



# The Six<sup>th</sup> Naphtha Cracker Project and Economic Development

Industrial upgrading program based in Taiwan to think globally



Mailiao Industrial Complex – Facilitate mutual prosperity and sustainable development between industry and ecology



The Six<sup>th</sup> Naphtha Cracker Project  
Introduction

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## Petrochemical Industry Closely Related to Our Daily Lives

Petrochemical products are an indispensable part of our daily necessities, such as tooth brushes, towels, food packaging and containers, multi-purpose clothing, construction materials, decorations, convenient transportation, game equipment, medical devices, 3C and high-tech products, used in food, clothing, housing, transportation, education, and entertainment. Using the petrochemical industry's importance in clothing as an example, a synthetic fiber plant with an annual capacity of 90,000 MT covers 5,000 m<sup>2</sup> (approximately the size of a soccer field), while production of the equivalent amount of wool will require a plant of 40,000 km<sup>2</sup> (larger than the island of Taiwan at 36,000 km<sup>2</sup>). Taiwan produced 0.85 million MT of synthetic fibers in 2023; an area 10.7 times larger than Taiwan would be required to produce the equivalent amount of wool. This shows how the petrochemical industry is not only closely related to our daily lives, providing us with comfort and high quality of living, but it is also important to the development of the economy, technology and civilization.



Petrochemical products are the most important material in manufacturing medical products

## Taiwan's Petrochemical Industry Features and Threat

Taiwan's petrochemical industry developed from the bottom up into a complete system that links together upstream, midstream, and downstream industries. This is a unique system that has achieved excellent performance in only a few decades, and has contributed to Taiwan's thriving economy.

Taiwan's ethylene self-sufficiency ratio was only 38% before the Six<sup>th</sup> Naphtha Cracker Project was implemented, and now it is over 100%. Presently, 60% of petrochemical materials produced by the Six<sup>th</sup> Naphtha Cracker Project in Mailiao Industrial Complex is exported (mainly supplied to Taiwanese companies in China), and 40% is supplied to midstream and downstream companies for processing, then export. As such, many companies no longer rely on imports for raw materials, which enhances the competitiveness of midstream and downstream industries.

Taiwan's petrochemical industry still faces many internal and external troubles in the current stage. Internally, Taiwan still relies on imports for a portion of raw materials. Take light oil for example, light oil imports reached 7 million MT each year to make up for the deficit. Yet, Taiwan should be self-sufficient with regard to these raw materials to ensure that companies are not affected by fluctuations in international raw material prices.

World class petrochemical plants built in China, the Middle East and the US have begun operations in recent years. With its low-cost advantage, the plant will significantly impact Taiwan's petrochemical industry. Furthermore, industrially advanced countries, such as the US, Japan, and countries in Europe, are still actively expanding their petrochemical equipment. Hence, it is apparent that the petrochemical industry is not an industry with high energy



consumption and low efficiency. Taiwan is a small, densely populated island that lacks natural resources, so the petrochemical industry is an industry that Taiwan must rely on for economic prosperity and to improve the quality of life of its citizens.

The output value of petrochemical related industries in Taiwan accounts for 20.5% of the manufacturing industry, and it has the most extensive and deepest influence out of all industries. As Taiwan faces the challenges brought on by internal and external troubles, the development and production of high value products is the only way to significantly enhance the petrochemical industry's international competitiveness.



Variety of plastic packaging materials to keep food fresh, hygienic and safe.



High value-added petrochemical products drive the development of automobile industry



Total Complex Area of **2,603** hectares  
 Total Investment Amounting to **30.92** billion USD

## Background of the Six<sup>th</sup> Naphtha Cracker Project Alleviating the Shortage of Petrochemical Materials

In light of the severe shortage of basic petrochemical materials in Taiwan over the years, which has limited the development of the petrochemical industry's midstream and downstream services, Formosa Plastics Group proposed the Six<sup>th</sup> Naphtha Cracker Project to resolve the problem of insufficient raw materials, and the project was approved by the government in 1986. The plant was originally planned to be built in Yilan Lize on 280 hectares of land, but was relocated to Taoyuan Guanyin in 1988 after irrational protests by environmental activists. FPG later abandoned the site in Taoyuan Guanyin due to a similar reason.

Yunlin wholeheartedly welcomed FPG in 1991, and FPG subsequently carried out land reclamation in Mailiao District and Haifeng District, where the Yunlin Offshore Industrial Complex is located. FPG built a refining plant with an annual capacity of 25 million MT of crude oil, a naphtha cracker with an annual capacity of 2.935 million MT of ethylene, and related petrochemical plants, heavy machinery plants, co-generation power plants, and Mailiao Harbor. Furthermore, seeing the impact of Taiwan's severe power shortage on domestic and business development, FPG decided to establish a coal-fired power plant that will be connected to Taiwan Power Company's power supply system, so as to help increase Taiwan's insufficient power supply.

At present, the total amount invested in the Six<sup>th</sup> Naphtha Cracker Project is approximately 30.92 billion USD (including the industrial harbor and power plants); a total of 56 plants were constructed, and all plants have begun production.



## Land Reclamation Achieving the Impossible in Strong Winds and Rough Seas

Mailiao District and Haifeng District, areas developed by the Six<sup>th</sup> Naphtha Cracker Project, are located on the estuary of Zhuoshui River in the northmost end of Yunlin County. The area stretches approximately 8 km from north to south, and extends 4 km offshore from the coastline. Most of the land is below sea level, and only a small sand mound appears during low tide. The area is underwater during high tide. It was necessary to carry out large scale land reclamation, with the total development area reaching 2,255 hectares. The two areas are separated from coastal fish farms by a channel, and ground improvements must be completed after land reclamation to secure the foundation, so that it can be used for plant construction.

For land reclamation, an embankment is first constructed using riprap to circle the areas where plants will be constructed. Sand dredgers then pump sand from designated underwater areas into the areas surrounded by the embankment to create new land.

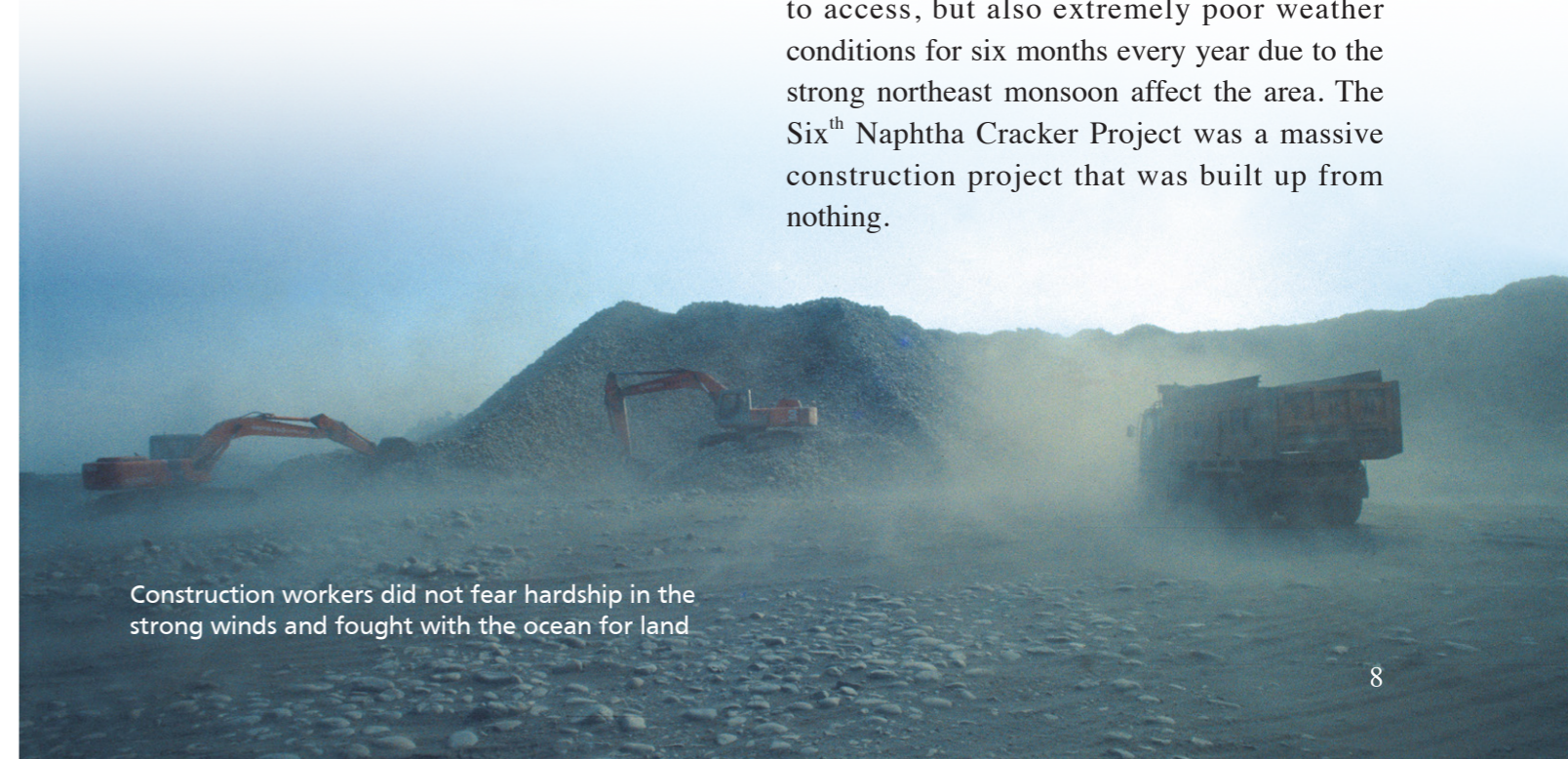
Mailiao Township is commonly known as the place “where the water ends and the wind begins,” and not only is it inconvenient to access, but also extremely poor weather conditions for six months every year due to the strong northeast monsoon affect the area. The Six<sup>th</sup> Naphtha Cracker Project was a massive construction project that was built up from nothing.



Pumping sand to fill the sea



Around the clock ground improvement to consolidate the foundation



Construction workers did not fear hardship in the strong winds and fought with the ocean for land



## Six<sup>th</sup> Naphtha Cracker Project Scale and Content

### 1. Project Construction

- **Land reclamation** : Approximately 109.15 million cubic meters of sand was used, which is enough to cover the 8-lane highway that stretches 373 km from Keelung to Kaohsiung in sand 3-stories high. The area of reclaimed land is approximately 2,255 hectares, which is about 8% of the area of Taipei City (27,180 hectares) and 0.062% of the area of Taiwan.
- **Foundation equipment construction** : The total length of piles that were installed reached 4.7 million meters. 9.04 million cubic meters of concrete was used (requires approximately 1.97 million MT of cement).
- **Plant construction** : A total of 56 plants, including a refining plant, naphtha cracker, co-generation power plant, power plant, heavy machinery plant, boiler plant, fab, and other petrochemical related plants were constructed in a single industrial complex. The length of pipelines in the complex stretches over 3,000 km.
- **Complex area** : Approximately 2,603 hectares, over four times the total area of Linyuan Industrial Park (403 hectares), Dashe Industrial Park (109 hectares), and Toufen Industrial Park (95 hectares).



Dike construction

## 2. Mailiao Harbor

The project's Mailiao Harbor covers an area of 476 hectares. The depth of navigation channels at mean sea level reaches 24 meters, which allows access by 300,000-ton vessels. It is not only the deepest port in Taiwan, but also the first industrial port to be constructed with private investments, and also Asia's first EcoPort. The annual cargo throughput of Mailiao Harbor reaches 70 million MT, the second highest in Taiwan, and is only behind Kaohsiung Port. Even though Mailiao Harbor is an industrial port operations of the port have benefited the vast hinterland, providing Yunlin with convenient sea transportation while driving industrial and local developments.

Mailiao Harbor is the first international industrial port in Asia to obtain the EcoPorts certification from ESPO





The independent power plant helped resolve Taiwan's insufficient power problem

### 3. Independent Power Plant

Four large coal-fired power generators were planned for the project, each with a capacity of 600,000 kW. Three generators with a total capacity of 1.8 million kW have been completed, and all of the electricity is sold to Taiwan Power Company and fed into its power supply system, greatly helping to resolve Taiwan's insufficient power problem.

### 4. Refining Plant

The daily refining capacity is 540,000 barrels, which is equal to 25 million MT of crude oil a year. The annual production volume of naphtha can reach 3.75 million MT, which is used by plants in Mailiao Industrial Complex. Meanwhile, gasoline, diesel, and aviation fuels are also produced.

### 5. Naphtha Cracker

A total of three naphtha crackers were constructed to produce ethylene, propylene, and butadiene, of which annual production capacity of ethylene reaches 2.935 million MT, the highest capacity of a single plant in Taiwan. It is an important basic industry that supplies materials for special chemicals, IT, and high-tech domestic industries.

### 6. Co-Generation Power Plant

Mainly produces electricity, steam, industrial water, ultra-pure water, nitrogen, oxygen, and compressed air for use by relevant plants in Mailiao Industrial Complex. The power generation system is the largest co-generation power plant in Taiwan. Its installed capacity is currently 2.75 million kW, which includes 15 qualified co-generators with a total installed capacity of 2.15 million kW and self-usage power generators verified by Bureau of Energy, Ministry of Economic Affairs with a capacity of the rest 0.6 million kW. The electricity generated is used by manufacturing processes, and any excess electricity is sold to Taiwan Power Company to help alleviate the pressure on the power grid in Taiwan.



## 7. Machinery Plant and Boiler Plant

The machinery plant mainly designs, manufactures, installs, and constructs oil refining and petrochemical process equipment (reaction tank, tower, pressure container, heat exchanger). The plant has obtained “S,” “U,” “U2,” and “R” certifications from the ASME. The overall manufacturing ability is 12 M<sup>φ</sup> x 120 M<sup>L</sup> x 2,000 MT, meaning that a single piece of equipment has a diameter

exceeding 12 m, length of 12 m, and weight of 2,000 MT. The boiler plant mainly plans, designs, manufactures, installs, and constructs equipment for the co-generation power plant and power plant. Production capacity: Co-generation power plants can produce up to 35-150 MW and independent power plants can produce 600 MW.



Huge Tower



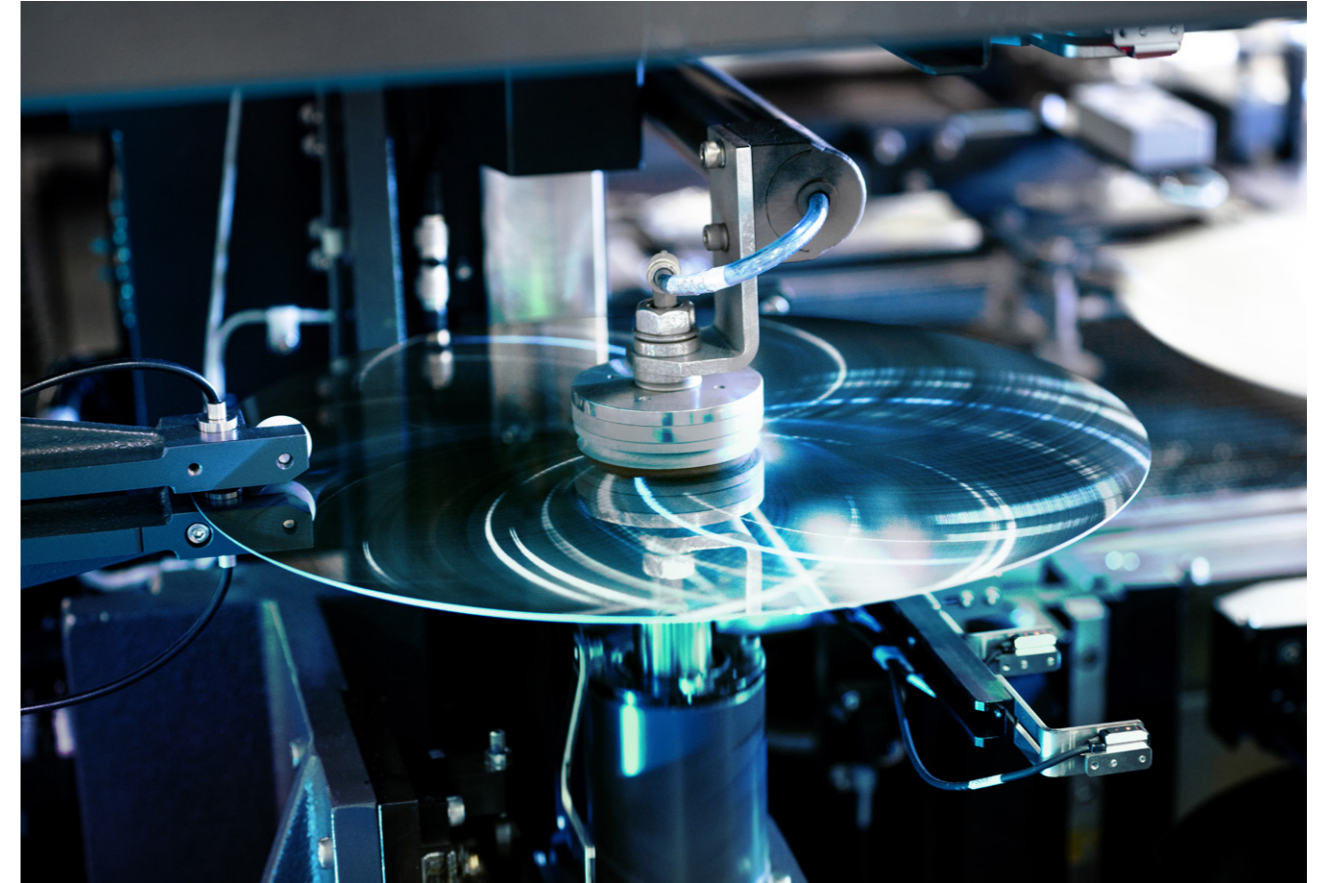
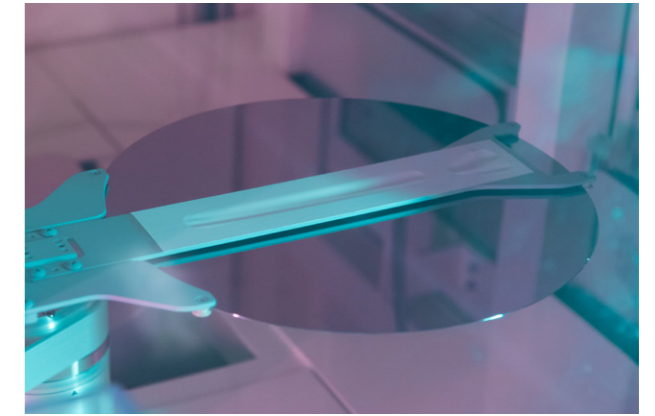
EPC Integration Services For Power Generation



Reactor

## 8. Fab

The fab is a joint venture between FPG, Asia-Pacific Investment Co., Ltd., and Japan's Sumco Techxiv Corporation that produces semiconductor-grade wafers, and its annual capacity is 4.08 million 8" silicon wafers and 3.66 million 12" silicon wafers. These wafers are important substrate materials for IC, and can also be used in the substrate of solar power batteries.



## 9. Spandex Plant

The plant is a joint venture between FPG and Asahi Kasei Corp. that produces spandex and PTMG. Its current annual capacity is 5,000 MT of spandex and 21,000 MT of PTMG. Spandex is extensively used in functional clothing and medical products, and has become indispensable to artificial fibers.



Application of Spandex fiber

## The Six<sup>th</sup> Naphtha Cracker Project Investments

Product Category	Investing Company	Factory	Product	Capacity (10000 MT/Y unless otherwise noted)
Petroleum Products	<b>Formosa Petrochemical Corp.</b>	Refinery plant	Naphtha, gasoline, diesel	2,500(Refinery)
	<b>Simosa Oil Co, Ltd.</b>	Asphalt plant	Asphalt	30
Petrochemicals & Chemical Products	<b>Formosa Plastics Corp.</b>	Acrylic Acid & Ester plant	AA/AE	11.1/15.4
		Polyvinyl Chloride plant	PVC	50.6
		Vinyl Chloride Monomer plant	VCM	80
		Caustic Soda plant	Caustic Soda	133
		High Density Polyethylene plant	HDPE	35
		Ethylene-Vinyl Acetate plant	EVA	24
		Acrylonitrile plant	AN	28
		Linear Low Density Polyethylene plant	LLDPE	26.4
		Methyl Methacrylate plant	MMA	9.8
		C4 plant	MTBE/B-1	17.4/3.2
		Epichlorohydrin plant	ECH	10
		NBA plant	NBA	25
		SAP plant	SAP	7
	<b>Nan Ya Plastics Corp.</b>	Plasticizer plant	Plasticizers	44
		Epoxy Resin plant	EPOXY	16
		Propionic Anhydride plant	PA	22.8
		Isooctanol plant	2EH	20
		Bisphenol A plant	BPA	42
		Ethylene Glycol plant	EG	152
		Hydrogen Peroxide plant	ESO/H <sub>2</sub> O <sub>2</sub>	2/2
		1,4-Butylene Glycol plant	1,4BG	12
		Iso-nonyl Alcohol plant	INA	11.5
		Maleic Anhydride plant	MA	6
	<b>Formosa Chemicals &amp; Fibre Corp.</b>	Aromatic Hydrocarbon plant	BZ/PX/OX/MX	143/202/29/14
		Styrene Monomer plant	SM	132
		Purified Terphthalic Acid plant	PTA	72
		Phenol Synthesis plant	PHENOL/ACETONE	44/27.1
Polypropylene plant		PP	64	
PABS plant		PS/ABS/PBT	21/12/6	
<b>Formosa Petrochemical Corp.</b>	Naphtha Cracker plant	Ethylene	293.5	
	<b>Formosa INEOS Chemicals Corp.</b>	Acetic Acid Plant	HAC	40
<b>Nan Chung Petrochemical Corp.</b>	Ethylene Glycol plant	EG	37.5	
	<b>Formosa Asahi Spandex Co.</b>	Spandex plant	SPANDEX/PTMG	0.5/2.1
Power Generation	<b>Formosa Petrochemical Corp.</b>	Utilities Supply plant	Steam Electricity	11,580 T/H 2,754MW
	<b>Mailiao Power Corp.</b>	Power station	Electricity	600MW X 3
Electro-Mechanical	<b>Formosa Heavy Industries Corp.</b>	Equipment for Machinery Shop	Equipment for refinery, petrochemical plants	4.3
		Boiler Shop	Equipment for Cogeneration and utility power plants	500T/H X 8ST
Electronics	<b>Formosa Sumco Technology Corp.</b>	Wafer fabrication plant	8-inch silicon wafers	4.08million pcs.
			12-inch silicon wafers	3.66million pcs.

## The Six<sup>th</sup> Naphtha Cracker Project Circular Economy Implementation

Chairman WenYuan Wong follows the spirit of the two founders - “with diligence and modesty, we strive for excellence”, the management team, in order to maintain a robust enterprise operation, must be persistent, and always seek innovation and breakthroughs. Since 1993, we

have implemented the 5S principle with every effort; later on, the no leakage policy, energy conservation and emissions reduction, and circular economy have been progressively promoted. We are currently focused on the AI, AI+simulation and digital transformation.



Mailiao Industrial Complex

**1993 5S**

- Uphold the spirit of "with diligence and modesty, we strive for excellence."
- Exert every effort in the implementation of 5S management principle: Seiri, Seiton, Seiso, Seiketsu, Shitsuke.

**1999 No leakage**

- Implementation of the no leakage policy: No steam leakage, no water leakage, and no oil leakage to become friendlier to the environment and increase rainwater recycling. In the beginning, recovered rainwater was not clean enough and only suitable for plants watering.
- Using Mailiao Industrial Complex as an example, an average of 13,676 tons of rainwater was collected each day in 2023, which is equal to saving USD 6,474/day in water charges or the domestic water consumption of the complex's 13,000 employees over 2 weeks.

**2006 Energy conservation and emission reduction**

- An enterprise-wide "Energy Conservation, Carbon Reduction, and Pollution Prevention Task Force" was established and became the foundation for subsequent efforts to achieve a circular economy.
- Using Mailiao Industrial Complex as an example, a total of 2,875 water saving and 11,192 energy conservation projects were completed as of 2023.

**2016 Circular economy**

- Further on, four aspects of circulation, namely raw materials, water resources, energy, and waste has been taken into consideration .
- Executing inter-factories, intercompany energy and resource integration to achieve better energy conservation, emission reduction, and efficiency of energy utilization.
- Taking water resource circulation in Mailiao Industrial Complex as an example, impurities have been removed from the recycled rainwater, thus can be further used in processes; for now, every drop of water is used 12.9 times.

**2017 AI**

- At the end of 2023, we have invested a total of USD 1.38 billion, generating approximately USD 1.26 billion in benefits each year.
- We donated USD 1 million to Academia Sinica at the end of 2017 to aid them in the establishment of an AI academy.
- A total of 592 employees received training as of the end of December 2023.
- Began optimizing industrial safety management and production processes to maximize productivity and energy efficiency.
- As of December 31, 2023, the Group has initiated 1,970 AI projects and expects to invest USD 112.9 million for an estimated annual benefit of USD 279.1 million. So far, 1,225 projects have been completed with USD 74.2 million invested for an annual benefit of USD 201.7 million.
- The future goal is for annual benefits to reach USD 700-1,000 million.

**2021 February AI+ Simulation**

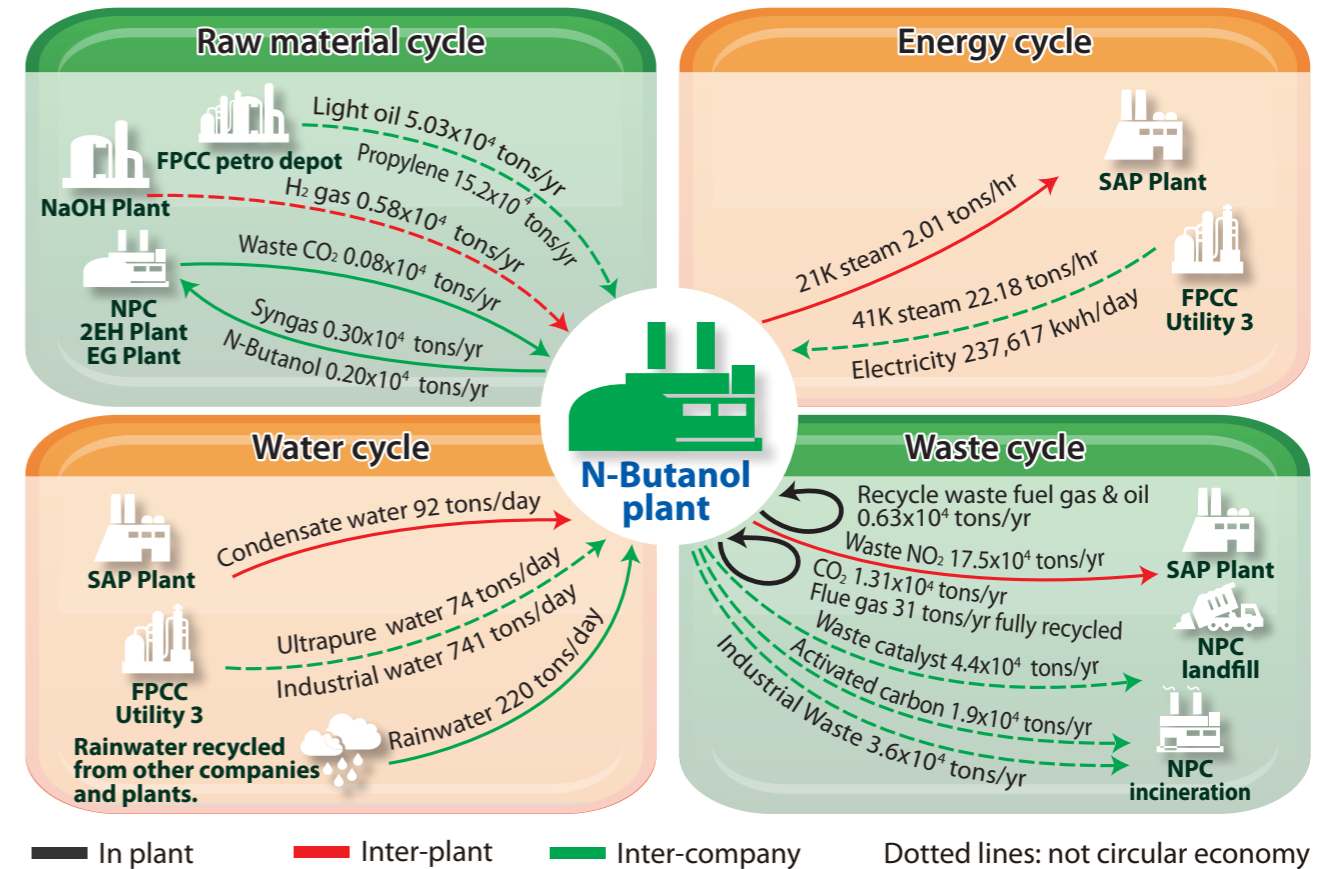
- AI involves using Big Data to optimize the manufacturing process.
- Simulation refers to optimizing the manufacturing process by applying chemical engineering theories or its experimental data.
- It is necessary to consider the risks in the manufacturing process, so AI and simulation are integrated.
- For example, petrochemical companies optimize the procedure for propylene recycling via an AI-enabled operating system, and Formosa Chemicals & Fibre Corporation (FCFC) has established a simulation factory for aromatic hydrocarbons to enhance production efficiency.

**Now Digital transformation**

- Utilize all digital technologies (AI, big data, cloud, IoT, 5G) to optimize processes and improve business performance.
- On September 24, 2020, the Chairman: We'll make every effort to promote digital transformation.

The concept of circular economy is to take the aspects of raw materials, water resources, energy, and waste into mutual consideration, and engage tremendous human and material resource

to execute inter-factories and intercompany resource integration for energy conservation and emissions reduction (the schematic diagram shows the example of FPG's 1-Butanol plant).



Formosa Sumco Technology Corporation - AI production process, key to keeping a finger on the pulse of digital transformation

## Implementation of a Circular Economy in Mailiao Industrial Complex

We established the enterprise-wide "Energy Conservation, Carbon Reduction, and Pollution Prevention Task force" in 2006 to assist factories making improvements. Later on, the idea was combined with the circular economy philosophy in 2016, and further expanded to inter-factories and intercompany integration. As of the end of 2023, we have invested a total of USD1.38billion, which have generated approximately USD 1.26 billion benefits each year.

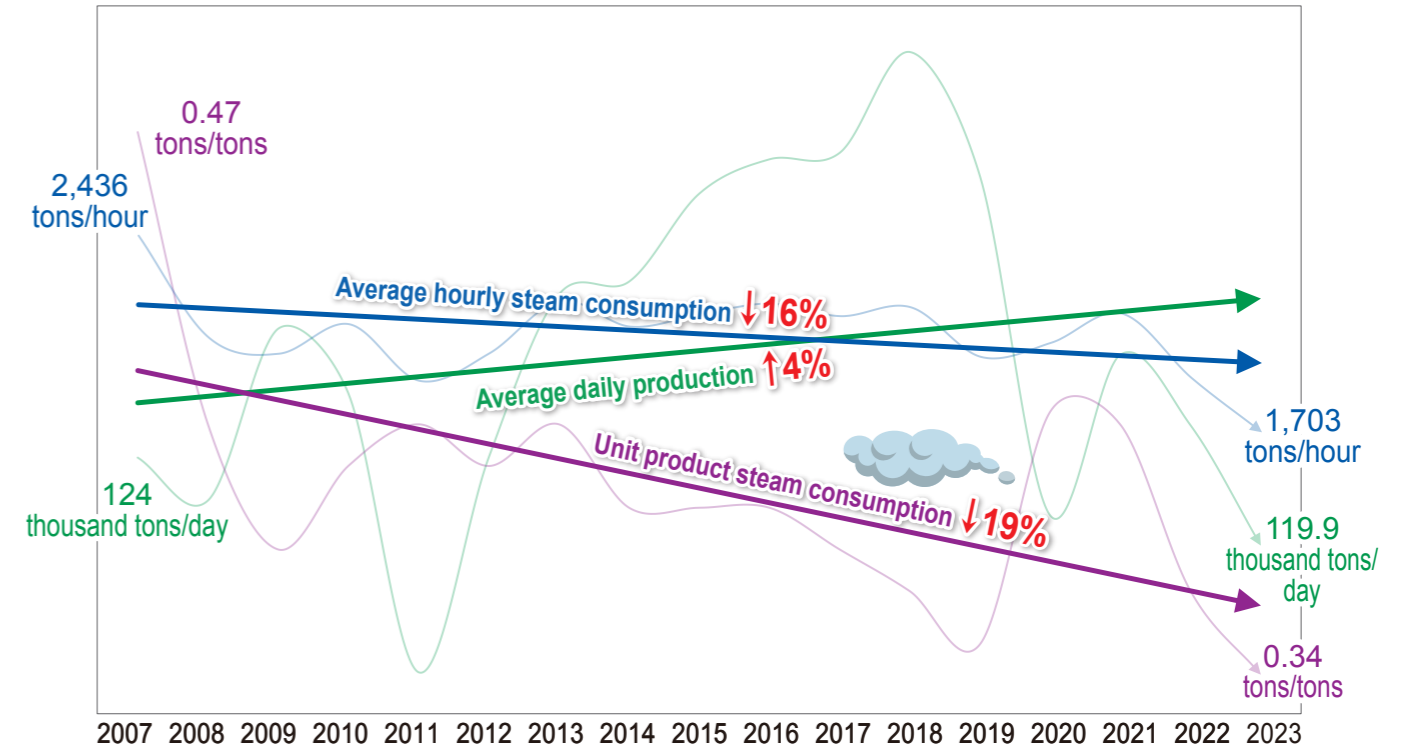
Among all effort in pursuing the circular economy, process water usage reduction, wastewater and rainwater recycling have reduced water consumption, and the water recycling rate reached 91.5%. A total of 2,875 water conservation projects were completed, saving approximately 112.6 million tons/year of water, which is equal to the annual water consumption of approximately 1.23 million people and is enough water to fill 45,041 Olympic-size swimming pools. Compared to the water consumption in 2007, while average daily production yield of the Sixth Naphtha Cracker Project increased by

4% in 2023, in the meantime, water consumption decreased by 21% and unit product water consumption decreased by 24%.

Furthermore, we are vigorously promoting the projects to increase energy efficiency, waste heat recycling, and energy usage integration between factories. As of the end of 2023, we have completed 11,192 energy conservation projects which are able to reduce steam consumption by 3,409.5 tons/hour and energy consumption by 349.3 thousand kWh/hour; the energy saved is equal to reducing 13.72 million tons of CO<sub>2</sub> emission per year, the carbon absorption capacity of approximately 1.96 billion trees a year, or 35,264 times the annual carbon absorption capacity of Da'an Forest Park. Taking the examples of steam and energy saving results, while compared to those of 2007, the daily production rate in 2023 has increased by 4%, steam and energy consumption have decreased by 16% and 14%, respectively; unit product steam and energy consumption have decreased by 19% and 18%, respectively.

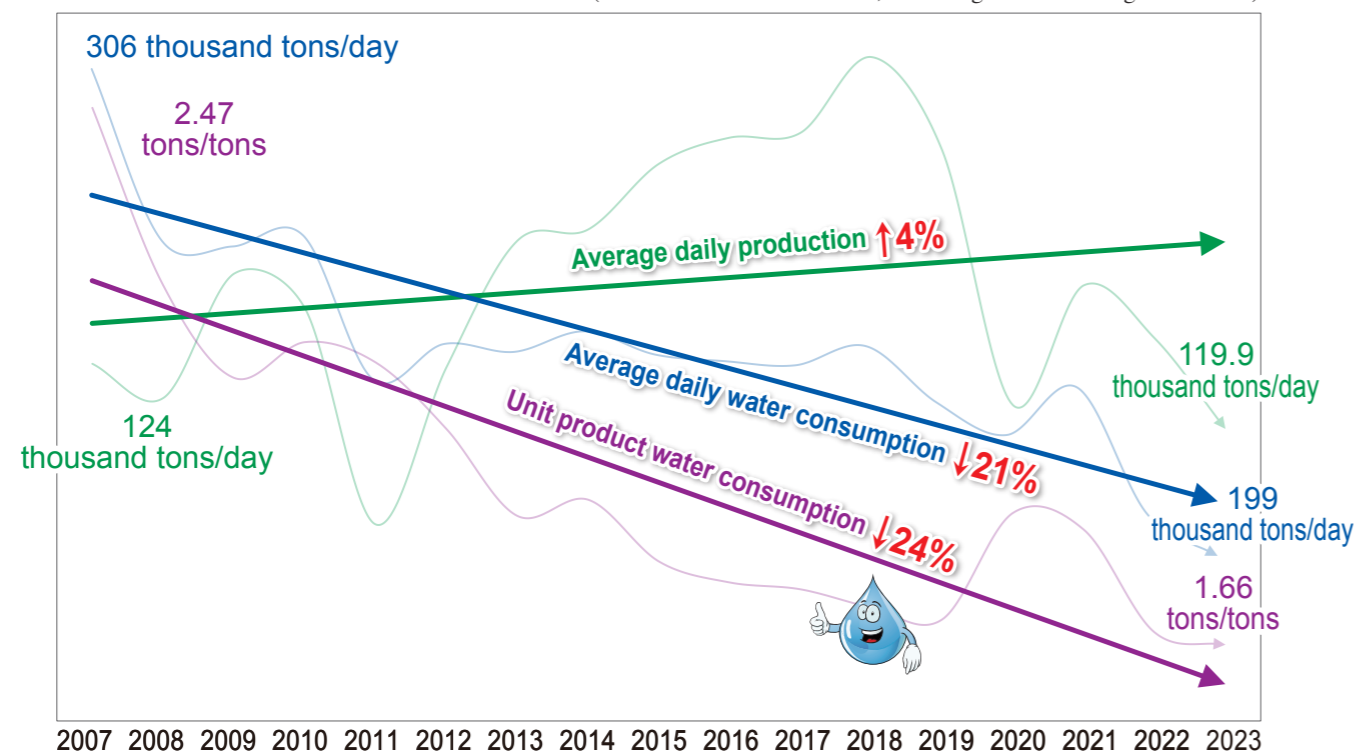
### Steam Conservation Results of Mailiao Industrial Complex

(The curve is the actual value, The straight line is it's regression line.)



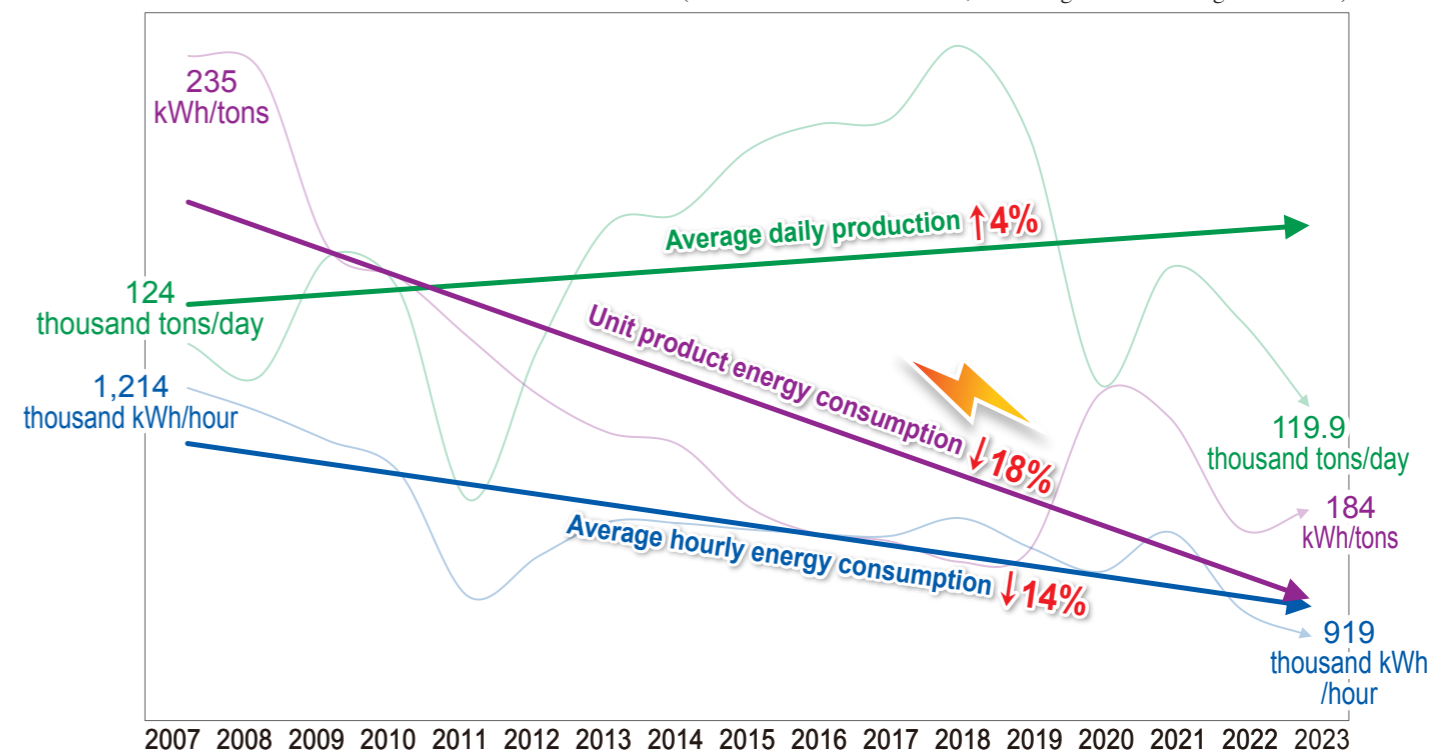
### Water Conservation Results of Mailiao Industrial Complex

(The curve is the actual value, The straight line is it's regression line.)



### Energy Conservation Results of Mailiao Industrial Complex

(The curve is the actual value, The straight line is it's regression line.)



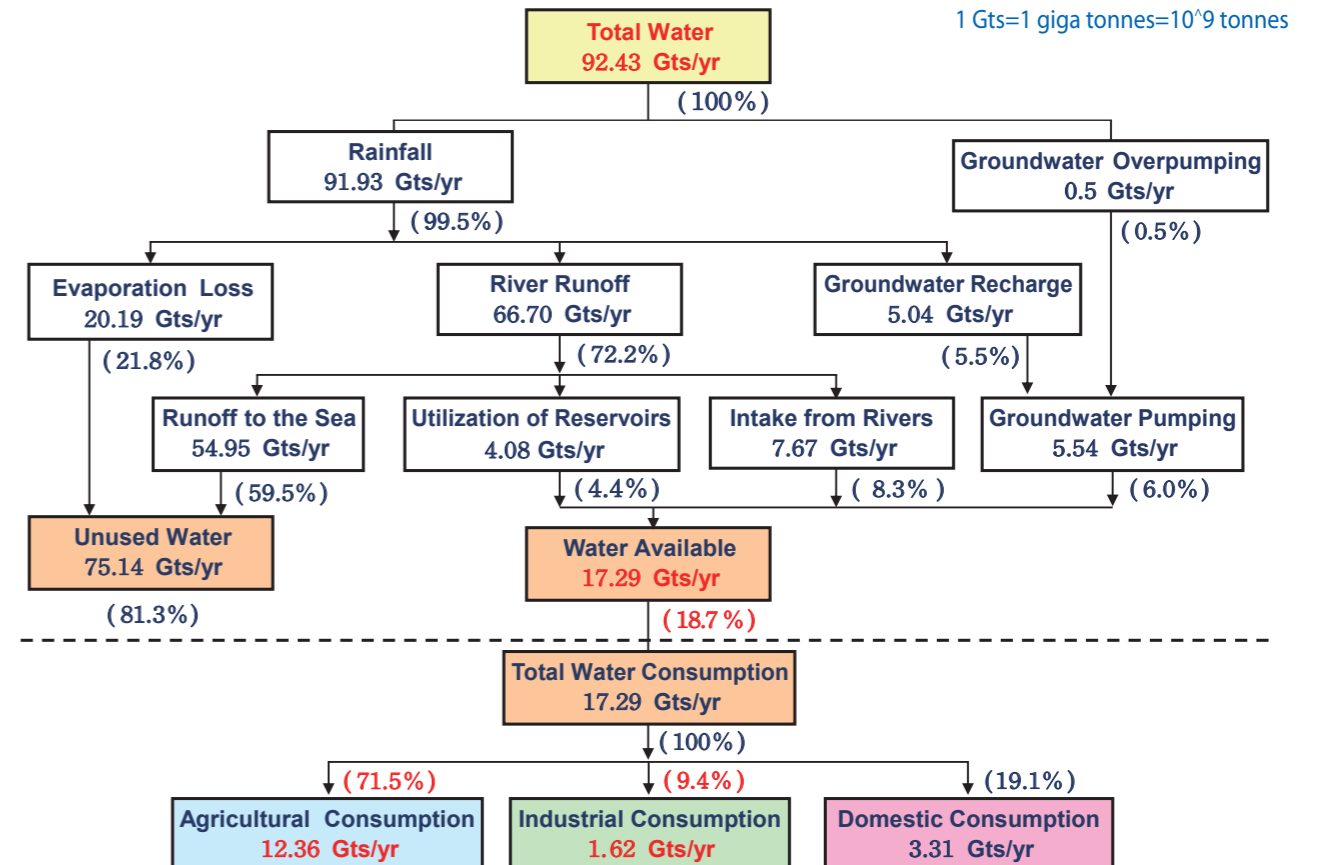
It is our belief that industrial development and environmental protection are equally important and can coexist. Therefore, Mailiao Industrial Complex invested USD 4.4 billion in advanced pollution prevention technology. In the case of air pollution prevention, coal used by the coal-fired power plant is transported and stored in a closed system to prevent fugitive coal dust. The discharged flue gas is treated by denitrification,

desulfurization, and static dust precipitators to remove pollutants, and emitted pollutant concentration levels are far lower than the national standards. Furthermore, state-of-the-art technology has been applied to the power plants' air pollution control device. Hence, the emission level rival with those of natural gas power generators.

Pollutants	Emission Standards				EIA Promise	Stricter standards adopted by Yunlin Country	Mailiao Industrial Complex coal-fired power generators (2023)	Natural gas power generators in Taiwan
	EU	USA	Japan	Taiwan				
SOx(ppm)	70	63	63	60	25	25	12.34	0.33~0.55
NOx(ppm)	98	68	200	70	46	46	30.58	12.5~37.5
TSP(mg/Nm <sup>3</sup> )	20	20	100	20	23	15	3.0	2.5~10.0

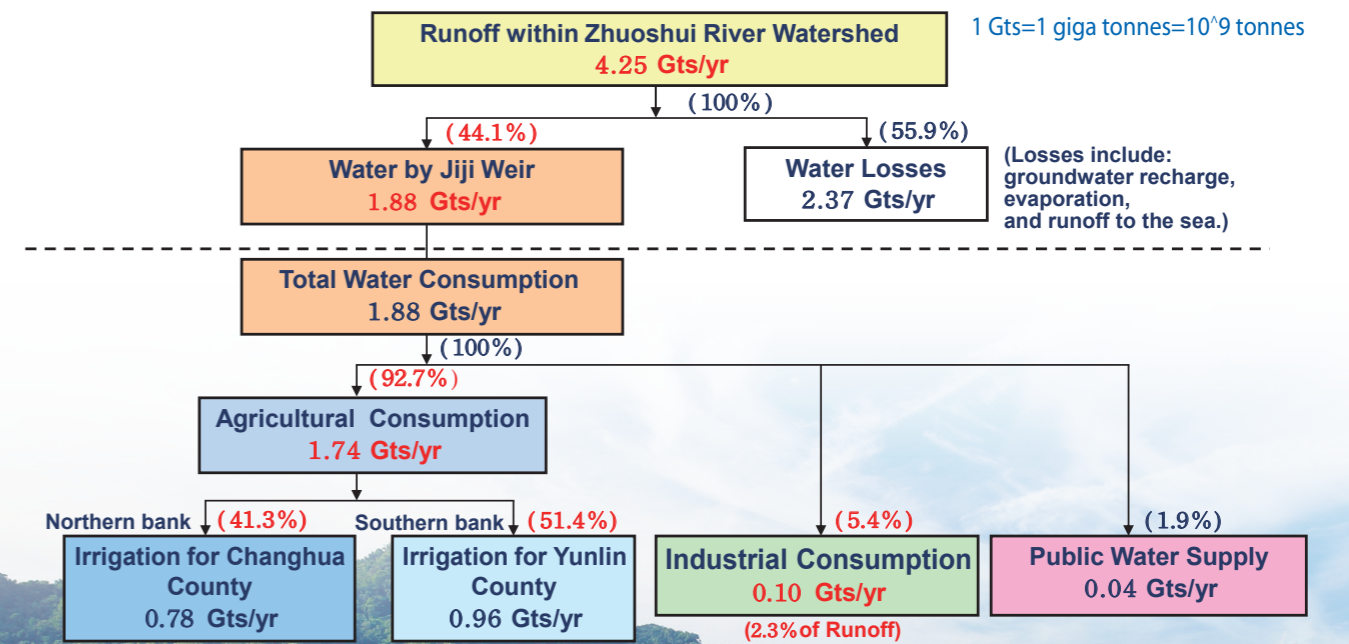


### Utilization of Water Resources in Taiwan

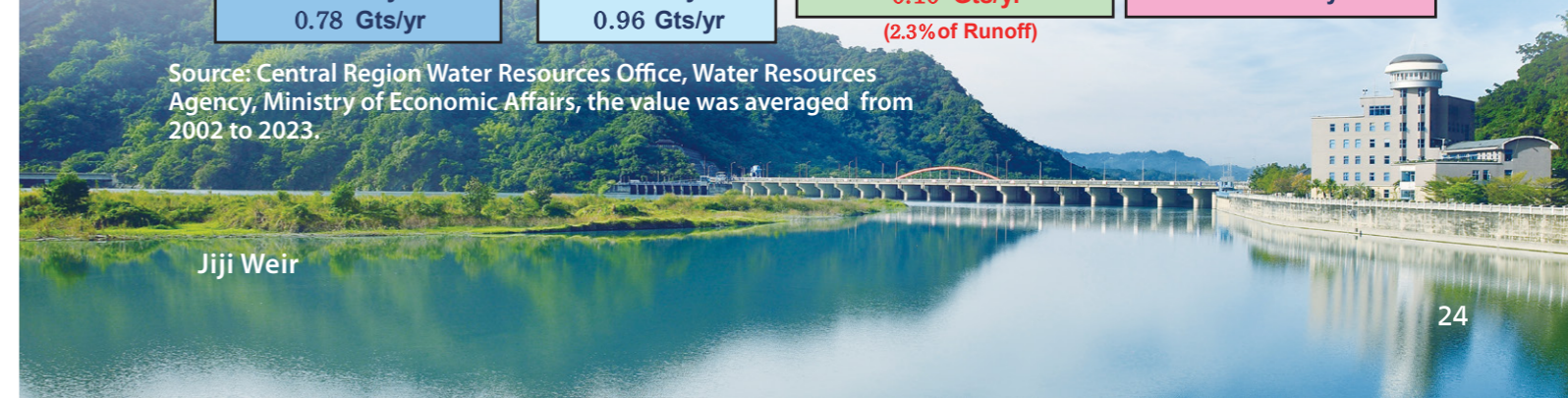


Source: Central Region Water Resources Office, Water Resources Agency, the value was averaged from 2002 to 2021 (the 2021 data were published in August, 2023).

### Sectoral Water Consumption Supplied by Jiji Weir



Source: Central Region Water Resources Office, Water Resources Agency, Ministry of Economic Affairs, the value was averaged from 2002 to 2023.



## Better Quality of Life Local Development and Contributions

In the early days, Mailiao consisted of only a few farms and fish farms due to the poor weather conditions, lack of resources, and severe population outflow. Implementation of the Six<sup>th</sup> Naphtha Cracker Project created a significant amount of local employment opportunities, and contributed to the economic prosperity of Mailiao Township. The variety of stores that opened made life more convenient, and also allowed Mailiao Township to become the only township in Yunlin with steady population growth in recent years. FPG has always upheld the philosophy “We strive to give back to the society in which we make our living,” and takes action to give back to society, utilizing its corporate resources to create a better life for surrounding neighborhoods.

### Local Development and Contributions

FPG has always valued education. Besides founding schools, we have also dedicated long-term efforts to the reconstruction of old campus buildings, and also sponsored breakfasts and lunches for students in Yunlin. We subsequently made donations for the construction of public facilities underprivileged groups in Mailiao and nearby townships, as well as for the software/hardware required by underprivileged groups, and continuous donations to fund the subsidies of Yunlin County Government for daycare provided for grandparents and the evergreen canteen program for the elderly, providing substantial care and support.



Formosa Plastics Group in collaboration with Chang Gung University of Science and Technology and Yunlin Chang Gung Memorial Hospital, held the 2023 Yunlin County achievement presentation of community health promotion and the summer camp for the elders.



Assist the government in aeolian dust suppression at Zhuoshui River, greening the century-old sand land



Agricultural and Aquatic product Fair, October, 2023

### Technical Assistance Program for Farmers and Fish Farmers

FPG joins force with professional researching teams to implement technical assistance programs for farmers in 7 townships, including Mailiao, Taishi, Sihu, Lunbei, Dongshi in Yunlin County, and Dacheng in Changhua County; for fish farmers in 5 townships, including Mailiao, Taishi, Sihu, Kouhu in Yunlin and Dacheng in Changhua County, technical assistance programs are also provided by FPG and professional researching teams.

The purpose of the technical assistance programs is to assist farmers and fish farmer with scientific proven methods for increasing production yields. Professional personals are also on site to provide supports. Farmers and fish farmers are always welcomed to reach the professional team for timely solutions.



Sponsored the Gardasil 9 HPV vaccination program for girls and boys in the second year of junior high school in Yunlin County

### Health Promotion

To care for the health of local residents, Formosa Plastics Group has established Yunlin Chang Gung Hospital, aiming to enhance local medical services and quality. The hospital provides health examinations for residents in the vicinity of Mailiao and screenings for disease prevention for residents in the surrounding five townships. With a commitment to excellent medical care, the goal is to assist residents in early detection and treatment. Additionally, the "Formosa Health Care Team" has been formed, dedicated to safeguarding the health of local residents. We also sponsored the Gardasil 9 HPV vaccination program for girls and boys in the second year of junior high school in Yunlin County. Residents can get good medical care without time-consuming transportation.



Yunlin Chang Gung Memorial Hospital improves the healthcare quality for local residents



Formosa Health Care Team guard local residents' health

### Cultural Promotion

Mailiao is located in the coastal area and rarely has the opportunity to see artistic and cultural performances. FPG sponsored Taiwanese opera troupes, hand puppet troupes, and children's theaters to perform in nearby townships, allowing charity and art to take root and create a cultural atmosphere in the local communities. It also provides the art and culture troupes with nourishment and audiences for them to gradually grow.



Sponsoring art and culture performances to create a cultural atmosphere in local communities

## Six<sup>th</sup> Naphtha Cracker Project Economic Contribution

The investment total of the Six<sup>th</sup> Naphtha Cracker Project phases 1-4 reached 30.92 billion USD, in which environmental protection expenditures reached 4.4 billion USD. After the Six<sup>th</sup> Naphtha Cracker Project was completed, its contribution to Taiwan is not limited to increasing the confidence of private investors, stabilizing the petrochemical industry's developments, driving the petrochemical industry's upgrade, balanced development between regions, and reducing the gap between urban and rural areas, but also achieving the following:

- **Increasing Taiwan's ethylene self-sufficiency ratio from 38% in 1994 to over 100% in 2019.**
- **Reaching an output value of 41.23 billion USD in 2023.**
- **Increasing government tax revenue by an average of over 553 million USD in the past 5 years.**
- **Driving the development of mid-stream and down-stream industries, and increasing output value and employment opportunities.**
- **Mailiao Harbor provides convenient transportation for different industries and boosts local prosperity and development.**
- **Independent power plants can help resolve Taiwan's insufficient power problem.**
- **Increasing Taiwan's area by 2,255 hectares.**



## Future Prospects

FPG has upheld the spirit of “diligence, perseverance, frugality and trustworthiness” and the attitude to “strive for excellence” for over six decades, and aims to develop the manufacturing industry to contribute to Taiwan's economy.

Taiwan is an island economy that not only lacks resources and is a small market, but also relies on the international market for the absolute majority of products. Hence, upholding the traditional virtues of diligence

Mailiao Eco-Industrial Showroom – Exhibiting endeavors of enterprises in achieving sustainable development

and perseverance, and continuing to build developments for the manufacturing industry are the only ways to keep Taiwan's economy from faltering.

In light of this, FPG eliminated all obstacles to implement the Six<sup>th</sup> Naphtha Cracker Project, in order to meet the needs of Taiwan's petrochemical industry and economic development. The project also received support and assistance from various sectors. All employees of FPG will exert every effort

and strive for excellence as we continue to improve our business performance, driving the prosperity and developments of the nation and society. We hope that all sectors will continue to provide their support and advice, and allow us to jointly create a better tomorrow.



Formosa Plastics Group Introduction  
Scan QR code to watch the video



## **HEADQUARTERS**

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[http: //www.fpg.com.tw](http://www.fpg.com.tw)



## **FORMOSA PLASTICS GROUP MAILIAO INDUSTRIAL COMPLEX**

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