFC Organic Fertilizer and CSR Project of Non-toxic Rice Donation with Taiwan Domi. Its purpose is to promote social welfare with its own core value (organic fertilizer) in order to achieve the benefits of caring for the community. The project uses the concept of social return on investment (SROI) to quantify the benefits of investment. In addition to the promotion of organic fertilizer, it is also a public welfare activity of social care and environmental protection, which passes on the original intention of the development of organic fertilizer and organic farming to the organizations in this project, including TFC, local small farmers, Taiwan Domi, volunteer groups, social welfare agencies and the non-toxic rice recipient families.

TFC helped a local farmer in Guantien, Mr. Hu, Yu-Jian, try organic farming to grow non-toxic rice through the matching by Taiwan Domi. During the counseling process, in addition to organic materials, we also provided a number of professional consultancy services such as fertilizer characteristics, fertilizer management technology and fertilizer. We also invited Dr. Chen, Kun-Rong, a farm improvement doctor, to work as a volunteer providing organic farming consulting services. TFC also taught farmers to use microbial fertilizer (Taifer Biopower phosphate) that not only improves crop yield and quality but also takes care of the soil protection and environmentally friendly environment.

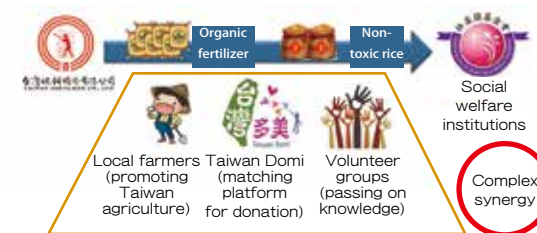
According to the organic farming method, the rice "Tainan 13" is planted in the farm of 0.1 hectare, with a total output of 333 packs. A vacuum pack of non-toxic rice weighs one kilogram. Among them, 160 packs were donated to Kaohsiung City Lin Joulan Social Welfare

Foundation for supporting 60 vulnerable families. The Lin, Jou-Lan Social Welfare Foundation is a nonprofit organization that cares for disadvantaged families. It provides after-school care for children from poor families, families with foreign spouses, grandparents-children families and people with disabilities. In order to convey the concept of the "environmentally friendly environment", four volunteers from the Industrial Sustainable Development Center, National Cheng Kung University and two teachers from Lin, Jou-Lan Social Welfare Foundation jointly completed the project of the agricultural organic and eco-friendly land. They passed on the organic farming knowledge combined with the concept of agricultural sustainable management to 70 future masters of the nation through the course arrangement, Q&A and activities during the after-school care period, hoping that they can affect their family, friends and relatives to develop the concept of agricultural sustainable development and expand the impact. In addition to the positive impact on the environment and social aspects, it led to the impact of the economic aspect, including enhancing the image of TFC and increasing the exposure of public welfare activities of Taiwan Domi so as to obtain the full benefits of corporate social responsibility.

By the end of March 2017, the total cost of the investment in the "TFC Organic Fertilizer Rice Donation Project" was NTD 84,457 dollars, bringing the social impact of NTD 63,058 dollars, which is equal to a value of 0.75 for social impact, meaning that when you invest a dollar, it can create 0.75 times of the benefit. In the future, we will continue to promote the core value of the enterprise to implement social welfare. We will quantify the social impact of corporate public welfare with the SROI. As we continue to invest over time,

more influence will be made. We see the positive impact of the future from the recipient children. Only through the multiple participation can we have a multiple social influence to achieve the joyful result of "social common prosperity".

A diagram of the concept of complex synergy of TFC Organic Fertilizer and CSR project of Non-toxic Rice Donation



Counseling and teaching provided by Kaohsiung City Lin Joulan Social Welfare Foundation

The rice field (left) and the finished product of rice "Tainan 13" (right)





Special Column:

Make Proper Use of Land to Create Harmony between the Environment and the Community

The Company upholds the belief of developing a good relationship with the surrounding environment and community. We are pursuing symbiosis with the environment in the industrial use of land. We are seeking an interactive model with the community in the commercial and residential use of land. While developing, TFC complies with all the laws and regulations and fully communicates with stakeholders to reduce the impact of development on the environment and the community.

The Impact Assessment of TFC's Business Units Reach 100%.

At the beginning of planning the industrial use of the current production factories of Miaoli Factory and Hualien Factory, public exhibitions and explanation sessions were held in accordance with the provisions. In addition, local residents or groups also submitted written comments during the period of exhibition in public, and after the approval from the Urban Planning Commission, the industrial use of the factories could then start. We conducted the environmental impact identification when Taichung Factory was constructed, including future expansion

of the factory. After the conservation measures were drafted and the environmental impact assessment (EIA) was submitted, we held public briefings to collect comments from local residents and stakeholders. The construction did not start until the EIA was reviewed and approved by the Environmental Impact Assessment Review Committee.

The percentage of the implementation of local community engagement, impact assessment and development plan of TFC's business units reach 100%.

Start the development of old plants to reduce impacts on communities

TFC is the leading domestic fertilizer production plant, which used to have six production factories in Taiwan. With the industrial transformation and urban expansion and the "production value integration policy", some factories have been closed. To reposition the land use model, Property Management Development and Real Estate Development Department are responsible for real estate development. Since 2001, the land activation development projects of the five old factories (Nankang, Hsinchu, Kaohsiung, Hualien and Keelung) have been promoted. With the develop-

ment context and planning of the neighboring cities and by listening to the local residents' expectations and opinions, the land use of the old factories is re-positioned.

During the development process, the urban landscape is reshaped through an overall planning and design that enables public facilities such as a green-belt park and parking lots in urban space, improving the urban environment and quality of life. Furthermore, business activities after development can also boost the local economic development and create local job opportunities. In addition, in the process of land asset activation, we can share the benefits brought by development with local residents, creating a win-win situation.

To prevent and mitigate the impact of the development activity, we would draw up the business and financial plan, the land consolidation plan, business plan, development plan or EIA in accordance with Urban Planning Law, Urban Space Rezoning Enforcement Act and Environmental Impact Appraisal Law, and hold public hearings, seminars or public exhibition for the communication with and engagement of the local residents and stakeholders.

Development Region	Development Project
Taipei Old Nankang Plant	This used to be our Nankang Plant. To cooperate with the government's overall planning, it was changed into residential and commercial land designated for the "Nankang Economic-Trade Park Project". Currently, congregate housing, international tourist hotels and office buildings have been gradually developed, and some fragmented land is also a part of the urban renewal
Old Hsinchu Factory	The original Hsinchu Factory is changed into commercial land designated for the "Hsinchu Science and Technology Business District" to cooperate with the government's overall plan. Hsinchu Factory completed the demolition operation in 2016, and currently it is under two phases of urban land rezoning, and the reassigning in the first phase has been completed. It is scheduled to develop commercial office buildings, shopping centers and congregate housing in the future. Hsinchu D7-A Building, TFC's first commercial office building, will be completed in 2017
Old Kaohsiung Factory	The original Kaohsiung Factory is changed into specific area designated for "Kaohsiung Multi-functional Commerce & Trade Park". Kaohsiung Factory completed the demolition operation in 2016. It will undergo urban land readjustment by Kaohsiung City and is scheduled to be developed into commercial and office area in the future
Old Hualien Factory	The land development for Hualien Factory focuses on the "deep ocean water" industrial park. The services and functions include a tourism factory and the development of deep ocean water related industries
Old Keelung Factory	After the completion of Taichung Factory, Keelung Factory is scheduled to be decommissioned in 2017. For the short-term plan of the land planning, part of the land will be remained for the backup production according to fertilizer demand. For the medium- term and long-term plan, it depends on the market condition and we will fight for the opportunity to change the land use into residential or commercial use from Keelung City Government. In addition, the change of land use of the land on Dong Ming Road is ongoing as scheduled



Appendix I : GRI G4 Index

The following content was verified and assured by an impartial third-party, SGS Taiwan Ltd., and the results can be found in the Assurance Statement in the Appendix of this Report.

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
1. STRATEGY AND ANALYSIS							
Core	G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability	Message from the Chairman		4		V
Comprehensive	G4-2	Provide a description of key impacts, risks, and opportunities	4.3 Risk Management		63		V
2. ORGANIZATIONAL PROFILE							
Core	G4-3	Report the name of the organization	1.1 About TFC		13		V
Core	G4-4	Report the primary brands, products, and services	1.3 Major Products and Service Markets		16		V
Core	G4-5	Report the location of the organization's headquarters	1.1 About TFC		13		V
Core	G4-6	Report the number of countries where the organization operates	1.1 About TFC		13		V
Core	G4-7	Report the nature of ownership and legal form	1.1 About TFC		13		V
Core	G4-8	Report the markets served	1.3 Major Products and Service Markets		16		V
Core	G4-9	Report the scale of the organization	1.1 About TFC		13		V
Core	G4-10	The total number of employees	6.1.1 Employee Care		80		V
Core	G4-11	Report the percentage of total employees covered by collective bargaining agreements	6.1.2 Good Labor/ Management Relations		86		V
Core	G4-12	Describe the organization's supply chain	3.4.1 Supplier Management and Procurement		49		V
Core	G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain. organization's size, structure, ownership, or its supply chain	6.1.2 Good Labor/ Management Relations		87		V
Core	G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	4.3 Risk Management		63		V
Core	G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	4.6 Support for and Compliance with International Initiatives		71		V
Core	G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization	1.2 External Organization Participation		15		V

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
3. IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES							
Core	G4-17	a.List all entities included in the organization's consolidated financial statements or equivalent documents b.Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report	1.4 TFC Group Overview		17		V
Core	G4-18	a.Explain the process for defining the report content and the Aspect Boundaries b.Explain how the organization has implemented the Reporting Principles for Defining Report Content	2.2 Stakeholders and Identification of Material Aspects		20		V
Core	G4-19	List all the material Aspects identified in the process for defining report content	2.2.2 Identified Material Aspects		23		V
Core	G4-20	For each material Aspect, report the Aspect Boundary within the organization	2.2.2 Identified Material Aspects		24		V
Core	G4-21	For each material Aspect, report the Aspect Boundary outside the organization	2.2.2 Identified Material Aspects		24		V
Core	G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements	No such item		—		V
Core	G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries	No such item		—		V
4. STAKEHOLDER ENGAGEMENT							
Core	G4-24	Provide a list of stakeholder groups engaged by the organization	2.2.1 Identification of Stakeholders and Communication		21		V
Core	G4-25	Report the basis for identification and selection of stakeholders with whom to engage	2.2.1 Identification of Stakeholders and Communication		21		V
Core	G4-26	Report the organization's approach to stakeholder engagement	2.2.1 Identification of Stakeholders and Communication		21		V
Core	G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns	2.2.1 Identification of Stakeholders and Communication		21		V
5. REPORT PROFILE							
Core	G4-28	Reporting period	About this Report		3		
Core	G4-29	Date of most recent previous report	About this Report		3		V
Core	G4-30	Reporting cycle	About this Report		3		V
Core	G4-31	Provide the contact point for questions regarding the report or its contents	About this Report		3		V



Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
Core	G4-32	a.Report the 'in accordance' option the organization has chosen b.Report the GRI Content Index for the chosen option (see tables below) c.Report the reference to the external assurance report	About this Report		3		V
Core	G4-33	a.Report the organization's policy and current practice with regard to seeking external assurance for the report b.If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided c.Report the relationship between the organization and the assurance providers d.Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report	About this Report		3		V
6. GOVERNANCE							
Core	G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts	2.1 Vision of Sustainable Development 4.1 The Operation of Corporate Governance		19 58		V
Comprehensive	G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	2.1 Vision of Sustainable Development		19		V
Comprehensive	G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	2.1 Vision of Sustainable Development		19		V
Comprehensive	G4-38	Report the composition of the highest governance body and its committees	4.1 The Operation of Corporate Governance		59		V
Comprehensive	G4-39	Report whether the Chair of the highest governance body is also an executive officer	4.1 The Operation of Corporate Governance		59		V
Comprehensive	G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	4.1 The Operation of Corporate Governance		59		V
Comprehensive	G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	4.1 The Operation of Corporate Governance		59		V

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
Comprehensive	G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	2.1 Vision of Sustainable Development		19		V
Comprehensive	G4-52	Report Report the process for determining remuneration. whether remuneration consultants are involved in determining remuneration and whether they are independent of management Report any other relationships which the remuneration consultants have with the organization	4.1 The Operation of Corporate Governance		60		V
7. ETHICS AND INTEGRITY							
Core	G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	4.2 Integrity Management		61		V
ECONOMIC							
Economic Performance	G4-DMA	Sector Specific Guidance for Economic Performance DMA	4.4 Financial Performance		66		V
	G4-EC1	Direct economic value generated and distributed	4.4 Financial Performance		67		V
	G4-EC3	Coverage of the organization's defined benefit plan obligations	6.1.1 Employee Care		84		V
ENVIRONMENTAL							
Energy	G4-DMA	Sector Specific Guidance for Energy DMA	3.3 Guarding the Earth		37		V
	G4-EN3	Energy consumption within the organization	3.3.3 Energy Saving Climate Action		47		V
	G4-EN5	Energy intensity	3.3.3 Energy Saving Climate Action		47		V
	G4-EN6	Reduction of energy consumption	3.3.3 Energy Saving Climate Action		45		V
Emissions	G4-DMA	Sector Specific Guidance for Emissions DMA	3.3 Guarding the Earth		37		V
	G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	3.3.2 Environmentally Friendly Environment		39		V
	G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	3.3.2 Environmentally Friendly Environment		39		V
	G4-EN18	Greenhouse gas (GHG) emissions intensity	3.3.2 Environmentally Friendly Environment		39		V
Effluents and Waste	G4-EN21	NOX, SOX, and other significant air emissions	3.3.2 Environmentally Friendly Environment		39		V
	G4-DMA	Sector Specific Guidance for Effluents and Waste DMA	3.3 Guarding the Earth		37		V
	G4-EN22	Total water discharge by quality and destination	3.3.2 Environmentally Friendly Environment		40		V
	G4-EN23	Total weight of waste by type and disposal method	3.3.2 Environmentally Friendly Environment		40		V
Products and Service	G4-EN24	Total number and volume of significant spills	4.5.3 Domestic Compliance		70		V
	G4-DMA	Sector Specific Guidance for Products and Services DMA	3. Vitality and Green Innovation		26		V
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	3.1 Green Innovation and R&D 3.2 Circular Economy		27 32		V
Compliance	G4-DMA	Sector Specific Guidance for Compliance DMA	4.1 The Operation of Corporate Governance		58		V
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	4.5.3 Compliance		70		V



Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
Transport	G4-DMA	Sector Specific Guidance for Transport DMA	5. Emergency Response and Transport Management		73		✓
	G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce.	5.2 Transport Management		76		✓
Environmental Grievance Mechanisms	G4-DMA	Sector Specific Guidance for Environmental Grievance Mechanisms DMA	3.3 Guarding the Earth		37		✓
	G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	3.3.2 Environmentally Friendly Environment		39		✓
LABOR PRACTICES AND DECENT WORK							
Labor/Management Relations	G4-DMA	Sector Specific Guidance for Employment DMA	6.1.2 Good Labor/Management		86		✓
	G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	6.1.2 Good Labor/Management Relations		87		✓
Occupational Health and Safety	G4-DMA	Sector Specific Guidance for Occupational Health and Safety DMA	6.1 TFC Family		79		✓
	G4-LA5	Percentage of total workforce represented in formal joint management— worker health and safety committees that help monitor and advise on occupational health and safety programs	6.1.3 Occupational Safety and Health		89		✓
	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	6.1.3 Occupational Safety and Health		91		✓
	G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	TFC no occupational diseases in 2016		92		✓
	G4-LA8	Health and safety topics covered in formal agreements with trade unions	6.1.2 Good Labor/Management Relations		87		✓
SOCIETY							
Local Communities	G4-DMA	Sector Specific Guidance for Local Communities DMA	6.2 Selfless Love		95		✓
	G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Make Proper Use of Land to Create Harmony between the Environment and the Community		105		✓
Compliance	G4-DMA	Sector Specific Guidance for Compliance DMA	4. Corporate Governance		57		✓
	G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	4.5.3 Compliance		69		✓
PRODUCT RESPONSIBILITY							
Customer Health	G4-DMA	Sector Specific Guidance for Customer Health and Safety DMA	3.4 Walking Hand in Hand toward Sustainability		48		✓
	G4-PR1	Percentage of significant product and service categories for a which health and safety impacts are assessed for improvement	3.4.2 Product Liability		52		✓
	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	4.5.3 Compliance		70		✓

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
Product and Service Labeling	G4-DMA	Sector Specific Guidance for Product and Service Labeling DMA	3.4 Walking Hand in Hand toward Sustainability		48		V
	G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	3.4.2 Product Liability		53		V
	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	4.5 Compliance		68		V
Marketing Communications	G4-DMA	Sector Specific Guidance for Marketing Communications DMA	3.4 Walking Hand in Hand toward Sustainability		48		V
	G4-PR6	Sale of banned or disputed products	3.4.2 Product Liability		52		V
	G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	4.5 Compliance		70		V
Compliance	G4-DMA	Sector Specific Guidance for Compliance DMA	4. Corporate Governance		57		V
	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	4.5 Compliance		70		V

Appendix II : Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies

FSC's Supplementary Guide for the Chemical Industry.		Related CSR Report Section	Page(s)	External Assurance
Supplementary Guide for the Chemical Industry	Listed companies within the chemical industry shall disclose the specific effective mechanism and actions that the listed companies and their supply chains adopt to decrease the negative impact of their products, activities, or services on the environment, to protect the personnel's vocational health and safety and the interested public's lives and property security. The disclosure shall include at least the management of the production or delivery of the raw material, supplies, end products, emergency response measures against accidents inside and outside the factories and the relevant performance indicator	3.Vitality and Green Innovation	25	V
		5.Emergency Response and Transport Management	73	



Appendix III : GRI G4 Index-- non-material aspects, with information disclosed

The following content was verified and assured by an impartial third-party, SGS Taiwan Ltd., and the results can be found in the Assurance Statement in the Appendix of this Report.

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
ECONOMIC							
Market Presence	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	6.1.1 Employee Care		80		✓
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	The management level in TFC were all local residents (100%)		—		✓
Procurement Practices	G4-EC9	Proportion of spending on local suppliers at significant locations of operation	3.4.1 Supplier Management and Procurement		52		✓
ENVIRONMENTAL							
Materials	G4-EN1	Materials used by weight or volume	3.2.1 The Use of Recycled Raw Materials		33		✓
	G4-EN2	Percentage of materials used that are recycled input materials	3.2.1 The Use of Recycled Raw Materials		33		✓
Water	G4-EN8	Total water withdrawal by source	3.3.2 Environmentally Friendly Environment		41		✓
	G4-EN10	Percentage and total volume of water recycled and reused	3.3.2 Environmentally Friendly Environment		41		✓
Supplier Environmental Assessment	G4-EN32	Percentage of new suppliers that were screened using environmental criteria	3.4.1 Supplier Management and Procurement		50		✓
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	3.4.1 Supplier Management Procurement		50		✓
LABOR PRACTICES AND DECENT WORK							
Employment	G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	6.1.1 Employee Care		81		✓
	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	6.1.1 Employee Care		84		✓
	G4-LA3	Return to work and retention rates after parental leave, by gender	6.1.1 Employee Care		86		✓
Training and Education	G4-LA9	Average hours of training per year per employee by gender, and by employee category	6.1.1 Employee Care		85		✓
	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	6.1.1 Employee Care 6.1.2 Good Labor/ Management Relations		85 87		✓
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	6.1.1 Employee Care		82		✓

Category / Aspect	G4/Notes	GRI Index	Related CSR Report Section	Skip Over	Page(s)	Note	External Assurance
Diversity and Equal Opportunity	G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	6.1.1 Employee Care		82		V
Equal Remuneration for Women and Men	G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	6.1.1 Employee Care		83		V
HUMAN RIGHTS							
Non-discrimination	G4-HR3	Total number of incidents of discrimination and corrective actions taken	4.6 Support for and Compliance with International Initiatives		71		V
Freedom of Association and Collective Bargaining	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	4.6 Support for and Compliance with International Initiatives		71		V
Child Labor	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	4.6 Support for and Compliance with International Initiatives		71		V
Forced or Compulsory Labor	G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	4.6 Support for and Compliance with International Initiatives		71		V
Indigenous Rights	G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	4.6 Support for and Compliance with International Initiatives		71		V
SOCIETY							
Anti-corruption	G4-SO4	Communication and training on anti-corruption policies and procedures	4.2 Integrity Management		61		V
	G4-SO5	Confirmed incidents of corruption and actions taken	TFC no corruption in 2015		61		V
Customer Privacy	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	3.4.2 Product Liability		55		V





ASSURANCE STATEMENT

SGS TAIWAN LTD.'S INDEPENDENT ASSURANCE REPORT ON SUSTAINABILITY ACTIVITIES IN THE TAIWAN FERTILIZER COMPANY'S CORPORATE SOCIAL RESPONSIBLE REPORT FOR 2016

NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS Taiwan Ltd. (hereinafter referred to as SGS) was commissioned by Taiwan Fertilizer Company (hereinafter referred to as TFC) to conduct an independent assurance of the Corporate Social Responsible Report (hereinafter referred to as CSR Report) of 2016. The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the text, and data in accompanying tables contained in this report.

The information in the TFC's CSR Report of 2016 and its presentation are the responsibility of the superintendents, CSR committee and the management of TFC. SGS has not been involved in the preparation of any of the material included in the TFC's CSR Report of 2016.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of assurance set out below with the intention to inform all TFC's stakeholders.

The SGS Group has developed a set of protocols for the Assurance of Sustainability Reports based on current best practice guidance provided in the Global Reporting Initiative (hereinafter referred to as GRI) Sustainability Reporting Guidelines and the AA1000 Assurance Standard (2008). These protocols follow differing options for Assurance depending the reporting history and capabilities of the Reporting Organization.

This report has been assured using our protocols for:

- evaluation of content veracity at a moderate level of scrutiny for TFC and moderate level of scrutiny for subsidiaries and applicable aspect boundaries outside of the organization covered by this report;;
- AA1000 Assurance Standard (2008) Type 1 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2008); and
- evaluation of the report against the Global Reporting Initiative Sustainability Reporting Guidelines (G4 2013).

The assurance comprised a combination of pre-assurance research; interviews with relevant employees, superintendents, CSR committee members and the management; documentation and record review and validation with external bodies and/or stakeholders where relevant. Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirms our independence from TFC, being free from bias and conflicts of interest with the organization, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 26000, ISO 20121, ISO 50001, SA8000, EICC, QMS,

EMS, SMS, GPMS, CFP, WFP, GHG Verification and GHG Validation Lead Auditors and experience on the SRA Assurance service provisions.

VERIFICATION/ ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within TFC's CSR Report of 2016 verified is accurate, reliable and provides a fair and balanced representation of TFC sustainability activities in 01/01/2016 to 12/31/2016.

The assurance team is of the opinion that the Report can be used by the Reporting Organisation's Stakeholders. We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting. In our opinion, the contents of the report meet the requirements of GRI G4 Core Option and AA1000 Assurance Standard (2008) Type 1, Moderate level assurance.

AA1000 ACCOUNTABILITY PRINCIPLES CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

Inclusivity

TFC is committed to being accountable to its stakeholders and to integrating inclusivity into its strategic and management approach. A variety of engagement efforts such as survey and communication to employees, customers, investors, local communities, suppliers and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, TFC may proactively consider having more direct involvement of stakeholders during future engagement.

Materiality

TFC has established effective processes for determining issues that are material to the business. Formal review has identified stakeholders and those issues that are material to each group and the report addresses these at an appropriate level to reflect their importance and priority to these stakeholders. It is recommended that the process and criteria applied to assess materiality to be formalized and documented to ensure better consistent result in future reporting.

Responsiveness

The report includes coverage given to stakeholder engagement and channels for stakeholder feedback. Future reporting would benefit from more reporting on the results of stakeholder feedback from this report.

GLOBAL REPORTING INITIATIVE REPORTING GUIDELINES CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

The report, TFC's CSR Report of 2016, is adequately in line with the GRI G4 Core Option. The material aspects and their boundaries within and outside of the organization are properly defined in accordance with GRI's Reporting Principles for Defining Report Content. Disclosures of identified material aspects and boundaries, and stakeholder engagement, G4-17 to G4-27, are correctly located in content index and report. More engagement to involve NGO and CSR illustrious personage for considering the full picture of TFC's significant outward impacts on the economy, the environment, and society is encouraged in future reporting.

Signed:

For and on behalf of SGS Taiwan Ltd.

David Huang, Director
Taipei, Taiwan
12 June, 2017
WWW.SGS.COM





TAIWAN FERTILIZER CO., LTD.