

TRANSFORMATIONAL LEADERSHIP FOR SUSTAINABILITY



WHA UTILITIES AND POWER PUBLIC COMPANY LIMITED
SUSTAINABILITY REPORT 2022







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CEO MESSAGE

The year 2022 has passed, and it proved to be another challenging year for our business operations. The global economics situation remained volatile despite some easing in the Covid-19. There were negative factors arising from tensions between Russia and Ukraine, rising inflation rates, and ongoing trade wars. Moreover, significant change in the business landscape compelled us to embrace digitalization as we ventured into the world of digital business models driven by technologies such as Artificial Intelligence (AI), Blockchain, Remote Working, and Clean Technology which played a crucial role in driving economic growth in the business sector. Furthermore, the pressing concern of climate change carries immense global significance and plays a crucial role in driving business operation. In 2022, the 27th Conference of the Parties (COP27) was held to accelerate efforts towards the goal of limiting the global temperature increase to below the threshold of 1.5 degrees Celsius. This momentous gathering also aimed to drive progress towards the ambitious targets of achieving carbon neutrality by 2050 and net-zero greenhouse gas emissions by 2065. Therefore, WHA Utilities and Power Public Company Limited (WHAUP) played a vital role in aligning sustainability strategies with WHA Corporation Public Company Limited (WHA Group) by incorporating the aspect of environmental, social, and governance (ESG). This ensured compliance with regulations, laws, and relevant best practices, meeting the expectations of all stakeholders, and protecting the rights of individuals, entities, and other stakeholders.

As a service provider in utilities and power management, WHAUP recognizes our direct relevance to the climate change trend. We recognize the potential of using cutting-edge technologies to address climate change issues. For example, we promote the use of renewable energy, particularly solar energy, and contribute to natural resource conservation through water recycling and wastewater management services. Additionally, WHAUP plays a significant role in driving full-scale digital transformation under WHA Group's "Mission To The Sun" project. We plan to leverage technological innovations by integrating platform technologies with our robust infrastructure to transform our business and become a tech company in alignment with WHA Group. Our ultimate goal is to become a leader in the utilities and power business in Asia. A prominent project that demonstrates our commitment to aligning business operations with environmental priorities is our collaboration with WHA Group. This includes the installation and distribution of solar energy through Solar Rooftop Energy. This includes entering into the Private Power Purchase Agreements (Private PPA) with industrial customers, enabling us to expand our business further. Additionally, we are actively developing peer-to-peer energy trading between producers and consumers within industrial estates. This involves utilizing blockchain technology to develop an intelligent energy trading platform, making solar energy transactions even more convenient. In recognition of our expertise in applying technology to comprehensive energy management, we were honored with the Best Innovative Company Awards in 2022 from the Stock Exchange of Thailand (SET).

This award specifically acknowledged our innovation in the platform for Peer-to-Peer Energy Trading: Future of Energy Market. Since 2021, WHAUP has achieved carbon neutrality by reducing greenhouse gas emissions associated with our solar energy business. In 2022, our solar energy business contributed to a reduction of 31,599 tCO₂e compared to 12,439 tCO₂e emitted from other WHAUP activities.

In addition to conducting business with a strong focus on environmental importance, WHAUP also aligns our operations with WHA Group's sustainability strategy. This involves supporting and generating highly positive outcomes for communities and society as a whole. WHAUP is committed to monitoring business activities to prevent negative impacts on both environmental quality and the safety of livelihoods. Consideration is given to the community, which is one of the stakeholder groups that significantly influences WHAUP's business operations. Therefore, WHAUP integrates the United Nations Sustainable Development Goals (SDGs) into the development objectives, ensuring alignment with social development activities. Furthermore, WHAUP continues to emphasize development and the creation of opportunities for the surrounding communities, promoting sustainable growth together.

In terms of good corporate governance, WHAUP adheres to principles of integrity, fairness, and transparency in our business operations. We instill organizational values among all members of the organization, emphasizing a culture of transparency, upholding ethical standards, and social responsibility. Additionally, WHAUP places importance on expectations and feedback from stakeholders, providing channels for expressing opinions or complaints (whistleblowing) to allow members and stakeholders from all groups to freely contribute and express their views. WHAUP's emphasis on environmental, social, and governance issues has led to its inclusion in the Thailand Sustainability Investment (THSI) list for three consecutive years, starting in 2022, as well as being recognized as "excellent" based on assessment criteria.

All of the aforementioned successes would not have been possible without the support from all parties involved, including the board of directors, management team, employees, suppliers, and shareholders. On behalf of the CEO of WHAUP, I would like to express my gratitude to all stakeholders for their confidence in the potential of WHAUP. The support received by WHAUP has been instrumental in driving its sustainable business growth.

Mr. Somkiat Masunthasuwun
Chief Executive Officer





AWARD AND MEMBERSHIP

AWARD

1. SET AWARD 2022

BEST INNOVATIVE COMPANY AWARDS

WHA Utilities and Power Public Company Limited (WHAUP) has been awarded the “Best Innovative Company Awards” in the Business Excellence category by the Stock Exchange of Thailand for the development of the Peer-to-Peer Energy Trading innovation. This platform is highly valued by the company as it aims to strengthen energy resilience through the purchase and sale of solar energy among customers within the industrial estate of WHA Group. This award reflects the company’s commitment to creating sustainable transformations by leveraging innovation and technology to maximize benefits, generate value, maintain balanced business operations, and strive for continuous development and long-term growth



2. SUSTAINABLE STOCKS

THAILAND SUSTAINABILITY INVESTMENT (THSI) AWARD 2022

WHA Utilities and Power Public Company Limited (WHAUP) have been selected as “Sustainability Stock” by Thailand Sustainability Investment (THSI) in Resources sector for 2022. This marks the third consecutive year of their inclusion in the list, reflecting the organization’s commitment to the principles of Environmental, Social, and Governance (ESG).



MEMBERSHIP

WHAUP is committed to adhering to sustainable business principles. WHAUP actively collaborates and supports numerous organizations to build strong partnership networks that enhance sustainable growth opportunities. One significant achievement that demonstrates the company's dedication to integrity and business transparency is its recognition as a member of the Thai Private Sector Collective Action Against Corruption (CAC) in November 2019. Furthermore, the company's membership in the CAC was renewed in January 2023. Additionally, the company's success is also attributed to its collaborative efforts with various associations.

1. Thai Photovoltaic Industries Association: TPVA Thailand
2. Water and Environment Institute for Sustainability: WEIS
3. The Federation of Thai Industries
4. Thai Industrial Estate and Strategic Partner Association





ABOUT THIS REPORT



WHA Utilities and Power Public Company Limited (WHAUP) has published a sustainability report annually since 2019 to disclose our management and operational approaches towards sustainable development. These reports cover the areas of governance/economic, social, and environment, providing stakeholders with insights into WHAUP's sustainable practices. This report is WHAUP's 4th sustainability report which encompasses the operational performance from 1st January to 31st December 2022. The reporting framework and scope of this sustainability report align with the requirements of Form 56-1 One Report 2022 issued by WHAUP.

The report has been prepared in accordance with Global Reporting Initiative Standards 2021 (GRI 2021). In 2022, WHAUP has improved the materiality assessment process of key sustainability issues with greater efficiency and coverage, in line with the principles of double materiality and enterprise risk management. The assessment identified six significant sustainability issues, including business ethics, technology and innovation, human resource management, occupational health and safety, water management, and climate change.

The report also highlights the progress and performance of WHAUP's sustainable development goals aligned with the United Nations Sustainable Development Goals (UN SDGs). The information in this report encompasses the business operations of WHA Group, including its subsidiaries in Thailand, where WHAUP holds a majority stake of over 50% and has managerial authority.

This report did not receive external party verification, but the contents and data were reviewed and approved by top executives from relevant functions to ensure its accuracy and completeness.

For more information, please contact:

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GETTING TO KNOW WHAUP

VISION

To be Asia's leader in utilities and power businesses providing total solutions to partners with good corporate governance as well as environmentally and socially friendly operations.

MISSION

- To be Asia's leader in utilities and power businesses providing total solutions to partners with good corporate governance as well as environmentally and socially friendly operations.
- To vertically integrate solutions in utilities and power businesses and expand other market segment to increase products and services in Thailand and other Southeast Asia Countries
- To continuously develop human resources competencies to build talent and experience to enhance organizational core competency including encouraging workplace environment for employee wellbeing.
- To nurture an innovative culture in the organization.
- To add value to communities and the environment with good corporate governance and sustainable development strategies.



GOALS

WHAUP aims to be a leader in integrated utilities and power businesses and to operate in compliance with the principles of good corporate governance with responsibility for the community, society and the environment. It also plans to expand its customer base in the segments of utilities and power services, both domestically and in the Southeast Asia countries and expand to related businesses in order to widen its range of products and services.

STRATEGY

- Continuously improving its utilities business and power business to ensure the constant and predictable generation of income, maximize profit and add value to shareholders.
- Applying its expertise in management in respect of infrastructure, environment and good relationship with customers with the aim of expanding its business opportunities.
- Efficiently using its human resources and financial assets to create the prospects of business investment.
- Incessantly carrying out educational, community and environmental campaigns for the benefit of the community, society and all other stakeholders to maintain good relationship with locals.

VALUES & CULTURE OF WHAUP

ADVANCE

To be initiative and proactively work to inspire, create, or adjust practical concept, means, or be innovative in order to fulfill customers' requirement and organizational goal.

CHAMPION

To achieve success, which results in business excellence.

RESOURCEFUL

To build relationship with customers as a consultant and provide professional advice.

INTEGRITY

To cultivate and develop trust and confidence from customers with transparent working culture, adhere to promise, sincerity, diligent, ethical, and socially responsible.





WHA Utilities and Power Public Company Limited (WHAUP) was established on June 30, 2008. It is a subsidiary company of WHA Corporations Public Company Limited (WHA Group) that develops world-class utilities and power solutions for both industrial and non-industrial customers and partners. The Company's core business relates to the: (i) utilities business, i.e. procurement and distribution of raw water, production and distribution of industrial water and providing wastewater treatment services to manufacturers and operators in industrial estates and industrial lands; and (ii) power business through its own operation and through investments in power generation businesses, both domestically and abroad, and engaging through strategic partnerships with reputable Thai and international operators. To pursue WHAUP's business ambition in becoming "Your Ultimate Solution Partner in Utilities & Power with Environmental Care", the Company continuously improves and expands both its

utilities and power businesses, to ensure that it excels in the competitive market and with environmental care. With a concern for the environment, WHAUP has been applying and driving technological innovations to enhance our capabilities in meeting customer demands, both in the present and the near future. WHAUP has plans to expand its business both horizontally and vertically, aiming for growth as a global company and transitioning into a tech company, in alignment with WHA Group. These plans are set to be realized within 2024.

WHAUP strictly abides by the regional regulations prescribed under the Ministry of Industry, Ministry of Labor, Industrial Estate Authority of Thailand (IEAT), Stock Exchange of Thailand, Ministry of Natural Resources and Environment as well as internal standards such as the UN SDGs. In 2017, WHAUP was listed on the Stock Exchange of Thailand (SET).

INTEGRATED INDUSTRIAL UTILITIES & POWER PROVIDER

With Sustainable Growth



145 Million m³

Water Utilities Sales
and Management

New Water Treatment Plant and
a Wastewater Treatment Facility
in WHA Rayong 36 with Total

Capacity **3.3** Million m³



Cumulative signed PPAs of

683 Equity MW Power



**Best Innovative
Company Awards**^{/1}

for its Peer-to-Peer Energy Trading Platform

^{/1} From The Stock Exchange of Thailand



Launched

Thailand Largest Solar Carpark

7.7 MW in WHA ESI1



UTILITIES BUSINESS

WHAUP serves manufacturers and operators, both within and operating outside, WHA Group's industrial estates and industrial lands across Thailand and Vietnam. The products and services offered are raw water, industrial water (process water, clarified water, premium clarified water and demineralized water) production and distribution and wastewater treatment services. The Company's aggregated maximum industrial water production capacity in all industrial estates and industrial lands is 375,576 m3 per day, and maximum wastewater treatment capacity of 135,456 m3 per day. The utilities business includes products or services as follows:

1. PROCUREMENT AND DISTRIBUTION OF RAW WATER

Raw water procured and distributed to industrial operators in WHA Group's industrial areas. The company's core customers are operators in steel industry, IPPs and SPPs.

2. PRODUCTION AND DISTRIBUTION OF INDUSTRIAL WATER

Industrial water produced and distributed by WHAUP can be divided under 4 categories.

1. Process water is industrial water that has undergone the processes of sedimentation, filtration and chlorination for disinfection. The final product is used in the production process in industrial plants in general. WHAUP's core customers include those in the automotive industry (e.g. automotive assembly plants and auto part manufacturing plants), food industry and electronics industry.
2. Clarified water is produced through the processes of sedimentation, filtration and chlorination. Lower quantity and concentration of chlorine is used in chlorination process for clarified water, compared to process water, so that a very small amount of chlorine is left in the clarified water product when it is distributed to customers. This product is in great demand for customers in heavy industries such as petrochemical, given that chlorine may

cause corrosion in machinery and equipment used in those industries.

3. Premium clarified water is the clarified water produced using the membrane technology (Reverse Osmosis) and has higher quality compared to the clarified water.
4. Demineralized water is the highly purified water that most of essential minerals are removed. It is used in some industry such as Power plant, Petrochemical, Electronics etc.

3. WASTEWATER TREATMENT

WHAUP provides central wastewater treatment ponds management services of industrial estates. Industrial plant releases wastewater together to ensure that the wastewater is treated in accordance with applicable standards imposed by the Ministry of Industry before being discharged into natural sources of water or being recycled into the production process.

4. RAW WATER RESOURCES DEVELOPMENT

WHAUP has initiated a water resource development project to enhance operational efficiency and strengthen the sustainability of our utilities business. As part of this project, medium-sized water sources are being developed in the vicinity of WHA Group's industrial estate in the Eastern Economic Corridor (EEC).

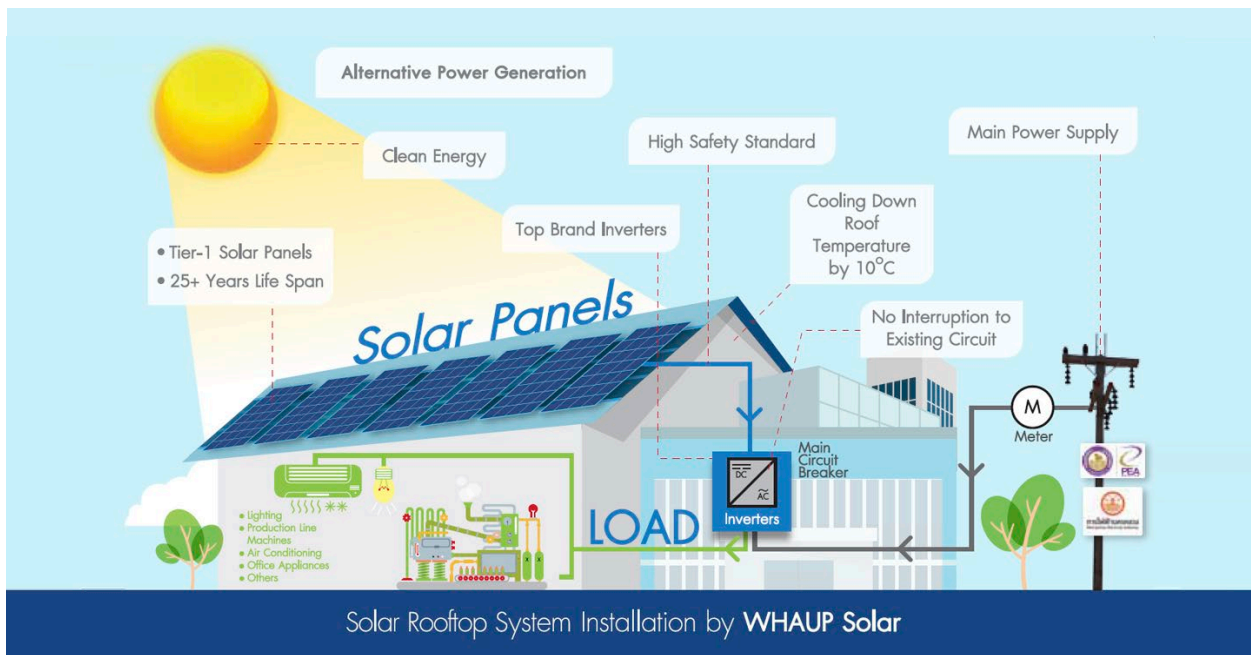


POWER BUSINESS

CONVENTIONAL FUEL

WHAUP has collaborated with a major independent power producer (IPP) that operates commercially in three projects, both domestically and internationally. WHAUP has invested in Gheco-One, Glow IPP and Houay Ho Power, with a combined production capacity of 1,525 megawatts or an equity-based production capacity of approximately 268 megawatts, based on proportional shareholding.

Furthermore, WHAUP has also participated in the capital investment of eight small power producers (SPPs) in collaboration with Gulf Energy Development Public Company Limited and B.Grimm Power Public Company Limited. Additional details regarding the commercially operated power plants in which WHAUP has invested can be found in Form 56-1 One Report 2022



SOLAR ROOFTOP ENERGY

WHAUP has installed and operated solar power systems not only on rooftops of WHA Group's warehouses and factories but also on rooftops of others; the Company has been gearing forward on this environmentally friendly platform to all industrial customers. With the Company's extensive experience, WHAUP offers an 820 kWp Solar Rooftop with a 550 kWh Battery Energy Storage System (BESS) to supply electricity to utilities in the Eastern Seaboard Industrial Estate (Rayong) helping to reduce carbon dioxide levels in the atmosphere. This project started commercial operation date (COD) in November 2021 and has contributed to energy cost savings of roughly 4 million Baht per year and CO₂ offset emissions reductions of 10,500 tons.





WASTE TO ENERGY

WHAUP has partnered with Global Power Synergy Public Company Limited and Veolia Environmental Services (Thailand) Company Limited (formerly known as Suez Services (Thailand) Company Limited) in the Chonburi Clean Energy (CCE). CCE is located within WHA Chonburi Industrial Estate 1 (WHA CIE 1). WHAUP has a 33.33% equity investment in the project. The CCE power plant commenced operations in November 2019 and has a maximum electricity production capacity of 8.6 megawatts per year.



NATURAL GAS DISTRIBUTION PROJECTS

The natural gas distribution project of WHAUP is a collaboration between leading energy companies, including WHAUP, Gulf Energy Development Public Company Limited, and MITG (Thailand) Company Limited under the joint venture company name “ GULF WHA MT NATURAL GAS DISTRIBUTION COMPANY LIMITED.” WHAUP has a 35% equity investment in the project.

Natural gas is a clean and cost-effective energy source, making it the primary fuel for industries in the present and the future. It serves as a substitute for fuel oil or diesel. Additionally, distributing natural gas through pipeline systems can help reduce transportation risks, decrease traffic congestion in the area, and provide a higher level of safety. Moreover, WHAUP’s gas pipeline system is connected to PTT’s natural gas pipeline system, enhancing the reliability and security of fuel supply for customers.

In this regard, the WHANGD2 and WHANGD4 projects are pipeline distribution and retail gas supply projects for industrial customers in WHA Eastern Seaboard Industrial Estate 2 (WHA ESIE 2) and WHA Eastern Seaboard Industrial Estate (WHA ESIE 4). These estates are located in the Eastern Economic Corridor (EEC) region. Both projects have the capacity to distribute approximately 3,000,000 billion BTUs of natural gas per year, or estimated according to WHAUP’s shareholding proportion at 1,050,000 billion BTUs per year. Commercial operations of the projects commenced in December 2018 and June 2019, respectively.

WHAUP STRATEGIC LOCATIONS

WHAUP headquarters is located on the 22nd floor of the WHA Tower building in the Bangna area, the central business hub and gateway to the Eastern Economic Corridor (EEC).

UTILITIES BUSINESS

WHAUP has a total of 20 industrial water production plants and 13 wastewater treatment plants located within 12 of WHA Group's industrial estates and industrial zones, consisting of 11 plants in Thailand and 1 plant in Vietnam. Additionally, there are 2 plants located outside of WHA Group's industrial estates. The specific locations and details of the industrial water production plants and wastewater treatment plants of WHAUP are as follows.

Industrial estates and industrial lands	Location
WHA Eastern Industrial Estate (Map Ta Phut) ("WHA EIE")	Map Ta Phut, Rayong, Thailand
Eastern Seaboard Industrial Estate (Rayong) ("ESIE")	Pluakdaeng, Rayong, Thailand
WHA Eastern Seaboard Industrial Estate 1 ("WHA ESIE 1")	Pluakdaeng, Rayong, Thailand
WHA Chonburi Industrial Estate 1 ("WHA CIE 1")	Sriracha, Chonburi, Thailand
WHA Chonburi Industrial Estate 2 ("WHA CIE 2")	Sriracha, Chonburi, Thailand
WHA Saraburi Industrial Land ("WHA SIL")	Nongkae, Saraburi, Thailand
WHA Rayong Industrial Land ("WHA RIL")	Bankhai, Rayong, Thailand
WHA Eastern Seaboard Industrial Estate 2 ("WHA ESIE 2")	Pluakdaeng, Rayong, Thailand
WHA Eastern Seaboard Industrial Estate 3 ("WHA ESIE 3")	Banbung / NongYai, Rayong, Thailand
WHA Eastern Seaboard Industrial Estate 4 ("WHA ESIE 4")	Pluakdaeng, Rayong, Thailand
WHA Industrial Zone 1 – Nghe An, Vietnam	Nghe An, Vietnam, Thailand
Eastern Economic Corridor of Innovation ("EECi")	Wangchan, Rayong, Thailand
WHA Rayong 36 Industrial Estate ("WHA Rayong 36")	Pananikom, Rayong, Thailand
ASIA Industrial Estate (Maptaphud)	Banchang, Rayong, Thailand



POWER BUSINESS

WHAUP operates as a shareholder in companies engaged in the production and distribution of electricity, both domestically and internationally. Additionally, WHAUP independently operates in the solar power generation business. Furthermore, WHAUP invests in the natural gas distribution business, including the distribution pipeline system and retail operations. The details location of the power plant projects and the natural gas distribution project are as follows.

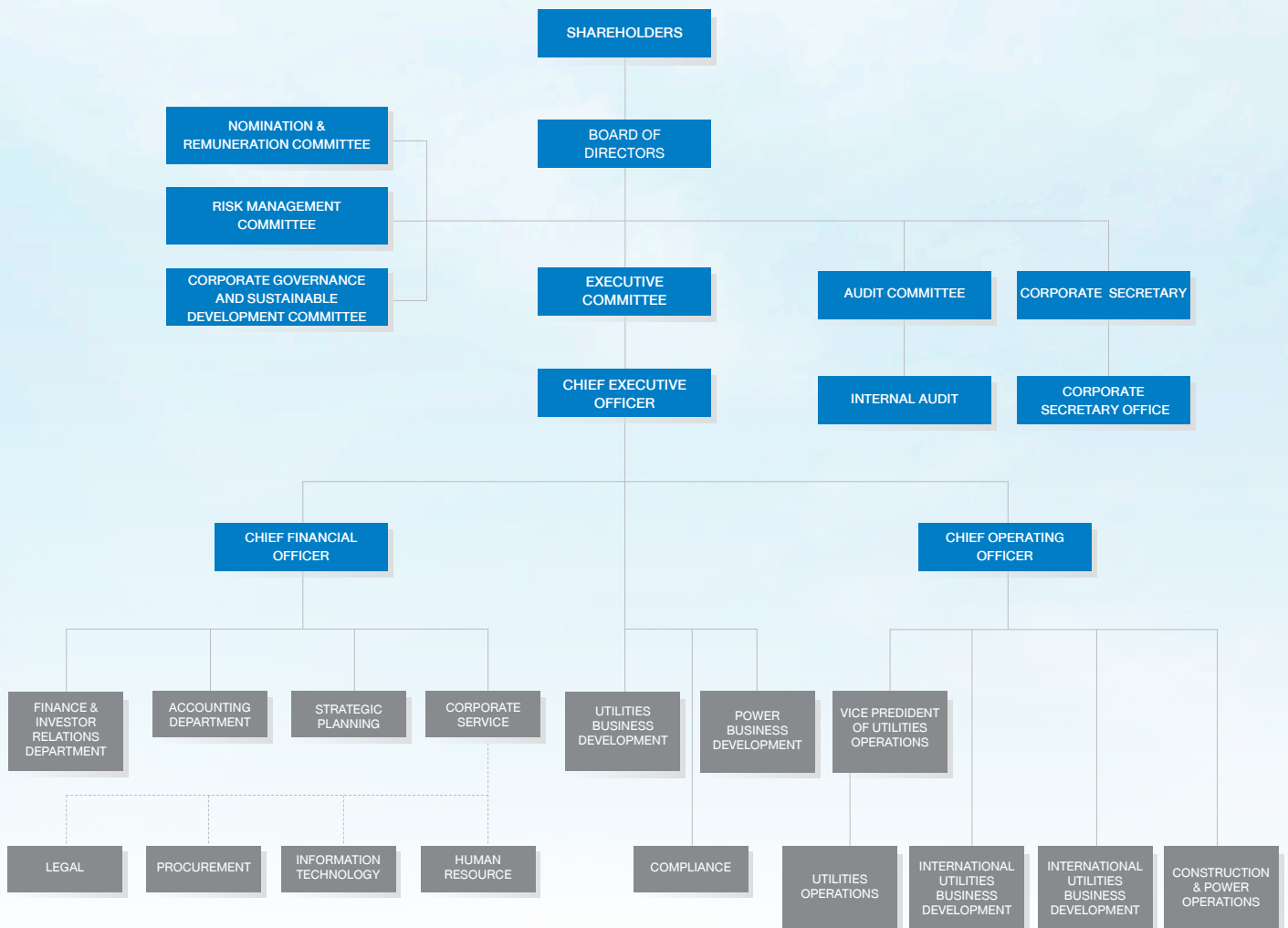
Power plant	Industrial estates and industrial lands	Location
Commercially operating power plants that WHAUP has investment		
Joint venture with Global Power Synergy Public Company Limited		
Gheco-I	Map Ta Phut Industrial Estate	Muang, Rayong, Thailand
Glow IPP	WHA CIE 1	Sriracha, Chonburi, Thailand
Houay Ho Power	-	Lao People's Democratic Republic
Joint venture with Gulf Energy Development Public Company Limited		
Gulf JP NLL	WHA RIL	Bankhai, Rayong, Thailand
Gulf Solar KKS	WHA PL1	Sriracha, Chonburi, Thailand
Gulf Solar BV	WHA CIE 1	Sriracha, Chonburi, Thailand
Gulf Solar TS1	WHA ESIE 1	Pluakdaeng, Rayong, Thailand
Gulf Solar TS2	ESIE	Pluakdaeng, Rayong, Thailand
Joint venture with Gunkul Engineering Public Company Limited		
WHA Gunkul Green Solar Roof 1	WHA Mega Logistics Center	Bangna-Trad KM.18, Samut Prakarn, Thailand
WHA Gunkul Green Solar Roof 3	WHA Mega Logistics Center	Bangna-Trad KM.18, Samut Prakarn, Thailand
WHA Gunkul Green Solar Roof 6	WHA Mega Logistics Center	Bangna-Trad KM.18, Samut Prakarn, Thailand
WHA Gunkul Green Solar Roof 17	WHA Mega Logistics Center	Wangnoi 61, Ayutthaya, Thailand
Joint venture in power plant projects with B.Grimm Power Public Company Limited		
BPWHA-1	WHA CIE 1	Sriracha, Chonburi, Thailand
Joint venture with Gulf MP Company Limited		
Gulf VTP	ESIE	Pluakdaeng, Rayong, Thailand
Gulf TS1	ESIE	Pluakdaeng, Rayong, Thailand
Gulf TS2	ESIE	Pluakdaeng, Rayong, Thailand
Gulf TS3	WHA ESIE 1	Pluakdaeng, Rayong, Thailand
Gulf TS4	WHA ESIE 1	Pluakdaeng, Rayong, Thailand
Gulf NLL 2	WHA RIL	Bankhai, Rayong, Thailand
Joint venture with Global Power Synergy Public Company Limited and Veolia Environmental Services (Thailand) Company Limited		
CCE	WHA CIE 1	Sriracha, Chonburi, Thailand
Commercially operating power plants by WHAUP (Sole Proprietorship)		
Solar power plants	*/1	*/1
Commercially operating projects of natural gas distribution and retail pipeline system that WHAUP has investment		
Joint venture with Gulf Energy Development Public Company Limited and MITG (Thailand) Company Limited		
WHANGD2	WHA ESIE 2	Pluakdaeng, Rayong, Thailand
WHANGD4	WHA ESIE 4	Pluakdaeng, Rayong, Thailand

Note */1 Solar Power Plants consist of multiple projects located in industrial factories and warehouse buildings, both within the industrial estate of WHA Group and outside. These projects include Solar Rooftop, Solar Floating, and Solar Farm installations.



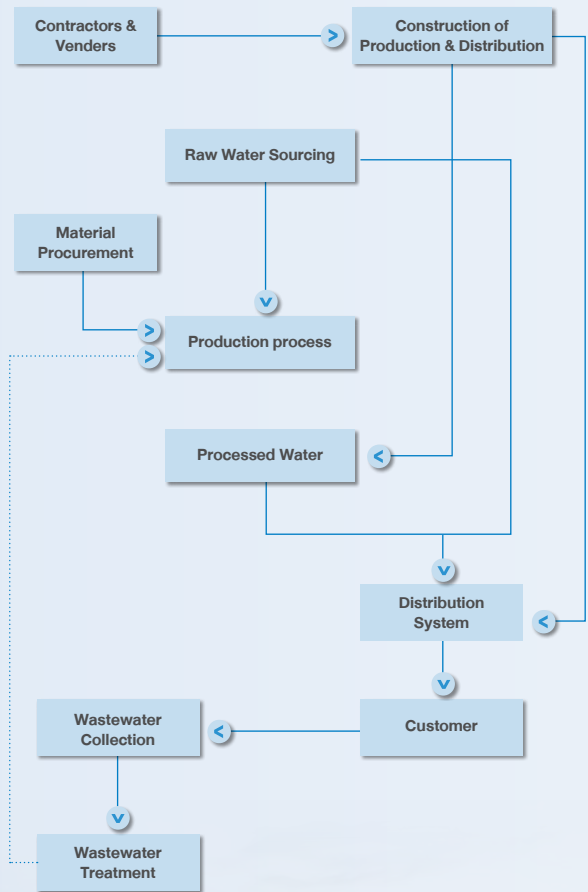


ORGANIZATION CHART

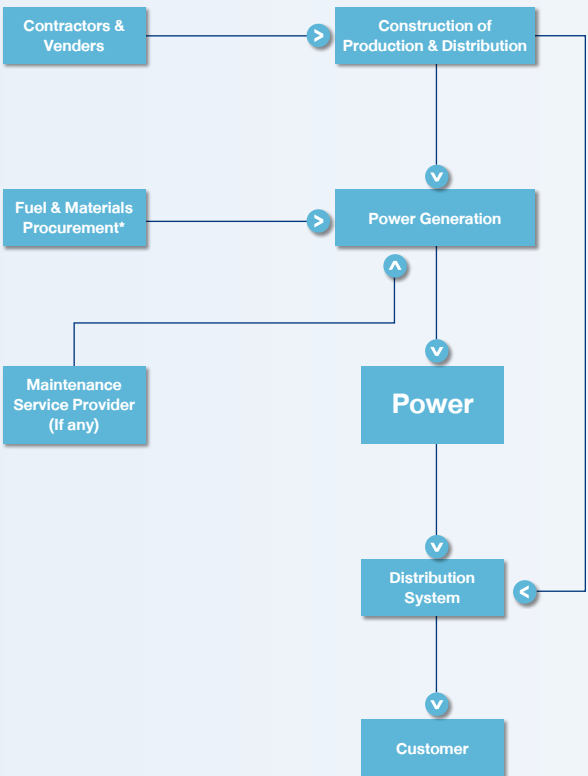


WHAUP VALUE CHAIN

UTILITIES



POWER



**Not applicable to Solar Power*





SUSTAINABILITY AT WHAUP

In 2022, WHA Utilities and Power Company Limited (WHAUP) committed to diligently operate according to the 5-Year Sustainability Framework of WHA Group, which was approved by the management committee. The objective of this framework is to drive the establishment of best practices for organizational development towards sustainability, aligning with WHA Group's business direction. This is done in accordance with the commitment to be "The Ultimate Solution for Sustainable Growth". To achieve these intended goals, WHAUP has developed a development framework anchored in good governance, emphasizing the importance of

human resource development as a vital force driving the business according to the planned strategies. This includes adapting to digital transformation and conserving natural resources. The long-term sustainability objectives of the organization are closely related to key sustainability issues that hold significance for WHAUP and its stakeholders. Additionally, WHA Group conducts analyses of risks and opportunities arising from global trends and potential future issues to ensure confidence that the development strategies are efficient and suitable for the circumstances.





SUSTAINABILITY MATERIALITY ISSUES

In 2022, WHAUP conducted an assessment of key sustainability issues in accordance with the Global Reporting Initiative (GRI) framework. This assessment covers three dimensions: governance/economy, society, and environment, which have both positive and negative impacts on the economy, environment, society, and all stakeholder groups. It also included the management

of organizational risks and the adaptability to global changes in line with the expectations of stakeholders. The aim was to ensure a balanced and efficient understanding and management of organizational risks and global changes while meeting the expectations of all stakeholder groups.

MATERIALITY ASSESSMENT PROCESS

1. UNDERSTAND THE ORGANIZATION'S CONTEXT TO DETERMINE THE SCOPE OF THE SUSTAINABILITY MATERIALITY ISSUES ASSESSMENT

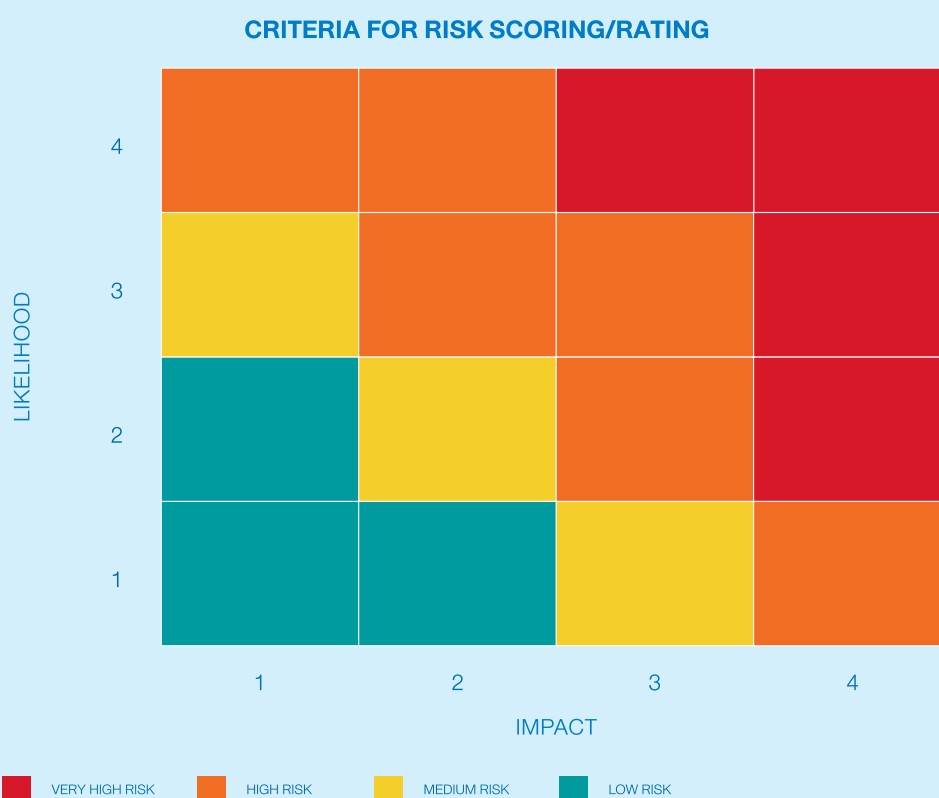
WHAUP has studied key sustainability issues based on the nature of our activities and the organizational context. This study considers both internal and external factors, including the strategic direction of the business, organizational risks, relevant standards, and various requirements, such as the United Nations Sustainable Development Goals (UN SDGs). The study also examines global trends related to utilities and power businesses and explores and identifies relevant internal and external stakeholder groups that are significant to WHAUP. These stakeholder groups may be affected by each of WHAUP's business activities.

2. IDENTIFY ACTUAL AND POTENTIAL IMPACTS OF SUSTAINABILITY MATERIALITY ISSUES

Through the study of key sustainability issues within the context of WHAUP, it is possible to identify the impacts that may occur, both positive and negative, on WHAUP. This enables the evaluation of these impacts and the selection of important issues for sustainability in the next step.

3. ASSESS ACTUAL AND POTENTIAL IMPACTS

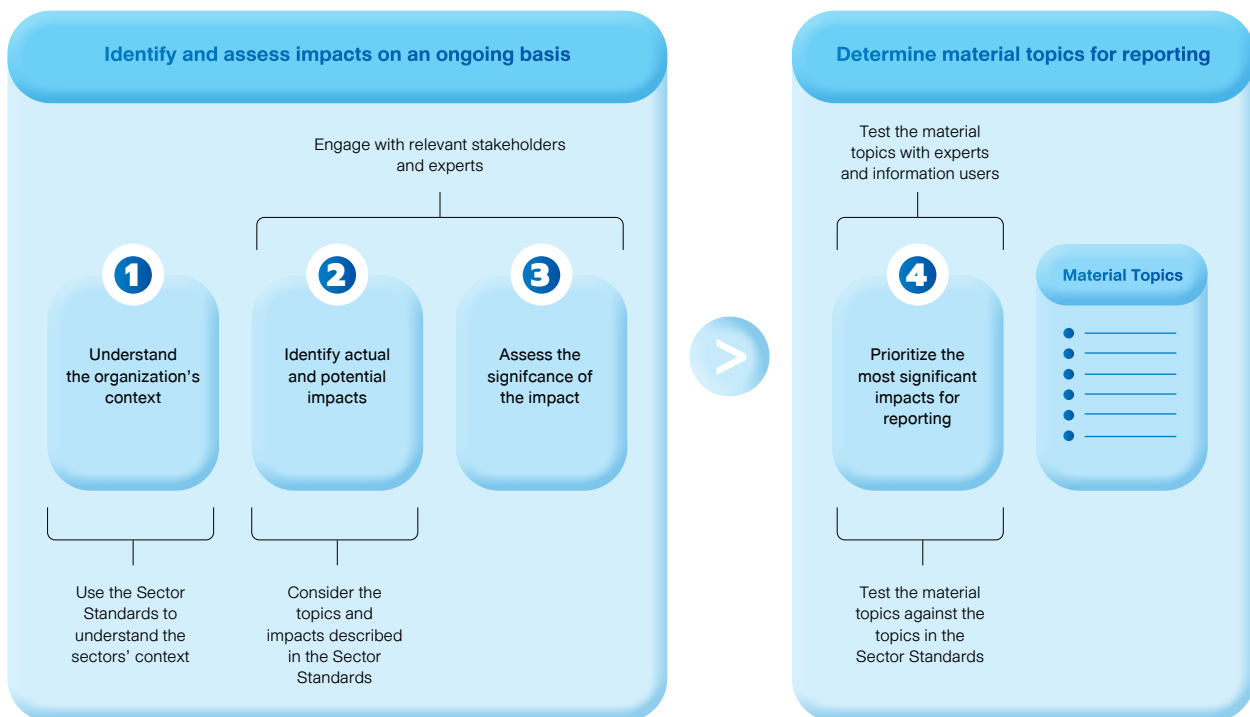
The evaluation of impacts in line with the Double Materiality Principle follows a two-step process. The first step involves assessing the impacts of WHAUP's activities on the environment and society, considering a wide range of stakeholders who are affected by these activities. Data analysis is collected, and important issues are identified to conduct operational practice-oriented discussions, aiming to gather feedback on both positive and negative impacts that stakeholders may experience or expect from WHAUP. These impacts encompass economic, environmental, and human aspects, including human rights. The stakeholder groups participating in these discussions include employees, shareholders/investors, customers, suppliers/creditors, government agencies/public institutions, communities, financial institutions, and media. The evaluation criteria adhere to the principles of Enterprise Risk Management, assessing the likelihood and severity of both positive and negative impacts in the short and long term on stakeholders. The severity levels can be classified based on the matrix below:



The assessment of the level of impact includes both the actual impact that has occurred and the potential impact that may occur.


4. PRIORITIZE OF THE MOST SIGNIFICANT KEY ISSUES AND REVIEWING KEY THE ISSUES

Following the Double Materiality Principle, WHAUP will now consider issues that have an impact on the economy, environment, and people, including human rights, in terms of enhancing efficiency and WHAUP's position or value. The process begins by presenting the evaluation results of research findings and the impacts assessed by the stakeholder groups to the sustainability team of WHAUP in the initial phase. This is done to select the highest priority issues for WHAUP (Priorities most significant), based on criteria aligned with enterprise risk management's impact assessment. Once the important issues are identified, the results will be shared with independent experts who will review and provide feedback on each issue in the sustainability report. After the review and validation by the management team, the accurate evaluation results of the significant issues will be presented to the Corporate Governance and Sustainable Development Committee for approval. The approved issues will then be disclosed and information will be shared across various dimensions moving forward.



2022 SUSTAINABILITY MATERIAL ISSUES

The list of material sustainability issues has been granted approval by Corporate Governance and Sustainable Development Committee.

Report Dimension	Sustainability Material Issues	Key Stakeholders and Impact Boundary		SDGs	Page
		Internal	External		
Governance/ Economic 	Corporate Governance and Ethics	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Supplier/Creditor Government/Regulator Financial Institution Customer 		36
	Technology and Innovation	<ul style="list-style-type: none"> Employee Shareholder/Investor 	<ul style="list-style-type: none"> Financial Institution Media 		69
Social 	Human Resource Management	<ul style="list-style-type: none"> Employee Shareholder/Investor 	<ul style="list-style-type: none"> Media Supplier/Creditor 	   	89
	Occupational Health and Safety	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customer Community Supplier/Creditor 		127
Environment 	Water Management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customer Supplier/Creditor Government/Regulator Community 	  	223
	Climate Strategy	<ul style="list-style-type: none"> Employee Shareholder/Investor 	<ul style="list-style-type: none"> Customer Supplier/Creditor Government/Regulator Community Financial Institution 	   	196



STAKEHOLDER ENGAGEMENT

Striving to become “The ultimate solution for sustainable growth”, WHAUP honors all stakeholders’ views in order to build good relationships with transparency, leading to a strong foundation for sustainable business growth. Stakeholder engagement is a critical activity that enables WHAUP to be kept informed of the stakeholders’ expectations and concerns. WHAUP strategically operated to play our role in offering integrated solutions to WHAUP’s customers, driven by the commitment.

Therefore, WHAUP, in collaboration with WHA Group, has developed a plan or framework for the involvement of stakeholders that encompasses the operations of WHAUP as a whole. The objective is to manage the expectations of stakeholders and analyze and prioritize stakeholder groups to determine how each group’s interests impact WHAUP’s projects or operations. Additionally, the stakeholder engagement process helps WHAUP mitigate negative impacts effectively and maximize positive outcomes. It also helps build confidence among stakeholders in the value chain.

MANAGEMENT APPROACH

1. Managing stakeholder groups is crucial in reducing negative impacts and generating positive outcomes for the benefit of society and the business operations of WHAUP’. Therefore, WHAUP has developed a stakeholder management framework for the entire organization. The objective is to effectively manage the expectations of each stakeholder group. The framework includes establishing appropriate relationships with each stakeholder group and ensuring that operational activities rotate within each business comprehensively.
2. WHAUP analyzes and prioritizes stakeholder groups to identify the aspects in which each group has an impact on WHAUP’s projects or operations. Additionally, the process of managing stakeholder engagement helps WHAUP mitigate negative impacts directly and efficiently, while maximizing the

positive outcomes. This approach also strengthens the confidence of all stakeholder groups within the value chain. The framework for managing stakeholder engagement includes the following:

- Gathering both direct and indirect stakeholder groups to classify and prioritize the key stakeholders is important. WHAUP has established guidelines for stakeholder prioritization, considering two primary factors, impact and dependence. These factors are used to determine the importance and ranking of stakeholders who have significant relevance to WHAUP.
- Plan and define strategies for engaging with stakeholders that are suitable for the identity of each group. This can involve activities such as meetings, survey design, communication through letters, conducting interviews during visits, and more. After that, assign responsible individuals and determine appropriate timeframes. Additionally, provide guidance on managing other risks that may occur during stakeholder engagement activities, such as addressing protests or unfavorable environmental conditions like rain or flooding, in order to keep WHAUP informed of stakeholder expectations and concerns regarding business management.
- Analyze: Assess and analyze the issues, concerns, risks, and opportunities that stakeholders are interested in. This should be done based on risk management principles, evaluating the impacts and opportunities. This will help identify the necessity and prepare appropriate response processes.
- Manage: Monitor and implement actions according to the stakeholder engagement processes. This involves maintaining communication with all stakeholder groups, as well as responding to issues and addressing various problems following the complaint handling procedures.

- **Review and Improve:** Evaluate the performance and effectiveness of stakeholder engagement activities by presenting them to the management board for review at least quarterly. Additionally, provide communication and public relations materials to inform stakeholders of WHAUP about the progress and development, ensuring their confidence through annual sustainability development report.

In addition to that, WHAUP also convenes monthly meetings with the Corporate Social Responsibility (CSR) Committee, comprising high-level executives of the organization and relevant stakeholders. These meetings take place once a month and aim to present suggestions, complaints, and various issues related to the community. The purpose is to collectively find

solutions and prevent recurring incidents, ensuring the organization's sustainable coexistence with the community.

WHAUP has established a complaint handling process for all departments within the organization to identify issues and implement effective measures to address the concerns and problems of stakeholders. Additionally, employees or external stakeholders are encouraged to report issues, provide suggestions, or file complaints and the team will be responsible for promptly investigating and resolving the received complaints. Additionally, there is a requirement to report the outcomes of the complaint handling process to relevant government agencies, such as the committee monitoring and auditing the environmental quality of industrial estates.

REPORTING CHANNELS



In 2022, WHAUP identify all stakeholders with the capacity to affect and/or who are likely to have an interest in the operation and determine eight key stakeholders including, employee, shareholder/investor, customer, supplier/creditor, government/regulator, community, financial institution, and media. While WHAUP top three stakeholders are customers, employees and communities.



Customers



Employees



Communities

The interests, expectations, and concerns of stakeholders have been acknowledged through various methods and channels of participation, as detailed in the progress report of stakeholder engagement activities. Worries and feedback received are reported to the department heads of relevant units within the company, including the sustainable development committee composed of senior managers and responsible personnel from related departments. This is done to identify issues, assess them, and develop effective and appropriate strategies to meet the expectations of stakeholders. The outcomes of stakeholder engagement activities are reported to the executive management for consideration and as supporting information for future business decisions.

THE PROCESS OF REVIEWING STAKEHOLDER ENGAGEMENT INCLUDES THE FOLLOWING:

- Gathering opinions and concerns from stakeholders through various participation methods and channels as described in the subsections of this report.
- Providing additional reports on concerns received from the aforementioned stakeholder engagement activities to the department heads of relevant units within the company, as well as the sustainable development committee composed of senior managers and responsible personnel. This is done to inform, evaluate, and develop efficient and appropriate strategies to respond to the concerns.
- The outcomes of stakeholder engagement activities are reported to the management and serve as supporting information for decision-making regarding business expansion.



RESULTS FROM STAKEHOLDER ENGAGEMENT

Stakeholder	Engagement Approach	Stakeholders' Expectation	2022 Performance Summary
EMPLOYEE	<ul style="list-style-type: none"> Various all-time communication channels (email, supervisor, intranet etc.) Annual CEO Town Hall Quarterly Executive Sharing Annual employee satisfaction and engagement survey Suggestion box Whistle blowing channels Monthly management meeting 	<ul style="list-style-type: none"> WHAUP outlook Business trends and updates Update on news and knowledge sharing Training and career development program Work environment Compensation, welfare, and benefits Management of occupational health and safety Business continuity plan Progress in career path Receiving equal treatment without discrimination Flexible working 	<ul style="list-style-type: none"> Update the performance and business outlook Share business trends and updates via WHA's communication channels Communicate and share updated situations and Executive knowledge Develop and provide suitable training programs Communicate on corporate values and strategy Regularly review and improve employees' compensation and benefits Promote good occupational health and safety culture Update and communicate business continuity plan via various communication channels in a timely manner Conduct business continuity plan rehearsals to ensure practices and requirements are strictly and effectively followed Establishing a Nomination Remuneration and Compensation Committee (NRC) to oversee the appointment of executive-level employees based on qualifications, skills, and abilities, without any restrictions or discrimination based on gender, age, skin color, race, nationality, or cultural background. Assigning tasks to individuals who possess suitable qualifications and capabilities.
SHAREHOLDER/ INVESTOR	<ul style="list-style-type: none"> Annual general meeting Annual Report and Sustainability Report Roadshow Analyst meeting Outlook meeting Investor site visit Opportunity Day Various all time communication channels (e.g. telephone, email, website etc.) 	<ul style="list-style-type: none"> Business performance, such as returns, benefits and profits Business transparency Changes in business management and business risks Sustainability performance Sustainable growth and expansion of the business with safe working systems and standards in place, ensuring continuous management to operate the business without interruptions. Effective risk management in response to rapid changes in global climate conditions. Equal treatment and practices among shareholders 	<ul style="list-style-type: none"> Improve business competitiveness and business directions to be up-to-date Ensure good corporate governance Establishing processes for identifying, assessing, and controlling operational risks, capital risks, and profit risks of the company, both existing and emerging risks. And developing emergency response plans and procedures to ensure business continuity in the event of unforeseen circumstances. Take part in Thai Private Sector Collective Action Against Corruption (CAC) Conduct enterprise risk management and establish short and long-term plan Provide information on flooding risk prevention Manage sustainability material topics Ensure environment and social compliance Promote innovation and sustainability initiatives Manage and meet the needs of stakeholders equally, without any discrimination



Stakeholder	Engagement Approach	Stakeholders' Expectation	2022 Performance Summary
CUSTOMER	<ul style="list-style-type: none"> Roadshow/ marketing events/ webinar Quarterly business meeting/ video conference Annual customer satisfaction survey Quarterly customer clubs Various all time communication channels (i.e. telephone, email, key contact personnel, social media etc.) 	<ul style="list-style-type: none"> Product and service inquiry Quality of after sale services Environment management, compliance and standards Risk and crisis management Efficient energy management (cost reduction) Effective waste management practices Presenting innovative and environmentally responsive products that address environmental challenges Avoiding environmental issues with neighboring communities Ensuring good corporate governance and business ethics to promote a positive image for customers. 	<ul style="list-style-type: none"> Provide product and service information on website and other media Provide prompt response to customers' inquiry Establish effective customer relationship management Continuously improve customer relationship management from customer's comments / suggestions Strictly comply with related laws and regulations and apply international environmental management standards where possible Conduct risk and crisis assessment and implement appropriate mitigation actions Inform customers of relevant risks and crisis management plans and measures Utilizing new technologies and innovations for environmental management Planning energy usage and implementing energy storage for future use Reducing the quantity of materials used and waste generated in production processes Having environmental management standards (ISO 14001) that do not impact the environment and communities.
SUPPLIER/ CREDITOR	<ul style="list-style-type: none"> Supplier event Supplier site visit Telephone Email Self-evaluation and onsite visits 	<ul style="list-style-type: none"> Transparency in procurement process Business opportunities and collaboration Compliance with WHAUP Group's standard On-time payment and following the contract agreement Environment, social and governance management Material quality and its environmental impacts Labor conditions (i.e., human rights). 	<ul style="list-style-type: none"> Developed procurement policy and procedure Conduct Suppliers-meet- Customers day Communicate on WHAUP procurement policy Conduct supplier assessment and provide feedback/ corrective action plans to guide suppliers for improvement Follow the contract agreement Disclose information according to the agreed condition Communicate concerns related to environment, social and governance criteria Reduce face-to-face meetings to reduce COVID-19 risks Evaluate supplier criteria to ensure that environmental, social and governance concerns are limited Ensure environmental management compliance are strictly followed Develop screening process to ensure that it complies with the Supplier Code of Conduct Ensure there is no violations of labor conditions or human rights issues.



Stakeholder	Engagement Approach	Stakeholders' Expectation	2022 Performance Summary
GOVERNMENT/ REGULATOR	<ul style="list-style-type: none"> Meeting on occasion Various all time communication channels (i.e. telephone, email and Line application). 	<ul style="list-style-type: none"> Conducting business in compliance with laws and regulations Stakeholder impact management Corporate governance and transparency Conducting business with integrity, awareness, and implementation by all employees at all levels of the organization Serving as a role model organization for other organizations Conducting business without creating negative environmental impacts. 	<ul style="list-style-type: none"> Strictly comply with relevant laws and regulations Managing the needs of stakeholders, including ensuring ethical business practices, in order to instill confidence in stakeholders. Corporate governance and transparency Ensure good corporate governance and implementation of business code of conduct Environmental, Social, and Governance (ESG) risk management. Emphasizing long-term financial planning and organizational flexibility.
COMMUNITY	<ul style="list-style-type: none"> Public hearing and meeting Community activities Community engagement survey Local community representatives Company site visits by community. 	<ul style="list-style-type: none"> Business operations' impacts on communities' well-being (i.e., Air, wastewater, waste, etc.) Environmental management performance Developing communities and promoting community activities (such as education promotion, health promotion, and community enterprise promotion) Community engagement Ensuring that business operations do not impact the geographical conditions of communities and their way of life. 	<ul style="list-style-type: none"> Conduct regular community feedback survey to ensure there is no impact on local community Implement mitigating actions where business operation activities affect community's well-being (i.e., use of smart traffic management to improve traffic problem) Involve surrounding communities in crisis management and emergency drill Ensure compliance with environmental related laws and standards Regularly implement community development project (e.g., as collaborating with educational institutions to develop youth skills aligned with labor market demands and promoting health and medical equipment support to local hospitals and healthcare facilities) Share WHAUP's expertise with local communities Provide effective and prompt response to community complaints Conduct community meeting to understand communities' needs and suggestions Conduct public consultations and report on the results of Environmental Impact Assessments (EIA) to gather feedback and develop preventive and control measures. Support the local economy by fostering community engagement and preserving cultural traditions and customs (e.g., promoting community products through the WHA Pan Kan project).



Stakeholder	Engagement Approach	Stakeholders' Expectation	2022 Performance Summary
FINANCIAL INSTITUTION	<ul style="list-style-type: none"> Various all-time communication channels (i.e. email, phone, line application, conference, etc.) Annual greetings Quarterly analyst meetings 	<ul style="list-style-type: none"> Business performance and outlook Compliance with the law Business transparency Changes in business management and business risks Sustainability performance Green initiative Continuous business operations 	<ul style="list-style-type: none"> Improve and keep business competitiveness and business directions up-to-date Ensure good corporate governance Strictly comply with Disclosure Policy Notify significant updates or changes in a timely manner Manage sustainability material topics Promote innovation and sustainability initiatives Assess sustainability issues along with investment decision process Investing in environmentally friendly projects. Seeking funding opportunities that prioritize green issues and related aspects. Implementing Business Continuity Planning (BCP) to ensure preparedness for crises
MEDIA	<ul style="list-style-type: none"> Various weekly or bi-weekly communication channels (i.e., press release, photo captions, executive interview, and news article) Annual press conference, press tour/visits and annual greetings Quarterly Group interviews Bi-annual press briefings 	<ul style="list-style-type: none"> Business outlook/ Business direction Strengthening relationships Updates on products and services CSR initiatives and environmental management Business outlook Financial results Technological advancements 	<ul style="list-style-type: none"> Hold annual press conference to update business plan and directions Frequently update on the development of company's activities through media channels Disclose accurate information on the basis of facts Maintain good and long-term relationships with the media





GOVERNANCE/ ECONOMIC DIMENSION

1



CODES OF BUSINESS CONDUCT

Currently, the world is moving towards a more sustainable economy. Good corporate governance is considered a crucial foundation for long-term business growth. It demonstrates responsibility and ethics in organizational management. Additionally, the business sector must confront challenging environments, economic volatility, technological changes, and pressures to effectively manage the environment. Therefore, effective corporate governance plays a significant role in ensuring that the operations of WHAUP do not create negative impacts or cause harm. It also aims to generate benefits for all relevant stakeholders in a balanced manner, encompassing economic, social, and environmental aspects. This is a fundamental basis for sustainable business growth. WHAUP board of directors' places great importance on overseeing the ethical conduct of WHAUP, leading to an efficient management system, and preserving the benefits of all stakeholders in alignment with the principles upheld by the management.

As part of WHA Group, WHAUP is a comprehensive provider of utility and power management services. We are acutely aware of the importance and impact of effective oversight and governance of WHAUP's activities. We firmly believe in the principles of corporate governance, which encompass operating within a framework of transparency, honesty, fairness, responsibility, efficient risk management, and a strong commitment to combatting corruption. These principles are essential tools for overseeing and managing our operations effectively. Therefore, WHAUP places great importance on efficient oversight and governance to safeguard the interests of all stakeholders, ensuring a balanced approach based on human rights principles, and minimizing the potential impacts of various risks. We focus on building trust and confidence among both internal and external stakeholders, assuring that our company's operations do not violate the rights of individuals, legal entities, or other relevant parties, thus avoiding negative impacts on society, the economy,

communities, and the environment as a whole. Our goal is to lead the company's sustainable growth while preserving wealth.

MANAGEMENT APPROACH

Organizational Structure and Roles of The Board of Directors

As WHAUP is committed to achieving its business goals efficiently under the drive of the "Mission To The Sun" project, in accordance with the strategic direction of WHA Group, it adheres to the principles of corporate governance specified by the Stock Exchange of Thailand (SET) and international governance principles such as the United Nations Global Compact (UNGC). This ensures that WHAUP's business operations align with principles of honesty, ethics, and environmental, social, and governance (ESG) indicators are used to evaluate the performance of the Board of Directors. WHAUP focuses on transparent and concrete management, providing executives and employees with the opportunity to freely participate in the development and drive of the organization within the framework of good corporate governance, which applies to all directors, executives, and employees. The stakeholders' perspectives on nominated individuals are considered, and independent selection processes free from interference, conflicts of interest, or background biases are implemented. The competence of the nominated person is an important factor in the selection process. When selecting directors, WHAUP highly values stakeholder input and conducts an independent, conflict-free process free from interference or corruption. The Board of Directors has appointed the Nomination and Remuneration Committee (NRC) to nominate individuals for director positions based on qualifications, skills, and abilities, without limitations or discrimination based on gender, age, skin color, race, ethnicity, nationality, or cultural background. Recruitment sources may include professional search firms or director databases. In 2022, the Nomination and Remuneration Committee selected qualified individuals to fill director

positions, including replacements for resigned directors and new directors. Mr. Somkiat Masanthasuwan and Mr. Pajongwit Pongsivapai were nominated, who possess knowledge, capabilities, and experience in the utilities, power and innovation technology fields, aligning with the company's business strategy. Moreover, compensation is set based on clear, fair, and appropriate criteria that align with labor market conditions. The Nomination and Remuneration Committee holds meetings at least four times a year and reports its performance to the Board of Directors. For more information about selection guidelines, nomination and appointment of directors, and the structure of the Board of Directors and senior executives, please refer to the "Corporate Governance Structure" and "Corporate Governance Performance Report" sections in the Form 56-1 One Report 2022.

Furthermore, WHAUP has implemented an annual performance assessment system for the Board of Directors and its sub-committees. This assessment involves individual and group self-assessments to identify and address operational issues, fostering continuous improvement within the organization. The Board of Directors also conducts an evaluation of the Chief Executive Officer (CEO), focusing on leadership, strategy formulation and implementation, corporate governance (ESG) practices, operational planning, financial performance, stakeholder relationships, administration, personnel management, succession planning, knowledge of products and services, and personal characteristics. The evaluation results significantly influence the determination of the CEO's remuneration.

WHAUP is committed to promoting and supporting the continuous development of knowledge, skills, and experience among the Board of Directors, contributing to sustainable development. This includes facilitating training seminars and courses both within and outside the organization, such as those offered by the Thai Institute of Directors Association. Furthermore, WHAUP encourages study visits to relevant domestic and international business groups to broaden their perspectives and insights.

More information regarding the 2022 Board Performance Assessment, CEO Performance Assessment, and knowledge development through training courses can be accessed under the "Report on Significant Results on the Corporate Governance" section in Form 56-1 One Report 2022.

Board of Directors' Role and Responsibility

The Board of Directors plays a crucial role as organizational leaders in setting the vision, mission, business direction, objectives, goals, strategies, and operational policies of the company. In 2022, the Board of Directors conducted a review of the vision, mission, objectives, and approved the strategic plan and budget for 2023. This serves as a guideline for short-term and long-term operations. Furthermore, the Board delegated the responsibility to the management team to implement the company's strategies and goals and report the results to the Board of Directors. Additionally, the Board of Directors is responsible for allocating key resources to develop the organization and achieve its goals, as well as creating value for the business for sustainable development. This includes planning, setting policies, and overseeing operations to ensure alignment with environmental, social, and governance (ESG) considerations. WHAUP, as a subsidiary of WHA Group, has been conducting business in line with the vision, mission, and strategies set by WHA Group's Chairman of the Board of Directors. The Chairman of the Board of Directors of WHA Group has assigned the Corporate Governance and Sustainable Development Committee with the responsibility of communicating and implementing activities related to corporate governance and sustainable development with the management team. This includes monitoring, reviewing, and improving the performance of employees involved in corporate governance, as well as business stakeholders, to ensure compliance with the established policies and plans. The Corporate Governance and Sustainable Development Committee will provide regular reports on the progress and evaluation of sustainable development activities to senior executives and the development team. Meetings of the committee will be held at least twice a year to monitor progress and conduct due diligence in corporate governance and sustainable



development efforts. Furthermore, WHAUP has also established an Environmental Committee composed of senior executives and relevant employees from various departments to oversee environmental management, energy conservation, and biodiversity.

Furthermore, to ensure transparent business operations with checks and balances and disclose information that is verifiable, The Corporate Governance and Sustainable Development Committee will be responsible for overseeing various practices in compliance with the law. This includes reviewing, evaluating, and improving corporate governance policies, as well as acting as a representative in corporate governance communication and activities. Additionally, the committee takes responsibility for making decisions and managing the organization's impact on the economy, environment, and society. It also addresses other important issues, covering all employees and executives.

In 2022, the Corporate Governance and Sustainable Development Committee reviewed and approved the key sustainability materiality issues during the 1/2023 committee meeting held on February 3, 2023.

Policy on Remuneration and Shareholding of The Board of Directors

WHAUP establishes a compensation policy for the Board of Directors and Senior Executives in line with the remuneration policy of WHA Group. The compensation rates are related to the objectives, responsibilities, and performance outcomes associated with managing the organization's impact on the economy, environment, and society. This aims to encourage senior executives to pay greater attention to the organization's impact

in all three aspects. Information on the components, roles, and responsibilities of the Board of Directors and subcommittees, meeting attendance rates, compensation for directors and senior executives can be found under "Company Structure" and "Report on Significant Results on the Corporate Governance" section in Form 56-1 One Report 2022.

As part of WHA Group, WHAUP has a Chairman of the Board or an Independent Compensation Committee responsible for operating in accordance with WHA Group's main policy and overseeing the compensation determination process. The opinions of stakeholders (including shareholders) have an impact on the compensation of senior executives. The Nomination and Remuneration Committee also play a significant role in determining compensation. The Nomination and Remuneration Committee carries out its duties independently and without any conflicting interests. Additional information regarding shareholders and their rights can be found in Form 56-1 One Report 2022.

Code of Conduct and Practice Guidelines of WHAUP ("Code of Conduct")

WHAUP is well aware that conducting business with a focus on corporate governance is a crucial foundation for sustainable business growth. Therefore, WHAUP is committed to operating the business in accordance with principles of good corporate governance. It establishes practices to oversee the organization, adhering to the guidelines of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) for good corporate governance, as well as international corporate governance standards.

WHAUP has developed a Code of Conduct, which has been reviewed by the Corporate Governance and Sustainable Development Committee and approved by WHAUP Board of Directors. The Code of Conduct aligns with the corporate governance principles of WHA Group and aims to promote business practices that emphasize integrity, legal compliance, ethics, as well as environmental, social, and governance (ESG) responsibilities. It encompasses the board of directors, executives, employees, suppliers, contractors, subsidiaries, and joint venture companies under WHAUP's control, and it guides their actions and policymaking. The business code of conduct has been

prepared in both Thai and English languages to ensure accessibility and understanding by stakeholders, including Thai and foreign individuals. It can be studied, comprehended, and adhered to by all, enabling a comprehensive approach. The Code of Conduct is periodically reviewed and approved by WHAUP Board of Directors to ensure its relevance and coverage of all business activities and stakeholders, in line with societal context. WHAUP has made the code of conduct available to the public through its website and the internet, allowing both employees and external individuals to conveniently access the information.

WHAUP Code of Conduct and Practices

TH:
<https://www.wha-up.com/Uploads/elFinder/pdf/cg/20220224-whaup-cg-code-of-conduct-th.pdf>

EN:
<https://www.wha-up.com/Uploads/elFinder/pdf/cg/20220224-whaup-cg-code-of-conduct-en.pdf>

The Code of Conduct at WHAUP is applicable to all personnel, irrespective of their hierarchical level. To ensure adherence to the Code of Conduct and practices, the company has introduced a digital acknowledgment process. Furthermore, comprehensive training programs are offered to effectively communicate these policies to employees, suppliers, contractors, subsidiaries, and joint ventures, ensuring their comprehension and acknowledgment. WHAUP has established guidelines, operational goals, and current performance as follow:



WHAUP has implemented a Performance Management System to oversee and ensure that every employee adheres to the corporate ethics. In 2022, no cases of complaints regarding violations or non-compliance with corporate ethics were found. However, WHAUP has established processes to prevent and rectify any future breaches of corporate ethics, considering it as one of the disciplines within the company. The Board of Directors, Executives, and all employees are required to uphold and abide by these principles strictly. Those who violate or fail to comply will be subject to disciplinary action according to the regulations and rules governing the workplace.

Anti-Corruption

WHAUP encourages employee in terms of integrity and fostering a positive impact across all business sectors. This commitment is realized through comprehensive training programs and the cultivation of a strong Anti-Fraud and Corruption culture, as any form of fraud and corruption is deemed unacceptable. To strengthen this commitment, WHAUP has established the Anti-Corruption Policy and Practices, which undergo regular reviews to ensure relevance and effectiveness. This policy is applicable to all WHAUP personnel, including directors, executives, employees, suppliers, distributors, contractors, subsidiaries, and joint ventures. Its primary objective is to prevent the abuse of power, fraudulent activities, bribery, and to ensure that all business operations are conducted in full compliance with the law. Detailed guidelines pertaining to these principles are explicitly outlined within the code of conduct and the Anti-Corruption Policy.

To promote the fight against corruption, WHAUP has assigned the Audit Committee to oversee, monitor, and audit the implementation of the anti-corruption policy.

The Audit Committee is responsible for examining and verifying the policy and internal control systems related to combating corruption. They also ensure vigilance and mitigate the risks of illegal activities and fraudulent behavior. The Audit Committee works to prevent internal corruption within WHAUP and handles complaints and reports related to various corruption issues submitted by stakeholders. Additionally, the Internal Audit Department evaluates corruption-related risks to establish risk reduction measures. The scope of their assessment extends to external parties involved with the organization, as well as business contacts with customers and key suppliers.

WHAUP has announced and communicated to all employees about its Anti-corruption policy, including various penalties in case of misconduct. Each employee has signed and acknowledged this policy as part of the company's working regulations. WHAUP conducts regular training sessions to review understanding and awareness of the anti-corruption policy, held annually.

Additionally, WHAUP provides intensive training for committee members to effectively communicate the anti-corruption policy through rigorous training sessions. In 2022, two new committee members who have completed training on the anti-corruption policy have been appointed. Therefore, it can be stated that all committee members (100%) have been thoroughly informed about the company's anti-corruption policy.

WHAUP has announced and communicated its commitment to anti-corruption and rejecting bribery in order to achieve positive business outcomes. WHAUP has declared its participation in the Thai Private Sector Collective Action Against Corruption (Thai CAC) in 2019 and has renewed its membership with Thai CAC in 2022.

No Gift Policy

TH:

<https://www.wha-up.com/Uploads/elFinder/pdf/cg/20230502-no-gift-policy-th.pdf>

EN:

<https://www.wha-up.com/Uploads/elFinder/pdf/cg/20230502-no-gift-policy-en.pdf>

The certification is valid for three years from the date of approval. WHAUP diligently monitors and evaluates its adherence to the anti-corruption policies and measures of WHAUP and reports the results to the Audit Committee for further acknowledgment. Throughout the past years, there have been no instances of non-compliance with the policies by the committee members, management, or employees.

On December 8, 2023, WHAUP, along with WHA Group companies, announced a policy to suspend the acceptance of gifts and launched a public awareness campaign targeting senior executives, suppliers, and business partners. This initiative, known as the “No Gift Policy,” aims to promote ethical practices and establish a transparent working culture across all sectors of the business.

The Anti-Corruption Policy outlines clear guidelines aimed at mitigating the risks associated with fraud and corruption. These guidelines address various areas, including the giving or receiving of gifts, charitable contributions, sponsorships, financial support, political involvement, procurement procedures, and the recruitment of government personnel. The policy extends beyond the scope of the Code of Conduct to ensure comprehensive coverage. In the event of a violation or non-compliance with this policy, the company has established well-defined disciplinary measures that encompass offenses ranging from minor to serious.

Such offenses include bribery, fraud, unauthorized disclosure of WHAUP’s confidential information or intellectual property, or any actions that significantly jeopardize the interests of WHAUP.

Whistle Blowing

To support and promote effective governance and the implementation of anti-corruption measures, WHAUP has established channels for reporting and lodging complaints that are accessible to all stakeholders, both internal and external to the organization. These channels are designed to be convenient and include protective measures to create a transparent work environment and instill confidence in whistleblowers. Individuals can report and disclose suspicions, suggestions, complaints, or any other matters related to misconduct, corruption, violations of laws, governance policies, or Code of Conduct. Whistleblowers and complainants are protected, and WHAUP ensures their confidentiality and provides assurance to them. Furthermore, WHAUP has a policy of not retaliating against employees who refuse to engage in misconduct and corruption, even if such actions result in business opportunities being lost. Additionally, all parties involved in receiving such information have a duty to maintain confidentiality and not disclose it to third parties unless required by law, government agencies’ orders, or court orders.

In the event of whistleblowing or complaints, they will go through a process where the company’s secretariat is responsible for collecting and conducting initial evaluations before presenting/reporting to the management for consideration and further reporting to the Audit Committee and the Board of Directors. The company’s secretariat will regularly report to the



Audit Committee on the presence of whistleblowing or complaints. The Audit Committee will report to WHAUP Board of Directors on a quarterly basis, and there will be subsequent reporting to the board of directors of WHA Group. This reporting is done to ensure that the issues are acknowledged and to enable effective assessment, resolution, mitigation, and the development of strategies that meet the expectations and complaints of stakeholders. In 2022, there have been no instances of whistleblowing or complaints, and no violations have been found. This is in line with the set objectives.

More information about the process and procedures to be followed when receiving a whistleblower is stated in the “Code of Conduct AND PRACTICE GUIDELINES” section.

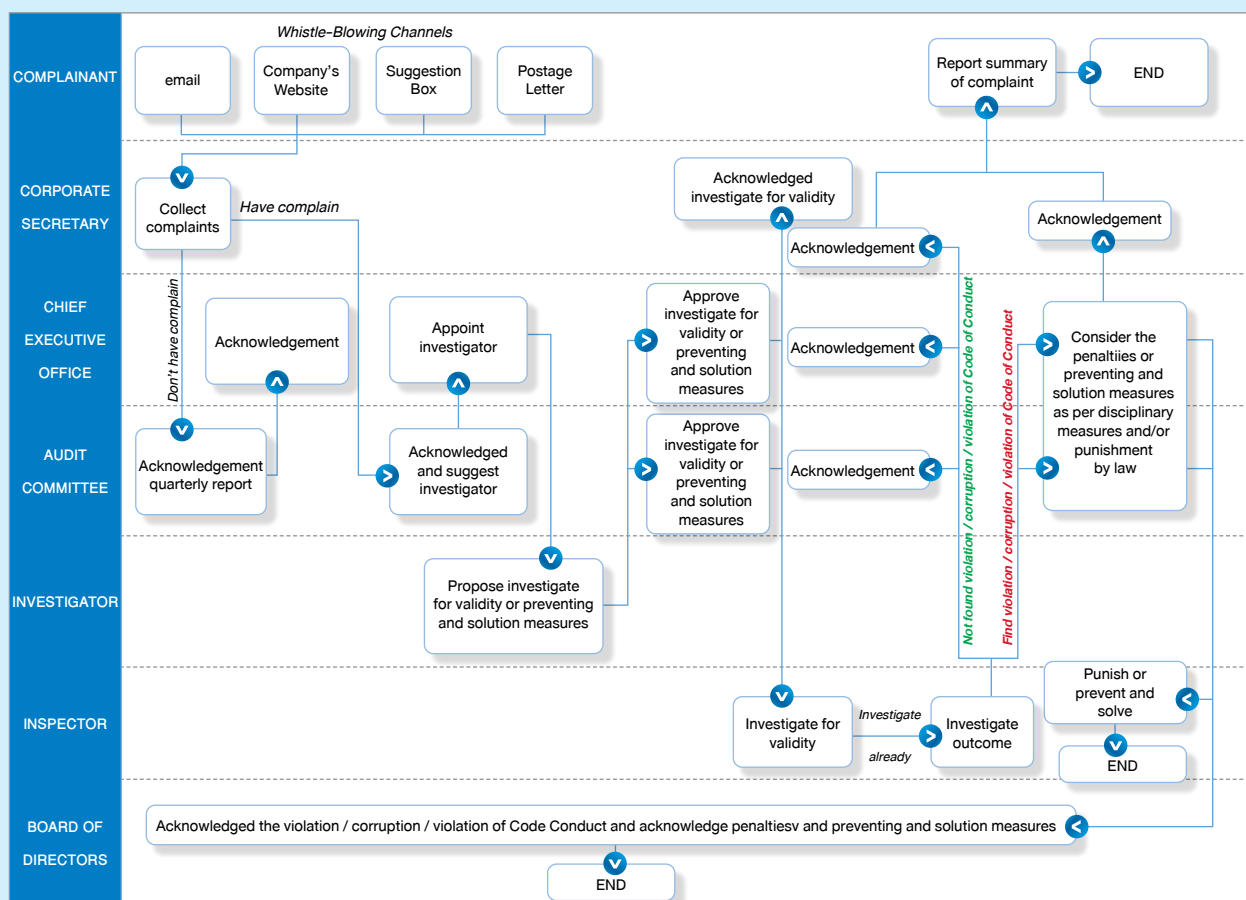
Channels for employees

- **website**
www.wha-up.com
- **Comment box**
CEO@wha-up.com
auditcommittee@wha-up.com

Channels for external stakeholders

- **website**
www.wha-up.com
- CEO@wha-up.com
- auditcommittee@wha-up.com

The process of handling whistleblowing and complaints





In 2022, WHAUP, in collaboration with WHA Group, engaged in communication, training, and activities to enhance awareness of corporate governance principles among the board of directors, management, and employees, as follows:

- All new employees and board members are required to undergo mandatory training on “Code of Conduct and Anti-Corruption Policy” as part of the company’s orientation program for employees and board members.
- The Company Secretary Department, in collaboration with the Human Resources Department, communicated and organized training to review knowledge through the course “Code of Conduct and Anti-Corruption Compliance” from December

7th to 8th, 2022. This course covered important topics, including preventing internal data misuse, reporting asset ownership, preventing conflicts of interest, reporting profit and loss, and channels for reporting and complaints. After the training, a video was recorded for self-learning purposes through an online system to enhance the effectiveness of training. Furthermore, the company provided an opportunity for everyone to express their opinions and provide suggestions to improve the course.

In summary, in 2022, all board members, executives, and employees acknowledge the code of business conduct and anti-corruption policy, accounting for 100 percent of the total workforce.



In addition, WHAUP has communicated with and informed business partners and contractors about the Code of Conduct of WHAUP through various channels. For example, the policy has been attached to contracts to ensure that business partners and contractors are aware of and adhere to the code of business conduct of WHAUP



RISK AND CRISIS MANAGEMENT

Businesses today are facing a challenging and dynamic environment, characterized by economic fluctuations, digital technology disruptions, and the imperative for enhanced environmental management. All of these factors represent current risks that organizations must manage to help them achieve their operational goals. WHAUP, as part of WHA Group, collaborates to establish activities and control measures to prevent or mitigate risks to an acceptable level. We conduct systematic assessments, controls, and audits while implementing impact management plans to prevent damages that could affect the business, society, the environment, and other stakeholders. WHAUP emphasizes the importance of risk management and integrates sustainability considerations into the organization's mission, strategies, as well as analyzing sustainability risks and key issues. This approach helps manage risks at various levels, fostering confidence among key stakeholders. The following are the operational activities conducted by WHAUP.

RISK MANAGEMENT AND IMPACT MANAGEMENT

WHAUP has implemented an effective and proactive risk management policy to enhance its ability to adapt to change, increase mobility, and respond effectively to uncertain situations. This policy is designed to ensure business continuity management within the company.

WHAUP is committed to implementing effective risk management practices throughout the organization. The Board of Directors has established a Risk Management Committee to oversee the overall risk management process. This ensures that all business units within WHAUP can effectively manage risks in accordance with the committee's best practices. Additionally, a risk management working group comprising executives and department heads has been appointed to complement these efforts. The working group convenes regular meetings to monitor risk information specific to WHAUP, including identifying potential risks, their impact, and



business opportunities. These discussions encompass social, environmental, and economic aspects, with reports submitted to WHAUP's Risk Management Committee for presentation to the quarterly Board of Directors meeting. For more details on the composition of the Risk Management Committee, please refer to Form 56-1 One Report 2022.

RISK MANAGEMENT FRAMEWORK

WHAUP has successfully implemented a robust risk management policy and framework developed by the Risk Management Committee. This policy applies to all business activities within the organization. The Risk Management Committee conducts annual reviews of the risk management policy to ensure that all material risks are adequately addressed, and appropriate measures are in place to mitigate them. Both the management team and employees have shared responsibility for effective risk management.

WHAUP, in collaboration with WHA Group, has adopted a risk management framework aligned with the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Specifically, we have focused on Enterprise Risk Management (ERM) in conjunction with the Thai Corporate Governance Code for Listed Companies 2017, which promotes good corporate governance practices. The integrated risk management approach covers various areas of risk, including financial risk, governance, environmental factors, social aspects, risk management and internal control systems, as well as compliance with laws, regulations, and GRC (Governance, Risk, and Compliance) framework. This ensures that the organization's risk management aligns with established policies and frameworks, and encourages all employees to consistently apply these practices in their work.



RISK IDENTIFICATION

- identification of internal and external risk, along with business impacts.
- Categorization of identified risks under four categories: Strategic, Financial, Operation and Compliance.
- Identify financial risk and Non- financial risk (ESG risk).



RISK ASSESSMENT

- Calculation of risk levels following standardized assessment criteria.
- Prioritization of risks based on risk profile and appetite.



RISK RESPONSE AND MITIGATION MEASURES

- Determine actions to respond, mitigate potential impacts and ultimately reduce high level risks to acceptable levels



RISK REPORTING, MONITORING AND COMMUNICATION

- Communication of risks to all executive and employees to build a strong risk management culture.
- Risk Working Group reports risk management action plans, results and progress to RMC on a Quarterly basis.
- Optimize internal communication channels to disseminate relevant risk information.

As part of its risk management system, WHAUP has developed a robust Business Continuity Plan (BCP). This plan is designed to effectively respond to emergencies and crises, enabling the smooth operation of WHAUP as well as WHA Group. The Business Continuity Plan undergoes regular review and revision to encompass potential events that have been identified through thorough risk assessments. These events may include natural disasters, fires, pandemics, information security breaches, and other incidents that could potentially disrupt business operations. To ensure the effectiveness of the risk management system, WHAUP's internal audit unit conducts regular audits throughout the organization.

The risk management framework and corporate governance are considered important tools for driving a positive risk culture. They directly impact the performance of an organization's risk management practices, including the awareness, attitude, and behavior of employees and executives in adhering to the risk management framework and corporate governance

of the organization. Therefore, WHAUP has established the effective implementation of a risk culture as a key mission within the organization, which involves a top-down approach driven by the management's guidelines. Risk management is incorporated as one of the Key Performance Indicators (KPIs) for executives and risk owners, and risk indicators are included in the criteria for evaluating operational performance. These guidelines help promote communication and practices that focus directly on risk, fostering a risk aware culture. Examples of assessment criteria widely used by WHAUP and WHA Group include compliance with regulations, maintaining a good reputation, and financial performance. These efforts aim to strengthen the risk culture and enhance it further. WHAUP conducts regular training programs and activities related to risk management to enhance knowledge and develop the skills of employees in identifying, controlling, and mitigating risks associated with their roles and responsibilities. These initiatives encompass the board of directors, senior executives, and staff members.



EMERGING RISK

WHAUP recognizes that emerging risks have the potential to significantly impact business operations. As part of its comprehensive risk management process, WHAUP actively monitors, assesses, and addresses these emerging risks. In this regard, WHAUP aims to

identify potential challenges and develop mitigation plans to minimize any adverse impacts. Within the scope of emerging risks, WHAUP specifically focuses on two key areas, Digitalization and Business Model Disruption, as well as Climate Change.

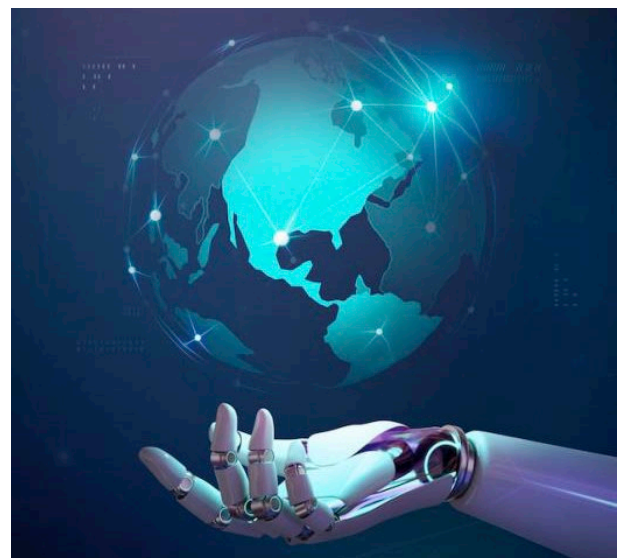


1. Digitalization & Business Model Disruption

RISK DESCRIPTION

In today's business landscape, technology plays a pivotal role in driving operational efficiency and performance. Advanced technologies such as clean technology, blockchain, remote working, and artificial intelligence have the potential to significantly enhance both businesses' capabilities and environmental aspect. However, it is important to recognize that these technologies also introduce uncertainties and challenges to business operations, especially for those organizations that are slow to adapt. Without adequate preparedness and effective technology risk management, businesses may face decreased viability in the market. Companies that fail to embrace technology as a driving force and keep up with evolving customer demands may encounter service delays and produce products or services that are inferior in quality compared to their competitors. These setbacks can result in operational delays, reduced profitability, loss of customers trust, and a decline in customer base.

IMPACT OF DIGITALIZATION & BUSINESS MODEL DISRUPTION ON BUSINESS



Currently, WHAUP is facing new challenges in meeting customer needs and expectations precisely. Convenience and speed in service delivery are highly anticipated by customers in this technological era. Therefore, WHAUP needs to develop and enhance the management of

utilities and power systems while presenting innovations and digital capabilities to better respond to ever-changing customer demands. Furthermore, it is necessary to continuously adapt and customize products and services to meet customers' diverse and specific requirements. This includes offering a wider range of options and tailoring solutions to better address customer needs.

With the changing trends mentioned above, WHAUP needs to adapt and manage customer expectations and demands to align with the new market conditions while maintaining its competitive advantage. Therefore, there are initiatives in place to ensure that both WHAUP and its customers remain leaders in the market and are prepared to grow together. In line with this, WHAUP never ceases to develop and offer smart solutions, along with cutting-edge technologies, to its customers. The Utilities & Power division has planned and implemented the use of clean technology to meet customers' demands and enhance the capabilities of utility and power systems. Additionally, WHAUP prioritizes environmental sustainability and works towards maintaining a sustainable environment.

MANAGEMENT APPROACH FOR DIGITALIZATION & BUSINESS MODEL DISRUPTION RISK



Furthermore, WHAUP sees the technology change not only as a risk but also as a significant business opportunity. The company has closely analyzed the market trends and formulated strategies for technological changes, setting targets to address these transformations. This includes organizational adjustments for digital transformation in collaboration with WHA Group. As part of WHA Group, WHAUP shares the goal of becoming a tech company by 2024. Therefore, WHAUP has adopted various digital

innovations to respond to and seize opportunities arising from the digital era across all business sectors. To prioritize the application of digital innovations in business operations, WHAUP has made it a key performance indicator (KPI) for evaluating employee performance. Training programs and seminars related to technology have been organized in collaboration with WHA Group. These initiatives aim to develop innovation leaders and provide insights into various innovation topics for all employees. Additionally, WHAUP has implemented projects that encourage employee involvement in generating new innovations to drive business growth, such as the Innovation Bootcamp. The company has also recruited technology experts to continuously enhance its workforce. Moreover, WHAUP actively seeks opportunities for collaboration and investment with leading technology companies both domestically and internationally.

WHAUP has embraced IT technologies to enhance its business operations, particularly focusing on utilizing technology to increase the capabilities of its new utility products. This includes the development of green energy and renewable energy solutions, as well as water production for industrial purposes, all with a strong emphasis on environmental sustainability. Under the Smart Water project, WHAUP utilizes technology to implement water recycling systems, ensuring that used water is treated and reused to maximize its benefits. Similarly, the Smart Energy project aims to reduce electricity costs and enhance reliability for businesses within industrial estates. WHAUP also explores innovative energy solutions such as SMART Microgrid, an intelligent power grid network for efficient electricity distribution.

In addition, WHAUP and WHA Group have been continuously collaborating to transform all industrial estates into SMART Eco-Industrial Estates, incorporating advanced infrastructure and cutting-edge technologies. We have also utilized technology to enhance various operations within WHAUP, such as Unified Operations Center (UOC) which leveraging data resources by centralizing all data in a single location. This UOC enables faster and more efficient processes, as well as improved responsiveness to risks. Furthermore, there has been a diversification of WHAUP's customer portfolio

IMPACT OF CLIMATE CHANGE ON BUSINESS



WHAUP, together with WHA Group, collaborates in mapping out the country's greenhouse gas reduction plan for the years 2021-2030. If we, WHAUP, fail to adapt to the changing climate conditions in a timely manner or fail to meet the expectations and demands of stakeholders regarding environmental responsibility and increasing awareness of climate change issues, it could have various repercussions. These consequences may include cost implications, operational challenges, damage to reputation, jeopardizing our leadership position in industrial estate development, or even legal penalties and additional responsibilities. However, WHAUP recognizes the significance of climate change and understands that it comes with risks and opportunities for business. Therefore, we have prepared ourselves to cope with the changing laws and regulations related to greenhouse gas emissions. We have taken a leading role in promoting solar energy production through solar rooftop installations, which benefit both WHAUP and WHA Group, as well as our customers in the utilities and power sectors within the industrial estate. This initiative helps reduce carbon footprint and allows us to offer carbon credits to other companies as a means of offsetting their carbon emissions. Additionally, WHAUP has planned continuous development of solar rooftop installations to ensure a reliable and highly beneficial source of energy for our customers.

MANAGEMENT APPROACH FOR CLIMATE CHANGE RISK

WHAUP has been actively monitoring and studying the national and international greenhouse gas reduction targets, as well as policies, laws, and regulations closely related to greenhouse gas emissions. This is to strengthen our ability to adapt to future changes in these policies and regulations. Additionally, it enables us to assess the potential changes and impacts that may occur for WHAUP. We also closely monitor market mechanisms and strategies for reducing greenhouse gas emissions, such as carbon market development, carbon credit pricing, and carbon tax. These analyses help us understand the economic implications for WHAUP and adjust our operational strategies accordingly. Under the mission "Mission To The Sun," WHAUP is implementing various measures and strategies in collaboration with WHA Group to reduce greenhouse gas emissions. These initiatives benefit both WHAUP and our customers in terms of reducing carbon footprint. Furthermore, we can extend our offering of carbon credits to other companies as a means of offsetting their carbon emissions. WHAUP has planned continuous development of solar rooftop installations in the long term, enhancing the resilience of the renewable energy supply chain and effective communication with stakeholders to address their concerns efficiently. By undertaking these actions,



WHAUP is confident in mitigating risks and creating sustainable growth opportunities in the utilities and power service business.

CRISIS MANAGEMENT AND ORGANIZATIONAL CONTINUITY MANAGEMENT



Sensitivity Analysis and Stress Testing are essential parts of WHAUP's risk management plan. They are conducted to assess the outcomes and impacts of various risk events, after which risk mitigation measures are prepared to align with the results. Through the analysis of sensitivity and stress testing results, it is evident that flood and drought are significant risks for WHAUP. This is because the presence of industrial factories and customer warehouses within WHAUP's area of responsibility is substantial. Therefore, direct impacts from flood events can lead to business disruptions for customers, resulting in reduced demand for WHAUP's utility and power systems. Additionally,

WHAUP's utility services rely on natural resources such as rainfall and water from natural sources. These impacts can affect the availability of water supply for customer services. Due to these reasons, WHAUP has initiated numerous projects to mitigate risks from natural disasters and epidemics. These projects prioritize the selection of appropriate locations and security systems. In every project, WHAUP designs its factory area to be at a higher elevation than public roads and above the maximum flood level expected in a -30year period. Furthermore, WHAUP has implemented risk insurance coverage for all types of damages caused by natural disasters and accidents. This comprehensive approach aims to reduce risks and ensure the safety of operations.

Regarding the outbreak of diseases, WHAUP has implemented regular preventive measures to protect its personnel from epidemic occurrences and mitigate negative impacts that could potentially slow down operations.

Furthermore, WHAUP has developed a Business Continuity Plan (BCP) as part of its comprehensive risk management system implemented throughout WHA Group. This plan aims to ensure preparedness in responding to emergency situations and crises effectively. The BCP helps maintain the smooth operation of utility and power services. WHAUP, in collaboration with WHA Group, continually reviews and improves this plan to cover all potential scenarios that may

cause business disruptions, such as natural disasters, emergencies, pandemics, and threats to data security and safety.



WHAUP also collaborates with WHA Group in conducting performance and effectiveness testing of the business continuity plan, both internally and during operational processes. The results of these tests are used to refine the plan, ensuring accurate and precise responsiveness to real-life scenarios. For the backup data recovery testing of each system, the latest backup data from the storage is selected and imported into the recovery process. This ensures confidence in the ability to read and retrieve the backup data accurately. The testing results for the ERP system, File Sharing system, and MS SQL Database system have shown that have been successfully achieved as planned.

According to the report, all personnel and related units were able to adhere to the specified requirements outlined in the business continuity plan, resulting in satisfactory test outcomes.



WHAUP has also played a significant role in promoting and elevating the Unified Operations Center (UOC) to enhance its capabilities in controlling and managing utility services. This has had a positive impact on all business sectors. WHAUP can remotely control and manage water and solar energy facilities through the UOC. Therefore, during emergencies or situations with travel restrictions, such as the COVID-19 lockdown measures, the UOC serves as the second command center responsible for controlling water and solar energy facilities, ensuring uninterrupted business operations.

Transformation Between the Past and the Future

In 2022, WHAUP has made improvements to its governance policies to integrate ESG (Environmental, Social, and Governance) considerations into its operations. This is done to ensure that the company's business practices align with sustainable principles and contemporary standards. These enhancements include updates to business ethics and operational guidelines, such as combating corruption and collusion, considering the impact of climate change on stakeholders, promoting transparency within the board of directors' work, protecting personal data, and preventing money laundering. These practices align with the operational framework set forth by WHA Group.



PROMOTING AND CREATING AWARENESS OF CORPORATE GOVERNANCE

The principle of good governance is deeply intertwined with the values of WHAUP, as it is a subsidiary of WHA Group and upholds the same principles of corporate governance. The topic of “Integrity” is considered the most crucial because WHAUP’s commitment to the values of honesty and integrity in conducting business

has earned trust from customers and fostered confidence among stakeholders. This reflects WHAUP’s adherence to ethical principles in governing and overseeing its operations.

INTEGRITY

Instilling trust and confidence in customers and fostering a transparent work environment, WHAUP upholds ethical principles and social responsibility.



ADVANCED



CHAMPION



RESOURCEFUL



INTEGRITY

CODE OF CONDUCT & ANTI-CORRUPTION

WHAUP is committed to conducting business with integrity, fairness, transparency, and in compliance with the law. This includes upholding business ethics and good corporate governance principles to ensure that operations are carried out with integrity, ethics, and social responsibility towards society, the environment, and stakeholders. To achieve this, it is crucial for the board of directors, executives, and employees of WHAUP to possess knowledge, understanding, and awareness of their roles, responsibilities, and adhere to strict guidelines. This includes establishing a whistleblower system to encourage reporting and complaints, thereby creating a culture of sustained accountability and continuous monitoring within the organization. With this in mind, WHAUP, together with WHA Group has scheduled a training program on December 7-8, 2022, to communicate its policy against corruption and corporate governance to ensure that all board members, executives, and employees of the WHAUP are fully



informed. The training will be conducted online, and the sessions will be recorded. In the event that any employee is unable to attend the training on the specified dates, WHAUP will provide access to the recorded sessions through Microsoft Teams. Additionally, participants will be required to take a test to assess their knowledge and understanding.

BOARD RISK AND SUSTAINABILITY COMMUNICATION PROGRAM



In 2022, WHAUP collaborated with WHA Group to incorporate risk considerations and sustainability issues into the organization's strategic planning. The management presented the topics of risk and sustainability to the Board of Directors and Committees of WHA Group for acknowledgement and as information for the meeting to discuss the organization's short-term and long-term strategies. This took place during the fourth quarter of 2022.

CULTIVATING A RISK CULTURE

As it is well-known, risk management framework and corporate governance are crucial driving factors in enhancing WHAUP's risk culture. Therefore, WHAUP collaborates with WHA Group to organize the following activities to strengthen the organization's risk culture:

- The management receives updates on trends and changes both within and outside the organization through reports from the Risk Management Committee presented at the Board of Directors' meetings. This ensures that the executives, risk management committees, and working groups are well-informed and aware of the organization's risk profile, emerging risks, risk mitigation measures, and overall risk management processes. Furthermore, all senior executives, comprising 100%, undergo training and are well-informed about the risk management process. Additionally, WHAUP updates

knowledge and provides training to new committee members who are not part of the executive team but are involved in the Risk Management Committee.

- Since 2020, WHAUP has played a significant role in implementing the Three Lines of Defense (3LOD) framework to enhance the effectiveness of risk management communication and control. The important roles and responsibilities of personnel involved are clearly defined within the 3LOD framework. The supervisory function performed by the governing body is considered the first line of defense in risk management. The risk control and policy-setting functions established by the management are the second line of defense, while the independent audit function serves as the third line of defense. The personnel involved in each "line" play different roles within the organization's governance framework. Hence, the participating group of personnel takes ownership of the risk management process, risk oversight, and independent auditing, respectively.
- In 2022, WHAUP conducted joint training with WHA Group in risk management for board members, executives, and employees across all business units. The aim was to increase awareness and responsibility among all employees regarding risk management and to foster an efficient risk culture. The training was conducted in an online format, divided into four sessions, to facilitate the participation of all executives. Through this training, WHAUP aimed to promote understanding of risk identification, risk assessment, risk mitigation measures within each employee's area of responsibility, and to instill awareness of the importance of risk management.

In addition, WHAUP has emphasized its goal to become a tech company by 2024, aiming to utilize various digital innovations to promote an efficient risk culture. Currently, WHAUP is in the process of developing a digital system along with notification capabilities to display the status of all key risks and efficiently monitor risk management activities.

หลักสูตรภาคบังคับสำหรับพนักงาน WHA ทุกคน

RISK MANAGEMENT
Principles, Tools & Techniques **การบริหารความเสี่ยง**
หลักการสำคัญ เครื่องมือ และเทคนิคที่เกี่ยวข้อง

เพื่อเสริมสร้างความรู้ ความเข้าใจ และตระหนักถึงความสำคัญของการบริหารความเสี่ยง รวมถึงทำความรู้จักกับเครื่องมือ และเทคนิคที่เกี่ยวข้อง

- ความหมาย ความสำคัญ และประโยชน์ของการบริหารความเสี่ยง
- ความเสี่ยงเกิดมาจากอะไร และมีประเภท
- วิเคราะห์ ระบุ ประเมินความเสี่ยงอย่างไรให้เกิดประโยชน์
- เราสามารถบริหารจัดการความเสี่ยงได้อย่างไรบ้าง
- ข้อควรระวังในกระบวนการบริหารความเสี่ยง
- เรียนรู้เพิ่มเติมจากกรณีตัวอย่าง

เปิดอบรม 4 รุ่น
ผ่าน MS Teams

รุ่นที่ 1 : วันอังคารที่ 12 กรกฎาคม 2565
เวลา 10:00 – 11:30 น.

รุ่นที่ 2 : วันอังคารที่ 12 กรกฎาคม 2565
เวลา 14:00 – 15:30 น.

รุ่นที่ 3 : วันพฤหัสบดีที่ 14 กรกฎาคม 2565
เวลา 09:00 – 10:30 น.

รุ่นที่ 4 : วันพฤหัสบดีที่ 14 กรกฎาคม 2565
เวลา 14:00 – 15:30 น.

คุณจิ๋ว สุริยพร เศรษฐจินดา
Internal Audit Director

สอบถามรายละเอียดเพิ่มเติมได้ที่ : คุณสุริยพร เศรษฐจินดา Tel. 061-559-6750, Mitel : 9251
คุณสุจิตา ฤกษ์ศิริเดช Tel. 061-560-6750, Mitel : 9008

PERFORMANCE AGAINST TARGETS

TARGET 2022

PERFORMANCE

CGR excellent

5 stars

AGM checklist

100%

THSI



CUSTOMER RELATIONSHIP MANAGEMENT

The rapidly changing global landscape in the era of globalization is characterized by technological advancements, borderless trade competition, market volatility, and emerging risks such as pandemics and war conflicts, as well as climate change. These factors have presented significant challenges for many companies worldwide. Consequently, managing customer relationships has become increasingly important, as it is believed that strong and deep understanding of customer needs can maintain existing customer base while attracting new customer groups for businesses. In addition, engaging in customer relationship activities helps organizations grasp current demands, issues, and future business requirements in various dimensions, including social and environmental aspects. This enables organizations to plan and respond appropriately to opportunities or manage risks, thus fostering sustainable business growth.

Therefore, efficient customer relationship management is considered a crucial strategy for WHAUP to achieve sustainable business growth in the long term. The company aims to transform into a Tech Company and has been developing technologies and various innovations in managing customer relationships. This includes strengthening relationships, establishing effective communication systems, and gaining deep insights into customer needs to offer comprehensive products and services that fully meet customer requirements, thus maximizing customer satisfaction. WHAUP adopts the concept of “Mission To The Sun,” which is a significant driving force behind this idea, in collaboration with WHA Group. The goal is to maintain its position as a leader in the country's utilities and energy service business by utilizing new technologies to enhance the customer experience. Additionally, WHAUP strives to build trust, prevent violations, and ensure the rights of all stakeholders in the value chain.



Management approach

WHAUP has implemented a customer relationship management policy that aims to respond efficiently and swiftly to changing customer needs by providing comprehensive services. This commitment is a covenant WHAUP makes with every customer and is consistently prioritized. To fulfil this commitment, WHAUP has established a Customer Development Department responsible for tracking, advising, and understanding

customer needs and feedback. The department also formulates plans and strategies to meet future customer demands. In 2022, WHAUP updated our commitment to customers from “Your Ultimate Solution Partner” to “The Ultimate Solution for Sustainable Growth.” This change emphasizes WHAUP’s dedication to assisting customers in driving their businesses towards sustainable growth through end-to-end services.



The Unified Operations Center (UOC) is considered the core of WHAUP’s operations as it enables a clear view of important operations and activities. Located at WHA Group’s head office, the WHA Tower on Bangna-Trat Road, the UOC serves as a centralized control system that coordinates with control rooms in each operational area. This allows real-time monitoring, control, and assessment of various activities. Additionally, it provides real-time monitoring of environmental variables within the WHA Industrial Estate, such as air and water quality, air pollution, rainfall, and flooding situations. The UOC is also connected to emergency platforms, including fire stations and CCTV systems within WHA Group’s industrial estates, ensuring the safety of WHAUP’s operations and instilling confidence in the community and stakeholders regarding safety measures. Furthermore, the UOC is connected to a clean energy power plant

in WHA CIE 1. Non-hazardous industrial waste is converted into energy, reducing environmental impact. With these capabilities, the UOC enhances customer trust, minimizes environmental impact, and strengthens customer relationships by providing a positive customer experience.

The key factors that enable WHAUP to operate in a stable and robust manner are delivering the best possible solutions to customers through comprehensive utility and power services, aiming to meet customers’ needs with one-stop service solutions. WHAUP is a vital catalyst driving WHA Group’s business operations because utility and power systems are crucial factors in production and product distribution. WHAUP provides raw water and industrial water services (Process Water and Clarified Water) to the largest industrial estates



in Thailand. Additionally, we offer both conventional and alternative energy services, making it a significant player in advancing industrial estates. WHAUP remains committed to enhancing customer service efficiency and continuously improving service quality, as stated in its “Your Ultimate Solution for Sustainable Growth” commitment. This dedication ensures WHAUP maintains its leadership position in the market.

In addition, WHAUP conducts an annual customer satisfaction survey to gain a better understanding of customers' concerns and improve its services. The survey assesses customer satisfaction with the quality of services, products, and information delivered. The Customer Development Department collects and analyzes the survey responses. Once identified, the department determines the root causes of any issues and establishes preventive measures to avoid similar occurrences in the future. This approach aims to maintain a good relationship with customers. The survey results are reported during meetings to address any complaints and adjust business strategies to enhance products and services. In 2022, WHAUP achieved an average customer satisfaction score of 97.10%.

In 2022, WHAUP implemented a Customer Relationship Management (CRM) system to better meet customer needs, including issue reporting and prompt feedback collection. This system was developed to enhance the relationship with customers and provide them with an improved experience. Additionally, it increased the efficiency of WHAUP's employees by reducing unnecessary work processes and minimizing the chances of errors. Moreover, the CRM system ensured accurate and secure data, thereby enhancing data security. The database within the system allowed employees to access comprehensive customer information, enabling efficient customer management and the creation of a more satisfying customer experience.

In addition, to enhance effective communication with customers, WHAUP, in collaboration with WHA Group, has developed a quarterly magazine called “WHA Connect” for disseminating news and information about WHAUP, various activities, training programs, and community-related initiatives. This magazine serves as an accessible and accurate communication channel, ensuring comprehensive information delivery. Furthermore,



WHAUP strengthens two-way communication by visiting customers regularly and maintaining regular contact via telephone and email. Dedicated personnel are assigned as primary contacts to address customer concerns or requests related to utility and power systems. Additionally, a complaint management system has been established. WHAUP welcomes feedback or complaints through various communication channels provided and

takes action according to the operational regulations for managing customer complaints. When a complaint is received, the department manager of WHAUP is informed, and qualified personnel are assigned to investigate, report findings, and document details. The complaint and progress of corrective measures are then reported to the Quality Committee during the annual review conducted by the management team.



WHAUP recognizes that customer satisfaction is a crucial factor in generating profitability for utility and power service business, particularly in the current situation where customer behaviors and demands are changing. It also poses challenges in retaining existing customers and acquiring new ones. Therefore, WHAUP conducts customer satisfaction surveys to build confidence and effectively meet customer needs. This approach is considered a key strategy for long-term business growth and building trust among all stakeholders in the value chain. The annual customer satisfaction survey evaluates the management of customer relationships and covers various aspects of service quality, including utility and power systems, through a scoring assessment. In case of complaints, WHAUP investigates the root causes

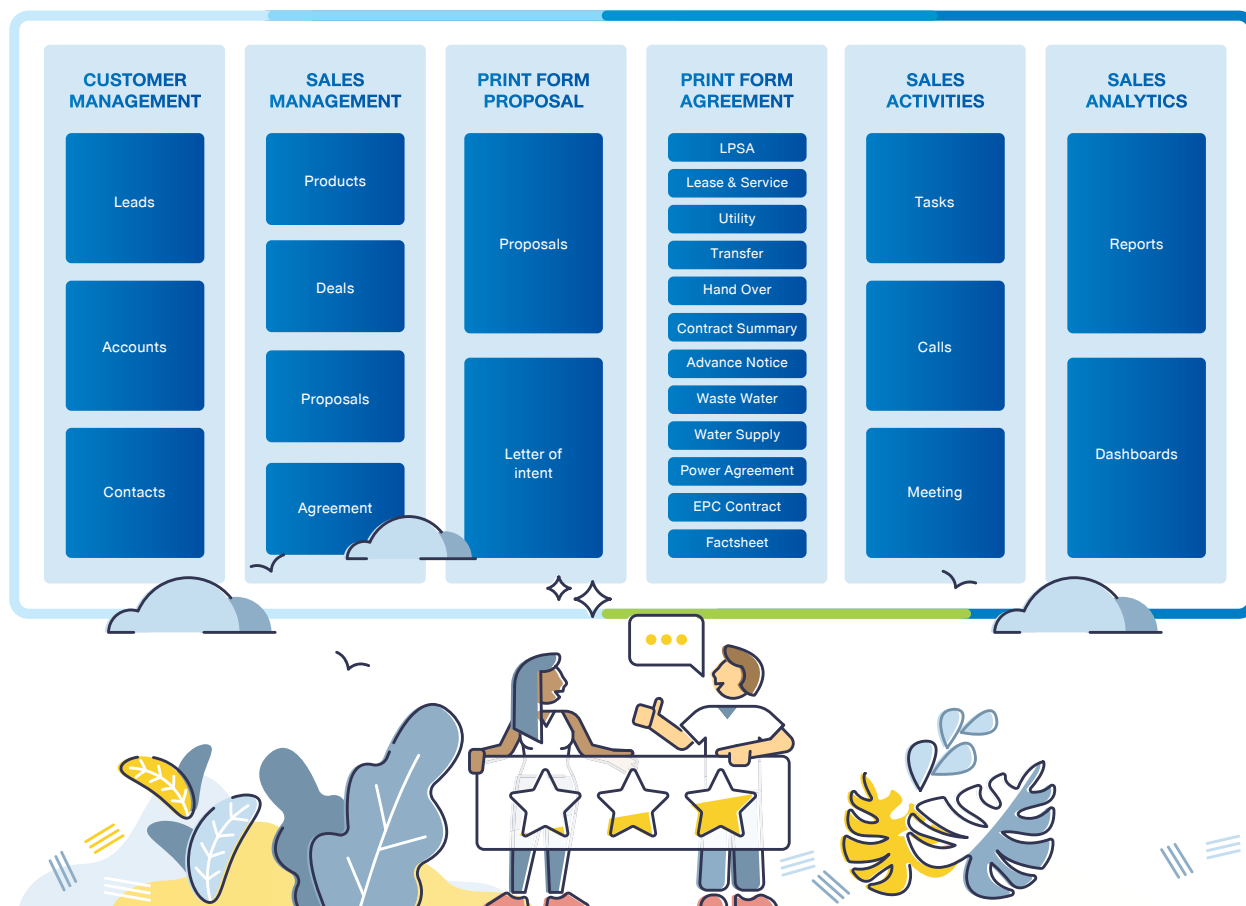
and implements preventive measures to avoid similar incidents in the future. The survey results are reported in management meetings to ensure comprehensive and efficient handling of complaints, along with adjustments in business strategies to enhance product and service development. The survey collects customer satisfaction levels, feedback, and complaints through various communication channels provided, including telephone, Line application, and email.

Based on the 2022 Customer Satisfaction Survey, including complaints reported through the communication channels and processes as outlined. It was found that there are issues that can be developed to improve customer satisfaction as follows:

Key Area of Concern	Mitigation Measures Implemented
1. Water quality has temporarily declined for a short period of time (3 cases)	There have been incidents of short power outages in the water distribution network, causing water turbidity due to system restart. WHAUP has conducted water flushing in areas that have an impact on customers and restored water quality to normal.
2. Customers require advance notification of 2-3 days prior to the wastewater sampling day (1 case)	Regarding wastewater sampling, the intention is to conduct sampling randomly during customer's normal operations to obtain representative samples that reflect the wastewater quality. Customers have accepted and understood the explanation.
3. Customers require advance notification of 2-3 days prior to the wastewater sampling day (1 case)	Customers have used a group LINE account to send messages to the company but did not receive any response. This was due to the customers' misunderstanding that the company was a member of that LINE group. Therefore, the company has provided direct contact information to customers for future communication.

TRANSFORMATION BETWEEN THE PAST AND THE FUTURE

In 2022, WHAUP implemented a Customer Relationship Management (CRM) system, which helped respond to customer needs quickly and efficiently. This system was part of the development plan towards becoming a Tech Company and facilitated collaboration among WHA Group's various businesses. It also streamlined work processes by centralizing all data in one place, reducing unnecessary steps. Responsible employees in different departments could access comprehensive customer information across WHA Group, minimizing unnecessary contact processes. This enabled efficient management of customer relationships and satisfaction, with improved speed, accuracy, and effectiveness.



WHA CUSTOMER CLUB

WHAUP, together with WHA Group, established multiple customer clubs which are considered as communication channels to closely interact with customers to address their interests or concerns. Two customer clubs highlighted in 2022 include:

1. Established multiple customer clubs which are considered as communication channels to closely interact with customers to address their interests or concerns. Two customer clubs highlighted in 2022 include:
 - Innovation Advance Security System and Engineering Solution for Smart Factory
2. The Japanese Club, which has been established for over 20 years, consists of Japanese entrepreneurs from 130 factories located in the industrial estates of WHA Group in Chonburi and Rayong. In 2022, the club organized monthly meetings to facilitate the exchange of information in various fields. These topics included changes in laws related to
 - Enhances Reality in Production, QC and Safety with AR/VR
 - Preparation for IoT and AI Risks in New Era Manufacturing
 - IoT Technology solutions for future

factory management, waste management, energy production from waste, and more. Additionally, a Japanese Executive Club has been initiated, comprising members from 50 industrial factories. Furthermore, starting from 2022, the club will hold meetings every two months at WHA Saraburi Industrial Land.

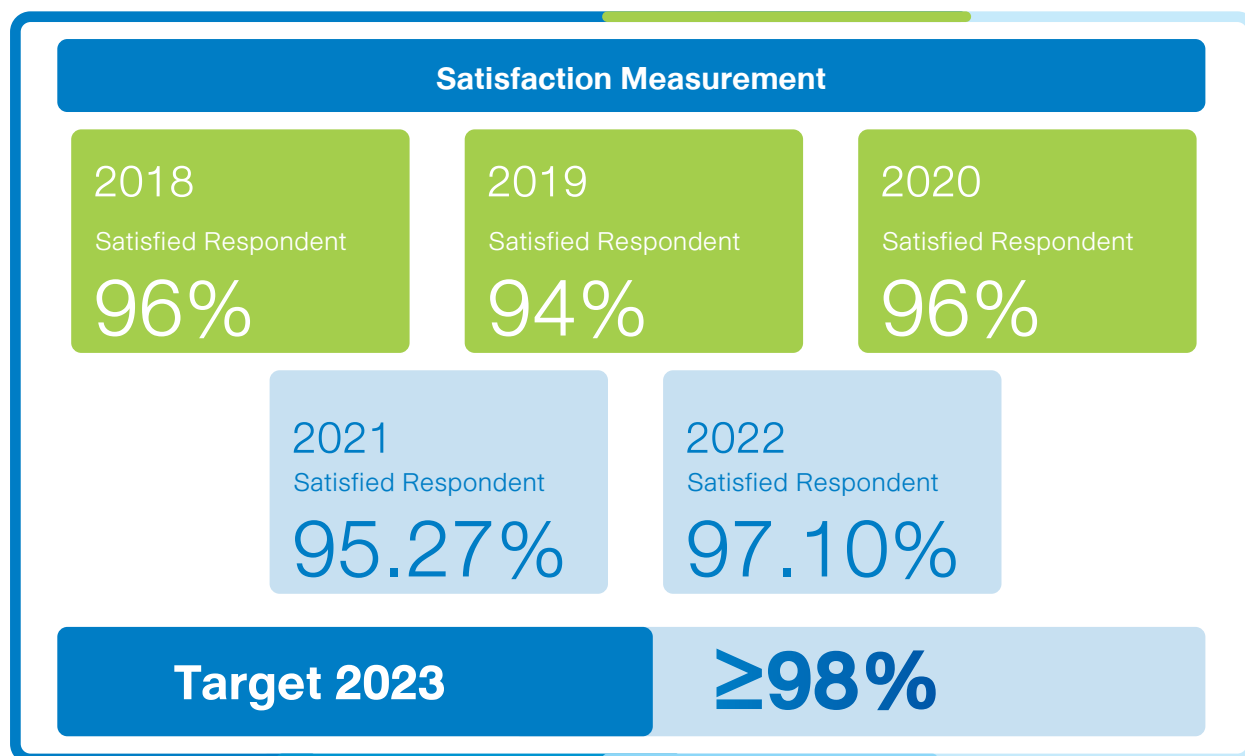
HUMAN RESOURCE CLUB

WHAUP, in collaboration with WHA Group, has established the HR Club consisting of two clubs. The objective is to provide assistance and convenience to major customers of WHAUP who are interested in opening industrial factories in Thailand. This initiative aims to build customer confidence that WHAUP will provide support in operational matters related to utilities and power, as well as in obtaining permits and contacting relevant government agencies. This effort helps strengthen relationships right from the beginning of the project.

By that, Eastern Seaboard Industrial Estate Human Resource Club (ESIE HR Club) was established since 1997 and Eastern Seaboard Labor Relations Club (ESLR Club) was established since 2005. Through the Eastern Seaboard Industrial Estate Human Resource Club (ESIE HR Club), which consists of members from over 110 companies operating within WHA Group's industrial estates, the members were regularly updated on labor laws and any labor related news that are useful for completing human resource related tasks as well as received trainings facilitated by experts in the profession of human resource on a regular basis.

Eastern Seaboard Labor Relations Club (ESLR), on the other hand, is comprised of members from 140 companies operating in WHA Group's industrial estates. The ESLR Club served as a central labor related information support platform for members focusing on the labor union, regulations and coordination/advice on any arbitration or matters related to labor agreements. Both clubs meet on a monthly basis to ensure that information communicated to the member are up to date.

PERFORMANCE AGAINST TARGETS





suppliers and manufacturers to recognize the importance of responsible practices, resulting in positive impacts on the economy, environment, society, and human rights on a broader scale. As part of WHA Group, WHAUP acknowledges the benefits of sustainable supply chain management that align with sustainable principles in managing utilities and power-related business operations. WHAUP recognizes that the activities of suppliers have implications for its own business operations, reputation, and stakeholders' perspectives. Therefore, WHAUP extends its business philosophy by emphasizing sustainability, fairness, and transparency in collaborating with suppliers. This approach aims to promote supplier development and sustainable business growth collectively.

MANAGEMENT APPROACH

SUPPLY CHAIN MANAGEMENT AND CRITICAL SUPPLIER IDENTIFICATION

For every business activity, WHAUP adheres to sustainable supply chain management principles in order to operate rigorously, promote transparency, fairness, and accountability to all stakeholders, and align with WHA Group's sustainable management policy. Therefore, WHAUP has developed a Supplier Code of Conduct that follows the framework and guidelines of sustainable supply chain management, consistent with WHA Group. The objective is to ensure that current and new suppliers and contractors of WHAUP are informed about the direction, goals, and sustainable supply chain management practices of WHAUP. The Supplier Code of

Conduct emphasizes the importance of basic knowledge about human rights, as well as the management of occupational health and working environments for all suppliers and contractors. To ensure compliance with the Supplier Code of Conduct, WHAUP requests current and new suppliers and contractors to sign and acknowledge the code. Additionally, training sessions are conducted to provide necessary knowledge and guidance on sustainable supply chain management for suppliers and contractors. WHAUP also regularly conducts joint training programs with WHA Group for suppliers. The process of WHAUP's supply chain management is illustrated in the following diagram:

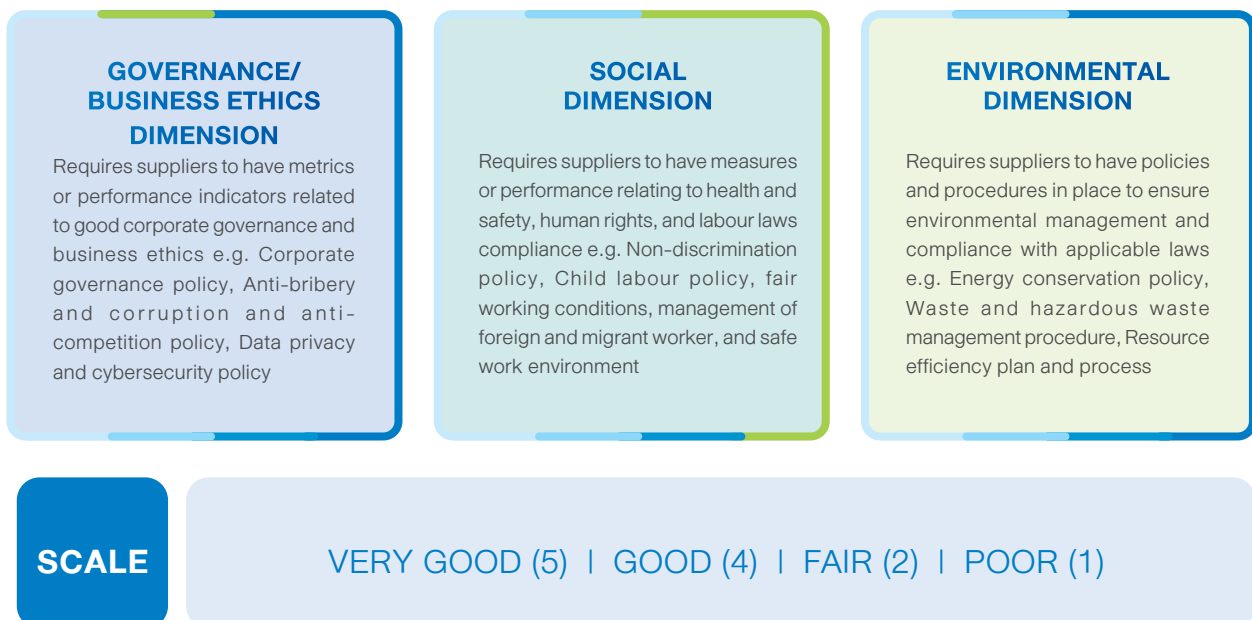


NEW SUPPLIER SELECTION PROCESS

WHAUP has clear criteria for selecting new suppliers. New suppliers must conduct their business transparently, ethically, and in compliance with the law throughout their business processes. They need to be verifiable and adhere strictly to WHAUP's Supplier Code of Conduct. Furthermore, WHAUP has a policy to promote sustainable sourcing and encourage collaboration among stakeholders to foster mutual growth along the supply chain, from sourcing raw materials to delivering products to consumers. In the process of selecting new suppliers,

WHAUP requires each prospective supplier to complete a Pre-Qualification Form (PQ) evaluation. This form consists of questions to assess qualifications in terms of quality, pricing, production capabilities, management systems, and sustainable potential (ESG: Environmental, Social, and Governance). In 2022, four new suppliers underwent evaluation as per the established process, and all of them demonstrated potential, met the criteria for sustainable operations, and contributed to strengthening basic relationships.

THE CRITERIA FOR ASSESSING SUSTAINABILITY POTENTIAL FOR NEW SUPPLIER AND CURRENT SUPPLIER



In addition, WHAUP emphasizes the adherence to the conditions stipulated in the contract and sets credit terms ranging from 15 to 45 days. These terms are determined based on the mutual agreement between WHAUP and the supplier from the beginning. The average payment period for suppliers in 2022 was 36 days, indicating that WHAUP pays its suppliers in accordance with its trade credit policy. Furthermore, the average accounts receivable collection period from customers in 2022 was 26 days.

Furthermore, WHAUP is capable of efficiently managing its cash flow, ensuring that it encounters no issues in paying suppliers. It is also able to adhere to the specified Credit Terms without any difficulties

CRITICAL SUPPLIER IDENTIFICATION

The fluctuation and discontinuity in the procurement of products from suppliers can lead to severe damage to business operations and cause delays or disruptions to customer operations. WHAUP recognizes this factor and has implemented a review process to identify and designate key suppliers, enabling efficient management of the value chain. The evaluation is conducted using an ABC system, considering the incurred expenses throughout the year and other criteria such as the importance level of the procured products or services and opportunities to engage alternative suppliers. In 2022, a review was conducted, and all critical suppliers were identified and categorized as Critical Tier 1 Suppliers (directly engaged with WHAUP) and Critical non-Tier 1 Suppliers (not directly engaged with WHAUP). The results are presented in the following table:

Supply Chain Analysis Table

Supply Chain Analysis	Number of Suppliers
Total supplier	312
Critical Tier 1 Supplier	14
Critical non-Tier 1 Supplier	3

SUPPLY CHAIN RISK MANAGEMENT

To manage the risks that may result in disruptions to the supply chain, caused by suppliers not adhering to ethical standards, agreements, and contractual terms, WHAUP has implemented a supplier risk assessment process. This assessment encompasses the consideration of environmental and social impacts to oversee and develop WHAUP's sustainable supply chain. All suppliers are required to complete an ESG risk assessment form, which aims to identify potential risks that may have implications for WHAUP, particularly regarding issues related to corruption and ethical business conduct.



In 2022, WHAUP set a target to conduct risk assessments for all suppliers, representing 100% of the total suppliers. This includes conducting risk assessments for all high-risk non-Tier 1 Suppliers who do not directly conduct business with WHAUP. WHAUP has been able to achieve this target as planned.

In addition, WHAUP has criteria for selecting suppliers that require on-site ESG audits to assess their performance in the areas of economy, society, and environment. This applies to all critical suppliers, as well as categorizing suppliers based on different risk levels. Suppliers with moderate to high levels of risk (self-assessment scores below 80%) are subject to these on-site ESG audits.

Supply Chain Analysis	Number of Suppliers
Total Supplier	312
High risk Tier 1 Supplier	34
High risk non-Tier 1 Supplier	1

EVALUATION OF SUPPLIER PERFORMANCE

WHAUP has established a monitoring and evaluation process for both Tier 1 Suppliers, who directly engage in business with WHAUP, and non-Tier 1 Suppliers, who do not have direct business dealings with WHAUP. The evaluation of suppliers is categorized into two types:

- 1) The assessment after delivery focuses on the quality of the product, service, price, product deliver, and cooperation with relevant agencies and
- 2) The on-site examination assesses the qualifications and performance of Tier 1 suppliers, high-risk suppliers, and critical non-Tier 1 suppliers that are considered at risk in relation to business ethics, environment, health, safety, and social management. It also ensures compliance with business ethics and risk prevention processes. This examination involves visiting the inspection area and referencing management standards such as ISO9001, ISO14001, and ISO45001, along with Thai labor standards and relevant laws.

From the results of the inspection site in 2022, of 14 Critical Tier 1 Supplier and 34 High risk Tier 1 Supplier, all of them are not flaw that require a corrective action plan. For non-Tier 1 Suppliers, 3 of them were considered critical, while none of them were considered high risk and did not require a corrective plan.

TRANSFORMATION BETWEEN THE PAST AND THE FUTURE

WHAUP has played a crucial role in initiating transformative changes in its procurement structure and processes through the implementation of a Digital Transformation Program. This program aims to enhance the efficiency and agility of procurement operations. One example is the utilization of the online Corporate Procurement Management System (CPRS), a comprehensive software that facilitates seamless communication between WHAUP and its suppliers. This system enables faster and more efficient processes, promotes transparency, reduces delays and errors in document management, and integrates sustainable supply chain management principles. Additionally, an online Pre-Qualification Form (PQ) is employed to assess suppliers based on their capabilities and sustainability (ESG) criteria.

CORPORATE PROCUREMENT MANAGEMENT SYSTEM (CPRS)

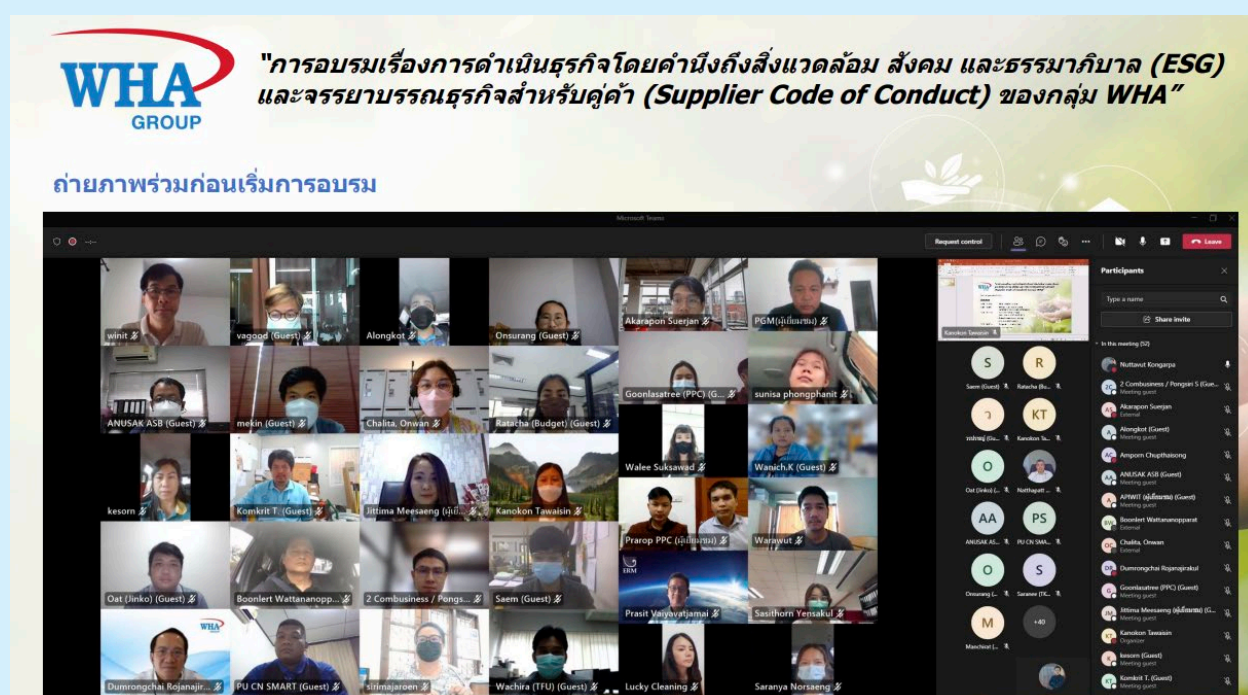
WHAUP, in collaboration with WHA Group, has elevated its operational capabilities by leveraging technological innovations. They have implemented the Corporate Procurement Management System (CPRS), an online platform, to enhance efficiency, transparency, and standardization in procurement processes. For instance, the E-Bidding feature within CPRS allows capable suppliers to conveniently and securely upload their quotation documents. Subsequently, authorized personnel responsible for contract approval can review and approve the quotations. Furthermore, WHAUP has embarked on a Digital Transformation Program, which includes the development of additional functionalities. These advancements enable users to assess supplier ESG performance, and manage the supplier database within the system. This automated system streamlines project data management processes.

In addition to this, in mid-2023, WHAUP planned to implement the CPRS Module to assist in managing the evaluation of new business partners. This module allows for online completion of the Pre-Qualification Form (PQ), which enhances efficiency, speed, and accuracy. It also makes the supplier selection process more transparent and tangible. Furthermore, it can be used to assess the performance of business partners

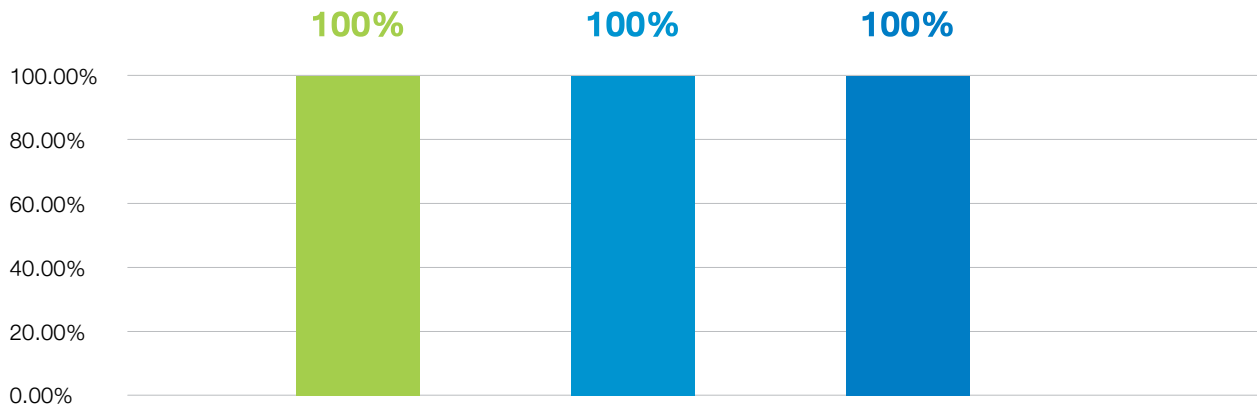
on an annual basis. In the near future, the use of the CPRS application for evaluating new business partners is expected to become more efficient and faster. In Phase 2, there will be an addition of a management system for supply chain management using the Power BI system. The expectation is to analyze and report data within the Procurement Dashboard system.

TRAINING ON BUSINESS OPERATIONS WITH REGARD TO ENVIRONMENTAL, SOCIAL, AND CORPORATE GOVERNANCE (ESG) AND SUPPLIER CODE OF CONDUCT.

WHAUP recognizes the importance of elevating and developing the business capabilities of its suppliers to foster sustainable business growth. Therefore, in collaboration with WHA Group, they have engaged in activities to promote and support supplier operations. One such activity is the training session titled “Business Operations considering Environmental, Social, and Governance (ESG) Factors and Supplier Code of Conduct by WHA Group,” held on February 10, 2022. A total of 54 companies participated in this training, and 100% of the attendees acknowledged and understood the significance of conducting business while considering ESG factors and adhering to the Supplier Code of Conduct. Furthermore, in 2023, WHAUP will proceed with distributing training records on conducting business with regard to ESG factors and the Supplier Code of Conduct to all suppliers.



PERFORMANCE ON SUPPLY CHAIN MANAGEMENT AGAINST TARGET



- 100% of suppliers accept and adhere to the Supplier Code of Conduct.
- 100% of new suppliers undergo a pre-trade audit for environmental, social and corporate governance (ESG) factors.
- 100% of suppliers assessed on environmental, social and corporate governance (ESG) factors.





INNOVATION AND TECHNOLOGY MANAGEMENT

In the current fast-paced and competitive landscape driven by the global transition to a digital society, businesses that fail to adapt to the rapid changes may face the risk of stagnation or closure. This has implications not only for the economic system but also for the stakeholders within society that cannot avoid the impact. Therefore, it is essential for businesses to embrace innovative thinking and have a long-term perspective to ensure sustainable success and achieve long-term business objectives. Understanding important global trends (megatrends) and being aware of the resulting impacts on businesses is crucial. This enables companies to maintain their competitiveness, seize opportunities, mitigate risks, and meet the increasing expectations of customers. WHAUP adheres to the principles of sustainable business operations in the dimensions of environmental, social, and governance (ESG). This approach aims to prevent infringements upon the rights of individuals, legal entities, or other

stakeholders in various sectors. WHAUP is also prepared to address significant global trends and navigate the transition to a digital society (Digital Transformation). To this end, WHAUP has announced a comprehensive roadmap for its transformation process under the “Mission To The Sun” project. The plan includes utilizing technological innovations in managing utilities and power as part of a circular system. Digital innovation serves as a driving force behind WHAUP’s business development, with plans to expand the business globally and deepen its operations, moving towards becoming a global company aligned with WHA Group’s vision. Furthermore, WHAUP aims to evolve into a tech company by 2024. Therefore, all investment decisions consider the application of various technologies to enhance operational capabilities and respond to societal changes, while also maintaining environmental sustainability. This enables WHAUP to deliver the utmost service to its customers.





MANAGEMENT APPROACH

WHAUP plays a crucial role in driving the “Mission To The Sun” project in collaboration with WHA Group. The focus is on creating new products and services to develop an organization that excels in quality and strives to become a “Tech company”. WHAUP is committed to “The Ultimate Solution for Sustainable Growth”, which represents its dedication to providing excellent solutions for sustainability. WHAUP aims to deliver a better quality of life for all stakeholders, which is divided into three key commitments:



W - WELL BEING

IS THE ASPIRATION
TOWARDS SUSTAINABLE
WELL-BEING.



H - HUMAN PROGRESS

IS THE PROCESS OF PERSONAL,
ORGANIZATIONAL, AND INSTITUTIONAL
DEVELOPMENT AIMED AT ADVANCING
ONESELF AT ALL LEVELS.



A - ACCESSIBILITY

IS THE OPPORTUNITY
TO ACCESS.

As a subsidiary of WHA Group, WHAUP is highly committed to being a catalyst for providing access to services, innovations, and knowledge to all stakeholders. In 2022, WHAUP embarked on a digital transformation journey to transition into a Tech Company by 2024. This transformation started with the “Data Driven Organization” project, which encompassed the development of data management strategies, plans, policies, as well as the creation of WHA Data Platform and WHA Digital Warehouse. Additionally, it aimed to enhance employees’ awareness of the effectiveness of data utilization in business operations and foster a culture of innovation within the workplace (Innovation Work Place). During this period, WHAUP successfully executed 23 projects related to the Data Driven Organization, including 16 new projects and 7 projects

for further development. Moreover, WHAUP has plans to continue the continuous development of the Data Driven Organization in the upcoming years. In addition to data-driven initiatives, WHAUP also places importance on managing other innovation-related aspects, such as strategic development, aligning operational frameworks with innovative models, fostering a culture and environment conducive to innovation, and implementing systems that support innovation within the organization. WHAUP conducts annual reviews of its progress and considers the valuable feedback from all stakeholders. This feedback is utilized to drive continuous improvement and development of projects in the future, ensuring maximum benefits for all stakeholders in a sustainable manner.



1. DIGITIZE & EMPOWER CORE BUSINESS

2. BUILD THE WORKFORCE OF THE FUTURE

3. ENABLE THE SMART ENTERPRISE

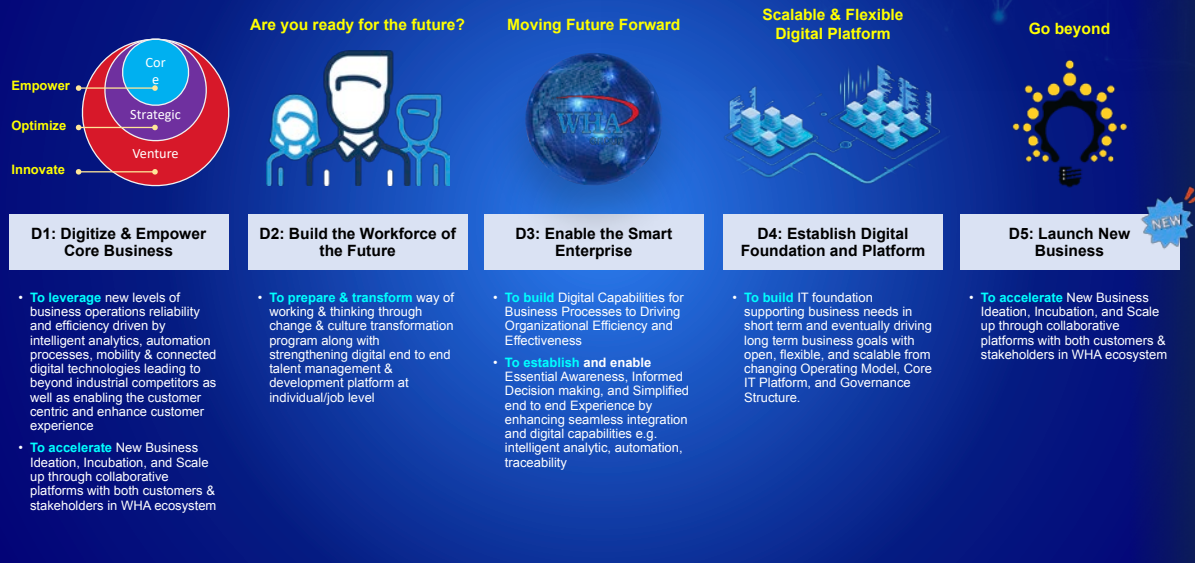
4. ESTABLISH DIGITAL FOUNDATION AND PLATFORM

5. LAUNCH NEW BUSINESS

Bringing new technologies and innovations to facilitate new business acquisitions, foster new ideas, incubation, and drive business expansion. This is achieved through collaboration within WHAUP's customer and stakeholder platform.

Digital Strategies for WHA

Simpler, Smarter, Safer



In order to achieve the goal of becoming a Tech Company by 2024 it is crucial and necessary to have a digital infrastructure and utilize data that aligns with its objectives. This is essential to derive benefits and support the development of new business models. This allows the organization to adapt to the rapid changes and transitions towards the sustainable New Normal era amidst the fast-paced global landscape. However, maintaining stability in various systems and safeguarding data security pose challenges in the current era. Technical errors, human vulnerabilities, and cyber-attacks can potentially damage the company's reputation. Therefore, effectively managing and mitigating risks in these areas are of utmost importance ensuring business continuity.

THE TECHNOLOGY INFRASTRUCTURE OF WHAUP

In 2022, WHAUP adjusted its working systems by incorporating technology as an aid for organizational transformation to enter the digital era (Digital Transformation) and elevate its business operations to better meet the increasingly challenging and diverse demands in delivering services and products that

cater to the needs of all stakeholders. These changes resulted in significant and crucial investments, as well as a greater reliance on technology and information systems. Consequently, there is an increased risk in terms of cybersecurity and information security breaches, which may lead to higher chances of cyber threats and violations of information security. This poses potential risks to assets and data within the organization or business, including those of customers and business partners, which could be subject to damage or unauthorized utilization.

Therefore, WHAUP is committed to comply with the Personal Data Protection Act (PDPA) B.E. 2562 (2019) and Cybersecurity Act B.E. 2562 (2019) as they are fundamental to ensure effective protection of customer and internal data. In addition, it is also ensured that WHAUP's operations do not result in any violation of the rights of individuals, legal entities, or other stakeholders in various sectors. Such violations can have negative impacts on society, communities, and the environment. WHAUP has followed a Cybersecurity and Information Security Management Policy of WHA Group that applies

to all employees. This policy is designed to ensure the effective development of WHAUP in the digital era. The company has established information and cybersecurity policies as guidelines for controlling relevant agencies. All employees can access these policies through the company's website.

In addition, the Information Technology Department (ITD) has been appointed to oversee and ensure the overall security of information technology within WHAUP and WHA Group as a whole. Their responsibilities include monitoring, maintaining, and repairing information technology systems. Additionally, the ITD is also required to summarize all the reported information security incidents, including the types and details of the issues faced (e.g., place of occurrence, consequences imposed, immediate response conducted), root causes and mitigation measures implemented. The ITD reports directly to the Cyber and Information Risk Committee that is made up of department heads, and responsible for approving policies and provide directions, perform key decisions related to data security and cyber security issues. This Committee is chaired by the Chief Information Security Officer (CISO) who is a Vice President of Information Technology. The Cyber and Information Risk Committee subsequently reports to the corporate Risk Management Committee (RMC) quarterly to ensure that risks related to information technology are fully captured. The RMC, consisting of a member who has a background in information technology and

cybersecurity, reviews the information security risks through quarterly meetings, then reports to the Board of Directors.

To ensure that policies and operational procedures are effectively implemented, WHAUP, in collaboration with WHA Group, engages in communication and training programs for its employees. Tests are conducted to measure the level of comprehension among employees, and the ability to pass these tests is considered a Key Performance Indicator (KPI) for employees in completing mandatory training include:

- Cybersecurity awareness training: Account and Password Management policy is included in this session. There are 80% of employees participated in the training and all are successfully passed the tests.
- The Data and Information Protection Policy included organizing training courses called "Cybersecurity Season II" in 2022. All employees participated in the training, and 100% of them successfully passed all tests.
- Corporate Document Management System (CDMS): The system will be go live on 1/Feb/2022 and start roll-out tall departments including document management process and system training.
- For new joiners, they must attend the induction session which includes the training on policies and procedures related to cybersecurity, physical security, email security, password security, mobile devices, wireless network, and security, and etc.



To mitigate risks related to information security and cybersecurity, WHAUP has established clear reporting and management processes and mechanisms. In case of any suspected issues or data breaches resulting from non-compliance with the company's Code of Conduct, both by employees and external individuals, employees are encouraged to report problems and initiate investigations following the complaint handling procedure. The grievance process specified in the Code of Conduct section of this report.

To prepare for and mitigate risks associated with cyber threats and data theft, WHAUP in collaboration with WHA Group has developed a comprehensive action plan for business continuity. This plan includes the establishment of contingency plans and procedures to effectively respond to potential incidents that could lead to business interruption. Additionally, WHAUP conducts an annual emergency drill to test the efficacy of these

measures in November 2022, and the results of these tests are at satisfactory level.

In addition to that, WHAUP has been actively implementing projects that focus on utilizing cutting-edge technology and innovations. This includes conducting testing, identification, and resolution of high-risk vulnerabilities in WHAUP's systems by external experts. Phishing tests, simulating email phishing attacks, have been performed on employees within the organization to assess the level of risk related to phishing threats and measure employees' awareness. The results of these tests are recorded and analyzed to plan and provide knowledge development training, as well as to continuously improve cybersecurity measures for WHAUP. Through these tests, it has been observed that the number of employees falling victim to phishing attacks has consistently decreased. In the last test conducted in 2022, it was found that the pass rate was 97.26%.

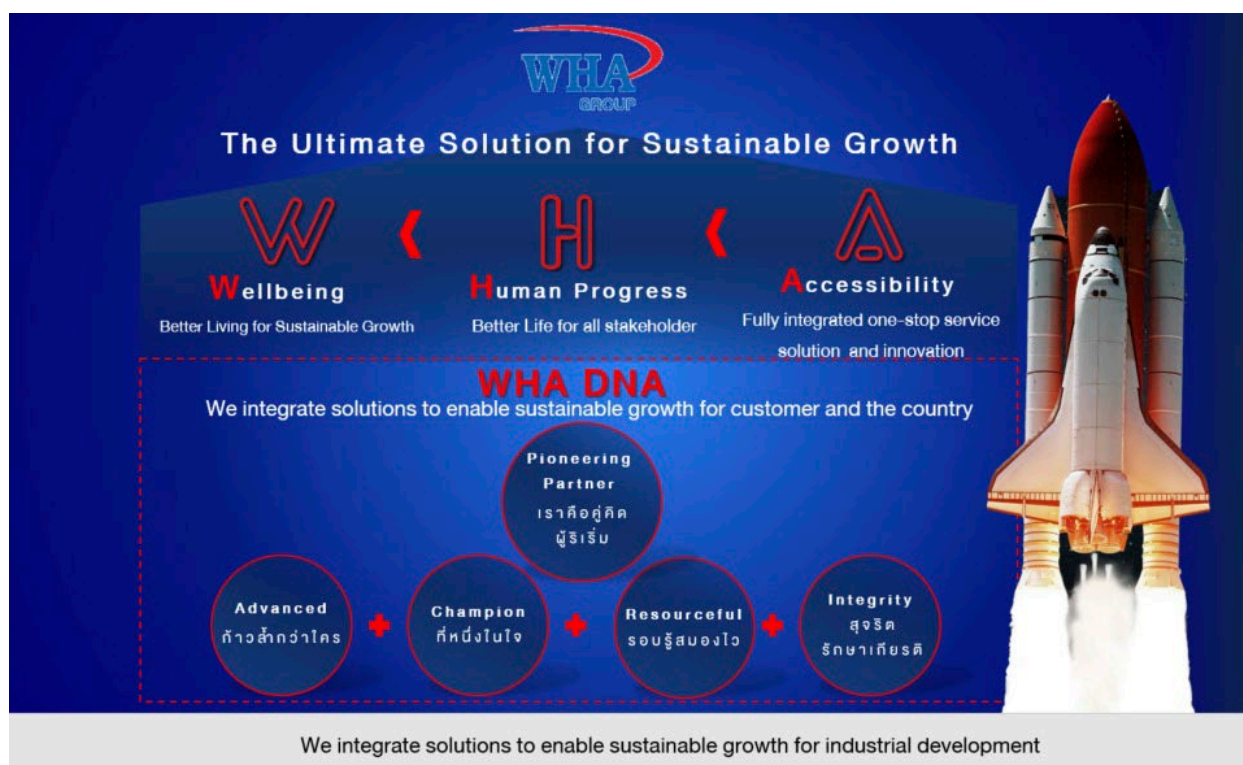
TRANSFORMATION

As we have grown and set higher goals for our company, our focus has shifted towards sustainable business operations and striving to become a tech company by 2024. Previously, we had pledged to be "Your Ultimate Solution Partner," but now we have repositioned ourselves as "The Ultimate Solution for Sustainable Growth" under the "Mission To The Sun" project.

WHAUP, along with WHA Group, has strategically positioned our company with a brand positioning or brand attribute as a "Pioneering Partner." This signifies our commitment to being a proactive and innovative partner in various aspects. Communication efforts are directed towards building our organization's image based on this brand attribute.



Therefore, it can be said that technology and innovation have transformed into the fundamental infrastructure for WHAUP's business operations. They play a crucial role in every activity undertaken by WHAUP, aiming to expand market share and reinforce sustainability in terms of the environment, society, and people, all together.



1. HUMAN CAPITAL MANAGEMENT SYSTEM

In 2022, WHAUP, together with WHA Group, presented technology and innovation projects that were conceived and initiated by internal employees to enhance work efficiency and create new business opportunities. In 2022, there was one selected project with a real implementation, namely the Human Capital Management System, which had an investment value of over 2.3 million baht. WHAUP underwent changes and improvements in processes related to human resource management, transforming them into digital processes to enhance employee experience and increase productivity. The details are as follows:

GOAL

- To create a good experience for employees in receiving HR services through a concise process. And a more user-friendly system.
- To improve the procedures and work processes of the HR department to be more efficient.
- To foster positive interactions between employees and HR, which plays a crucial role in building employee engagement with the organization.

EXPECTED BENEFIT

- Better working experience for employee.
- Improved efficiency and effectiveness of human resource management and human capital development.
- Better employee engagement and employee satisfaction level.

ORACLE® HCM CLOUD

Core HR	Global Payroll	Time & Labor	Sourcing, Recruiting, & Onboarding	My Wellness
Workforce Directory	Compensation Management	Absence Management	Goals & Performance	My Competitions
Workforce Predictions	Incentive Compensation	Project Management	Talent Review & Succession	My Reputation
Workforce Modeling	Benefits	Expense Management	Career Development	My Volunteering
Global HR	Workforce Rewards	Workforce Management	Learning	HR Help Desk
			Talent Management	Work Life

2. UNIFIED OPERATIONS CENTER: UOC

In 2019, WHAUP, in collaboration with WHA Group, established a Central Control Center to monitor and real-time surveillance based on environmental indicators. In 2022, WHAUP further improved the Unified Operations Center (UOC), which serves as the operational data hub for WHAUP. The UOC enhances control and management of utilities and power services, including water production and solar energy power plants. These facilities can be controlled and managed remotely through the UOC. Therefore, during emergencies or crises with travel restrictions, the UOC serves as the secondary command center to efficiently control and manage water production and solar energy power plants. This ensures continuous business operations and instills confidence. Additionally, the UOC helps reduce environmental pollution, including air pollution, by reducing emissions from vehicles used in operations. This helps WHAUP and WHA Group achieve their goal of maintaining air



quality within the standard limits set by Environmental Impact Assessment (EIA) requirements. Moreover, the project has provided overall benefits. For instance, it has reduced direct greenhouse gas emissions (scope 1) by more than 75 tCO₂e per year through the reduction of fuel consumption for vehicles used in operations.

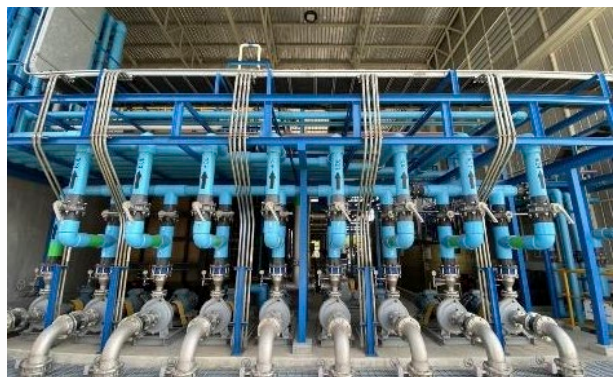


3. SMART UTILITIES & POWER

To respond to market trends, WHAUP has created business opportunities and introduced innovations through our products and services. We have also expanded our investment in energy by adopting new innovations. In doing so, WHAUP prioritize the quality of life and the environmental impact. We actively develop new and continuous utilities and power services, including demineralized water production systems and wastewater treatment processes.

3.1 WATER RECLAMATION

WHAUP has developed a Water Reclamation system to serve as a sustainable water source, particularly in the Eastern Economic Corridor (EEC). This project combines existing technologies with new innovations to add value to wastewater. It involves treating wastewater from the treatment system to produce demineralized water and premium clarified water, creating higher market value products at reduced costs compared to before. In 2022, WHAUP generated a revenue of 178.6 million baht from this project, accounting for 8.5% of the total revenue from the utilities business. Additionally, the project brings environmental and societal benefits by reducing wastewater discharge and reliance on natural water sources, amounting to a total of 7.0 cubic meters. It also contributes to the conservation of natural resources and mitigates potential conflicts with nearby communities.



3.2 DEMINERALIZED RECLAIMED WATER

WHAUP has invested in the Demineralized Water project, which is a large-scale project consisting of two parts. Each part has a production capacity of 4.38 million cubic meters per year, covering 3% of the total industrial water production capacity. The project is developed at WHA EIE with the objective of improving the quality of water in the wastewater treatment system with reduced costs and environmentally friendly processes. WHAUP has developed the Demineralized Reclaimed Water project as an alternative water source for sustainable industrial development in the country. This project builds upon existing technologies while also creating new innovations to increase the value of the products. It involves treating wastewater from the wastewater treatment system to produce mineral-free water for industrial use. For further details about this project, you can refer to the “Water Management” section in this report.



3.3 SMART WATER METER READING

WHAUP has initiated the development of the “Smart Water Meter Reading” system to enhance the ability to monitor water supply and usage for businesses within the industrial estate. This involves installing water meters with digital output signals (RS485, Pules), pressure transmitters, and automatic meter reading (AMR) devices that can automatically read water quantity and pressure data. The data is then wirelessly transmitted to an online system on an hourly basis. This system replaces the previous manual meter reading process, which required personnel to record water usage once a month. Implementing this system reduces the workload of personnel in collecting data from water meters and generating billing statements. Furthermore, this innovative concept enhances the ability to observe water usage behavior among businesses within the industrial estate. The data obtained from the Smart Water Meter Reading project is also analyzed using a hydraulic model to identify and promptly address any abnormalities or issues within the water distribution system. Additionally, efforts are made to develop an energy-efficient water supply system that aligns with the water usage behavior of businesses within the industrial estate.



3.4 SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) TECHNOLOGY AT WASTEWATER TREATMENT PLANT

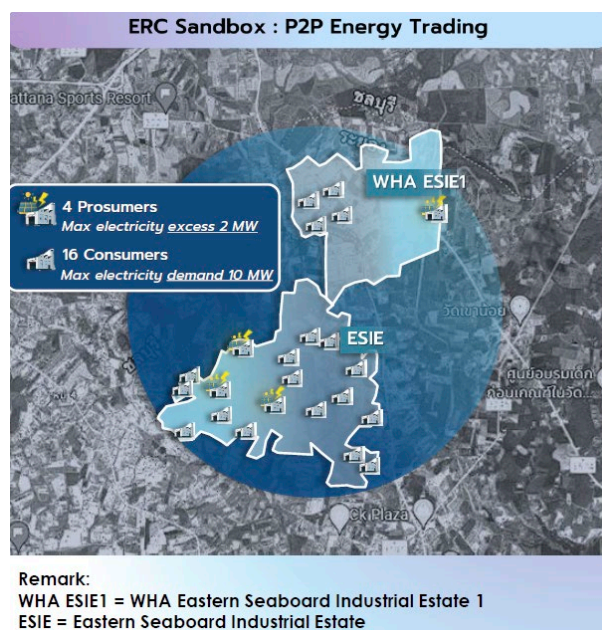
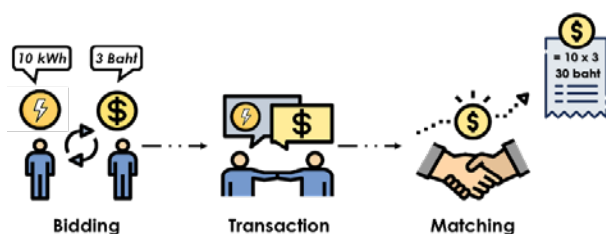
Currently, WHAUP is conducting studies to implement SCADA (Supervisory Control and Data Acquisition) technology to optimize the efficiency of wastewater treatment plants located within the Eastern Economic Corridor of Innovation (EECi) in Wang Chan District, Rayong Province. This advanced technology system allows for continuous monitoring of the wastewater treatment operations 24 hours a day. By implementing SCADA technology, WHAUP can reduce operational costs by minimizing the need for on-site personnel.



3.5 PEER-TO-PEER ENERGY TRADING SYSTEM

In line with WHAUP's commitment to sustainable energy innovations, we have collaborated with the Electricity Generating Authority of Thailand (EGAT) through a Memorandum of Understanding (MOU) to develop SMART Energy and microgrid systems. The objective of this collaboration is to reduce electricity costs and enhance the stability of energy systems within industrial estates. Additionally, WHAUP has also partnered with regional electricity authorities (PEA) under an MOU to study electricity market structures, new service rate structures, microgrid systems, and business models to support Carbon Neutral policies. The first project to reach approval phase in 2021 is the Peer-to-Peer Energy Trading system which enables direct buying and selling of solar power between industrial users within the Industrial Estate Complex. Moreover, WHAUP collaborates with PTT Public Company Limited and SERTIS signing a Memorandum of Understanding on Smart Energy Platform. Under this MOU, SERTIS jointly

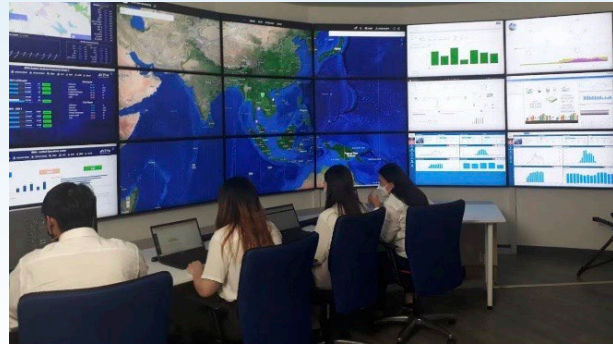
developed a platform to optimize electricity management using AI and Blockchain Technology to sell solar energy within WHA Group's industrial estates. This platform will allow transactions to be decentralized and processed automatically without being controlled by any single party, making data management and transactions more secure and transparent between each of the buildings in the industrial estates. This collaboration was selected as part of the Energy Regulatory Commission Sandbox (ERC Sandbox) program run by Energy Regulatory Commission of Thailand and Provincial Electricity Authority (PEA), under the Microgrid electricity management system. The Smart Energy Platform developed between PTT, WHAUP and SERTIS will help make alternative energy management more efficient and will result in better energy stability. The system, once fully implemented, will pave way for at least additional 200 MW of solar power available for use within the industrial complex, enabling industrial users to save more than 113 million Baht per year their electricity cost and achieve over 4,000,000 tons of CO2 reduction over the project life cycle.



3.6 SMART POWER METER

The Smart Power Meter system is an online monitoring system used to record customers' solar energy consumption. It provides convenience in generating billing statements as the data is sent and stored at the main office located in the WHA Tower building. This eliminates the need for employees to travel to customers' premises or manually record energy usage

data. Therefore, this system helps reduce associated costs by up to 3,000 Baht per megawatt-hour per month. As part of WHAUP's business expansion plan, aiming to increase renewable energy production capacity from the current 133 megawatts to 300 megawatts by 2023, the SMART Metering system is expected to save up to 900,000 Baht in costs.



PERFORMANCE AGAINST TARGETS

WHAUP aims to become a Tech Company by 2024, utilizing technology and innovation to expand and strengthen its business in the service and management of utilities and power. This is to accommodate the evolving needs of customers. WHAUP focuses on developing work processes that align with current technologies. Strategic plans have been implemented since 2021 to align with these goals. Additionally, WHAUP has undertaken the Mission To The Sun project in collaboration with WHA Group, consisting of nine initiatives aimed at pushing the boundaries and potential of the present. In 2022, WHAUP successfully executed its planned activities, including process transformations, cultural adjustments to adapt to changes, and fostering collaborations with various partners to enhance the organization's innovative capabilities and technological advancements in the utilities and sustainable energy service sectors.





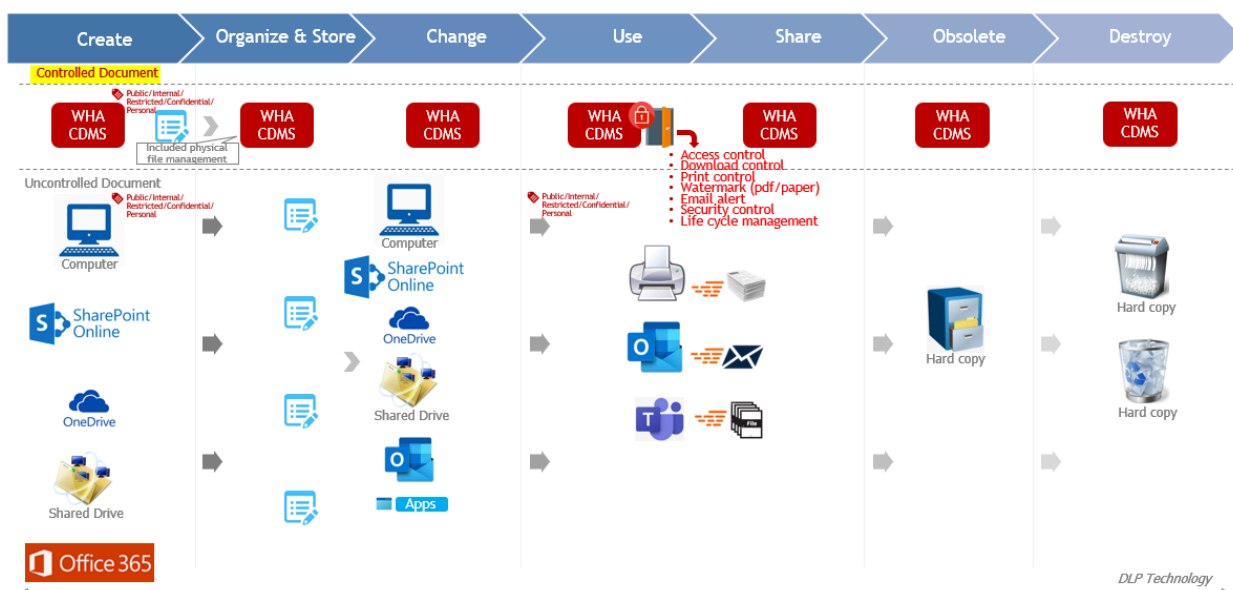
DATA SECURITY



WHAUP places great importance on data security and is dedicated to continuously enhancing its capabilities in digital technology to fully embrace digital transformation. In an era where cyber-attacks are becoming increasingly sophisticated, data security, including intellectual property, financial information, and customer's personal data, is of paramount importance to WHAUP. Consequently, WHAUP has established a system for oversight and management of data security, aligned with WHA Group. The Risk Management Committee, led by Ms. Jareeporn Jarukornsakul as the Chairperson, Mr. Somkiat Masunthasuwun as the CEO of WHAUP, and Mr. Nunsilp Janvarin as the Chief Information Security Officer (CISO), is responsible for supervising operations related to data security. Internally, WHAUP has initiated projects to enhance work efficiency.



CORPORATE DOCUMENT MANAGEMENT SYSTEM (CDMS)



Regarding data security management, WHAUP has implemented a classification system for information to align with the goal of strengthening data security. This system enables efficient management of organizational documents under WHAUP's cybersecurity and information security management policy. This policy is

implemented across all business activities within WHA Group. The guidelines categorize documents into five levels, ranging from public to personal confidential. The document classification system ensures the appropriate and suitable handling and storage of WHAUP's data at each level.



DEACTIVATION OF USB STORAGE AND EXTERNAL HARD DISK

Block USB Storage

D.4 Cyber Security and Digital Foundation

Why Block USB Storage?

- To protect our computer from the virus or malware that can be transmitted via USB Storage
- To protect un-authorized program installing from USB Storage
- To prevent data lost

How do we transfer our data or work then?

- Use Online Storage with better security such as Email, File Sharing, OneDrive, SharePoint

If you need to access USB Storage, you can request the permission from IT via ITSM (Service F1): <https://wcpd.wha-group.com/ApplicationPortal/>

Download on the App Store

GET IT ON Google Play

For first time login
Please use QR Code showing on the website.

Non-USB Storage

Activation Date

23 September 2021

WHAUP has implemented measures to prevent employees and relevant individuals from using unauthorized USB devices with any electronic equipment within WHAUP, to protect the computers and network systems from viruses and malware that can spread through USB connections. This also helps reduce the risk of data leakage intentionally or unintentionally. As part of these efforts, WHAUP has started disabling USB ports on all computers used by employees for storing large amounts of data.

MOBILE DEVICE MANAGEMENT (MDM)

Mobile Device Management (MDM)

Current Action: Enrolled & Check Compliant All WHA Computers

Setting	↑↓	State
Antispyware	✓	Compliant
Antivirus	✓	Compliant
Password expiration (days)	✓	Compliant
Number of previous passwords to prevent reuse	✓	Compliant
Minimum password length	✓	Compliant
Firewall	✓	Compliant
Simple passwords	✓	Compliant
Require a password to unlock mobile devices	✓	Compliant

If Not Compliant

Antispyware	✓	Compliant
Antivirus	✗	Not Compliant
Password expiration (days)	✓	Compliant

Next Action: Condition Access

- Compliant: Allowed Access

- If Not Compliant: Block or Restricted Access

WHAUP have deployed Mobile Device Management (MDM) with Microsoft EMS (Enterprise Mobile Security) to manage mobile devices in our organization, either on-premises or cloud-based in order to control how our organization's devices are used, including mobile

phones, tablets, and laptops. We can also configure specific policies to control applications. It helps make sure our organization's data stays protected and can isolate organization data from personal data.

ASSURE SECURITY OF THE SYSTEM

Penetration Testing VA Scan



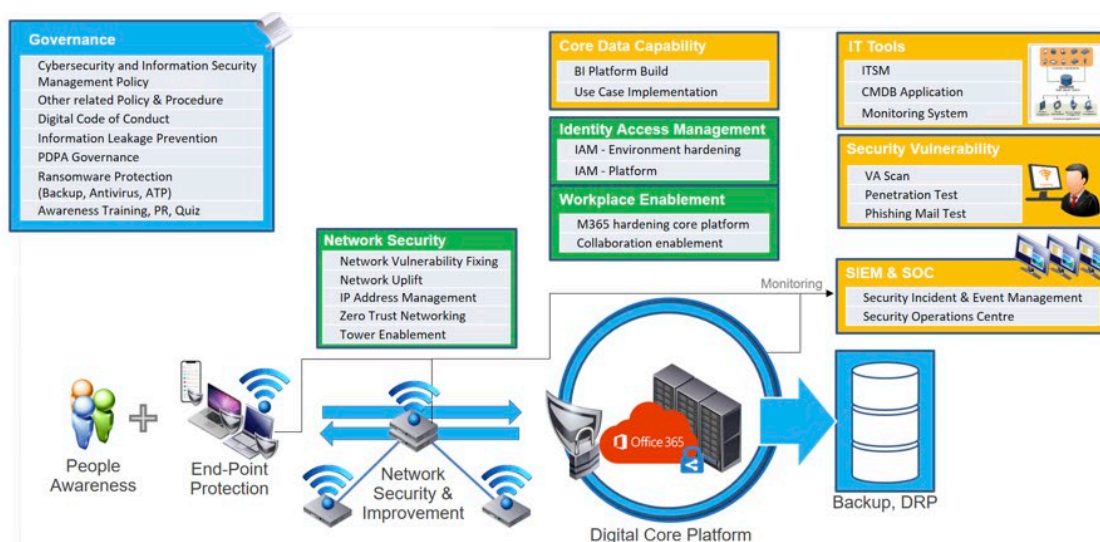
Standard:
CVSS v3.1 (Common Vulnerability Scoring System)

Severity	CVSS Score Rating	Description
CRITICAL	9.0 - 10.0	Exploitation is straightforward and usually results in system-level compromise. It is advised to form a plan of action and patch immediately
HIGH	7.0 - 8.9	Exploitation is more difficult but could cause elevated privileges and potentially a loss of data or downtime. It is advised to form a plan of action and patch as soon as possible
MEDIUM	4.0 - 6.9	Vulnerabilities exist but are not exploitable or require extra steps such as social engineering. IT is advised to form a plan of action and patch after high-priority issues have been resolved.
LOW	0.1-3.9	Vulnerabilities are non-exploitable but would reduce and organization's attack surface. It is advised to form a plan of action and patch during the next maintenance window.
INFORMATION	N/A	No vulnerability exists. Additional information is provided regarding items noticed during testing, strong controls, and additional documentation.

In 2022, WHAUP conducted system testing at least twice, in accordance with the planned testing and response framework. This included Penetration Testing and Vulnerability Testing, which took place in August, 2022. The purpose of these tests was to certify the security of the system and instill confidence that the company is capable of protecting data, mitigating cyber

risks, meeting shareholder requirements, and maintaining a good reputation and image for the organization. Currently, WHAUP is in the process of preparing to apply for certification under the ISO/IEC 27001:2022 Information Security Management System standard, with expectations of obtaining approval within the first quarter of 2024.

INFORMATION SECURITY RESPONSE MECHANISM

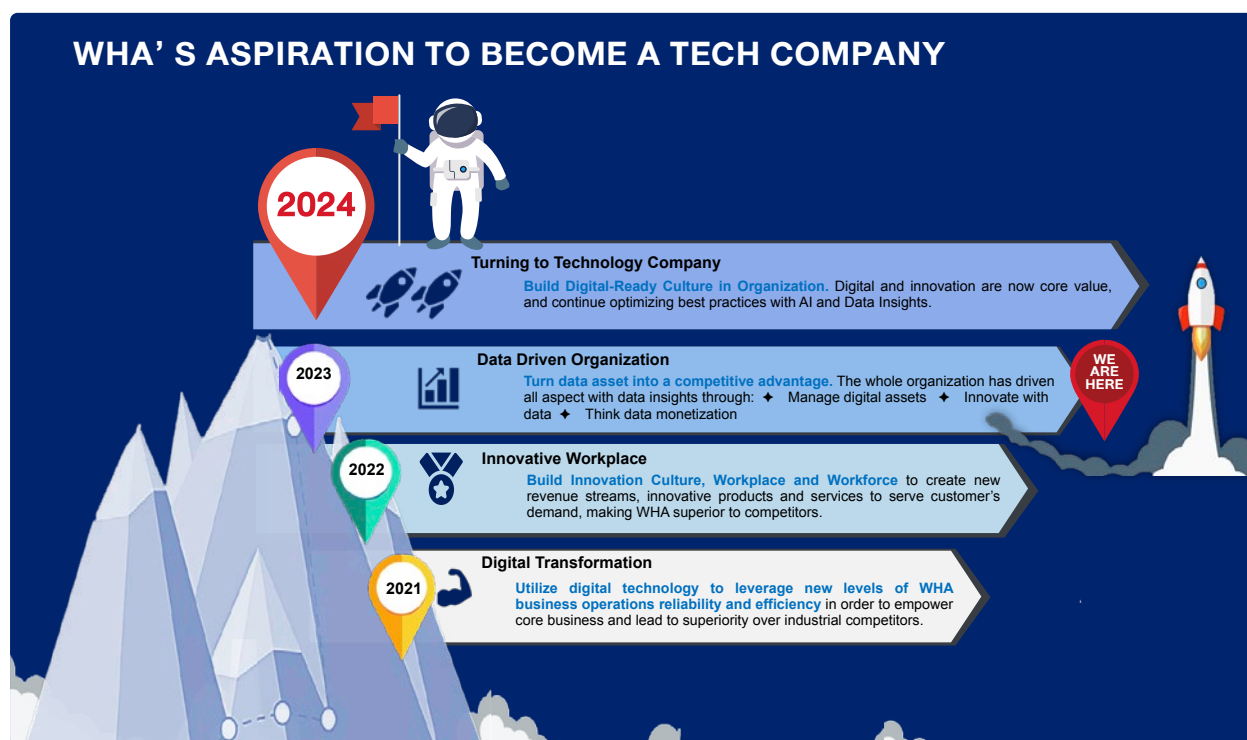


The security and confidentiality of information are also governed by WHAUP's Code of Conduct and Practices. Any suspicions, grievances or breach cases on potential violations to such principles can be reported and

investigated following the established whistle-blowing process as stated in the Codes of Business Conduct chapter. Additionally, the company has conducted a breach assessment and implemented a Cybersecurity

and Information Security Management Policy. The Policy enforces to all employees, states the procedures and responsible personnel for management and reporting of information security events in respondent to a reported breach case. For the most effective operation, WHAUP, in collaboration with WHA Group, has organized training sessions to raise awareness of cyber threats among employees and related stakeholders.

WHAUP is actively engaged in providing information technology services through the digital platform of WHA Group, placing utmost importance on the security of customer data. It prioritizes the protection of customer information with the same level of significance as internal data security within the organization. WHAUP continuously improves and enhances its technology services to stay up to date with the current landscape.



WHAUP, in collaboration with WHA Group, continues to play a significant role in driving digital growth by fostering innovation and leveraging deep data utilization to transform the organization into a rapidly advancing technology company. This effort aims to strengthen WHAUP's business operations and elevate its credibility, while also enhancing its competitive edge in the utilities and industrial estate energy service sectors through interconnected digital technologies. Simultaneously, WHAUP serves as a central hub, supporting customers in creating new experiences. Over the past two years, WHAUP, together with WHA Group, has undergone successful transformations by integrating digital technologies across the organization through 32 digital projects and 19 data-driven initiatives.

In 2023, WHAUP remains committed to driving the organization under the concept of a "Data-Driven Organization," focusing on effective management of organizational data. It emphasizes the use of data as a central element for decision-making and business operations. By collecting and consolidating data from various sources, these data are analyzed to inform product development, pricing strategies, and efficient sales promotions. The Data-Driven Organization empowers the company with flexibility to adapt to market trends continuously. Moreover, it helps mitigate risks associated with inaccurate decision-making and improves operational efficiency and management within the organization.



SOCIAL DIMENSION





HUMAN RESOURCES MANAGEMENT



GLOBAL TRENDS AND IMPACT

In the era of continuously advancing technology, combined with the rapidly changing needs of customers, businesses are fiercely competing. Therefore, the competence and quality of personnel within an organization play a crucial role in creating a competitive advantage for leading companies. Consequently, human resources management has become a critical area of focus for businesses. This is because human resource management encompasses various aspects of operations, including compliant labor management, personnel development to adapt to changes in the business world, fostering employee relationships (Employee Engagement), ensuring a conducive working environment, promoting mutual respect, and safeguarding human rights. These aspects have a direct impact on employees, who are integral members of society, and significantly influence an organization's economic capacity.

WHAUP realizes that every employee is a key mechanism that drives business activities to achieve the expected results. Therefore, WHAUP has developed new strategies and approaches to human resources management to align with global situations, economic conditions, and customer needs, while simultaneously meeting the expectations

of all employees. WHAUP has redefined work practices and entered on a new path under the concept of the "Future of Work" which encompasses remote working, flexible working hours, online meetings and collaboration, and more. Additionally, the company has formulated strategies to adapt to changes that may further impact the organization, through the development of human resources and the enhancement of employee capabilities. These strategies align with the digital business development approach that requires skills and competencies beyond the existing workforce's skill set. Moreover, it includes fundamental changes in human resources management, encompassing ideologies, goals, and work processes to improve efficiency in line with the principles of WHAUP, which focus on conducting business based on ESG principles. WHAUP applies various technologies to enhance work efficiency. Furthermore, the company has implemented policies on human rights to guide internal operations of human resources management to ensure that the established directions are based on principles of respect and protection of human rights which provide opportunities and equality. These measures aim to retain talented employees within the organization in the long run.

MANAGEMENT APPROACH

WHAUP is firmly committed to maximize the efficiency of human resource management. As part of this commitment, a 5-year strategic direction for human resource management has been established, covering the period from 2022 to 2026 with the goal of becoming one of the leading employers in Thailand and the region. To achieve this, WHAUP has followed the strategic plan of WHA Group to enhance and upgrade the human resource management system. This plan includes the implementation of an incentive system, investment in human resource development, effective labor management practices, and initiatives to retain skilled and capable employees for long-term collaboration to address the issue of personnel shortages. WHAUP, in collaboration with WHA Group, places a strong emphasis on continuous improvement and development of the human resources system to enhance the capabilities of its employees. Furthermore, ethical conduct is prioritized, and the

organization is committed to avoiding any form of human rights violations, discrimination, and illegal labor practices.

Moreover, to efficiently manage human resources, WHAUP has followed the standardized tools and processes for human resources management which is used across all business units within WHA Group. These tools and processes are designed to be fair, reliable, and supportive in assessing work performance. They play a crucial role in supporting the efficient achievement of strategies, visions, and goals, thereby facilitating sustainable business development. These measures help WHAUP to manage human resources in a manner that is suitable and aligned with the highly standardized and modern needs of customers in the utilities and power sectors. This is achieved by analyzing the demands of human resources, both current and future strategic business goal, and changing trends, as well as planning for each situation.



CORPORATE VALUES



WHAUP has defined corporate values in alignment with WHA Group. These values are considered crucial in promoting innovation within the organization and preparing WHAUP for the digital transformation under the “Mission To The Sun” project. This project aims to foster the development of the organization and personnel in all WHA Group. All personnel associated with the company will be transferred and cultivated these values to uphold and practice in their roles effectively and cohesively. WHAUP believes that the 4 corporate values, namely Advanced,

Champion, Resourceful, and Integrity, will greatly enhance leadership and capabilities of its personnel. In 2022, WHAUP, as a part of WHA Group, plans to align its corporate values with corporate branding and integrate modern digital thinking into DNA of the organization. This process plays a vital role in driving the organization towards digital transformation and supporting the growth of the company across its diverse businesses with the strategy to achieve its goal of becoming a Tech Company by 2024.



ADVANCED



CHAMPION



RESOURCEFUL



INTEGRITY



LABOR PRACTICE

WHAUP places great importance on the treatment of employees within the organization, with a policy that rejects any form of discrimination practices. WHAUP will not engage in or support discriminatory practices. Furthermore, WHAUP has implemented measures to promote diversity among its personnel, emphasizing its significance at both the managerial and employee levels. To ensure fair practices, WHAUP has established a Nomination and Remuneration Committee (NRC) comprised of members from the company's board of directors. This committee's responsibilities include proposing qualified individuals for senior management and executive positions without limitations or biases based on nationality, religion, language, age, gender, marital status, personal sexual orientation, disabilities, union membership, employer representation, political affiliation, or any other personal beliefs. Additionally, the committee is responsible for suggesting clear, fair, and appropriate compensation criteria and guidelines that align with the current labor market conditions. The NRC holds regular meetings with WHA group' NRC committee and submits reports to board of director and WHA group' board of directors.

WHAUP has established channels for employees to make complaints if they believe they have been treated unfairly. In cases of discrimination complaints, WHAUP conducts a thorough review to determine whether discrimination, as defined by the International Labor Organization (ILO), has taken place. Throughout the process, preventive and remedial measures are implemented, ensuring that the matter is addressed from the beginning until the completion of the review. These measures align with WHA Group's Non-Discrimination Policy. The policy and the effective implementation to prevent discrimination is the basic requirement of responsible business operations and the results of complaints will be taken into consideration during the formulation of WHAUP's anti-discrimination policy. In 2022, no cases of discrimination against employees and contractors were reported within WHAUP, aligning with the organization's goal of achieving zero employee discrimination complaints.



EMPLOYEE WELFARE AND BENEFITS



Providing employees with good welfare not only ensures their satisfaction and promotes stability in their lives but also has a significant impact on the company's human resources management. WHAUP recognizes the importance of promoting a high standard of living for employees and their families, as it contributes to the motivation and retention of talented individuals. The welfare and benefits offered by WHAUP go beyond regulatory requirements, ensuring that employees are well taken care of. Upon joining the company, all WHAUP employees are informed of their eligibility to receive comprehensive benefits. These benefits include life and accident insurance, health insurance that covers registered family members, annual health check-ups, provision of uniforms, participation in provident funds, in which 164 employees or a total of 100% of employees participate, as well as grant funds, disability coverage, parental leave, lactation rooms, and more. Furthermore, employees can propose improvements or provide feedback on benefits through the Employee Benefits Committee and the Human Resources department.

Additionally, WHAUP collaborates with WHA Group to foster a positive work environment and enhance employee motivation. Various activities and projects have been organized with the aim of promoting employee well-being, such as WHApy talk and Employee Engagement Survey. The survey has achieved a high participation rate of 100 percent, highlighting WHAUP's commitment to prioritizing employee satisfaction across diverse fields of work. As part of its strategic approach to human resources management, WHAUP places great emphasis on employee well-being. This includes prioritizing occupational health and safety in the workplace and ensuring that employees can work happily under the principles of a Happy Workplace. Additionally, in 2022, WHAUP, in collaboration with WHA Group, has organized various activities, including WHApyVerse and other initiatives, to promote employee well-being and foster a positive work environment.



TALENT ATTRACTION AND RETENTION



In the present time, businesses across various industries are facing the challenge of recruiting top talent personnel and retaining skilled and capable employees in the long term. Therefore, in this highly competitive and fast-paced environment and the outbreak of the COVID-19 virus over the past two years has accelerated the need for WHAUP to adopt and utilize technology to work which is an important step in transitioning to a new normal for 'Future of Work.' Noticeable changes include increasing in remote working, flexible working hours, online meetings, and work collaborations, as well as virtual hiring. In this regard, remote work or 'Work from Home' reflects the importance of recruiting personnel with relevant skills and knowledge, as well as the ability to adapt to the aforementioned social changes.

One of the key issues that the human resources department of WHAUP consistently prioritizes is managing to motivate and retain skilled and talented employees to be with the company in long term. WHAUP understands that maintaining a low employee turnover rate can help the business operate efficiently, reduce business disruptions, and sustain its competitive advantage in the long run. It also ensures that the company retains employees with both abilities and experience, while minimizing the expenses and time associated with recruiting new personnel as replacements, which is costly and time-consuming. Therefore, in order to avoid those challenges, WHAUP has been making efforts to reduce the turnover rate. In 2022, the voluntary resignation rate was at 6.04%.

WHAUP has changed strategies in human resources management as a foundation for long-term success. This involves integrating Strategic Workforce Planning (SWP) and People Analytics (PA) into the human resources management system. SWP is a process that involves planning for a period of 3-5 years to analyze and anticipate future scenarios. It helps WHAUP to manage human resources in order to be aligned with customer needs in the utilities and power for industrial sectors. It focuses on analyzing the demands of human resources, both current and future strategic business goals, market changing trends, and customer needs as well as planning for each situation (Scenario Analysis).

STRATEGIC WORKFORCE PLANNING: SWP

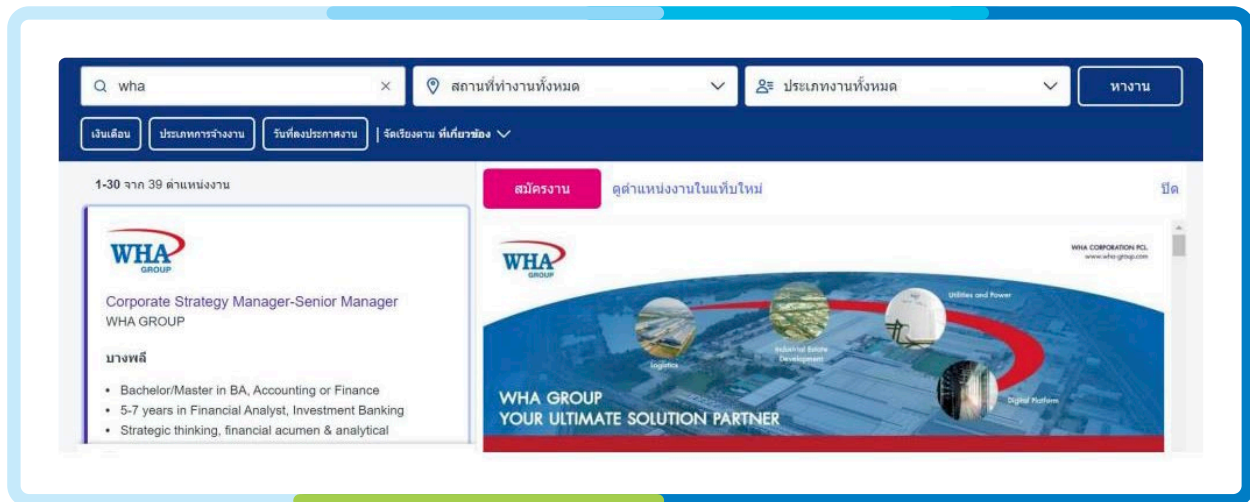
For future work plans of employees, WHAUP utilizes Strategic Workforce Planning (SWP) to enhance the effectiveness of human resources system planning and enable the company to establish smooth coworking teams. Hence, SWP has significant impact on the development of employee experiences. Moreover, to support operation excellence, human resources management collaborates with operation team to specify expertise or necessary skills for each role. If it is found that there is expertise present, WHAUP will proceed with the Knowledge Management program to build expertise in those specific areas. However, if employees are found to lack skills or expertise in job-related areas (such as language skills or IT skills), we will conduct training programs for employees in each department to close the gaps. This is to ensure that all employees have the potential and capabilities aligned with their job contexts. There will also be a prioritization process based on matrix evaluations, considering various factors such as the impact on products or services and organizational goals, frequency of reliance on external units, expertise levels, sustainability of knowledge, competitiveness for potential and efficiency of the organization. These efforts aim to achieve long-term goals and elevate the potential of capable personnel management.

As a part of the SWP, WHAUP has People Analytics (PA) to estimate the future workforce that the company will need, both in short and long term, along with study external factors. PA is determined as using methods, tools or applications that integrate the use of advanced analytics and large, complex data sets in human resources management system. It allows WHAUP to identify current risks and opportunities, provide better understanding of organizational networks and the effective use of information. It also benefits for the decision-making process of personnel and talent employee management. WHAUP collects data through the Human Capital Management System (HCMS) in order to track current human capital and headcounts with the manpower planning and adjust implementation plans. The data collected, such as human capital vacancies, and the Human Capital Return on Investment (HCROI) are used to analyze progress and success, and to monitor human capital investment with business performance.

Therefore, in comprehensive strategic workforce planning, WHAUP continuously implements these applications to enhance all aspects of its human resources strategy. This includes, recruiting and hiring employees, evaluating employee performance, identifying workforce skill gaps, and identifying flight risks to improve employee retention. Ultimately, this will help WHAUP improve their business performance and moving towards sustainable growth.

RECRUITING AND HIRING

WHAUP has established a clear recruiting policy and recognized the importance of the recruitment channel, both internal and external, in order to acquire potential employees who meet the organization's need. For the primary recruitment channel, WHAUP utilizes diverse recruiting methods including direct applications through the company's website and using job search websites available in Thailand.



WHAUP has defined and effectively communicated a clear Employer Value Proposition (EVP) that aligns with WHA Group's corporate values. The incentive process is designed to enhance the efficiency of employee recruitment in accordance with the manpower plan, which supports the operational plan and business objectives. In terms of communication, WHAUP gathers and analyzes information regarding the actual needs of potential talent pools from both internal and external sources to ensure that the communication process aligns with the perspectives and expectations of external parties towards WHAUP, and we will present the value in EVP through various public relations channels. Moreover, WHAUP has also implemented a recruitment rebranding program which aims to attract and find the best candidates. In order to upgrade the employment branding in targeted workforce markets, we have been partnership with academic institutions and professional groups as follows:

Academic Partnership

- WHAUP engages with young talents through various channels and programs such as internship program, on-site visits, coaching, hackathon, project-based learning, and more.

Professional Community Outreach

- WHAUP and WHA Group reach out to professional/business associations and communities to publicize WHAUP through knowledge sharing, keynotes speech, and social activities to connect with experienced professional.

WHAUP has developed a Human Capital Management System (HCMS) to create the efficient recruitment process to meet business expectation and align with the current behavior of the workforce. HCMS will analyze data and develop the recruitment process by assessing labor demand and supply, recruitment channels, the efficiency

of preliminary candidate selection tools, and analyzing applicant behavior and workforce needs. WHAUP will follow up and collect information to examine and analyze the success of these processes, while also formulating plans to increase efficiency in order to better support business needs and organizational growth. Presently, the HCMS of WHAUP is integrated with cloud system and mobile devices, ensuring user-friendly accessibility. However, WHAUP will continue to improve its recruitment process to adapt to changing market conditions, emerging trends, and the evolving Future of Work, to prepare WHAUP to become a Tech Company by 2024.

EMPLOYEE PERFORMANCE EVALUATION

In the matter of escalating the potential of each employee to become high standard and correlated with their responsibilities, WHAUP conducts an annual performance appraisal, following the guidelines of the Performance Management System (PMS). Employee performance is evaluated based on key performance indicators (KPIs), which impact in employee compensation and project initiating to further develop their potential, as well as compare the portion of potential and high-performed employees (outstanding employees). The objectives of

these process are creating a robust talent pool within WHAUP and reducing the gap between supervisors and subordinates. In 2022, 100% of WHAUP employees have their performance evaluated through these 4 types of process:

- Key Performance Indicators (KPIs)
- Multi-dimensional performance appraisals (e.g., 360-degree feedback)
- Team evaluation
- Agile (On-duty) conversations

Some formats of evaluation can occur at any time, formally and informally, to ensure that every employee has the capabilities suitable for their assigned role as well as opportunities for timely feedback and suggestions.

Other than the performance evaluation, WHAUP also assess employee engagement and satisfaction towards the organization every year. The results of the employee engagement survey will be reported to the management and executives and published to employees through the company's SharePoint. The results will also be analyzed to develop and initiate projects, policies, and procedures to improve employee care, as a part of the SWP process of WHAUP and WHA Group.



Type of performance assessment	Total number of employees (%)
Key Performance Indicators (KPIs)	100
Multi-dimensional performance appraisals (e.g., 360-degree feedback)	100
Team evaluation	100
On-duty conversations	100

WORKFORCE SKILLS GAPS IDENTIFICATION

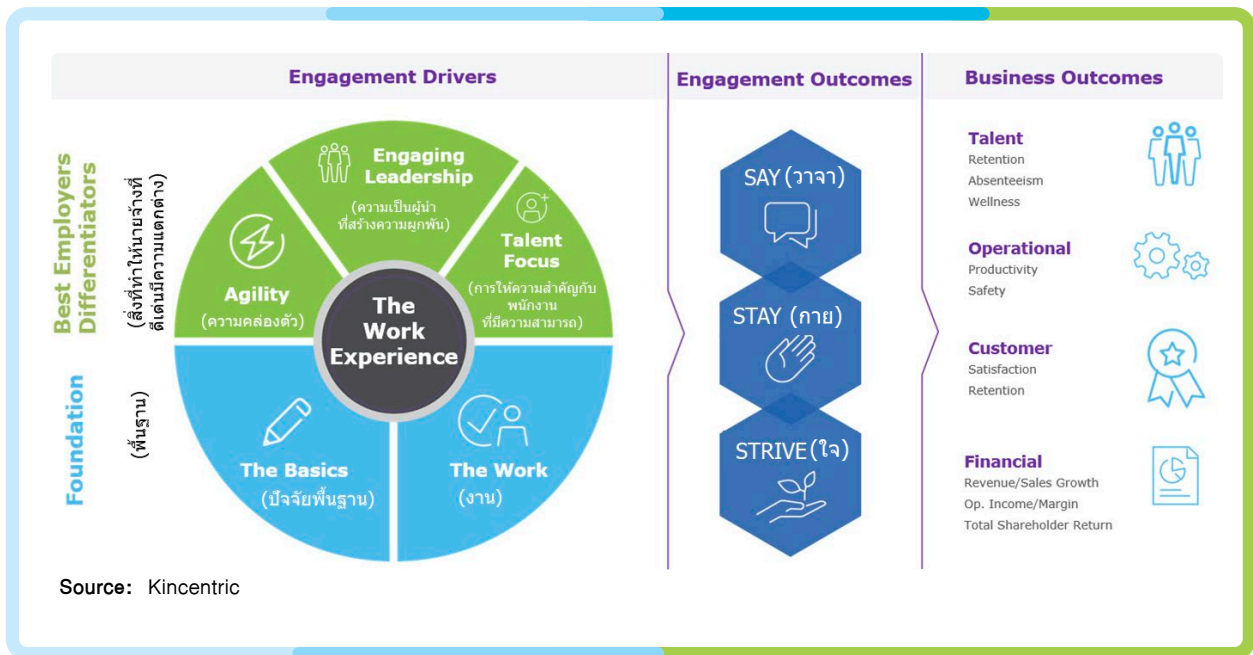
WHAUP identifies skill gaps in the current workforce, such as lack of technical skills, or specific knowledge, as a part of the SWP. This is to ensure that WHAUP's operation is achieving the business goals and driving WHA Group's strategy. WHAUP, in collaboration with WHA Group, established WHA Group Development program, a short-term operational framework to identify the positions that are currently needed and able to be opened for recruitment, as well as the skills/positions required for each time period. This helps WHAUP to timely develop and prepare critical skills and knowledge's for both existing and future business operations. In this step, the information, including the rate of training completion per department, training completion alignment with plans, the rate of training hours per headcount, is collected via HCMS and used to evaluate the skill gaps, upskill and training new skills for employees. These will also help WHAUP enhance the potential of its employees, appropriately plan career advancements within the organization, develop capable individuals to prepare for future job succession, and offer opportunities for skilled employees to take on positions with greater responsibilities.

IDENTIFYING FLIGHT RISKS TO IMPROVE RETENTION

From the analysis of the important factors to increase employee engagement towards the company, it was found that three main factors were 1) work-life balance, 2) remuneration, welfare, and appraisal, and 3) work tools and equipment, and organizational structure. Therefore, WHAUP has collected employee information such as attrition rate and regrettable loss through HCMS to analyze the causes, preventive approach, and the motivation that employees have towards the company. Furthermore, WHAUP arranges employee engagement survey annually to identify issues and understand turnover factors.

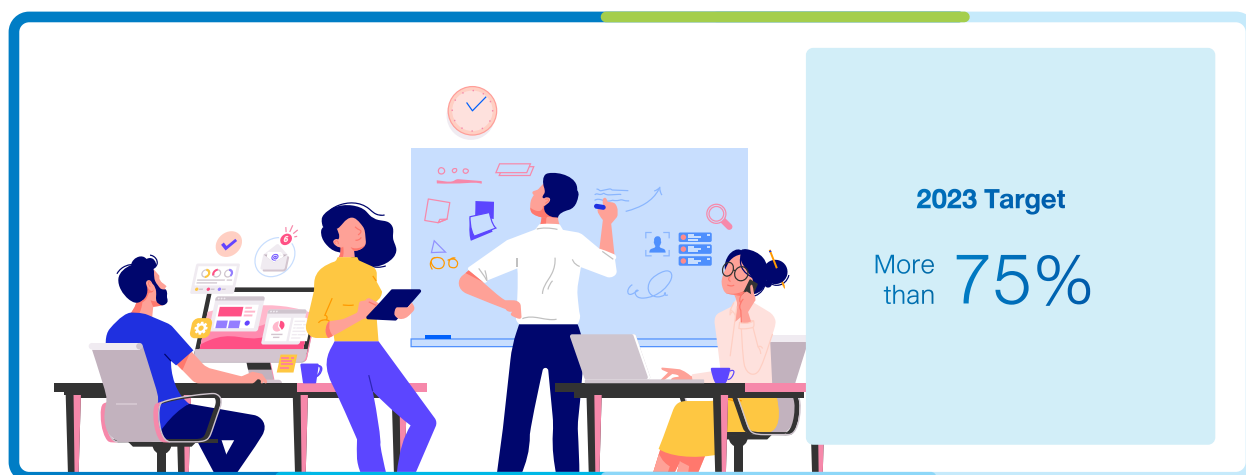
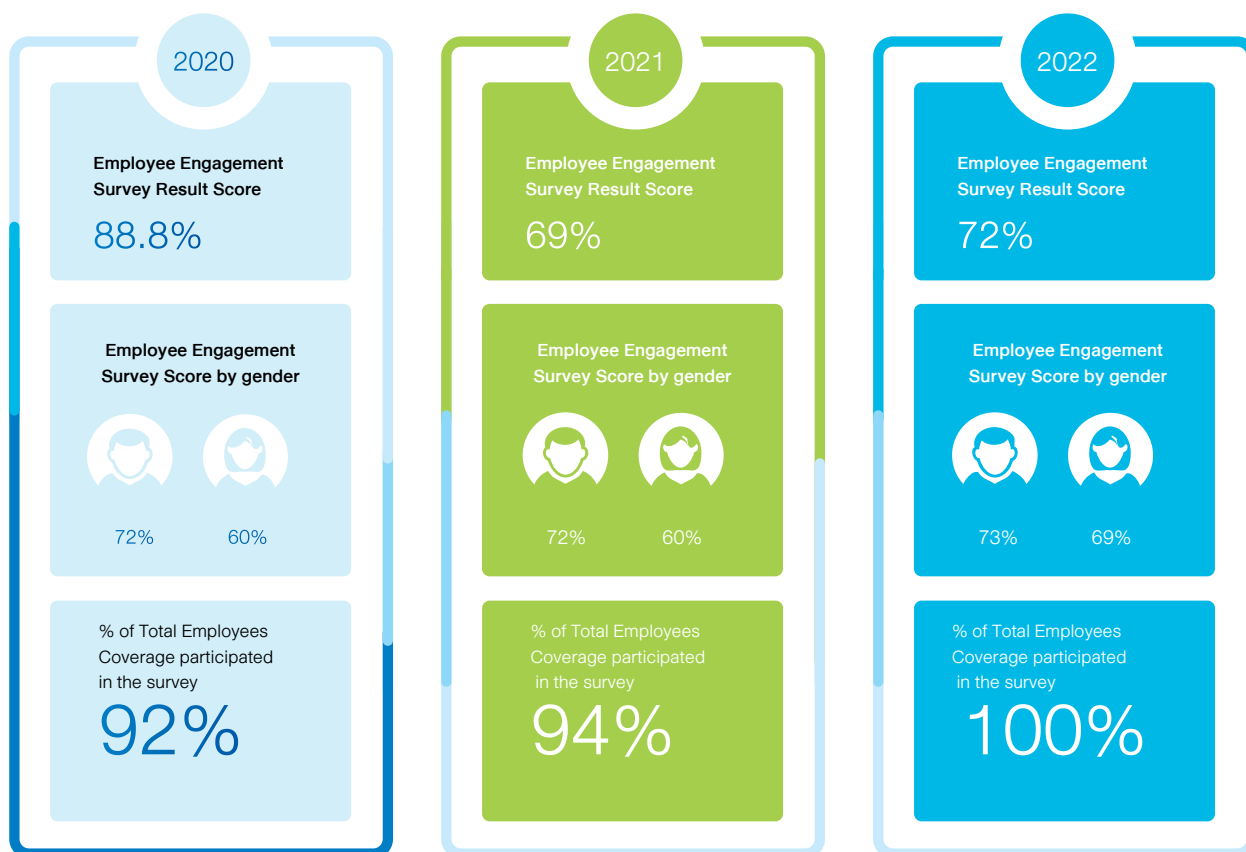
Employee engagement is a crucial process that promotes employees' satisfaction towards WHAUP, also maintains work efficiency, and ensures all employees that their work is valued and important for the organization. All employees, who have been employed for over six months, are subjected to participate in this survey. In 2020, the survey was conducted by an external third-party company, NIDA, through the Employee Engagement on Meter (EMO Meter) methodology. However, in 2021, the company has collaborated with Kincentric Thailand, a global employee engagement consultant, to conduct the survey for the journey to become one of the best employers in Thailand and region. This is to ensure the transparency of the operations, the unbiased data collection and analysis, as well as the benchmarking opportunity with other top employers.

The survey assessed employees' engagement includes the following details



Since 2021, WHAUP play an important role in initiating the development plan and focusing on human resources management with WHA Group, aiming to achieve national certification as Thailand's Best Employer. As a result, WHAUP decided to use the tool from Kincentric Thailand to conduct employee engagement surveys. The tool is utilized to address issues regarding employee engagement towards the organization as well as the factors influencing the engagement levels. These issues have been developed over the last 20 years and already proven that can positively influence on long-term employee engagement with the company. Additionally, using such tool enable WHAUP to compare the performance with domestic and international competitors in order to implement best practices for human resources development to maintain a sustainable level of employee engagement towards the organization.

2022 WHAUP Employee Engagement Survey results, assessed by the tool from Kincentric Thailand, indicated a score of 72%, which is 1% above Thailand market average. It is also a significant opportunity as we receive extensive feedback and suggestions from employees. Additionally, individual employee comments play a crucial role in shaping WHAUP's long-term strategy. The report of employee engagement survey results is shared with the management and published to employees via SharePoint of WHAUP. In 2022, 100% of employees participated in the survey, achieving a satisfactory score of 72 percent.



As a result, all employee's insights from the performance review, as well as the employee engagement survey, were gathered and analyzed to promote career advancement or formulate beneficial development programs, job-rotation

programs, pre-retirement plans, and filling internal job opportunities. In 2022, 3% of open positions were filled by internal hire.

Guidelines for data analysis in human resources management

	Employee Performance Appraisal	Strategic Workforce Planning (SWP)	Workforce Skills Gap	Recruiting & Hiring	Identifying Flight Risks to Improve Retention
The types of data that companies typically collect, related to each topic (such as number of employees, job types, working hours, etc.)	<ul style="list-style-type: none"> - Potential employee rate (outstanding employee) - Completed work evaluation - Timeline for KPIs setting 	Number of employees: <ul style="list-style-type: none"> - Gender - Organizational structure - Location - Gender ratio - Country 	<ul style="list-style-type: none"> - Training completion rate according to plan - Training completion by department - Ratio of total training hours/ number of employees 	<ul style="list-style-type: none"> - New employment rate - Recruitment period - Termination rate - Recruitment channel 	<ul style="list-style-type: none"> - Attrition Rate - Regrettable loss
Indicators for tracking results	<ul style="list-style-type: none"> - Percentage of goals achieved by employees 	<ul style="list-style-type: none"> - Number of positions - Human Capital Return on Investment (HCROI) 	<ul style="list-style-type: none"> - Number of training courses per employee - Impact of supervisor's satisfaction on employee's performance 	<ul style="list-style-type: none"> - Percentage of recruitment success rate 	<ul style="list-style-type: none"> - Percentage of turnover rate - Percentage of turnover rate of skilled employee
Objectives of data analysis	<ul style="list-style-type: none"> - Verify the quality of performance evaluation and provide feedback to employees 	<ul style="list-style-type: none"> - Monitor human resources information and workforce planning 	<ul style="list-style-type: none"> - Provide employees with opportunities to enhance their skills or learn new ones, in order to fill skill gaps and strengthen the workforce 	<ul style="list-style-type: none"> - Enhance workforce planning effectiveness to ensure operational alignment with the established plan and business objectives 	<ul style="list-style-type: none"> - Evaluate employee engagement with the organization
Benefits of data analysis	<ul style="list-style-type: none"> - Increase the number of skilled and competent personnel. - Enhance employee engagement with the organization - Reduce gaps between the relationship of supervisors/ managers and employees 	<ul style="list-style-type: none"> - Able to compare human resources data with business performance data 	<ul style="list-style-type: none"> - Develop employee capabilities and plan appropriate career progression within the organization. - Develop capable personnel for job succession and career advancement 	<ul style="list-style-type: none"> - Recruit personnel for critical positions in a timely manner to support the business needs and organizational growth 	<ul style="list-style-type: none"> - Evaluate employee engagement with the organization



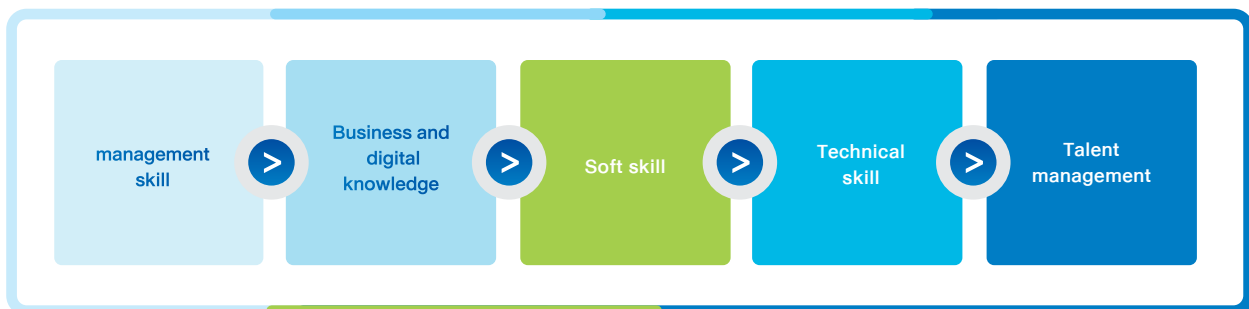
EMPLOYEE DEVELOPMENT AND PROMOTION OF ADVANCEMENT OPPORTUNITIES

WHAUP is aware that investment on employee training and development not only help motivate the employees but also reinforce skilled workforce for the organization. Therefore, WHAUP has provided a wide range of skill development programs to promote advancement in both their personal skills and career paths, starting with identify skill gaps, allocate a budget for upskilling and reskilling

training. These programs are used in all companies within WHA Group to ensure that all employees possess key skill sets that are relevant to WHAUP's strategy and business vision. We believe in the philosophy "Human beings are the company's most valuable assets" and acknowledge that every employee plays a vital role in the sustainable growth of the organization.



The learning and development programs focus on 5 key growth areas including 1) Management skill development, 2) Business and digital knowledge development, 3) Soft skill development, 4) Technical skill development, and 5) Talent management.



WHAUP also analyzes Human Capital Return on Investment (HCROI) to indicate appropriate levels of employee investment. In 2022, WHAUP achieved a HCROI rate of 17 times and aims to reach 31 times by 2026. The company invested a total of 158 million Baht in people development in 2022, equivalent to 1.0 million Baht per full-time workforce (FTE).

HCROI



WHAUP has adjusted the human resources strategy to accelerate people transformation through enhancing capabilities, upskilling and reskilling, and promote creative work environment, to support continuous self-development as well as driving business outcomes. In 2022, WHAUP has planned to revisit the organization capability requirements for both current and future skill sets which aligned with the strategic plan of WHA Group. The specific skill sets that WHAUP has developed include WHAUP's value-added

products, and the development of employee knowledge in applying technology into work.

Moreover, WHAUP also recognizes the important of enhancing digital knowledge for all employees, ranging from basic to advanced levels such as data analysis, programming, to more complex digital skills specific for different levels and specialized work tasks.

EMPLOYEE DEVELOPMENT

Since WHAUP values employee skills to help elevate the business to keep up with the rapid changes of economic conditions, the company provides both mandatory and voluntary training programs to develop various skills for employees including the following:



RISK MANAGEMENT SKILLS

WHAUP and WHA Group established a training course titled “Risk Management: Key Principles, Tools, and Related Techniques”, a mandatory course for all executives and employees within the organization. This course aimed to enhance knowledge, understanding and awareness of

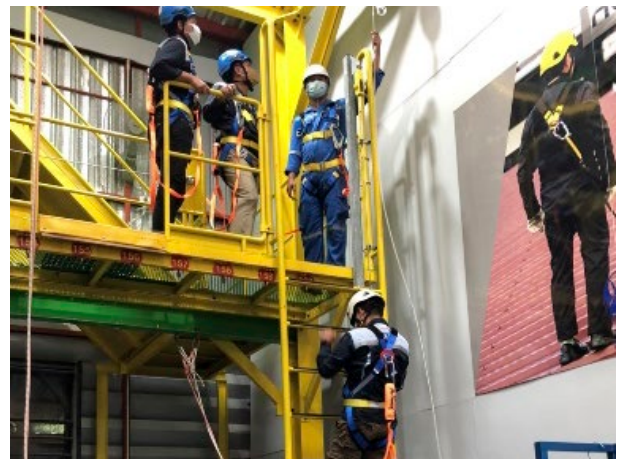
the important of risk management, as well as familiarizing participants with relevant tools and techniques. In 2022, a total of 4 training classes were conducted with 156 participants. The duration of each training session was 2 hours.

TECHNICAL AND FUNCTIONAL SKILLS DEVELOPMENT

In 2022, WHAUP and WHA Group organized the following competency and development training programs for employees to improve their technical and functional skills and knowledge they need, such as compulsory occupational health and safety trainings.



- WHAUP organized a safety training program to meet the necessary requirements, covering various aspects of workplace safety including work safety officer, safety committee, working at heights, working in confined spaces, overhead crane operation, electrical safety, basic firefighting, advanced firefighting, fire drills, hazardous chemicals handling, first aid, and safety driving, and more. The training program was designed for employees at different levels within the company, ranging from managers to operational staffs. The program consisted of a total of 434 hours of safety training, with 105 participants attending all courses.



- WHAUP, in collaboration with WHA Group, has launched the Operational Excellence Program to develop the knowledge and capabilities of employees and foster a culture of excellence throughout the operation of WHAUP and WHA Group, in order to deliver the highest level of satisfaction in products and services to customers. This program covers 5 dimensions: SSHE, Performance & Reliability, Work Process, Sustainability, and Organization & People. As part of this initiative, in-dept technical knowledge enhancement and skill development are prioritized for the engineering, operating, and maintenance groups, with the goal of cultivating experts within the organization. In 2022, a Technical Skill Matrix was prepared, and 1 training course, Reverse Osmosis, was organized. A total of 77 participants completed the course, accumulating a total of 468 training hours.



Following the Operational Excellence program until the end of the year, WHAUP and WHA Group hosted “Return of Experience: REX Day” event to exchange useful information between operational department, to help enhance knowledge and understanding of cooperation

including knowledge exchange from direct experiences from representatives of all major business groups, WHAID. WHAUP. WHALG, and WHADG. This activity was held at ESIE Plaza 1, with a total of 85 participants, totaling 150 training hours.



BUSINESS AND DIGITAL KNOWLEDGE DEVELOPMENT

In 2022, WHAUP collaborated with WHA Group to organize training programs to develop comprehensive knowledge in digital field, in order to cultivate understanding in business, digital, and IT aspects for employees, as follows:

WHA INNOVATION JOURNEY





- WHAUP and WHA Group, in collaboration with RISE Accel Company Limited, organized the “WHA Innovation Journey” bootcamp to develop and elevate capabilities in innovation by implementing necessary tools for ideation and innovation development. This program was divided into 2 phases as follows:
 - Pre-Bootcamp: This phase is to open the mindset about innovation in order to prepare participants for the innovation process (Design Thinking). Practical hands-on exercises were conducted to explore initial ideas for the Innovation Project in the upcoming bootcamp. This program involved 8 participants from WHAUP, from high-level executives to junior-level managers, and spanned a duration of 20 days, totaling 30 hours.
 - Bootcamp: This phase is to promote and support solution development through assistant from mentors in order to enable participants to generate and develop innovative ideas that can address the needs, problems, and challenges. This program involved 8 participants from WHAUP, from high-level executives to junior-level managers, and lasted approximately 3 months, totaling 60 training hours.

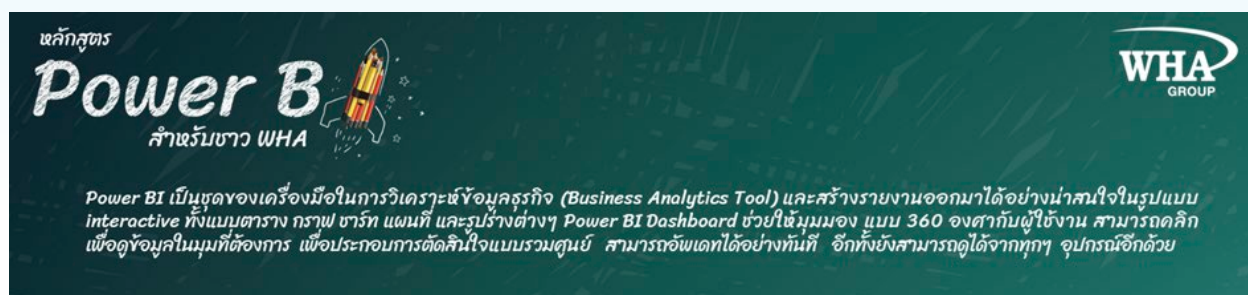
OTHER TRAINING COURSES

- WHAUP, in collaboration with WHA Group, also conducted training sessions for the “Microsoft Excel: Level Up” course, consisting of 2 batches, for employees at all levels who regularly use Microsoft Excel and need to enhance their skills for faster, more accurate and efficient work. We invited Mr. Sira Ekabut, the founder of “Thep Excel” website and fan page, as an instructor. A total of 14 participants from WHAUP attended the training which lasted 12 hours. After completing the training, the participant’s skills improved by 66% comparing the pre-test and post-test results.



- In addition, WHAUP and WHA Group have also organized training programs, “Power BI” (Basic and Advanced) with a total of 11 batches, 2 batches of “Power Query”, and 2 batches of “Power Automate”, for employees at all levels within the organization who were interested in enhancing their skill in data management. All 3 courses focus on data analysis, data visualization, and linking data to various sources, allowing employees to have effective knowledge and understanding of utilizing existing tools and technologies. The trainings were conducted by in-house experts who understand the limitations

and needs of the employees, ensuring targeted and comprehensive trainings. Moreover, these personal development initiatives were provided at no cost but can enhance employee work efficiency. The mentioned training programs have contributed to WHAUP’s ability to achieve its main strategic goal of digital transformation. These training initiatives serve as a foundation for knowledge and understanding among employees, preparing them to adapt to the forthcoming changes. Furthermore, this training plan achieves organization’s strategic goal of becoming a Data-Driven Organization



Moreover, WHAUP has implemented Transition Assistance Programs to provide guidance and support to employees during their transition period, either after the end of their employment contract or upon retirement. These programs aim to help employees adjust to the post-retirement environment smoothly and effectively. In some cases, these programs even enable employees with relevant skills and capabilities to continue working beyond the retirement age. The Transition Assistance Programs include activities such as Money Planning and Pre-Post Retirement seminars, general meetings, employee provident funds, as well as supporting employees with budget allocation for external training opportunities.

ขอเชิญพนักงาน WHA ทุกท่านร่วมการประชุมใหญ่สามัญ กองทุนสำรองเลี้ยงชีพพนักงาน กลุ่มบริษัทดับบลิวเอชเอ ซึ่งจัดระเบียบขึ้นแล้ว ประจำปี 2565 โดยมีรายละเอียดดังนี้

ววววว
พฤษภาคม
10
14.00 - 15.30 น.

วันที่ : อังคารที่ 10 พฤษภาคม 2565
เวลา : 14.00 – 15.30 น.
รูปแบบการจัดประชุม : จัดประชุมผ่าน MS Team

Microsoft Teams

กดเพื่อเข้าร่วมประชุมผ่าน MS Team

หัวข้อการประชุม

- รายงานผลการดำเนินงานปี 2564 และ ผลการดำเนินงานระยะเดือน มกราคม - เมษายน 2565
- แนวโน้มเศรษฐกิจทั้งในและต่างประเทศ และกลยุทธ์การลงทุนปี 2565
- ประชาสัมพันธ์การเพิ่มแผนการลงทุน รูปแบบที่ 4 (70:30)

UOB Asset Management

ขอความร่วมมือในการเป็นตัวแทนให้: ฝ่ายปฏิบัติการลูกค้า



HUMAN RIGHTS

Human Rights are inherent rights in which every human-being are entitled to. Nonetheless, there have been a rising number of human rights violations across the world. These violations can take the form of legal infringements, breaches of international standards and treaties concerning human rights, or events that lead to the violation of human rights. Such violations can have negative repercussions on reputation and lead to complaints from human rights advocates and protests by various rights holders. As a diverse business service provider, WHAUP believes that true sustainability in business requires the elevation of practices related to human rights. This includes promoting principles and agreements concerning human rights within WHAUP and among relevant stakeholders including vulnerable groups throughout the value chain.

WHAUP adheres strictly to WHA Group's principles of human rights and has conducted Human Rights Due

Diligence (HRDD) to assess risks and impacts on human rights throughout the value chain. The company identifies relevant human rights issues and evaluates the impacts on vulnerable groups such as children, migrant workers, and pregnant women, etc. The assessment also considers potential impacts at the organizational, operational, and individual levels, considering two factors: the likelihood of occurrence and the extent of the impact on human rights issues. WHAUP's HRDD process is aligned with international frameworks such as the Universal Declaration of Human Rights (UDHR), the United Nations Guiding Principles on Business and Human Rights (UNGPR), the United Nations Global Compact (UNGC), and the International Labor Organization's Declaration on Fundamental Principles and Rights at Work. The company conducts regular reviews of its HRDD assessments and undertakes annual evaluations of human rights.



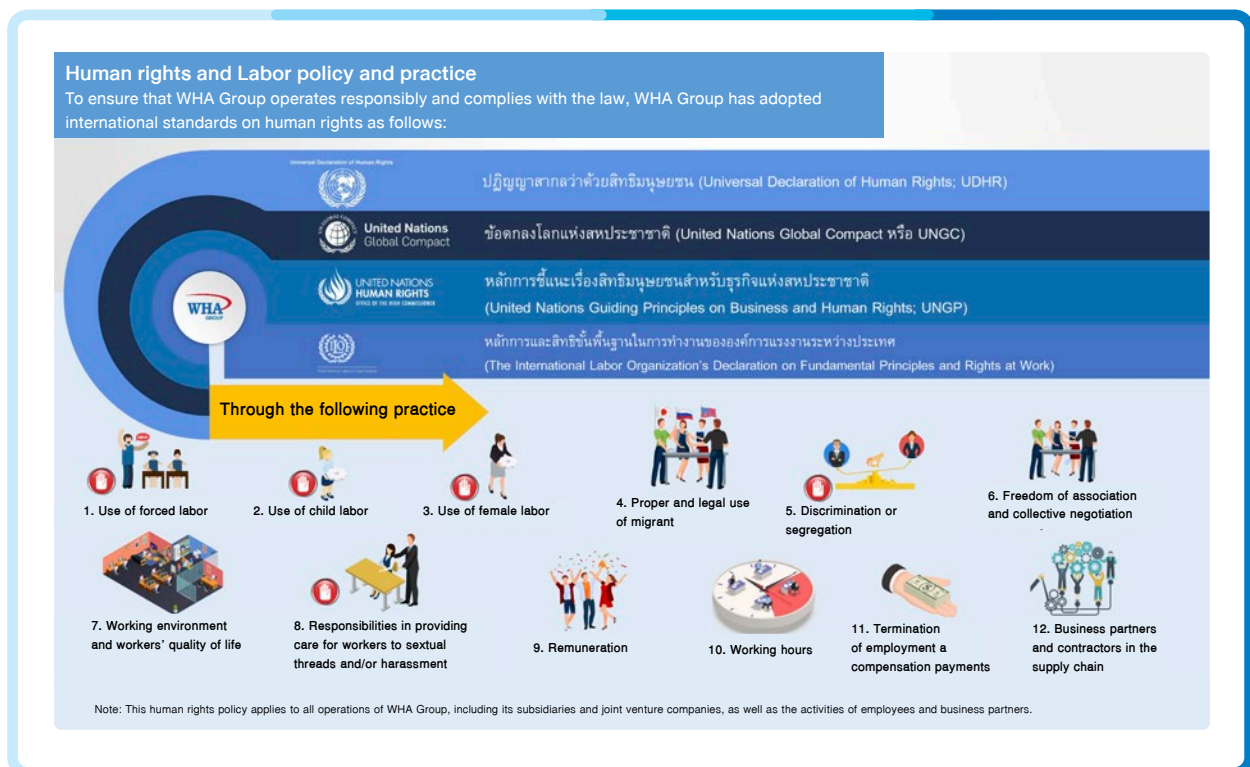
WHAUP'S MONITORING PROCESSES OF THE HUMAN RIGHTS PERFORMANCE



POLICY COMMITMENTS


WHAUP plays a crucial role in shaping the human rights policy of WHA Group, as part of the HRDD process and in alignment with international human rights standards, local laws, and regulations. The scope of WHAUP and WHA Group's human rights policy encompasses all stakeholders, including every employee involved in WHA Group's operations, as well as suppliers, contractors, and

business partners. It extends to new business activities such as mergers, joint ventures, and includes WHAUP's customers, various communities, and vulnerable groups (e.g., women, children, migrant workers, third-party employees, indigenous communities, persons with disabilities, elderly, and LGBTQI+). Furthermore, the Human Resources Department has communicated this policy to all employees in the company.



ASSESS POTENTIAL AND ACTUAL HUMAN RIGHTS RISKS AND IMPACTS

In addition, WHAUP also conducts Human Rights Risk Assessment (HRRRA) in activities regarding utilities and power for industrial sectors, as a part of WHA Group's HRRRA. The HRRRA covers 100% of WHAUP's operational locations, including all operational sites categorized by activities and operations (from upstream to downstream) along WHAUP's value chain.

Business Hubs	Upstream	Operations	Downstream
Utilities & Power Hub 	<ul style="list-style-type: none"> Raw Water Procurement Fuel and solar panel procurement IT product and service procurement 	<ul style="list-style-type: none"> Water production Wastewater treatment Power production Solar energy installation 	<ul style="list-style-type: none"> Solar energy program maintenance Customer service

WHAUP also considers the risks associated with new business relationships such as mergers and acquisitions, joint ventures, and partnerships, which may impact the human rights operations of WHAUP. Therefore, WHAUP has established a systematic process for conducting an annual review and assessment of risk considerations to ensure that the identified risks are up-to-date and relevant.

HUMAN RIGHTS CONSIDERATION

Considering human rights issues, WHAUP has identified and assessed potential and actual human rights issues, including risks and impacts, as a part of the due diligence process. The human rights issues covered are as follows:



For every new business activity undertaken by WHAUP, such as mergers and joint ventures, the company has mandated the identification of human rights risks in those business activities. Human rights criteria have also been included in the merger checklist.

HUMAN RIGHTS ASSESSMENT METHODOLOGY

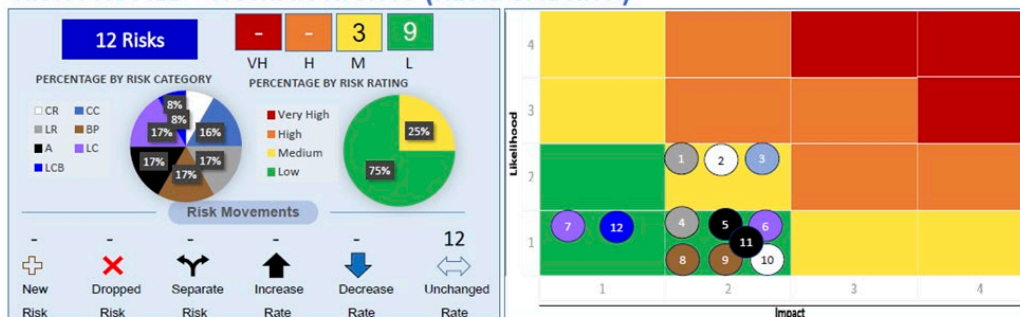


HUMAN RIGHTS CRITERIA

In HRRRA process, WHAUP use its HRRRA criteria which aligns with international human rights principles that applied across all business of WHA Group. The criteria determine the significance, likelihood, and impacts of each human rights issues.

Likelihood criteria	1 (Low)	2 (Medium)	3 (High)	4 (Very high)
Likelihood	<p>Almost never occurs (<14.99%)</p> <p>The human rights issue almost never occurs in the business operation of WHAUP, but occurs in industrial operations.</p>	<p>Occurs moderately (15%-39.99%)</p> <p>The human rights issue occurred in the past, and still occurs depends on the business operation of each department.</p>	<p>Occurs very often (40%-79.99%)</p> <p>The human rights issue occurred in the past, and still often occurs.</p>	<p>Occurs frequently (> 80%)</p> <p>The human rights issue has occurred continuously</p>

RISK PROFILE – HUMAN RIGHTS (RESIDUAL RISK)



CR : Community Risk
 CC : Community Risk, Customer Risk
 LR : Labour Risk
 BP : Business Partner
 A : All
 LC : Labour Risk, Community Risk
 LCR : Labour Risk, Customer Risk, Business Partner

Top risks

- Unsafe working environment/Inappropriate security information disclosure
- Water Management may caused community water scramble and discharge of waste water
- Provide product safety information inappropriately

		Impact			
		1	2	3	4
Likelihood	4	M	H	VH	VH
	3	M	H	H	VH
	2	L	M	H	H
	1	L	L	M	M

Risk ratings		Risk score
VH	Very high	9.01 to 16.00
H	High	4.01 to 9.00
M	Medium	2.01 to 4.00
L	Low	1.00 to 2.00

WHAUP'S HUMAN RIGHTS PERFORMANCE

- 100% of WHAUP's operational sites and associated activities were assessed on their human rights risks and impacts.
- After the assessment, 100% of WHAUP's operational sites and associated activities which have been identified with medium human rights risks, have mitigation measures and/or remediation actions implemented.
- Human rights risk assessment result shows medium human rights risks (salient issues), as follows:
 - Health and safety of customers and employees
 - Health and safety in the supply chain
 - Livelihood and standard of living for communities



INTEGRATE FINDINGS AND POTENTIAL IMPACTS INTO HUMAN RIGHTS POLICY

After the risks and potential impacts have been identified, the findings are then used to guide the revision of the Human Rights Policy to ensure that WHAUP's Human Rights Policy and commitments are in line with the current global trends, international standards and comply with the most present laws and regulations. The results and findings are also integrated into WHAUP's management systems and approaches, procedures and work processes, and are also used to guide business direction and strategy in the future.

IDENTIFY AND IMPLEMENT MITIGATION MEASURES FOR HUMAN RIGHTS IMPACTS

Based on the nature of WHAUP's activities, as providers of utilities and power for industrial estates, WHAUP has been identified through assessments that human rights related risks are less severe in comparison to other business sectors. This is because WHAUP follows the EIA requirements and doesn't carry out significant operations related to foreign labors. Nevertheless, WHAUP has implemented various mitigation measures as well as tracking and monitoring processes for the human rights issues identified.

Human Rights Issue	Affected Rights Holders and Vulnerable Groups	Tracking, Monitoring and Mitigation Measures, and Remediation Actions
Health and Safety		
Accidents that may occur within the industrial estates as a result of the operations of the industrial factories belonging to the client groups, such as gas pipeline explosions, chemical leaks, as well as fire incidents and/or accidents at the workplaces of WHAUP, such as water production plants and wastewater treatment facilities.	Community, Customer, Employee	<ul style="list-style-type: none"> Conduct risk assessments to identify various potential hazards that may occur during business operations and to implement control measures to eliminate or reduce those risks. The risk assessment is reviewed annually or whenever there are changes in operational activities. Install the Emergency Control Center (ECC) in 9 of WHAUP's industrial estates to assess and prevent emergency incidents. ECC systems are managed by OHS specialists and installed the ready-to-use fire protection system. Implement emergency plan and the annual emergency drill, as well as communication channels for the communities as required by law. Gather Safety Data Sheet (SDS) on hazardous chemical in the factories within industrial estates in order to prevent emergency cases.
Health safety from the effects of noise pollution, air pollution, dust, smoke, light, and vibration from project development and operation within the industrial estates	Community, Customer, Employee	<ul style="list-style-type: none"> Develop measures and preventive plans specified in the Environmental Impact Assessment (EIA) report and fully complied with all measures. Develop various innovations to reduce the risk of creating environmental impacts on the communities through the operations of industrial estates and customer groups, such as Unified Operations Center (UOC) to control and monitor various safety-related indicators. Resolve complaints from communities and tripartite committees in every case with concrete conclusions.
Unsafe working conditions that can lead to accidents during work, such as accidents arising from the use of equipment or various tools, electric shock or leakage.	Employee	<ul style="list-style-type: none"> Organize safety trainings, and update laws related to safety for employees. Provide safety equipment such as safety jackets, glasses, shoes.
Unsafe workplaces during the COVID-19 pandemic	Employees	<ul style="list-style-type: none"> Provide vaccines for employees and their families to prevent the spread. Announce preventive measures of WHAUP in the event of an COVID-19 outbreak. BCP measures by specifying roles, duties, responsibilities when an incident occurs

Human Rights Issue	Affected Rights Holders and Vulnerable Groups	Tracking, Monitoring and Mitigation Measures, and Remediation Actions
Health and Safety in the Supply Chain		
Accidents from construction activities which could lead to work-related injuries or loss of life. For example, falling off height, cuts from sharp objects, burn wounds, etc.	Supplier and Contractor	<ul style="list-style-type: none"> • Develop safety manual for contractors which they must strictly follow. • Assess safety risks for each work types and develop safety procedures. • Implement working license system for all suppliers and contractors before entering work premises. • Continuously assess and monitor the safety systems within the industrial estates.
Livelihood and Standard of Living		
Water management, competition for water with local communities, and wastewater discharge into the communities	Community	<ul style="list-style-type: none"> • Commit to managing water resources efficiently and effectively. • Set target to reduce water usage from natural sources through recycled water/reclamation water system. • Strictly follow wastewater management requirements and procedures for factories and industrial estates • Control and monitor water quality management parameters in accordance with EIA requirements. • Develop and improve the efficiency of WHAUP's water production and wastewater treatment systems

TRACKING AND MONITORING OF HUMAN RIGHTS PERFORMANCE

Human rights operations can be tracked and monitored through WHAUP's performance indicators, which also includes human rights criteria as a part of the indicators at every employee levels. Moreover, WHAUP has established a reporting channel that stakeholders can easily access to report any actions that may violate human rights or contrary to the human rights policy of WHAUP. (More details in the Code of Conduct section of this report)

REMEDiate ADVERSE IMPACTS

WHAUP realizes that our business activities and operations might lead to human rights violations to stakeholders and vulnerable groups. Therefore, WHAUP is committed to preventing and mitigating the potential human rights risks associated with these activities, across the value chain. In case of human rights violation, WHAUP has implemented measures to ensure proper remediation actions to restore the affected groups to situations without adverse impacts caused by business activities. This includes grievance mechanisms and complaint channels through phones, emails, and websites, as well as directly reports to relevant staffs or authorities. WHAUP will assess the causes and manage the issue confidentially. After the assessment, the company will ensure suitable remedies and compensations, including comprehensive insurance

coverage for those affected. Additionally, WHAUP annually conducts reviews of its human rights performance, evaluations, and due diligence to ensure the utmost efficiency and up-to-date human rights practices. However, in 2022, no human rights violations were reported, thus no corrective actions were necessary.

HUMAN RIGHTS AWARENESS

In line with WHA Group's human rights principles and commitments, WHAUP raises awareness and understanding about human rights to all employees. Since 2020, the Human Rights Policy has been communicated as a part of new employee orientation by the human resources department at the company level. Moreover, in 2022, 100% of new employees from utilities and power business sectors, totaling 36 people, have completed the employee orientation program. In summary, 100% of WHAUP employees attended a total of 36 hours in training on human rights policies and procedures. Human resources department also publicized the importance of these topics: nationality, religion, language, age, gender, marital status, personal attitudes towards gender, disability, labor union membership, employee committee affiliation, political party preference, or other personal beliefs. Human rights policy document along with other documents has shared within SharePoint to raise awareness about the human rights and encourage employees to review the policies.





FREEDOM OF ASSOCIATION AND RIGHTS TO COLLECTIVE BARGAINING

WHAUP places great importance on upholding the human rights of all stakeholders affected by our business operations. The protected human rights includes human trafficking, forced labor, freedom of association, the right to collective bargaining, equal compensation, non-discrimination, and more. These concerns are addressed through WHAUP's comprehensive human rights policies and measures, which extend to stakeholders both within Thailand and abroad, encompassing all countries where the company operates. To ensure that all stakeholders receive their full and equal rights, WHAUP has implemented a Human Rights Due Diligence (HRDD) process. This process includes a Human Rights Risk Assessment (HRRRA) that evaluates compliance with the 35 human rights items outlined in the Universal Declaration of Human Rights (UDHR). Through this assessment, WHAUP

identifies and addresses any potential risks or violations, taking appropriate measures to rectify the situation and restore affected groups to a state free from the adverse effects of business activities.

In relation to issues concerning restrictions on freedom of association and the right to collective bargaining, WHAUP grants all personnel the right to complain or unite to address injustice, such as excessive working hours, inadequate compensation relative to workload, workplace insecurity, and more, through various complaint channels. Additionally, WHAUP has established a committee to evaluate these complaints adhering to the rules and regulations specified by the International Labor Organization (ILO).

TRANSFORMATION FROM THE PAST TO THE FUTURE

In this era where technology becomes a key to drive industrial business, WHAUP has adapted the strategy to align with technological changes by embarking “Mission To The Sun”, a pathway to become a Technology Company in the future, starting from 2023 to 2027. WHAUP believes that every employee is a key mechanism to drive activities of WHAUP to sustainable growth. Therefore, WHAUP has instilled corporate values and cultures through communication activities, such as training and capacity development, for all employees to comprehend and strive towards the same goal.

WHAUP plays an important role to lay out the position of the Organization of the Future, divided into 4 worlds, to drive WHAUP to achieve its goal. This position is used across all companies within WHA Group, consisting of:

1. The World of Shared Values: The ability to work from anywhere, combined with advancements in telecommunication, has made it easier for people to connect with each other. However, the organization continues to prioritize the respect for individual privacy.
2. The World of Specialism: Having a skilled workforce and expertise will be essential in leading the company to success.
3. The World of Sustainability: Climate change will have the greatest impact on the way businesses operate. Consequently, the company shifted its priorities to making business operations more sustainable.
4. The World of Capitalism: Conducting business in accordance with the factors of production, which consist of capital and labor.

1

The World of
Shared Values

2

The World of
Specialism

3

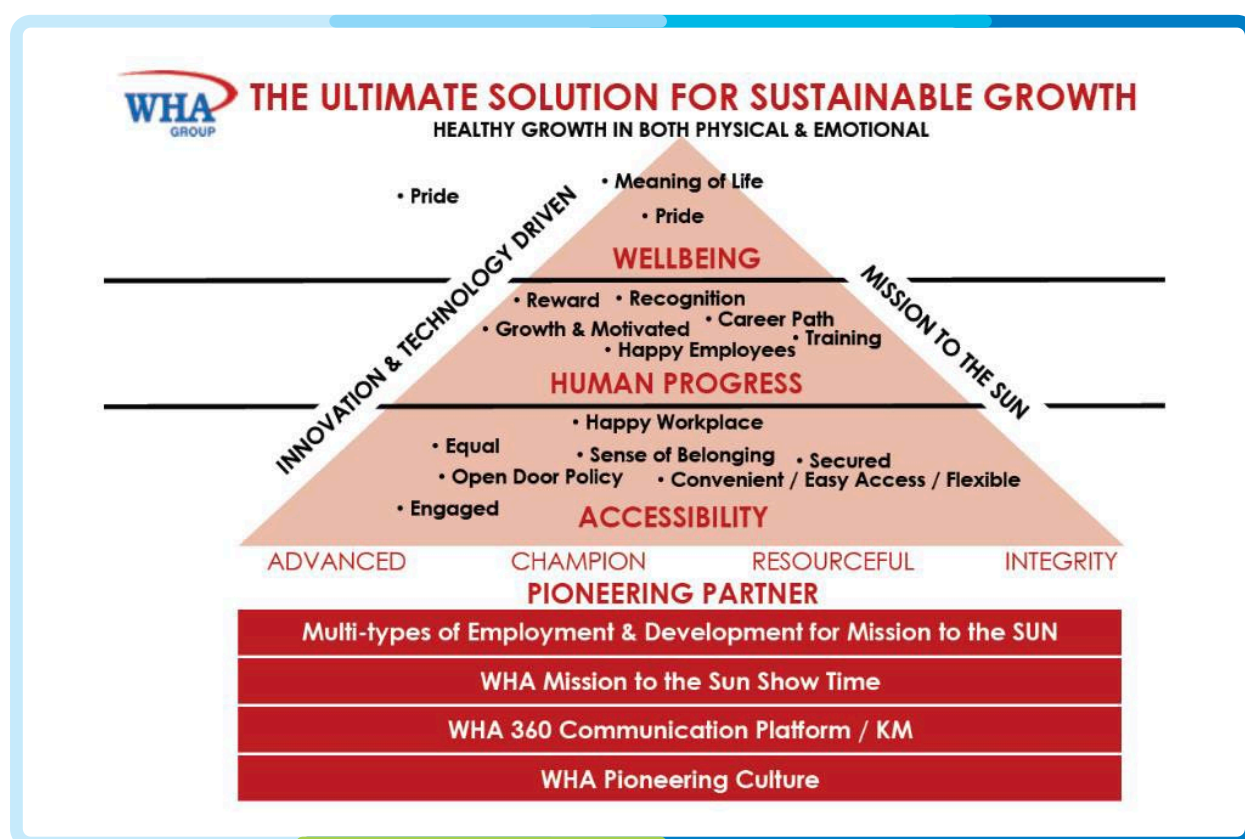
The World of
Sustainability

4

The World of
Capitalism



FURTHERMORE, WHAUP HAS SET STRATEGY FOR HUMAN RESOURCES MANAGEMENT DEVELOPMENT AS FOLLOWS:



PROGRAMS TO ENHANCE EMPLOYEES ENGAGEMENT AND SATISFACTIONS

In 2022, WHAUP collaborated with WHA Group to initiate various projects to build employee engagement and satisfaction towards the company, including:



WHA Tower, located in Bangna business center, has received an award for “Commercial High Rise Architecture Thailand”, promoting employees’ work-life solution. This is because WHA Tower has an adjustable working environment, consists of various amenities such as co-working space, coffee shop, and is surrounded by beautiful scenery, garden and fountain. There is also a versatile open area for activities for employees to have an effective working experience, while maintaining a balanced, and healthy lifestyle, with relaxation and entertainment. Moreover, WHA Tower has advanced technologies,

- Town Hall meeting, to enhance employee engagement towards the organization, facilitated by CEO of WHA Group to keep the employees engaged and informed on the business strategies of each business hub for the upcoming year.
- Intranet System, to uplift the efficiency in digital technology to enhance the performance of human resources department, is used as a communication channel between the HR department and employees in all business groups, and an access to the company utility’s announcements. We also developed HCMS to facilitate employees to address certain HR tasks by themselves.



WORK-LIFE SOLUTIONS

WHAUP participated in developing WHA Office Solutions project, which is a premium office building including WHA Tower, @Premium, SJ Infinite I, and TusPark WHA, and other projects. It has been designed to have flexible space and adapt to diverse working types, to create the working environment that allows creativity, innovation, and collaboration through modern technology. Therefore, it helps reinforce employee satisfaction and reliability for capable employees.



incorporating with safety and flexibility, as well as innovative technologies within the building that is operated by digital system, highly known for its effective safety management. The technologies include a face scanner for entering or exiting the office, a body temperature monitoring system to ensure good health standard, parking lots of up to 500 spaces, as well as eco-friendly innovative technologies. Therefore, Work-Life Solutions is a significant step to achieve the goal of WHAUP and WHA Group as being Thailand's Best Employers.

WHAPPY PROGRAM

In 2022, WHAUP, in collaboration with WHA Group, continuously implemented the WHAppy program, which combines WHA and Happy as a communication channel and change management initiative. The program aims to foster a positive, can-do attitude within WHA community and offers various activities to enhance employees' knowledge, abilities, and mindset regarding health and welfare.

WHAppy program includes various types of activities on important topics regarding employee development, aligning with WHAUP's change strategy. The activities can be categorized into 4 groups:

1. WHAppy Talk, a discussion activity for knowledge sharing and inspiration by the external guest speakers and executives or employees within the organization. For example, the discussion session featuring Ms. Jareeporn Jarukornsakul, and the session with Mr. Kaweewut Temphuwat from AISCB, and more.

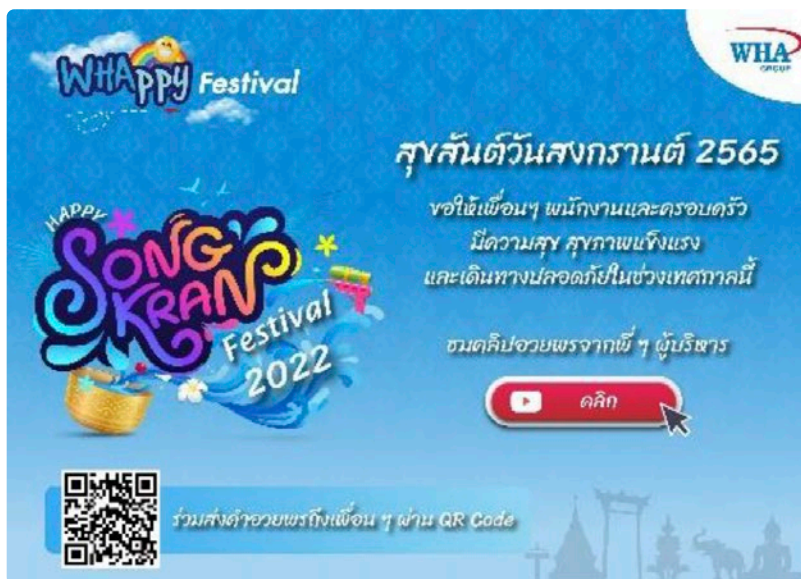
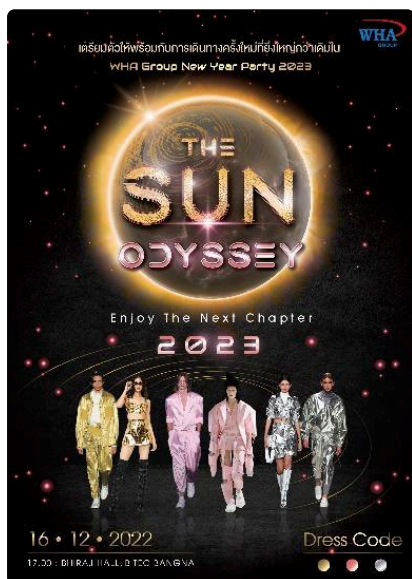


2. WHappy Activity, a relaxing and useful activity with diverse topics such as, WHappyVerse, WHA Chilling in the SUN, etc.



3. WHappy Cast, a podcast program exclusively aired within the organization to raise awareness and educate employees about new global trends and current paths of digital transformation. For example, educational episodes on data in “Data Driven: The Series,” which aired 10 times in 2022, and the dental care episode held on December 7, 2022.

4. WHAppy Festival, activities held during important festivals throughout the year to strengthen relationships and unity among employees such as Songkran Festival, annual charity event, WHA Group's New Year's Party, etc.



From the launch of the WHAppy project in March 2021 until now, a total of 40 events have been co-hosted by WHAUP and WHA Group. All events have been adapted and aligned with work-from-home and social distancing protocols, which presented significant challenges for the

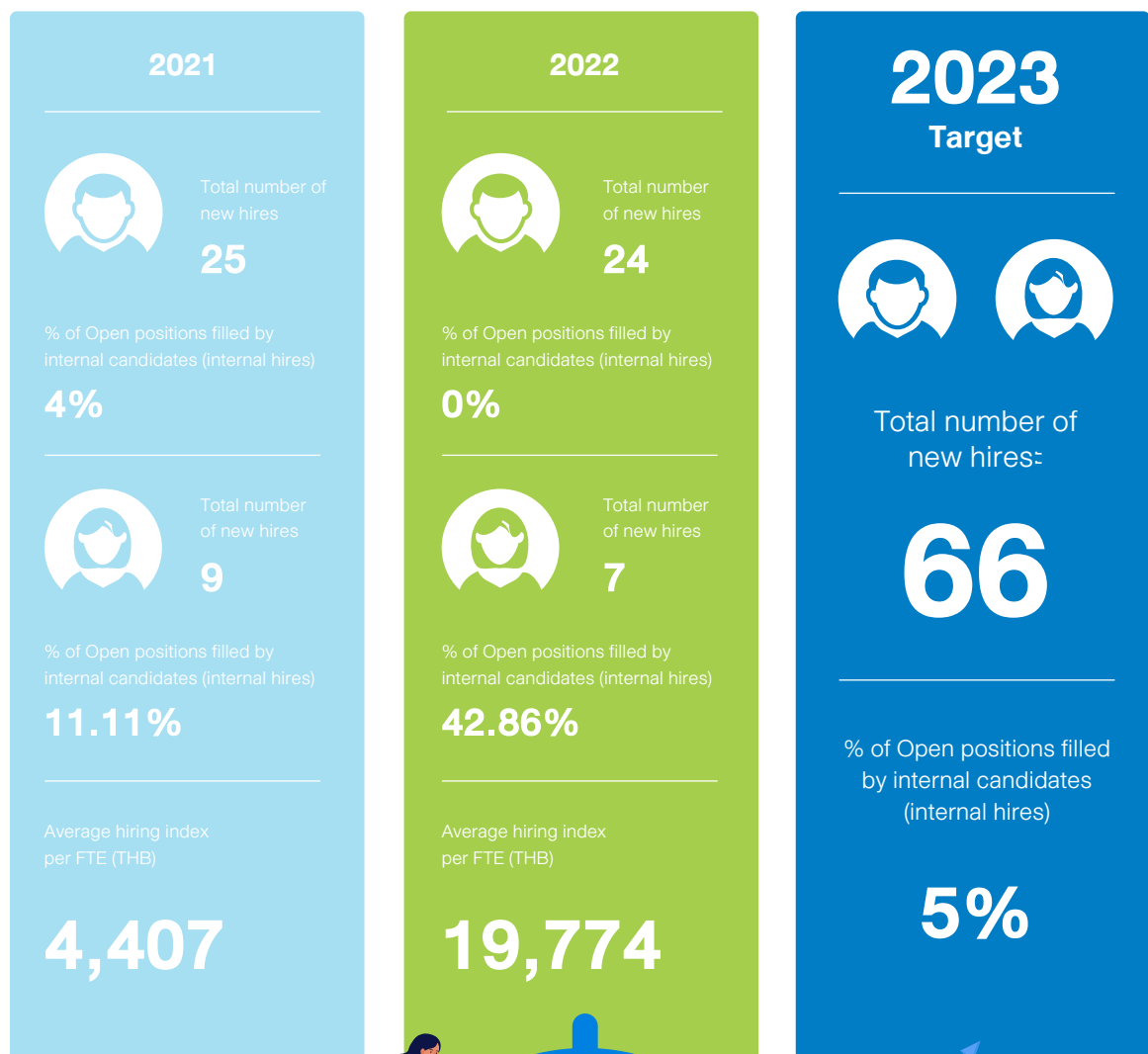
team. Surpassing expectations, the working group received abundant feedback and advice from employees, which will be used in planning activities to promote and develop employees' potential in 2023.



PERFORMANCE AGAINST TARGETS

In 2022, the performance was evaluated based on the average training hours per year per employee, as detailed in the table below.

Employee detail	Average training hours per year (hour)	Average hours per FTE for training and development (hour)	Average investment per FTE in training and development (Baht)
Gender			
Male	24.41	24.41	5,118.09
Female	25.67	25.67	9,234.56
Age			
Under 30 years old	21.37	21.37	3,065.43
30-50 years old	25.27	25.27	6,859.83
Over 50 years old	32.69	32.69	9,722.47
Level			
Operational/entry level	20.50	20.50	1,576.58
Middle level	42.08	42.08	21,124.54
High level	31.75	31.75	25,151.80
Ethnicity, Race, Nationality, Place of origin, Cultural background			
Thai	24.67	24.67	5,955.34
Type of training			
In-house Training	3.92	3.92	928.57
Public Training	16.57	16.57	4,777.27



MANAGEMENT PERFORMANCE

Employee Turnover Rate



Remark: The performance data covered 100% of all FTEs globally



OCCUPATIONAL HEALTH AND SAFETY



GLOBAL TRENDS AND IMPACT

Occupational health and safety in the workplace are fundamental issues that leading global companies consider of utmost importance. In particular, the challenges posed by recent epidemics in the past few years have had an impact on the health of workers and stakeholders associated with business operations. With WHAUP's activities focusing on providing utilities and power services for the industrial sector, which is directly related to a large number of stakeholders, WHAUP places significant importance on occupational health and environmental conditions in the workplace. This is done to reduce risks to the lives and assets of all affected parties, including the company itself. These risks include workplace accidents, chemical leaks, and operational disruptions that can cause damage to the

business and harm its reputation. Additionally, WHAUP aims to prevent violations of the rights to life and safety of employees, suppliers, contractors, and other relevant parties.

Therefore, WHAUP has implemented proactive measures to ensure the safety and well-being of employees and all stakeholders involved. This is achieved through standardized occupational health and safety measures and management systems. WHAUP also promotes a safety culture to instill confidence and motivation in employees, enabling them to work safely and maintain good health. WHAUP's ultimate goal is to prevent and minimize the occurrence of accidents, injuries, and work-related illnesses to the greatest extent possible.

MANAGEMENT APPROACH

To enhance the effectiveness of occupational health and safety management, WHAUP has implemented measures in the areas of safety, occupational health, and the environment. These measures are part of the safety and occupational health policy implemented in all business activities of WHA Group. The various measures align with the Occupational Health, Safety, and Environment Act B.E. 2554 (2011) and all relevant laws. The occupational health and safety management system covers all employees, including suppliers, contractors, and all stakeholders involved.

In addition to compliance with the legal regulations, WHAUP's risk management approach aligns with the globally recognized ISO 45001 standard. This ensures efficient safety management practices. Furthermore, a safety committee comprising company executives, employees, and the human resources department has been established. They are responsible for managing safety, such as procuring Personal Protective Equipment (PPE), soliciting feedback, providing consultation, and regularly reviewing issues related to occupational health and safety risks. The decision-making authority of the committee extends from operational levels to executive management. The outcomes of these meetings are reported to the CEO of WHAUP and WHA Group on a quarterly basis. WHAUP has also established a safety department under the supervision of the operational executive officer to oversee safety-related matters. Their responsibilities include monitoring safety issues and ensuring that the goal of zero accidents is achieved throughout the organization. Additionally, WHAUP has appointed certified occupational health and safety officers to serve in each area of operation.

IDENTIFICATION OF RISK ISSUES, RISK ASSESSMENT, AND INCIDENT INVESTIGATION

WHAUP strictly adheres to the safety policy of WHA Group and has implemented rigorous processes and procedures to assess occupational health and safety risks. These processes are part of the ISO 45001 standard and aim to identify all hazards associated with work activities. The risk assessment process begins with the classification of all operational activities, both routine and non-routine, to identify activities that may pose risks, considering the likelihood of occurrence and the potential severity of the hazards. To prioritize risky situations, the safety department can develop a risk management plan by implementing measures to control risks and appropriately reduce the likelihood of their occurrence. This includes conducting accident investigations to analyze incidents and prevent their recurrence, as well as developing efficient work systems to enhance overall work efficiency.



RISK ASSESSMENT PROCESS

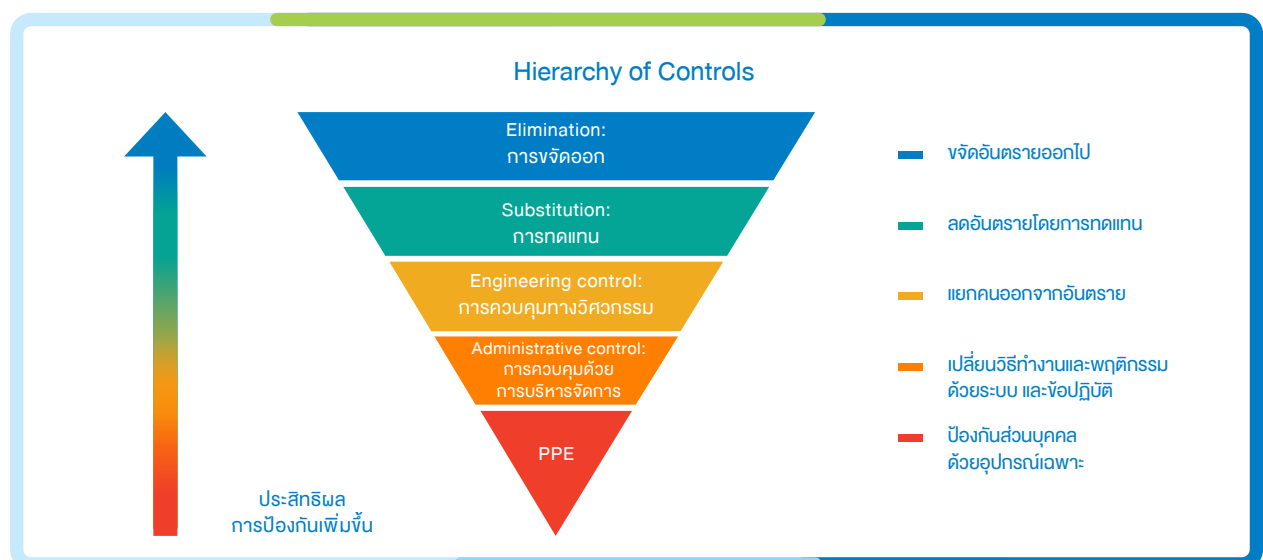
WHAUP has conducted assessments of occupational health and safety risks, which cover all activities within WHAUP's areas where employees and contractors are required to work. These assessments aim to identify

hazards associated with the work and determine appropriate preventive and control measures. The goal of WHAUP is to efficiently manage occupational health and safety risks and reduce accidents. To achieve this, WHAUP applies the hierarchy of controls in its operations. This hierarchy starts with personal protection, which involves the use of Personal Protective Equipment (PPE) to protect individuals' bodies. It then progresses to higher-level safety management systems, that it employing management principles to efficiently manage work, determining operator qualifications, and providing necessary training. Engineering methods are also employed to design or improve machinery and equipment, reducing hazards and threats. Substitution of materials or work processes with less dangerous alternatives is another control measure. Lastly, elimination involves removing or not introducing risks into the work area.

To ensure that all risk and hazard assessments are systematic and compliant with relevant standards, WHAUP, in collaboration with WHA Group, has implemented an annual internal review process. These assessments are also reviewed whenever there is a change in the operational processes, rules, regulations, or other related standards, to ensure they align with the established targets. The results of these assessments and reviews are utilized

to enhance the group-wide occupational health and safety management system, enabling the implementation of more effective measures and addressing any risk incidents or complaints that may arise.

Based on the assessment of WHAUP's work activities in terms of employee and stakeholder safety, it was identified that there are certain activities posing risks to occupational health and safety. These include the risk of chemical exposure at the wastewater treatment plant, potential accidents in the construction of utilities and power systems, as well as outbreaks of diseases and accidents related to transportation. Therefore, WHAUP has established measures to prevent and reduce risks related to health and safety in the work environment, following the Hierarchy of Controls, providing clear operational guidelines, prominent warning signs, and adequate personal protective equipment. In the event of any incidents, investigations are carried out, and preventive measures are implemented to avoid recurrence. Training sessions are conducted to ensure that employees and relevant personnel understand and adhere to the established measures. Additionally, safety officers oversee and ensure the correct and safe implementation of work procedures, conducting daily inspections and reporting the results in safety committee meetings.





EMERGENCY RESPONSE PREPAREDNESS

WHAUP, in collaboration with WHA Group, has prepared a plan to support emergencies, including fire incidents and chemical spills under 3 approaches:

- Guidelines for pre-incident prevention operations, such as the installation of an alarm system, protective equipment and suspend the preliminary, check conditions to always be ready to use.
- Guidelines for responding in the event of an emergency, such as guidelines for preliminary emergency suppression, notification, communication plan, and evacuation plan.
- Guidelines for actions after an incident, such as approaches to inspect the main damage, incident cause investigation, remedy.

All employees who come to work at WHAUP are required to undergo training and drills to prepare for emergency response. This training ensures that employees understand the emergency situation and their roles and responsibilities during such events. It also equips them with the knowledge and skills necessary to evacuate themselves from such situations quickly and safely. Also, before engaging in activities within different areas, every employee must pass fundamental safety tests.

ACCIDENT AND INCIDENT REPORTING

In cases where employees identify unsafe working conditions that pose immediate or potential risks to life, health, and property, WHAUP requires them to report such incidents through incident reporting forms, complaint forms, or directly to their supervisors. Individuals who report or notify incidents are protected, and their information is kept confidential in accordance

with the company's whistleblower protection measures. Furthermore, employees have the right to refuse work if they identify any hazardous risks until the situation is addressed. Following an accident or incident, WHAUP designates safety officers to investigate the causes and develop corrective and preventive measures to avoid future occurrences.

HEALTH AND SAFETY OF EMPLOYEES IN VARIOUS PANDEMIC SITUATIONS

Considering the recent COVID-19 pandemic, which has had a significant impact on lives and caused disruptions to various businesses, WHAUP is fully aware of the risks associated with infectious diseases. The company has established guidelines and measures to mitigate the risk in such pandemic situations, as COVID-19 continues to be a concern in the early months of 2022. WHAUP has implemented specific protocols related to COVID-19 that align with the regulations and guidelines set by the Ministry of Public Health. Furthermore, all employees have received regular communication and updates regarding the latest news and developments related to COVID-19 through internal channels such as SharePoint and email. WHAUP has also implemented disease prevention and control measures within specific areas, following the government's objectives of protecting factory workers and surrounding communities from COVID-19 infections, including the implementation of bubble and seal measures. In addition, WHAUP has played a vital role in developing a Business Continuity Plan (BCP) in collaboration with WHA Group. This plan aims to effectively control the long-term spread of infectious diseases and ensure preparedness in responding to emergencies and crises. By having such a plan in place, WHAUP can continue its operations smoothly and respond efficiently to any emergency situations.



COMMUNICATING SAFETY CULTURE TO EMPLOYEES AND BUSINESS RELATIONSHIPS

WHAUP places a strong emphasis on communicating a culture of safety to all stakeholders involved. In collaboration with WHA Group, WHAUP has implemented various projects to promote safety culture communication. This initiative encompasses employees, contractors, customers, visitors, and the surrounding community. The program aims to foster a good understanding and awareness of Occupational Health and Safety practices. This is achieved through various initiatives, including annual supplier audits, Supplier Day Safety Club, raising awareness through the Operational Excellence Framework, and providing specific training tailored to employee groups who are likely to be exposed to risks based on their individual workload. The training courses are designed to be easily understandable, practical, and cover all potential risks. The knowledge is imparted by occupational health

and safety experts, and the courses are evaluated annually to ensure their effectiveness and currency. To ensure access to medical services, WHAUP provides health insurance, accident insurance, and annual health check-ups for employees, taking into consideration the nature of work-related risks across the business operations. The company supports employee clubs such as fitness clubs, boxing clubs, yoga clubs, badminton clubs, etc., to promote the health and well-being of employees. WHAUP also encourages employees to provide suggestions for improving the working environment to their supervisors. Representatives from the Human Resources security department and occupational health and safety experts are available to listen to advice on occupational health and safety through various communication channels such as email, Line, or reporting to department heads. When complaints are received, the company brings them to the Occupation Health and Safety Committee meeting for discussion and subsequent response.

Furthermore, WHAUP also prioritizes the safety of contractors in addition to its own employees. As a fundamental principle, WHAUP has established occupational health and safety performance as a requirement for contractors. This means that contractors working within WHAUP's premises must adhere strictly to the safety requirements set by WHAUP. Prior to commencing work, WHAUP arranges training sessions for contractors that cover three key areas: environmental policy, relevant regulations, and safety standards. Once contractors have undergone the training and obtained a contractor identification card, they are permitted to work within the designated area.

TRANSFORMATION FROM THE PAST TO THE FUTURE

The year 2022 was a significant milestone for WHAUP as it elevated our efforts in occupational health and environmental management to enhance preparedness. This was aligned with the values and organizational culture of WHA Group, which emphasizes being "Beyond Boundaries" in initiating and continuously driving transformative and proactive work. This includes addressing occupational health and environmental issues that may have significant impacts on stakeholders within the organization. Therefore, WHAUP collaborated with WHA Group to develop the following projects:

OPERATIONAL EXCELLENCE FRAMEWORK



WHAUP has adopted the Operational Excellence Framework, which is a process to meet the satisfaction of stakeholders within WHA Group and applied it appropriately to the operational units of WHAUP. WHAUP has established policies in terms of Security, Safety,

Health, and Environment (SSHE). Leading and lagging indicators are used to measure performance in safety to ensure efficient, safe, and continuous development in work processes.

INTEGRATED WORK BETWEEN BUSINESS UNITS



In 2022, WHAUP worked collaboratively with WHA Group in the field of safety management. There was a concerted effort to integrate all business units of WHAUP to share safety experiences and enable centralized control of the safety system. This was done to ensure effective management through the oversight of the executives, clear communication between business units, and alignment of goals, leading to improved efficiency.

To mitigate risks and raise awareness of occupational health and safety among employees and those involved in operations, WHAUP has taken various actions to manage and mitigate such risks as follows:

ENHANCING OCCUPATIONAL HEALTH AND SAFETY

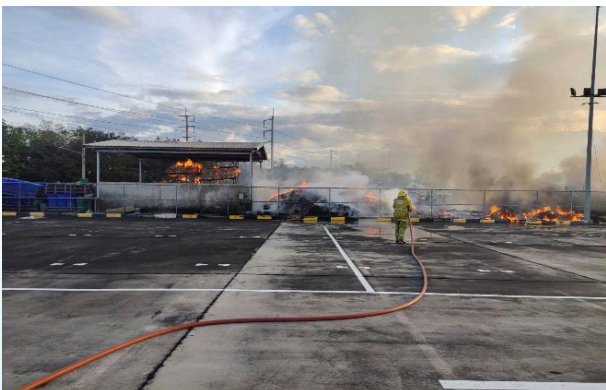
In 2022, WHAUP focused on enhancing its OHS system and approach through the 'SMART Safety' concept, which addressed three key areas, including:

The idea of 'SMART Safety' has been implemented across all business units of WHA Group, aiming to promote a safety culture and effective monitoring for enhanced safety throughout WHAUP's operational areas. This includes all industrial estates under WHA Group's, as well as the surrounding areas.



FIRE AND EVACUATION

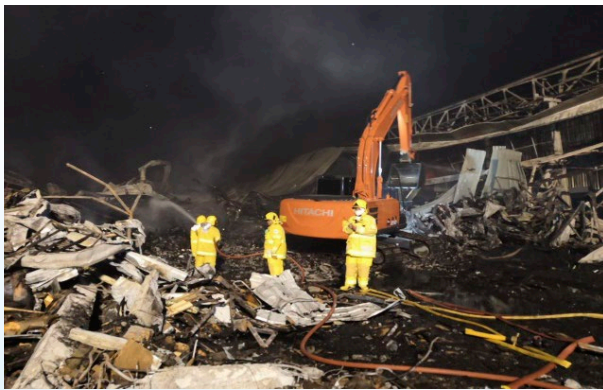
WHAUP played a crucial role in established an Emergency Control Center (ECC) at 10 of WHA industrial estates to monitor and suppress emergency situations. The ECC is managed by occupational health and safety experts and is equipped with fire control systems that are ready to go at any time. In 2022, the ECC stopped one emergency case at a factory in WHA industrial estate. Furthermore, the ECC assisted the local authorities in suppressing 6 emergency cases in the surrounding communities outside of the industrial complex premises.



Automobile manufacturing companies in Eastern Seaboard Industrial Estate (Rayong) (ESIE)



Factory of KPS paper and Plastic Co., Ltd. at the entrance of Eastern Seaboard Industrial Estate (Rayong) (ESIE)



Nonetheless, WHAUP, in collaboration with WHA Group, organizes annual emergency drills. The drill covered advanced level firefighting training. The evaluation of drill performance, which assessed employees' readiness for all processes, including Personal Protective Equipment (PPE), responding, and reporting processes and time, received full score from the emergency drill in 2022.



- Notification of incidents
- Travel time to the incident location
- Coordination with company personnel conducting emergency drills
- Number of employees participating (3 persons)
- Dressing of employees (fire suppression), including PPE
- Emergency response equipment
- Emergency response team organization
- Use of emergency equipment
- Team control of the participating team's leader
- Participation in emergency drill evaluations
- Overall evaluation

Satisfaction of entrepreneur in emergency drill exercises



SPILL INCIDENT

WHAUP has identified the exposure to chemicals at wastewater treatment plants, including chlorine and sodium hydroxide, as a safety risk. In response to these risks, the following mitigation measures have been identified and implemented. On June 23, 2022, WHAUP, in collaboration with WHA Group, has organized an emergency response drill for a chemical spill incident at WHA Eastern Seaboard Industrial Estate 1 (WHA ESIE 1).

The drill involved participants from various organizations, including the Industrial Estate Authority of Thailand (IEAT), the Department of Disaster Prevention and Mitigation, the Department of Labor Protection and Welfare, local agencies, local communities, local hospitals, customers, and WHAUP employees. The drill covered various response mechanisms, including emergency reporting, first aid, PPE selection, command and control, etc.



SAFETY CULTURE

WHAUP has implemented a continuous training program for its employees, in line with the policy of WHA Group, to foster a good understanding and awareness of occupational health and safety practices. The company conducts regular health examinations suitable for its employees every year. Additionally, employees have access to medical services through health insurance and accident insurance. Moreover, WHAUP encourages and supports employees to provide suggestions for improving the working environment to their supervisors, the Human Resources department, and experts in occupational health and safety. It is evident that WHAUP also prioritizes the safety of its contractors. All contractors must strictly

adhere to the safety requirements of WHAUP and perform their duties to the best of their abilities. Therefore, before commencing work, contractors undergo comprehensive training covering environmental policies, relevant regulations, and safety standards. Contractors who have completed the training receive an identification card that is valid for one year from the date of issuance. Similar training programs were organized in 2022 for 845 new contractors and 1,253 contractors whose identification cards had expired. Short-term contractors are also required to undergo training to obtain a work permit for each specified period.

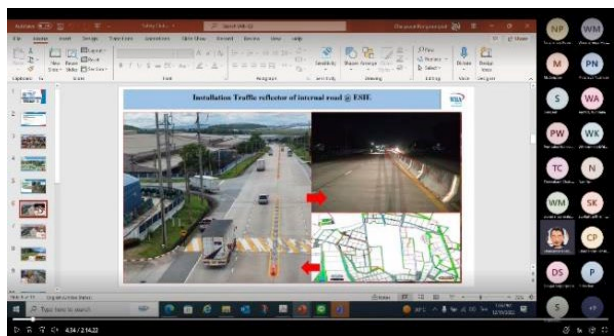




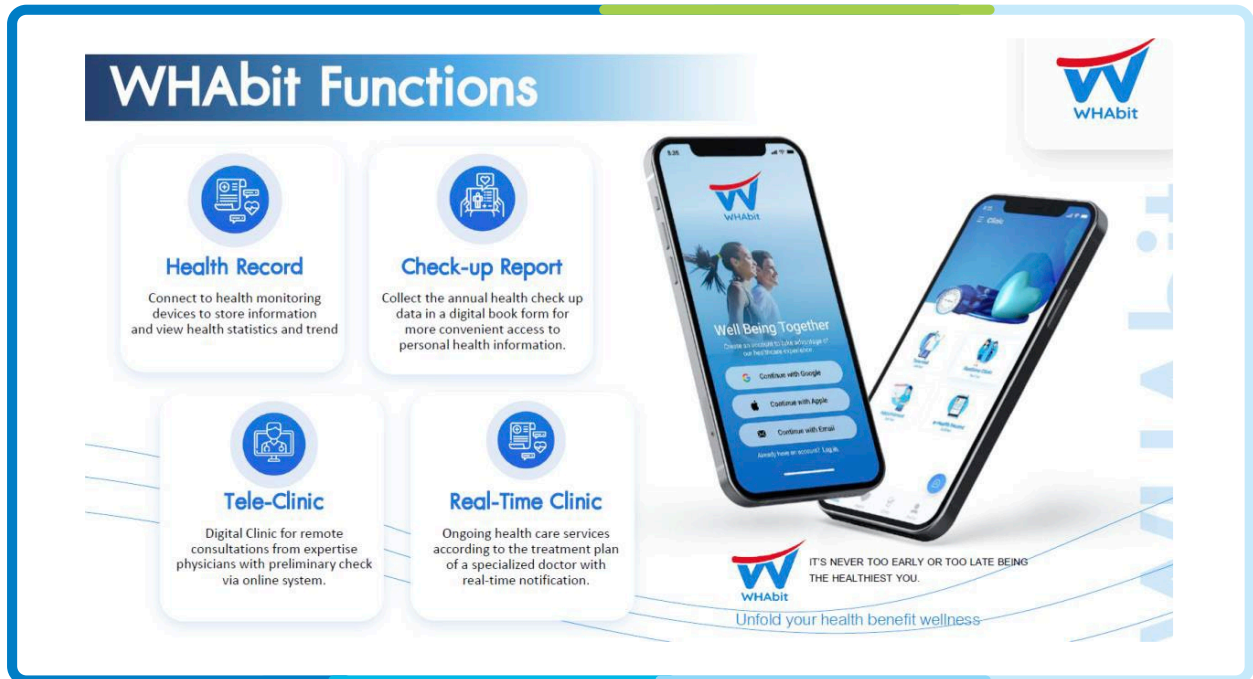
In addition to the safety training program, WHAUP has also collaborated with WHA Group in establishing project contractors for various projects.

A safety club has been established to collectively strengthen and enhance safety measures among stakeholders, including employees, contractors, and customers of WHAUP and WHA Industrial Development (WHAID). The objective of this safety club is to encourage members to share opinions and different perspectives regarding safety practices. Due to the pandemic, WHAUP organized online meetings with customers, with the latest

meeting held on December 15, 2022, with the participation of 40 customers. The topics discussed in the meeting covered traffic management, road safety, control of drug addiction, improper drug use, first aid, cardiopulmonary resuscitation (CPR) techniques for lifesaving, and the benefits of community enterprises. Additionally, to prepare for any potential accidents or incidents, WHAUP conducted training and drills for both office and field staff.



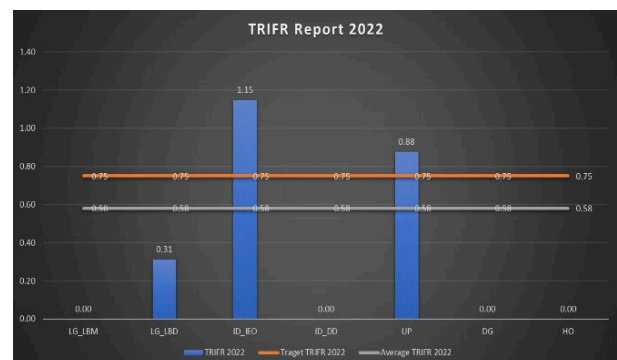
WHABIT TO PROMOTE SAFETY



In addition, WHAUP, together with WHA Group has developed the WHABit program, which is an integrated system aimed at promoting a conducive health and occupational environment within WHAUP. The WHABit program establishes a seamless connection between online and offline platforms, providing digital medical support tools and occupational health consultation services. In case of emergencies, such as the need for medical treatment, the program facilitates telemedicine services, allowing users to have video calls or chat consultations. Furthermore, doctors can receive real-time health examination data through specialized health monitoring devices. This enables doctors to conduct preliminary examinations or diagnoses, contributing to sustainable health care and management.

PERFORMANCE AGAINST TARGETS

WHAUP has set short-term and long-term goals for occupational health and safety operations. Through the implementation of the management system, WHAUP has achieved its occupational health objectives, enabling the prevention of accidents and illnesses according to the set targets for 2022.





COMMUNITY DEVELOPMENT AND STAKEHOLDER ENGAGEMENT

GLOBAL TRENDS AND IMPACT

Community development is considered a key factor in driving sustainable progress and advancement for businesses, particularly those involved in industrial operations. In recent times, leading companies, especially those directly engaged in industrial activities, have placed significant importance on community development. This is because communities surrounding these businesses are stakeholders who are directly impacted, either positively or negatively, by their activities. Therefore, businesses must establish a clear direction for community development, monitor and mitigate any negative impacts on the community. Moreover, it is essential to foster community prosperity as a foundation for peaceful coexistence and long-term societal stability at the local, national, and global levels.

As WHAUP's business activities directly involve the community, the company is committed to conducting business with social responsibility for sustainable development and growth, following WHA Group's

framework and best practices. WHAUP recognizes the importance of factors that impact the community both directly and indirectly, such as noise pollution, air pollution, wastewater, and waste management. These issues can potentially lead to conflicts between the organization and the local community, resulting in community unrest, financial losses, and delayed investments for several years. WHAUP understands that the right to a safe and secure life is a fundamental right for the surrounding communities and all stakeholders. Therefore, WHAUP takes proactive measures to prevent these risks and ensure that all communities in the business areas have confidence that WHAUP will not neglect them and will work together to drive growth and development among the organization, society, and the overall environment. This is in line with the commitment to be "The Ultimate Solution for Sustainable Growth," supporting community development projects. One of the key factors contributing to WHAUP's success is its ability to integrate with the local communities and gain acceptance over the 14 years since its establishment.



MANAGEMENT APPROACH COMMUNITY DEVELOPMENT

WHAUP has established a social responsibility policy, which is considered the organization's core policy implemented consistently every year. The policy has received approval from the company's board of directors and emphasizes the integration of WHAUP's business operations with the surrounding communities and the environment in a sustainable and mutually beneficial manner. This policy aligns with the social responsibility policy of WHA Group. Therefore, WHAUP acknowledges the utmost importance of environmental management and conservation as integral components of driving sustainable growth. This involves developing efficient environmental management systems and practices, as well as proactive monitoring and control measures for key environmental variables. Examples include efficient water management, implementing water recycling systems for reuse, reducing reliance on public or community water sources, ensuring good water quality management for both freshwater and wastewater, promoting biodiversity, converting waste into electricity, encouraging customers to use solar energy as a renewable source and reduce pollution, and resource conservation. WHAUP follows international standards for environmental management systems (ISO 14001) and quality management systems (ISO 9001), which provide frameworks for implementing and integrating environmental management practices consistent with WHA Group's business operations. These standards ensure that WHAUP's environmental management practices align with internationally recognized best practices and contribute to the overall goals and objectives of WHA Group as follows:

- Due diligence at the pre-purchase/acquisition/investment stage initial environmental audit of each new investment
- Property/building development with environmental requirements and resource efficiency
- Maintenance programs with a focus on environmental performance and resource efficiency.

- Guidelines, training, and newsletters to ensure that property managers and tenants are up to date on emerging best practices and regulatory developments.

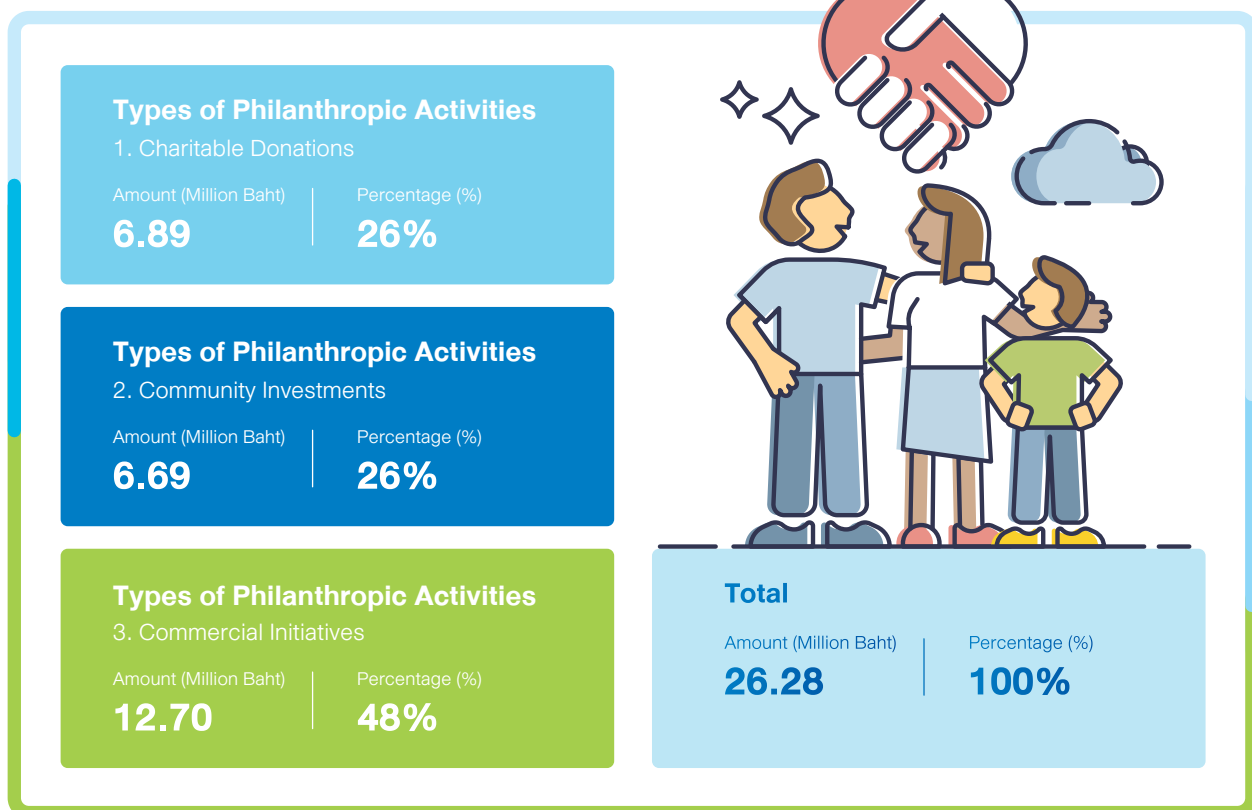
WHAUP has conducted an Environmental Impact Assessment (EIA) study to evaluate the environmental impacts of its operations, which accounts for 100% of its activities. This is in compliance with the provisions and conditions specified in the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992), which WHAUP strictly adheres to. The EIA study considers the environmental and social impacts within a 5-kilometer radius of the project site through public participation to ensure that these impacts are monitored, mitigated, and controlled appropriately. Prior to proceeding with project construction, commencement, and operation phases, the EIA must be approved by the Office of Natural Resources and Environmental Policy and Planning (ONEP). Following that, WHAUP ensures that all environmental schemes specified in the EIA requirements are followed. The project's performance against EIA requirements and standards is monitored and reported to the Industrial Estate Authority of Thailand (IEAT), Natural Resource and Environmental Policy and Planning, and local provincial offices on a bi-annual basis, covering the months of January to June and July to December, respectively. While the communities residing in the surrounding areas may be prone to environmental impacts, WHAUP closely regulates, monitors and controls various management systems to prevent incidents such as chemical spills, wastewater discharge, excessive noise, and air pollution from factories resulting from our operations. By utilizing the Unified Operations Center (UOC) system, WHAUP collects, integrates, and displays real-time data from monitoring systems in projects and operational areas. This promotes transparency in various environmental indicators, ensuring community protection and confidence. Furthermore, it allows for verification by relevant government agencies to ensure compliance with public disclosure requirements of measurement results.

Furthermore, WHAUP has established channels for community engagement and communication, including telephone lines, emails, surveys, community representative appointments in the area, and a platform for reporting grievances and misconduct (see details in the Business Ethics section). These channels allow for the collection of community feedback, suggestions, and complaints, which are reviewed by the Social Activities Operations Committee. Monthly meetings are held to determine appropriate community development strategies and report to the company's board of directors. In 2022, WHAUP did not receive any environmental-related complaints regarding its operations.

In addition, WHAUP collaborates with WHA Group in creating positive social impacts through long-term projects focused on three main areas: education development, quality of life improvement, and environmental initiatives. The scope of these development efforts is targeted towards all stakeholders, including vulnerable groups. For instance, activities such as providing livelihood bags to the elderly and bedridden patients, as well as supporting the

vaccination of senior citizens, are aimed at strengthening the community's well-being.

In 2022, WHAUP collaborated with WHA Group to conduct various social activities for communities residing within a 50-kilometer radius of WHA Industrial Estates, which is the main customer base of WHAUP. WHAUP allocated a budget of 26.28 million Baht for Corporate Social Responsibility (CSR) activities, as shown in the table below. These activities were carried out by WHAUP employees, who contributed a total of 57,095 working hours to CSR initiatives. The development projects for the mentioned communities have benefited a total of 151,564 individuals from 158 communities. WHAUP aimed to reach out to communities in the surrounding areas, with a participation rate of over 97%. In 2022, the company successfully achieved its target by collaborating with 155 out of 158 villages in Rayong, Chonburi, and Saraburi province. The target for community involvement in the company's activities in 2022 was set at 98%. The types of social activities and assistance provided are detailed below.





To ensure that the activities and processes implemented to assist society and communities are effective and yield positive and equitable results, WHAUP conducts evaluations of stakeholder participation in the respective areas. This is crucial in assessing the success of each community involvement activity by stakeholders. Therefore, it is essential for the company to assess and measure the outcomes of these social initiatives, as well as to extract lessons learned to enhance WHAUP's business processes. This process also serves as a guideline for future CSR strategy development by WHAUP. The stakeholder participation evaluation is conducted annually and includes the following performance indicators for assessing the outcomes:

- Community Satisfaction Survey (Units: as operation unit/%), conducted at the end of the engagement projects and activities.
- Social License to Operate (i.e., number of Warehouse business license, Industrial Estate Business License), that the company has obtained and renewed.
- Complaints Channels (i.e., complaints received through whistleblowing channels and other communication channels) from local stakeholders e.g., communities, authorities, media, associations, and NGOs.

TRANSFORMATION

WHAUP is committed to conducting business responsibly towards society, being environmentally friendly, and benefiting all stakeholders. The company's guiding principles and dedication to sustainable growth do not leave anyone behind, following the Bio-Circular-Green Economy Model (BCG). This model takes into account the importance of communities, particularly those related to WHAUP's operations in the utilities and power sectors, which rely on natural water sources. WHAUP aligns its Sustainable Development Goals (SDGs) with activities that focus on the sustainable development of communities, emphasizing mutually beneficial structures. These activities include providing scholarships to develop the potential of local workforce, promoting healthcare technology for communities, and collaborating with local entrepreneurs. Additionally, WHAUP achieved carbon

neutrality in 2021 and is determined to reach the target of net-zero CO₂ emissions by 2050. Therefore, WHAUP emphasizes social and environmental activities that prioritize natural resource conservation, clean renewable energy development, and initiatives to reduce carbon emissions. One specific project is WHA Clean Water for Planet, which focuses on improving the quality of water sources within the community to ensure a shared reserve of quality water. This project also involves expanding tree-planting areas in collaboration with the community to increase oxygen levels in the air and reduce carbon dioxide emissions. Furthermore, WHAUP and WHA Group continue to promote the well-being of employees and surrounding communities consistently, while adhering to stringent ethical standards for the benefit of all stakeholders.



In 2022, WHAUP has Corporate Social Responsibility (CSR) Committee responsible for setting policies and guidelines for social and environmental responsibilities along with organizing activities to build good relationships and develop sustainably independent quality of life for

communities surrounding the industrial estate. We have implemented education, community, and environment development projects for the sustainable growth and development of the surrounding communities as follows:

EDUCATION DEVELOPMENT PROJECTS

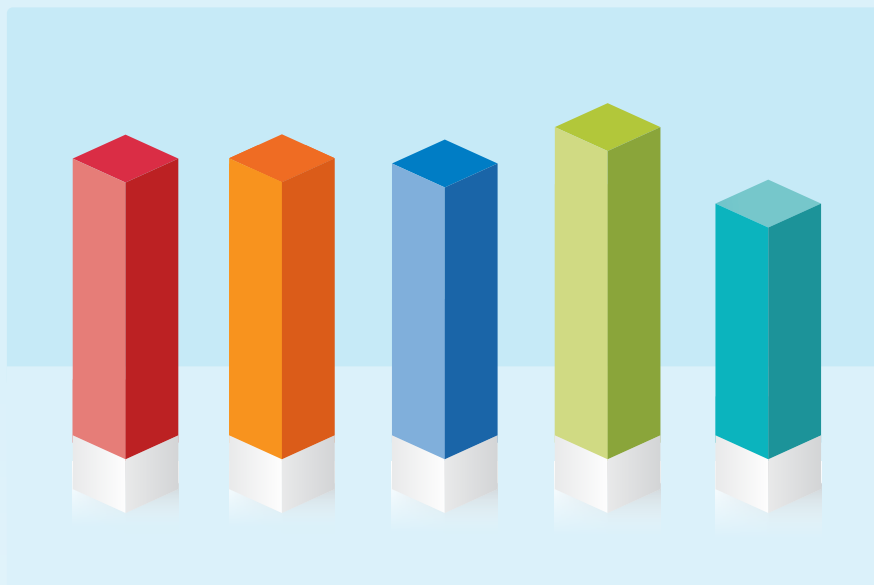
ART CAMP FOR STUDENTS

WHAUP, in collaboration with WHA Group, has initiated the Art Camp for student project for more than 14 years. The project aims to benefit students in the community by promoting art alongside environmental conservation. Additionally, it provides students with information about WHAUP's environmental management practices. The Art Camp for student project supports schools located near WHA Group's industrial estates by fostering an appreciation for art among students. Moreover, it raises awareness about environmental conservation, educates students about WHAUP's water treatment systems, instills a sense of responsibility in caring for community water sources, and promotes the preservation of local culture. These concepts are incorporated into the curriculum through art activities, fostering creativity, self-expression, and communication skills among students. The project

also educates students about the importance of waste segregation and the application of the 3Rs (Reduce, Reuse, Recycle) principles, contributing to the reduction of carbon dioxide emissions, which are the main cause of the current greenhouse gas phenomenon.

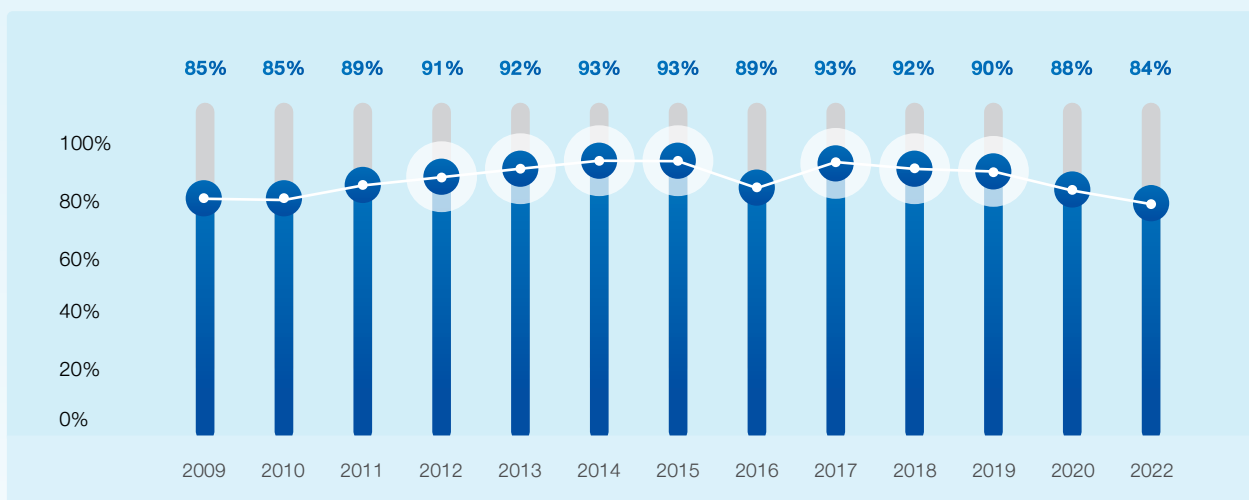
The program was attended by 551 students from 18 elementary schools. The satisfaction survey result of 551 students shows that 84 percent of the students gained knowledge in arts, 84 percent enhanced their creativity, 82 percent were able to apply the knowledge for personal and social benefits, 89 percent were satisfied and desired to participate in the future activity, and 78 percent became familiar with and understood WHAUP and the industrial estates.





- **84%**
To gained knowledge in arts
- **84%**
Enhanced their creativity
- **82%**
To able to apply the knowledge for personal and social benefits
- **89%**
To satisfied and desired to participate in the future activity
- **78%**
Became familiar with and understood WHAUP and the industrial estates

THE SATISFACTION SURVEY RESULT OF ART CAMP IN HOMETOWN PROJECT IN 2009 – 2022



From the project survey, most students feel that participating in the activity has helped improving their artistic skills and are able to apply the knowledge in their daily lives. The success of this project is promoting and fostering excellence in education for Thai youths, which is crucial for community and country development. Moreover, WHAUP is continuously bringing positive changes for better lives of these students in 2022 through educational

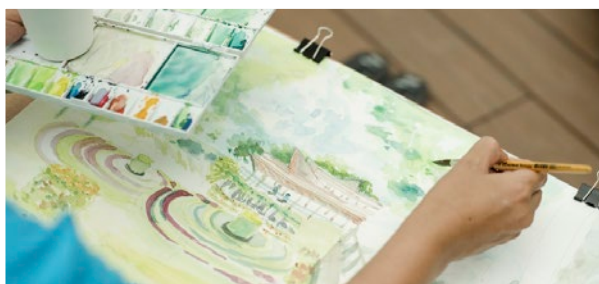
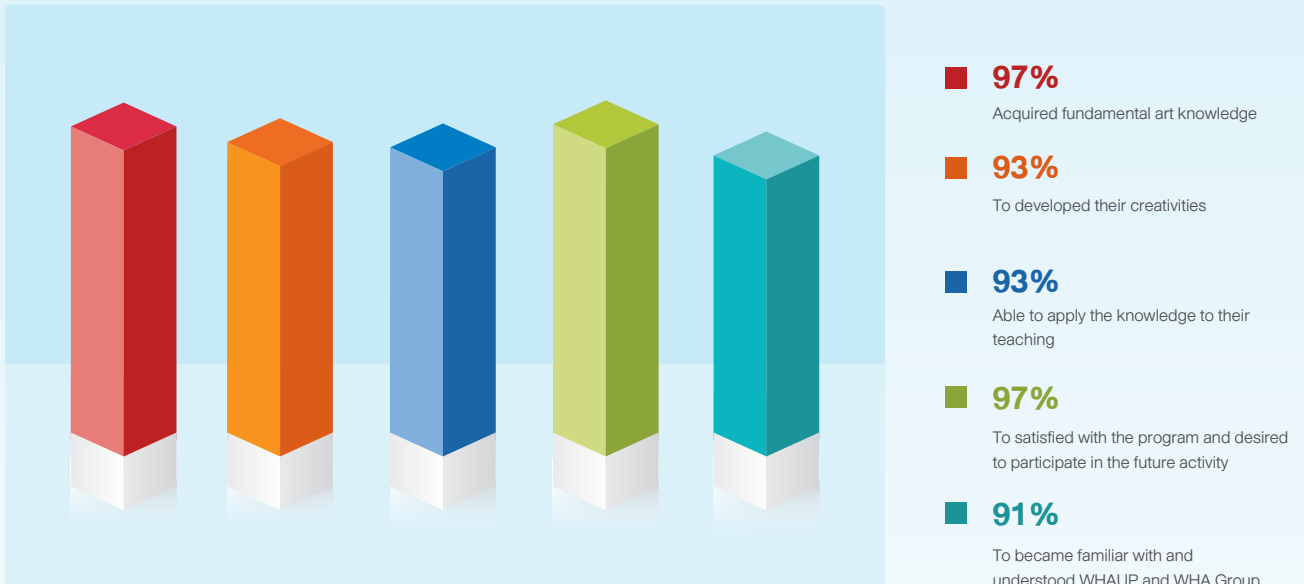
support such as scholarships, Children's Day activities, providing lunch, renovating playgrounds, providing COVID-19 Antigen Test Kits (ATK), food, and drinking water for schools facing shortages during COVID-19 outbreak, renovating school buildings, bathrooms, fences, supporting sports activities for students in the schools around WHAUP and industrial estates of WHA Group.

ART CAMP FOR TEACHER

The Art Camp for teacher project, organized by WHAUP and WHA Group, aims to enhance basic art knowledge among teachers, enabling them to integrate this knowledge into their teaching materials across various subjects in the classroom. Additionally, the project aims to promote and instill a sense of conservation of water and natural resources through educational visits to the Pluak Daeng Development and Service Center under the Royal initiative, Rayong Province. This center serves as a vital water storage facility for Rayong province and offers insights into water treatment projects inspired by His Majesty King Bhumibol Adulyadej the Great's initiatives during his reign. Specifically, the project focuses on WHAUP's aeration and

constructed wetland wastewater treatment system, which follows the model established by His Majesty the late King Bhumibol Adulyadej. In 2022, a total of 26 teachers from 14 schools in Rayong and Chonburi province participated in the activity.

According to the satisfaction survey results, out of 25 teachers, it was found that 97% acquired fundamental art knowledge, 93% developed their creativities, 93% were able to apply the knowledge to their teaching, 97% were satisfied with the program and desired to participate in the future activity, and 91% became familiar with and understood WHAUP and WHA Group.



WHA ENGLISH CAMP

WHA English Camp was jointly organized between WHAUP and WHA Group to enhance English language communication skills for 60 students in 4-6th grade students from Wat Chak Phak Kut School. The students participating in WHA English Camp: Explore the Land of WHA were encouraged to learn about the importance of English language communication and vocabulary, engaged in English conversations, and participated in game activities to promote learning and create a fun English learning experience.



SCHOLARSHIPS



Children are the future workforce and the nation's drivers. WHAUP recognizes that some students, despite being exceptionally talented and skilled, may be unable to pursue their education to the fullest extent possible due

to financial constraints. As a result, WHAUP regards educational support as an important scheme for community development. WHAUP aspires to provide youth with opportunities to develop their skills and potentially improve their quality of life. As a result, WHAUP has actively participated in provide educational support through scholarship funds for students at the preschool, primary, and secondary levels who lack financial resources and their families get impacted from the COVID-19 pandemic in order to provide educational opportunities for underprivileged students and empower them to become capable youths. In 2022, WHAUP, in collaboration with WHA Group granted scholarship to students in schools around WHA Industrial estates totaling 1,200,920 Baht.

GRANTS FOR THE SMART AND SKILLED



As the labor market in Thailand, including factories in industrial estates, has a high demand for highly skilled, well-trained, and talented workforce. The Dual Vocational Training (DVT) initiative was created by the Office of Vocational Education as a result of collaboration between the educational sector and private company factories, allowing students to receive theoretical education with on-the-job training simultaneously and enabling companies and industrial factories to train their workforce according to their specific needs. However, many promising students are unable to complete their courses due to financial constraints. In light of this, WHAUP and WHA Group have been supporting the DVT Program for the past 11 years, in collaboration with Bankhai Technical College in Rayong, by awarding grants to bright, disadvantaged undergraduates. Furthermore, WHAUP assists them in locating on-the-job training opportunities among customers in its industrial estates. The only educational institution qualified for the DVT Program in the Eastern Economic Corridor (EEC) is Bankhai Technical College in Rayong.

With the scholarship funding, a total of 102 students have participated in the program to date. In 2022, WHAUP has therefore been involved in providing full scholarships to 13 students. All of these students, who are enrolled in the DVT program, have been able to work with WHAUP's clients in WHA Industrial Estates. In addition to promoting educational opportunities for youths, this program also plays a crucial role in promoting workforce development as a key mechanism in driving the EEC, which includes the strategically important province of Rayong, Chonburi, and Chachoengsao, continues to attract more private investment. The government is currently developing major projects, such as motorways and double-track railway systems, as well as the expansion of U-Tapao airport and seaport facilities, with infrastructure as one of the pillars of development. WHAUP recognizes the importance and aims to further support the development of capable youth to become a significant workforce to drive various factories in WHA industrial estates located in EEC area.



SETTING A GOOD EXAMPLE IN THE COMMUNITY



WHAUP, in collaboration with WHA Group, and Bankhai Technical College jointly select participants for the DVT program based on their knowledge, abilities, and enthusiasm for learning. The selected students will have the opportunity to become interns in businesses and factories within the industrial estate of WHA. Bankhai Technical College in Rayong province is the only educational institution that meets all the requirements for the DVT program. Mr. Prateep Chulalek, the Director of Bankhai Technical College, expressed gratitude for the annual support of WHA Group, stating, "This program benefits students, organizations, the EEC project, as well as community members. The training and practical work experience that students receive in the workplace enhance their career prospects. Companies can teach and reinforce various specialized skills that students need, and it often leads to employment opportunities after graduation. Students who participate in the Vocational Education System Integration program serve as excellent role models for younger students, as they see the potential for good income from their work. The vision of Bankhai

Technical College is to ensure that students have good job opportunities after graduation and possess essential knowledge to contribute to the country's development and pass on their knowledge to future generations. This greatly contributes to the growth of the industry and the well-being of people in society.

In an interview, lecturer Yotsaphon Inchan from Bankhai Technical College stated, who has been instrumental in driving this collaboration, stated that "I would like to request that all scholars maintain their determination, diligence, and commitment to their studies, in order to grow into citizens creating positive things for society and the country. I would like to express my gratitude to WHA Group for supporting scholarships for these youths. This scholarship is considered an opportunity for them to pursue higher education and provides them with the chance to gain vocational training in companies within the WHA network. This will help them acquire essential experiences for future success."





In addition, Mr. Arthit Damkratok, a WHA scholar, said, "I feel delighted, proud, and greatly honored to have received such wonderful opportunities from WHA Utilities and Power Plc. I am currently studying in the field of production and my goal is to work with an international

organization within WHA industrial estates. This will provide me with the opportunity to work abroad in the future, ensuring a good income to support my family. I would like to express my sincere gratitude to WHA Group once again for granting me and my friends this scholarship as steppingstones for our future success. I will continue studying and strive to achieve our dreams."

For all parties involved with the DVT program is a win-win situation. WHAUP is proud to support this excellent initiative that assists in the provision of qualified, skilled workers, particularly for sectors such as next-generation automobiles, smart electronics, agriculture and biotechnology, robotics, and other S-curve industries that the EEC welcomes under the Thailand 4.0 scheme.

TEACHER FELLOWSHIP PROGRAM



Many primary schools around WHA industrial estate areas are currently dealing with issues related to a lack of qualified teachers. WHAUP and WHA Group recognize the importance of basic education for the youth in the supervised area. Therefore, WHAUP have supported contract primary school teachers in various subjects for the schools within WHA industrial estate areas in Rayong and



Chonburi province by providing a total of 1,260,000 Baht funds for teachers from 7 different schools in the area.

Evaluation of outcomes that provide funds to teachers. There are about 1,500 students from 7 schools in each year that were trained by WHA 's teacher.

SCHOOL BUILDING RENOVATION PROGRAM FOR THE SCHOOLS AROUND WHA INDUSTRIAL ESTATES

As a continuation of WHA's Art Camp for teachers in schools around the industrial estates, in 2022, WHAUP in collaboration with WHA Group, has supported participating teachers to apply their skills to instructional materials by creating artwork on classroom walls as a learning material for students.



Furthermore, WHAUP also an important part in organized activities for our employees to benefit the schools. WHAUP volunteers helped painting the school buildings, to improve their cleanliness and aesthetics which created learning environment for students. They also participated in renovating playgrounds and outdoor activity fields for early childhood development to promote and expand learning

resources in schools and providing a contemporary and age-appropriate imagination for students, in order to develop youths and the schools around the industrial estate areas at the same time. This program also includes canteens and bathrooms renovation for the students' hygiene, and school fences restoration for their safety.



COMMUNITY DEVELOPMENT PROJECT

In 2022, WHAUP collaborated with WHA Group to initiate and continue the following projects in order to improve the livelihoods of various communities in need of assistance.

SPONSOR FOR PUBLIC HEALTH BY PROMOTING DIGITAL HEALTH TECHNOLOGY

WHAUP has been involved in supporting Thai startups that are developing Artificial Intelligence (AI) systems to assist doctors in analyzing X-ray images and diagnosing diseases. The sustainable delivery of healthcare services through cutting-edge technology will contribute to healthier communities, driving progress and growth. Additionally, WHAUP has collaborated with WHA Group to promote and develop digital health care on the WHAbit platform. The objective is to enhance access to health care services and solutions for all employees and customers within industrial estates, logistics centers, and office buildings of WHA Group. This includes an efficient and highly effective online healthcare service application, connected with offline channels, incorporating telemedicine, health

check-ups, NCD clinics (Non-Communicable Disease), smart clinics, medication dispensing, data analytics, and other relevant services. The goal of WHAUP is not only to create a favorable working environment within industrial estates but also to promote better health and well-being, ensuring that employees in industrial estates have efficient and comprehensive access to healthcare services 24/7, elevating medical capabilities and healthcare services. These initiatives aim to emphasize the importance of raising awareness and generating societal benefits, including reducing overcrowding in healthcare facilities, particularly during the recent COVID-19 pandemic outbreak. Furthermore, it helps users access quality healthcare services more effectively.



**SPONSOR FOR PUBLIC HEALTH BY PROVIDING MEDICAL EQUIPMENT
TO HOSPITALS AND HEALTHCARE FACILITIES IN THE COMMUNITY**



Because WHAUP emphasizes and cares about the health of the community, we have helped funding with Snoh Unakul Foundation to donate the 1 million Baht worth of oxygen concentrator and supported a procurement project for oral rehabilitation instruments for Pluak Daeng Hospital in Rayong, to enhance dental care services in root canal treatment and promote oral health for people in Pluak Daeng district. We also supported the procurement of dental equipment and materials for Nong Sua Chang Health Promoting Hospital, the production of hospital curtains for the ER of Bankhai Hospital in Rayong, as well as food and drinking water for medical professionals and hospital

staffs at COVID-19 vaccination centers in hospitals and healthcare facilities surrounding WHA industrial estates.



VULNERABLE GROUPS SUPPORT PROGRAM



WHAUP values every group of people in the ecosystem including vulnerable groups such as elderly, people with disabilities, and bedridden patients. Therefore, WHAUP, in collaboration with WHA Group, organized activities to promote quality of life and health of the elderly in Pluak Daeng district. We provided health promotion activities and distribute survival kits to elderly and bed ridden patients in 14 communities around WHA industrial estates,

with a total value of over 217,500 Baht. We also arranged air mattresses for bedridden patients who are unable to look after themselves and lack the necessary equipment. Additionally, we assisted people with disabilities who lack necessary self-care aids, enabling them to lead independent lives and perform daily activities like any other individuals.



SUPPORT INDIVIDUALS AFFECTED BY COVID-19 PANDEMIC

Between 2020 to 2022, the spread of COVID-19 has had an impact on various sectors, including educational institutions. In 2022, after the situation of the pandemic improved, schools resumed normal on-site learning. Being concerned about the health of the youths, WHAUP provided 1,500 sets of COVID-19 Antigen Test Kit (ATK) worth 115,080 Baht to schools facing shortages, as well as hospitals and local authorities in need.

Moreover, WHAUP was an important part of the donation of survival kits to COVID-19 patients and individuals affected by the pandemic residing in communities surrounding WHA industrial estates as follows, 105 sets to Ta Sit Subdistrict Administrative Organization and 105 sets to Chomphon Chaophraya Subdistrict Municipality. We also provided basic household remedy to COVID-19 patient care centers in collaboration with local authorities.



INFLUENZA VACCINATION PROGRAM



WHAUP prioritizes quality of life for the elderly, individuals at high risk of complications or influenza virus infections, and individuals with limited access to the vaccine. Therefore, WHAUP, together with WHA Group, has organized a project to support influenza vaccination by providing 500 doses of influenza vaccine to community



members, including 200 doses for Pluak Daeng subdistrict, Pluak Daeng district, Rayong province, 300 doses for Bo Win subdistrict, Si Racha district, Chonburi province, to protect elderly and high-risk groups from influenza and promote good health and well-being among community members.

WHA, IN COLLABORATION WITH SIRIRAJ HOSPITAL AND THAI RED CROSS SOCIETY, ORGANIZE REGULAR BLOOD DONATION ACTIVITIES.



WHAUP, together with WHA Group, has collaborated with Siriraj Hospital for blood donation at the headquarter, WHA Tower, having employees, customers, and nearby community members participated. We also partnered

with Thai Red Cross Society for blood donation at WHA industrial estate offices in Rayong, Chonburi, and Saraburi province.

WHA PAN GAN PROJECT



In 2020, WHAUP and WHA Group launched the “WHA PAN GAN” project, an online marketplace for promoting and selling locally-made handicrafts and products from communities residing near WHA industrial estates in Chonburi and Rayong province. The project utilized social media platforms such as Facebook and YouTube as channels for promotion, aiming to connect sellers and buyers. It provided a platform to showcase a wide range of products, including traditional crafts, Thai herbal products, local cuisine, and signature dishes. The goal was to reach a global audience, increase sales, and support various communities.

Micro-entrepreneurs, food producers, small cottage industry owners, and housewives were among those who welcomed the program and were invited to participate in order to promote and sell their products to a larger market. The CSR initiative of WHAUP and WHA Group promotes job creation and local economic development. This

opportunity represents a new source of revenue or side income for many households, allowing them to improve their lives and secure a better future for their children. Furthermore, it is a means of preserving the community’s heritage and passing on the art of handicrafts and specialty



food products from various hometowns. It emphasizes the creation of value based on local traditions, the availability of agricultural products and natural materials, and the transmission of skills from one generation to the next. In 2022, WHAUP, together with WHA Group, promoted local products from the program through WHA PAN GAN online marketplace and supported the products by giving them as new year gifts to various organizations, customers, benefactors, and individuals associated with the company. We also provide support for products from this project such as snacks, food, beverages, as well as set up product booths during company meetings and conferences. In the special occasion of 2022, WHAUP and WHA Group has been an official communication partner

in the Asia-Pacific Economic Cooperation (APEC) 2022, therefore, the company supported the product from WHA PAN GAN Project as souvenirs to leaders and honorable guests attending the event.

As a result of WHA PAN GAN market, WHAUP and WHA Group supported to buy products from PAN GAN for almost 800,000 Baht for New Year Basket, APEC 2022 souvenirs, and supported local products such as food and snack for meetings. The whole purchase and selling via WHA PAN PAN market gained almost 800,000 Baht to the community. There are products from 37 communities and 12 local product groups participating in this program.

WHA PAN GAN Community Shop



Snack



Spicy Dip



Health products



Garment



Meal



Beverage



Handmade



Miscellaneous



Preserved Food



Fruit and Vegetable



Home Decoration

COMMUNITY CAREER PROMOTION PROJECT

WHAUP values sustainable coexistence, so we participate in supporting community career promotion aiming to promote income and well-being for community members. Therefore, WHAUP and WHA Group created career promoting activities in various forms. For example, we invited speakers from the community who have knowledge and expertise in production and distribution of community products, providing training opportunities for community members. They hosted soap and shampoo-making workshops for

household use, which helps reduce expenses and can also be turned into a second job for extra income. In this program, supporting tools and equipment for honey collection are provided to the Pluak Daeng bee farm community enterprise group, Ta Sit subdistrict, Pluak Daeng district, Rayong province, to enhance the capacity of the company in honey collection, production, and distribution to increase income for the community. WHAUP also supports honey products as New Year's gifts to organizations annually.



In addition, WHAUP in collaboration with WHA Group, organized a study visit for Banchakmahad vocational community members from Bankhai, Rayong province, and Ta Sit Subdistrict Administrative Organization members, in Kongkiat Textile Co., Ltd., Saraburi province. The purpose of the visit was to learn about the development of natural fiber weaving process using fibers from water hyacinth and local agriculture plants in Rayong province, such as pineapples. The knowledge gained can use for further application for extra income by weaving water hyacinth fibers obtained from WHA's constructed wetland system.



WHA E-JOB MARKET



In 2022, WHAUP focused on supporting companies and entrepreneurs within the industrial estates in Rayong and Chonburi province by launching the “WHA E-Job Market,” an online platform for announcing job vacancies. This project aimed to match the job requirements of clients with the qualifications of job seekers. The E-Job Market could be easily accessed through the company’s website and was part of WHA Group’s social initiatives. Recent graduates from educational institutions nationwide, as well as community members seeking employment within WHA Group’s industrial estate areas, could find available job positions through the website. Additionally, WHAUP also introduced the easiest way to find jobs using QR codes.

The project’s goal is to increase hiring in the surrounding communities by providing jobs within the industrial premises, promoting through local agencies, and sending this database to WHA Group’s customer for consideration. There were 583 job positions/roles available, and 250 community members applied through this project.

As a result of the E-Job market, WHAUP gained the benefits from created value added for WHAUP’s customers. Besides, there are some companies that are looking forward to filling vacancies, specifically in the production line. Through the WHA E-Job Market, WHAUP provide a platform to create a win-win situation for all, by matching WHAUP customers’ HR needs with job seekers’ expectations, increase our job channels and chances of attracting new and skilled talents. In addition, all process were done on-line. There were paperless. This program can help WHAUP’s customers to reduce number of papers for the job applications and recruitment process.



ENVIRONMENTAL DEVELOPMENT PROJECTS

WHAUP is committed to conducting business in accordance with ESG principles and adhering strictly to WHA Group's policies. In the areas of utilities and power, the company emphasizes maintaining a balance across three dimensions: environment, society, and business. This approach is accompanied by the development of efficient and sustainable service solutions that meet customer needs. WHAUP plays a crucial role in driving various activities to support environmental conservation, particularly in water management. The company's expertise in utility systems is highly regarded. Environmental projects undertaken by WHAUP include the following:

WHA CLEAN WATER FOR PLANET

Established in 2016, the Clean Water for Planet project with the purpose to treating and managing wastewater, raising awareness about the importance of water resources, and promoting accurate understanding and collective consciousness among communities about the significance of natural resources conservation. WHAUP has undertaken the construction and delivery of wastewater treatment system to different communities to improve the water quality in canals using eco-friendly constructed wetland, inspired by the late King Bhumibol Adulyadej's (King Rama IX). WHAUP has delivered a constructed wetland system to the Pluak Daeng Subdistrict Administrative Organization in Rayong province. In 2022, we also delivered a constructed wetland system to the Nong Khla Subdistrict Municipality in Chanthaburi province.



WHA Clean Water for Planet



1) TRAINING COURSES FOR STUDENTS AND KNOWLEDGE-SHARING WITH LOCAL ORGANIZATIONS

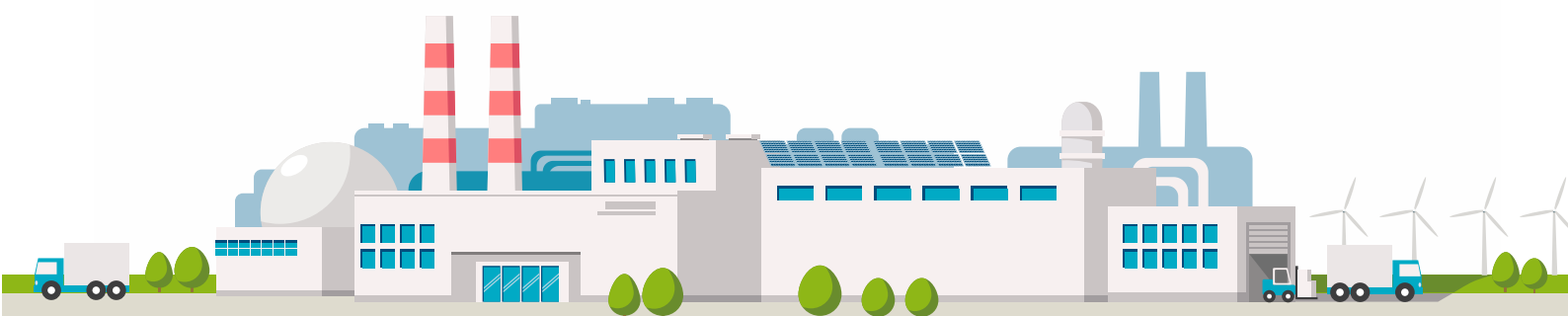
In collaboration with academic institutions, WHAUP provides students with training courses on water conservation and wastewater management by offering internship programs for university students each year for them to gain newfound knowledge from WHAUP's expertise and specialization in wastewater and water management services. The internship program had 8 students participating in 2022, including 2 Mahidol University students, 2 Suranaree University students, 2 Mahasarakham University students, and 2 Bankhai Technical College students.



Moreover, WHAUP supports organizations interested in visiting and observing the water treatment and management systems within the WHA industrial estates to provide interested parties with specialized knowledge in the management and conservation of water resources and wastewater of WHA to be applied to benefit future organizations.

WHAUP, in collaboration with WHA Group, provides opportunities for students and organizations to learn and observe the Smart Eco Industrial Estate, Smart Office Solutions, and Smart Logistics systems which are interconnected with the Unified Operations Center (UOC) located at the headquarter, WHA Tower. The UOC enables

real-time monitoring of various environmental factors such as air quality, water and wastewater quality, rainfall levels, and traffic management. In 2022, a total of 545 individuals, including government officials, students, and interested parties, visited and observed the operations.



2) WHA CLEAN WATER FOR PLANET LEARNING CENTER



WHAUP played a crucial role in delivered a prototype community wastewater treatment system to Pluak Daeng Subdistrict Administrative Organization in Pluak Daeng district, Rayong province, located near Eastern Seaboard Industrial Estate (Rayong). The system can treat 400 cubic meters of wastewater per day as a constructed wetland using natural technogy, plants and microbes, to treat wastewater. WHAUP is committed to sharing knowledge and expertise in wastewater treatment with the officials of Pluak Daeng Subdistrict Administrative Organization to ensure sustainable management of community water resources. In 2022, WHAUP organized the “Water Conservation, Forest Conservation” project for the officials of Pluak Daeng Subdistrict Administrative Organization, teachers, and students of Pluakdaengpittayakom School. The project involved educating them about wastewater treatment technologies using plant filtration, reducing environmental issues related to wastewater in the

community, and appropriate wastewater management practices for the community. This aimed to enable the community to have wastewater treatment systems for their water sources and maintain sustainably good water quality. Additionally, the project involved planting Narrowleaf cattail trees, which are plants grown in Pluak Daeng community’s constructed wetland, to further enhance the absorption of organic substances in the wastewater treatment system.

Furthermore, WHAUP has a project to establish the WHA Clean Water for Planet Learning Center at the Eastern Seaboard Industrial Estate (Rayong) as a hub for gathering and exhibiting knowledge and expertise in water management and administration by WHAUP in order to disseminate sustainable water management knowledge to interested individuals. In 2022, the project was in the study and design phase, and construction is scheduled to begin in 2023.

3) PROVIDE WHA CLEAN WATER FOR PLANET FOR LOCAL COMMUNITIES



Council members, Thai Industrial Estate and Strategic Partner Association, Water and Environment Institute for Sustainability (WEIS), The Federation of Thai Industries, and Map Ta Phut Entrepreneur Club, WHAUP delivered this program to treat community wastewater in Nong Khla Subdistrict Municipality area.

The wastewater treatment system for communities in Nong Khla Subdistrict Municipality area was being implemented by WHAUP under the concept of WHA Clean Water for Planet. The project covers an area of 11 rai, can treat up to 400 cubic meters of wastewater per day, and can accommodate potential increase of wastewater volume up to twice the capacity, reaching 800 cubic meters per day. The system receives wastewater from Nong Khla community and treats it using natural processes by plants such as Narrowleaf cattail and Bird of paradise trees which can absorb organic substances in biological wastewater treatment. Additionally, photovoltaic systems have been used in the project to contribute to its sustainability and environmental conservation efforts.

WHAUP is pleased to delivery Pluak Daeng constructed wetland as the first community WHA Clean Water for Planet program, considered a natural technology that is eco-friendly, cost-effective, and easy to maintain, to the Pluak Daeng Subdistrict Administrative Organization in Rayong province. The overall water treatment process in the wetland system can be found in the Water Management chapter.

Pluak Daeng Wetland Water Systems could reduce organic compounds by 81.82%, treat wastewater with a capacity of 136,656 cubic meters per year, and benefit 5,984 people, 35 apartments, 12,494 houses, and 4 local markets in Pluak Daeng community. As a result, this process may reduce the company's risk of receiving complaints about water pollution.

On September 1st, 2022, WHAUP delivered Wang Tanot constructed wetland, the second community WHA Clean Water for Planet program, to Nong Khla Subdistrict Municipality, Chanthaburi province. In collaboration with Industrial Estate Authority of Thailand, Wang Tanot Water Basin Committee, Nong Khla Subdistrict Municipal



WATER HYACINTH PROJECT

Under WHA Clean Water for Planet, in 2022, WHAUP had continually place an important in implementing water hyacinth project for surrounding community in Bankhai district, Rayong province, to generate job and additional income flows toward the local communities of its operations through employment. On a monthly basis, the community can take water hyacinths from Eastern Seaboard Industrial Estate (Rayong)'s wastewater polishing pond dredging process for free and use them to make and sell hampers and wickerwork products. This enabled the community to generate income and save money on the purchase of such water hyacinths, which can save cost around 100 Baht per basket, each contains 150 water hyacinth strips, and have a reliable source of raw material on a monthly basis. Every year, WHAUP, in collaboration with WHA Group, purchases 300 baskets that made from the water hyacinth from the local community, a total worth of 120,000 Baht, and contained with the local products from WHA PAN GAN Project as New Year gifts. As a result, this project generated 590,000 Baht in revenue for



the community, an additional income of approximately 2,000 Baht/month/person.

Furthermore, WHAUP also supported the production of water hyacinth wickered products as souvenirs for the 29th APEC Meeting held at the Queen Sirikit National Convention Center. This initiative provided additional income of 10,000 Baht for members of the Banchakmahad community.

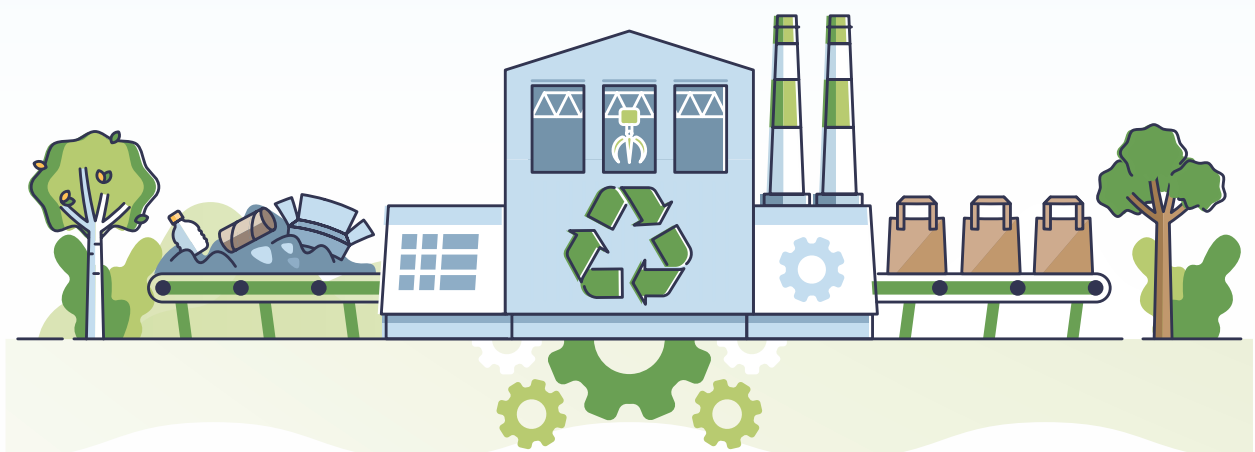


Since 2021, WHAUP and WHA Group, in collaboration with PTTGC, has come up with a new fabric idea to increases the value of water hyacinths through upcycle process by using water hyacinth from a constructed wetland in WHA industrial estates, weaving with fibers from used PET plastic bottles, and cotton fiber.



In 2022, WHAUP was involved in initiating “WeCYCLE Your Bottles” project based on the Bio-Circular-Green Economic Model (BCG) with the following objectives:

1. To instill environmental consciousness across all sectors of the WHA Eco System and help reduce the amount of plastic waste from landfilling to address the issues of carbon dioxide emissions and global warming.
2. To produce upcycled 2,000 school bags, by encouraging businesses to donate used plastic bottles which will then be processed through the recycling system to become
3. To develop knowledge in creating additional value for water hyacinths and used plastic bottles by upcycling them into new products which represent using resources sustainably and valuably.
4. To support the community in having second occupations, generating income, and fostering sustainable coexistence with WHA industrial estates.



WeCYCLE Project accepts plastic bottle donations from various units within WHA Eco System, including employees, customers, companies, industrial factories within WHA industrial estates, local government sectors, and schools. Collection bins called “YOU-Turn” are places to collect used PET plastic bottles at key locations such as WHA Tower (headquarter) in Bang Na district, as well as various areas within 10 WHA industrial estates as follows:

1. ESIE Plaza 1 Building
2. ESIE Plaza 2 Building
3. WHA Plaza 3 Building
4. WHA City Park
5. Eastern Seaboard Industrial Estate (Rayong) Office
6. WHA Eastern Seaboard Industrial Estate 4 Office
7. WHA Eastern Industrial Estate (Map Ta Phut) Office
8. WHA Rayong Industrial Land Office
9. WHA Saraburi Industrial Land Office
10. WHA’s customers participating in WeCYCLE Project such as Fabrinet, Ampacet, Stars Technologies, NRB Bearings, etc.



WeCYCLE Project has received excellent cooperation from over 90 companies in the industrial estates registering for this program, as well as local government sectors, schools, and public in donating used PET plastic bottles.

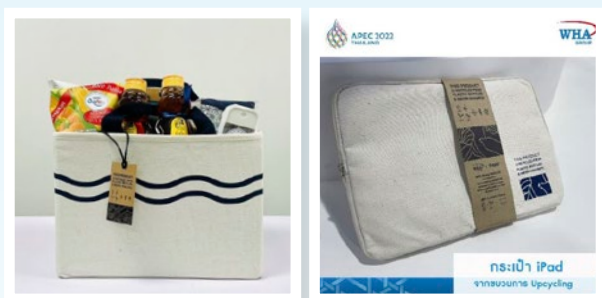
Since the start of WeCYCLE project, from March to November 2022, the project has received a significant amount of donated used PET plastic bottles from participating members, in total weight of 10,368 kilograms or 609,874 bottles (600 ml. volume). In terms of Greenhouse Gas Reduction (GHG), this amount is



estimated to reduce 24,053 kgCO₂e, which is equivalent to 1-year carbon dioxide absorption of 2,673 trees.



Furthermore, WHAUP and WHA Group intend to take the used PET plastic bottles donated by WeCYCLE project members and import them into upcycling process. They will be weaved into upcycled fabric combined with water hyacinth fibers from Banchakmahad community, which made from water hyacinth from constructed wetland system within WHA industrial estate. The fabric will later be used to make school bags for students around WHA industrial estate areas.



This project created jobs and income of over 40,000 Baht for Chakmahad community by extracting fibers from water hyacinth, transforming and spinning them with upcycled PET plastic fibers and cotton fibers. These 3 fibers will be weaved together into fabrics. The project gained income of approximately 50,000 Baht from selling the fibers to manufacturers for further processing into products.



In addition, the collaboration between WHAUP and WHA Group, and PTTGC, utilized this new upcycled water hyacinth and used plastic bottles fiber fabric to create the iPad case and hampers to make New Year gifts in 2022 for WHAUP's most valued customers, who expressed their satisfaction with the gifts received.



WeCYCLE Project has received the special Thai Development Award from AMCHAM CSR Excellence Recognition event organized by The American Chamber of Commerce in Thailand. The award was presented by Mr. Varawut Silpa-archa, the Minister of Natural Resources and Environment. The project involves utilizing water hyacinths from WHA Clean Water for Planet project and used PET plastic bottles to produce various products such as school bags, hampers, and laptop bags. This initiative aligns with the principles of a circular economy, aiming to create jobs and income for the communities surrounding WHA industrial estates. It emphasizes our commitment to sustainable growth through socially responsible business operations, promoting balance and societal and environmental friendliness. The project is based on the Bio-Circular-Green Economy Model (BCG) principle.



GREEN EFFORTS PROJECT

WHAUP and WHA Group, in collaboration with the Office of Industrial Estate Authority of Thailand and entrepreneurs within WHA industrial estates, helped planting trees around Nong Pla Lai Reservoir, Pluak Daeng subdistrict, Pluak Daeng district, Rayong province, to sustainably reduce greenhouse gas emissions and mitigate global warming. Together, we planted a total of 2,800 trees, including 600 resin trees, 1,000 bamboo trees, and 1,200 yellow elder trees.

Furthermore, WHAUP, together with volunteers from educational institutions, government sectors, and private organizations, helped planting landrace trees to expand green spaces in various areas. These activities took

place in Bo Win subdistrict, Si Racha district, Chonburi province, Nong Lalok subdistrict, Bankhai district, Rayong province, Maenam Khu subdistrict, Pluak Daeng district, Rayong province, and Chum Saeng subdistrict, Wang Chan district, Rayong province. We also organized landrace tree planting activity in Ban Khao Hin School, Bo Win subdistrict, Chonburi province as well as rose awareness among students from the school about the value of trees in the ecosystem and the impact of climate change on daily life. Apart from providing shade, trees also produce oxygen and help reduce carbon dioxide in the air, serve as habitats and food resources for wildlife, and help maintain the quality of water and soil.



ENVIRONMENTAL MONITORING NETWORK (ENVIRONMENTAL DETECTIVE) PROJECT



WHAUP, in collaboration with WHA Group, hosted “Environmental Monitoring Network (Environmental Detective) Project 2022” for schools surrounding WHA industrial estates as follows:

1. Ban Khao Hin School, Bo Win subdistrict, Si Racha district, Chonburi province.
2. Ban Hup Bon School, Khao Khansong subdistrict, Si Racha district, Chonburi province.
3. Ban Map Lambit School, Klong Kiu subdistrict, Ban Bueng district, Chonburi Province.
4. Chumchon Borisat Namtan Tawanaok School, Ta Sit subdistrict, Pluak Daeng district, Rayong province.
5. Ban Khlong Kram School, Pluak Daeng subdistrict, Pluak Daeng district, Rayong province.

To promote environmental knowledge and understanding among youths around industrial estate areas, raise environmental conservation awareness, enhance waste sorting practices and clean water and wastewater observation in public water sources, demonstration of water quality monitoring methods and providing knowledge about the water treatment systems of WHAUP, as well as advocate youth participation in disseminate the knowledge to their families and communities.



In addition, we also taught children about recycling and living an environmentally friendly lifestyle. WHAUP employees was involved in delivering color-coded trash bins to the 4 participating schools and explained the concept of sorting and recycling to the students in order to keep the planet clean. The young students engaged in lively discussions about how to sort waste materials and listened to suggestions and tips about waste reduction and reuse. Sharing the value of doing good for nature and the environment can begin at a young age.

"THAI YOUTH CARES FOR THE ENVIRONMENT: TOTE BAG INITIATIVE" PROJECT



WHAUP, in collaboration with WHA Group, organized the Thai Youth Cares for the Environment: Tote bag initiative" project in schools surrounding WHA industrial estates as follows:

1. Ban Muen Chit School, Klong Kiu subdistrict, Ban Bueng district, Chonburi province.
2. Ban Nong Suea Chang School, Nong Suea Chang subdistrict, Nong Yai district, Chonburi province.
3. Ban Map Lambit School, Klong Kiu subdistrict, Ban Bueng district, Chonburi Province.

The activity aims to create knowledge and understanding of the 3Rs (Reduce, Reuse, and Recycle) as sustainable concepts and practices that promote environmental conservation. By utilizing available resources wisely, participants can contribute to reducing waste. The activity, which involves the use of eco-friendly cloth bags, serves to raise awareness among young people about the importance of minimizing plastic bag usage.

SPORT SPONSORSHIP

WHAUP values and supports youths and community members healthcare and recognizes the significance of sports and harmony. We also discourage youths and communities from engaging in substance abuse in order to develop their potential in youth football to compete at a national level and encourage their interest in sports.



WATER MANAGEMENT FOR COMMUNITY

In 2022, WHAUP played a crucial role in delivered Wang Tanot constructed wetland system to the Nong Khla Subdistrict Municipality in Chanthaburi province to treat community wastewater in Nong Khla Subdistrict Municipality area.

The Nong Khla Community Water Management Program's objectives are as follows:

1. To be a constructed wetland system for Nong Khla community that is both technologically and environmentally advanced.
2. To treat Nong Khla Community wastewater before discharging it into natural water resources.
3. To serve as a recreation area for the Nong Khla community.
4. The wastewater treatment plant's capacity is 800 cubic meters per day.



WHAUP has been responsible for the construction of wastewater treatment systems for various communities in Nongkha Sub-district Municipality. We have also shared knowledge about constructed wetland management and other related topics. In addition, the Nongkha Sub-district Municipality has provided 11 rai of land for the mentioned project.

Furthermore, WHAUP supports the provision of water for consumption in Pluak Daeng subdistrict, Pluak Daeng district, Rayong Province. Company staff have taken water trucks to assist the local authorities in distributing water for consumption to the residents affected by the water scarcity issue in the area. This helps alleviate the hot season's impact on the communities in the Pluak Daeng subdistrict.



WHAUP, as a utility specialist, is dedicated to incorporating innovation into the industrial water production process. The objectives are to reduce the use of water from natural sources, minimize water allocation to communities, and reduce the discharge of wastewater into public waterways. Therefore, there has been a development of water production innovation through the Reclamation Water Project, which involves using recycled wastewater to produce high-quality water for customers in WHA industrial estates. The goal is to double the production capacity from 30,200 cubic meters to 60,400 cubic meters per day, thereby reducing the reliance on water from natural sources and minimizing wastewater discharge into public waterways by up to 6.9 million cubic meters. This also aims to ensure long-term water sustainability and provides customers within WHA industrial estates with demineralized or high-quality water.



DESIGNING WHA INDUSTRIAL ESTATE TO HAVE SOCIAL SPACES.

WHAUP actively supports sustainable growth through socially responsible business operations, which aligns with WHA Group's business approach. Emphasizing balance, environmental friendliness, and societal impact, WHAUP embraces the Bio-Circular-Green Economy Model (BCG) as a crucial part of the community. Social factors are considered in the design and implementation of business activities, and criteria for being a contributing member of society are developed. WHAUP applies the BCG Model to its utilities and power operations, including the development of various public infrastructure projects

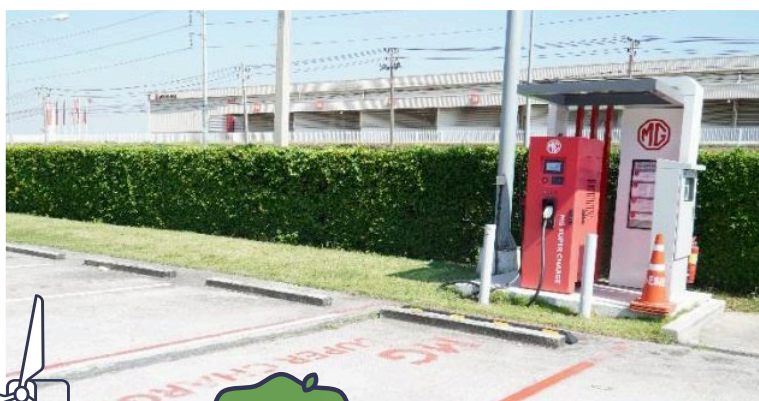
that promote environmental friendliness. The integration of social criteria is included in business audits and serves as a guiding principle for sustainable business development.

Therefore, WHAUP engages in activities and adopts diverse criteria to expand its role in social assistance. This highlights the significance of social involvement, particularly in utilities and industrial energy sectors. In 2022, WHAUP successfully completed the following projects, contributing to the community's well-being.

INCORPORATING AN "MG SUPER CHARGE" ELECTRIC VEHICLE CHARGING STATION WITHIN WHA INDUSTRIAL ESTATE AREAS

WHAUP and WHA Group has achieved success in reaching carbon neutrality and is committed to achieving Net Zero Co2 Emissions by 2050. We promote sustainable growth through socially responsible business operation and focus on creating a balanced, societal and environmental friendliness, based on the Bio-Circular-Green Economic Model (BCG) principle. The company collaborated with SAIC Motor-CP Co., Ltd., and MG Sales (Thailand) Co., Ltd., Thailand's MG car manufacturers and distributors. Together, we signed an agreement to install five "MG Super Charge" electric vehicle charging stations in WHA

industrial estates in the Eastern Area (EEC) and Saraburi province to promote the use of environmentally friendly electric vehicles (EVs) within industrial estate areas of WHA, reduce carbon dioxide emissions from combustion engines using fuel. WHAUP, as an expert in energy, has supported the installation of electric charging stations. Charging stations for EVs are designed to provide easy access in convenient locations within WHA industrial estates in Chonburi, Rayong, and Saraburi province, opening 24 hours a day.



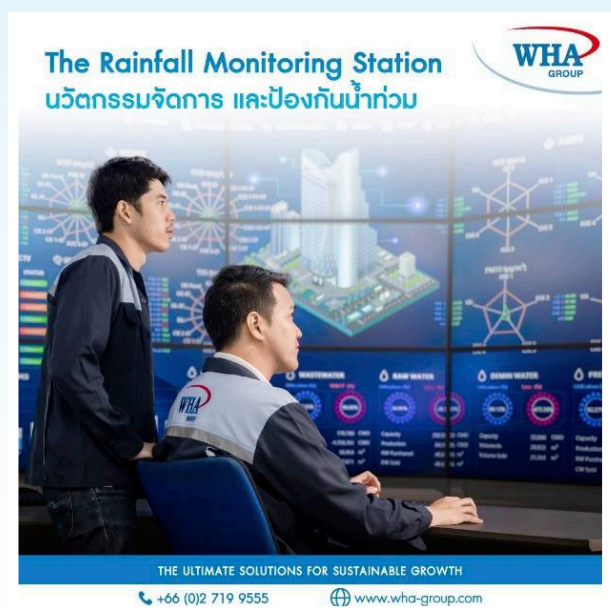
EVACUATION DRILLS FOR DISASTER AND EMERGENCY RESPONSE

Every year, WHAUP, in collaboration with WHA Group, conducts a fire and evacuation drill in which all relevant stakeholders are required to participate (i.e., all employees, customers, and community representatives). As a result, the surrounding communities can be assured that the operations will have no negative consequences for them. As a result, this program can benefit both internal employees and the community as a whole. In addition to community evacuation, the Emergency Control Center (ECC) stepped in to assist local authorities in the suppression of emergency situations in the communities surrounding the WHA industrial estates. We designed Unified Operations Center (UOC) that collects real-time utilities data. UOC system shows the data for analysis and entrepreneur service efficiency assessment.

One of the important data is The Rainfall Monitoring Station (RMS) as a part of the operational data to monitor, process, and manage the accumulate rainfall within industrial estate areas. There is a total of 13 RMS installed to provide data

of current rainfall levels, daily rainfall amounts, and the volume of rainwater stored for internal use within industrial estates of WHA Group.

Additionally, some industrial estates have implemented an Ultrasonic Water Level Sensor (UWLS) system to monitor the water levels in drainage channels to help track the amount of water and manage flood prevention measures.



PERFORMANCE AGAINST TARGETS

In 2022, WHAUP’s performance in community engagement, impact assessment, and community development projects, across various types of operations, in terms of percentage of the total operations are as follows:

Implemented topics

Social impact assessments, including gender impact assessments

Percentage of operations covered (%)

100%

Implemented topics

Environmental impact assessments and ongoing monitoring

Percentage of operations covered (%)

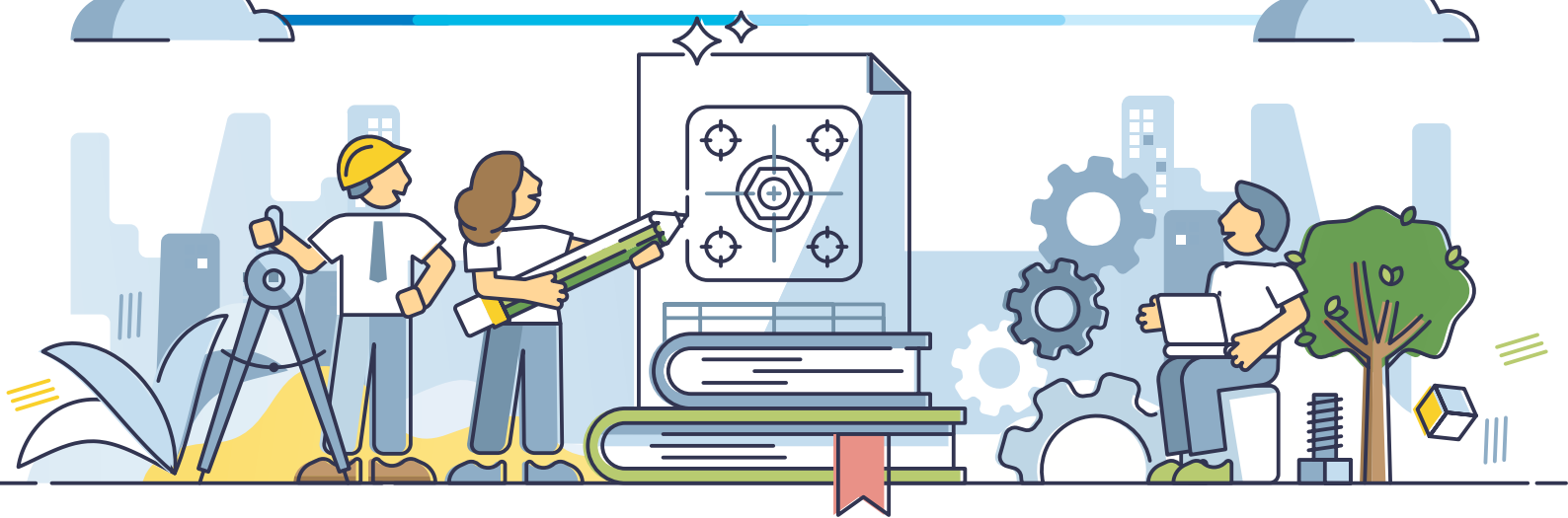
100%

Implemented topics

Public disclosure of results of environmental and social impact assessments

Percentage of operations covered (%)

100%





Implemented topics

Stakeholder engagement plans based on stakeholder mapping

Percentage of operations covered (%)

100%

Implemented topics

Broad based local community consultation committees and processes that include vulnerable groups

Percentage of operations covered (%)

100%

Implemented topics

Works councils, occupational health and safety committees and other worker representation bodies to deal with impacts

Percentage of operations covered (%)

100%

Implemented topics

Formal local community grievance processes

Percentage of operations covered (%)

100%



ENVIRONMENT DIMENSION





ENVIRONMENTAL POLICY AND MANAGEMENT SYSTEM

WHAUP has established environmental quality, energy conservation, and biodiversity policies in collaboration with WHA Group. These policies aim to ensure that WHAUP's business operations can coexist harmoniously with the surrounding communities and the environment, and are conducted sustainably throughout. This is achieved by WHAUP's dedication to providing customers with globally standardized solutions and instilling confidence in delivering the highest quality services while maintaining a strong commitment to environmental preservation. This commitment is demonstrated through the promotion of energy conservation, the use of renewable energy, and

the management of biodiversity. WHAUP recognizes the utmost importance of environmental management and resource conservation, which is continuously pursued to drive sustainable business development. This involves implementing efficient environmental management systems and proactive monitoring and control measures that consider key environmental factors, such as biodiversity, wastewater quality, waste management, pollutant emissions, and resource conservation. These parameters align with the nature of WHAUP's business operations, which are interconnected with customers, partners, and the surrounding communities. They also significantly influence WHAUP operations.



WHA Group Policy on environmental management, energy conservation, and biodiversity



WHAUP's efforts to drive sustainable operations are governed by the Board of Directors' approval of WHAUP's Environmental Quality, Energy Conservation, and Biodiversity Policy. The Policy outlines WHAUP's commitment to preventing and mitigating environmental impacts while continuing to improve quality, ensure regulatory compliance, and align practices with international standards such as the Environmental Management System standard (ISO 14001: 2015) by International Organization for Standardization (ISO).



ENVIRONMENTAL IMPACT ASSESTMENT (EIA)

All WHAUP's required projects have undergone the Environmental Impact Assessment (EIA) Study in accordance with the requirements and conditions outlined in the Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992). The EIA study considers the environmental and social impacts within a 5-kilometer radius of the project site to ensure that these impacts are monitored, mitigated, and controlled appropriately. Prior to proceeding with project construction, commencement, and operation phases, the EIA must be approved by the Office of Natural Resources and Environmental Policy and Planning (ONEP).



Following that, WHAUP ensures that all environmental schemes specified in the EIA requirements are followed. The project's performance against EIA requirements and standards is monitored and reported to the Industrial Estate Authority of Thailand (IEAT), Natural Resource and Environmental Policy and Planning, and local provincial offices on a bi-annual basis, twice a year, covering the months of January to June and July to December, respectively. In 2022, no monitoring parameters were found to be in violation of environmental laws or EIA requirements. In addition, WHAUP oversees the overall environmental management schemes of its customers located within the industrial complex to ensure best practices and compliance with regulated requirements. If not, WHAUP will work with the IEAT to take appropriate next steps. Additional Details regarding the environmental practices implemented in collaboration with customers are specified in the relevant section of this report.

UNIFIED OPERATIONS CENTER (UOC)



The Unified Operations Center (UOC) system is implemented to centralize, consolidate, and project results from the three monitoring systems offered at WHAUP's projects and operation sites. In this regard, the UOC system is designed to support real-time monitoring of various parameters within the industrial zone, such as water production systems, solar energy generation systems, and more. This is in line with the aspirations of the company group, which aims to transparently display environmental performance data and comply with the reporting requirements set by government agencies for public dissemination of monitoring results.

1. ENVIRONMENTAL MONITORING AND CONTROL CENTER (EMCC) FOCUSES ON FIVE MONITORING COMPONENTS AS FOLLOWS:

- The Water Quality Monitoring Station (WQMS) will monitor the water quality of treated wastewater before it is discharged into natural sources. It will measure various parameter including the level of Organic substances, chemical oxygen demand (COD), and bio-chemical oxygen demand (BOD). In the event of a non-compliance, an alert will be sent to the appropriate operators, who will take immediate corrective action. The water will be retreated until it reaches the required quality standard.
- An Air Quality Monitoring Station (AQMS) continuously monitors Total Suspended Particulates (TSP), Particulate Matter (PM-10), Sulfur dioxide (SO₂), and Nitrogen dioxide (NO₂). In addition, meteorological data such as wind speed and wind direction are monitored. WHAUP discloses the results of monitoring and environmental quality surveillance of industrial estates in accordance with the requirements outlined in the Environmental Impact Assessment (EIA) report. The monitored parameters include the quantity of volatile organic compounds in the air, noise pollution, surface water quality, and more.
- Discloses the results of environmental monitoring of industrial estates in accordance with EIA requirements. Indicators include the quality of ambient volatile organic compounds, noise pollution, and surface water quality, etc.
- Serves as a channel for factory operators located within industrial estates to submit environmental reports in accordance with their respective EIA requirements. Air emission quality via stack, EIA compliance, risk analysis, and boiler/steam generator inspection reports are examples of submission reports. This system allows the IEAT to effectively review submitted reports while also reducing paper consumption.
- Complaints received through available channels are recorded and tracked by this EMCC system until the complaint handling process is completed. Complaints are entered into the system and forwarded to the appropriate personnel so that they can carry out the necessary response actions.

2. WATER AND WASTEWATER TREATMENT PLANT CONTROL CENTER

This center forecasts and monitors the performance of the equipment used at water and wastewater treatment plants. This ensures that both the water and wastewater quality meet the threshold before being supplied to end users or discharged into public waterways.



ENVIRONMENTAL STANDARD AND PERFORMANCE

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

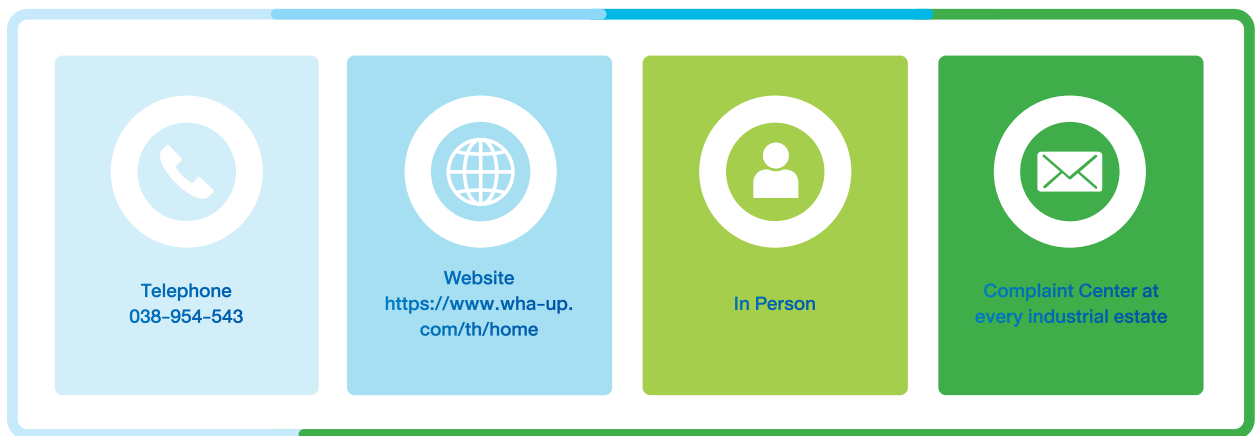
WHAUP have been certified according to international standards by the International Organization for Standardization (ISO). Their outstanding achievement is the certification for the Environmental Management System (ISO 14001: 2015), which reflects their commitment to conducting business in an environmentally conscious manner.



In addition, the company has implemented an annual environmental management system through internal audits in order to monitor system implementation on a regular basis. External audits and certifications were also carried out in accordance with applicable international standards like ISO 14001: 2015.

ENVIRONMENTAL COMPLAINT HANDLING PROCESS

As part of the continuous improvement process of the environmental management system, WHAUP has established and communicated available channels for stakeholders to submit any environmental-related complaints and concerns. The compliant handling process follows the ISO 14001:2015 guidelines in which root causes are identified and appropriate preventive and mitigation measures are implemented to prevent future reoccurrences. Channels that are available include:





WASTE MANAGEMENT

GLOBAL TRENDS AND IMPACT

Due to rapid trend of world population growth, as well as the development of product and service models, and changes in consumer behaviour, waste generation has become a significant global challenge. According to the Global Waste Index 2022 report, each year the world produces over 2.1 billion tons of municipal solid waste. However, only 16% of this waste is properly managed. In the case of Thailand, data from the Department of Pollution Control in 2020 indicated that the country generates a total of 24.9 million tons of municipal solid waste. Only 32% of this waste is effectively utilized, while the remaining 68%, which cannot be recycled, is disposed of improperly. This includes activities such as illegal dumping in public areas and open burning. These figures reflect inefficient waste management practices. Although there has been increased awareness regarding environmental issues in recent years, resulting in improved waste management efforts, there is still progressed to be made.

Therefore, WHAUP strives continuously to reduce waste generation by conserving and efficiently utilizing resources. This includes promoting a circular value chain approach in conducting its business operations. WHAUP also provides guidance and oversight to ensure the adoption of appropriate waste management practices to utility and power sectors.

WHAUP recognizes the importance of comprehensive waste management, including considering the impacts on surrounding communities to prevent negative effects that may arise from business activities. This is achieved through integrated ESG (Environmental, Social, and Governance) management services, aiming to protect the rights of all stakeholders, including preventing issues related to waste management such as improper disposal of solid waste, hazardous waste management, as well as pollution of soil, water, and air.

MANAGEMENT APPROACH

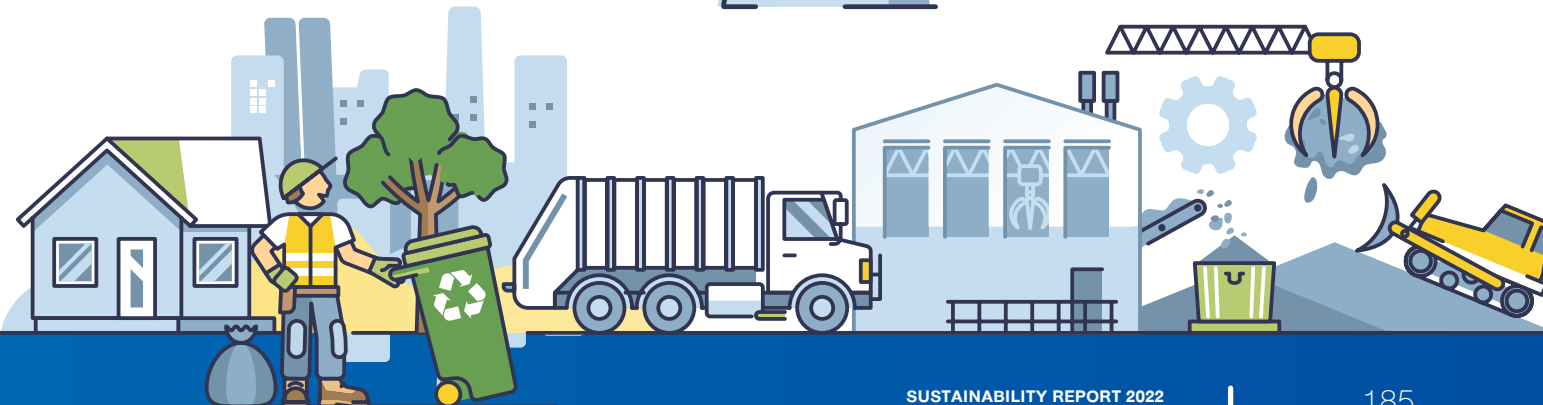
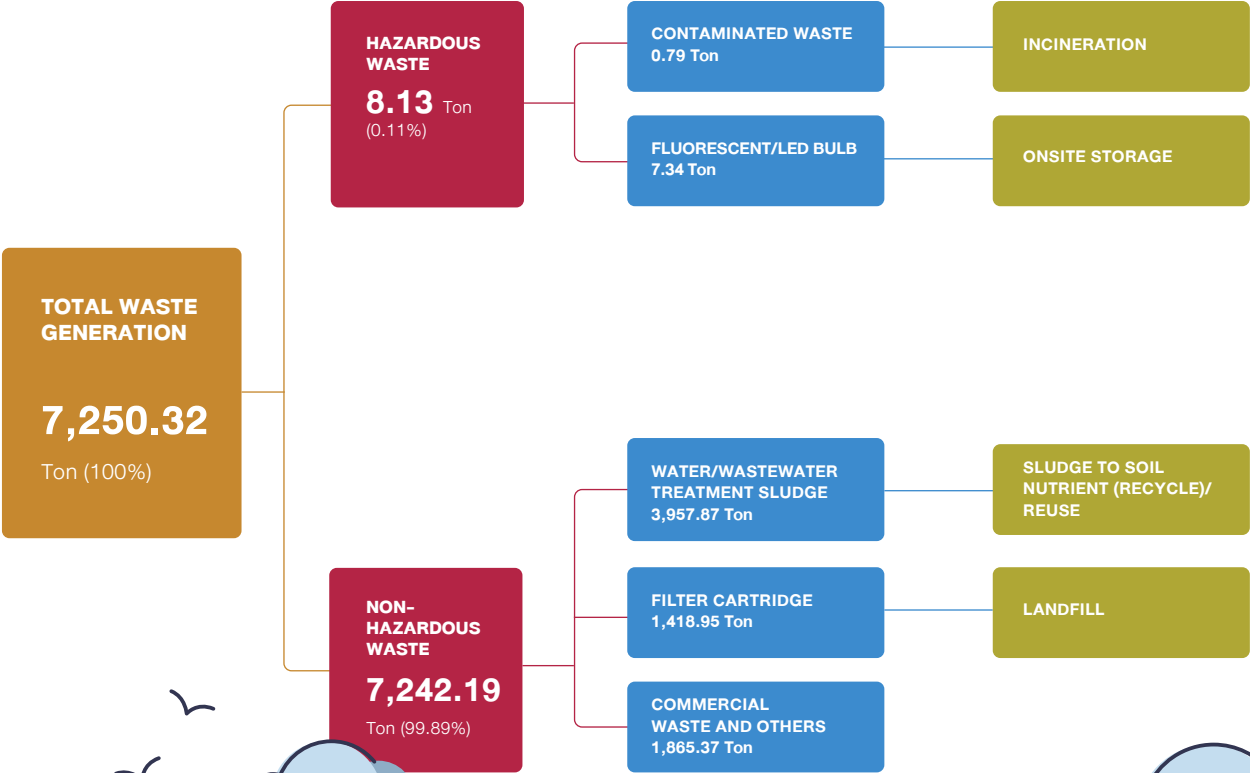
WHAUP is fully aware that its operations, along with WHA Group, generate various types of waste. The majority of the waste consists of general solid waste, sludge from industrial water treatment systems, wastewater treatment by-products, as well as hazardous waste from office buildings and maintenance of machinery such as fluorescent lamps and oil-contaminated fabrics. This may also include incidental waste resulting from construction projects and infrastructure development undertaken by WHAUP, for which the responsibility lies with contractors or subcontractors engaged by WHAUP.

WHAUP acknowledges that improper waste management can have adverse environmental impacts. Therefore, WHAUP has developed waste management processes in line with its environmental quality policy and assigned WHAUP Environmental Committee to oversee these efforts. The company promotes the participation of all executives and employees in waste management through various projects aimed at controlling waste management and reducing its impact. By 2022, WHAUP has set both short-term and long-term targets for waste management to enhance efficiency. Specifically, the goal for 2022 is to reduce landfilling and incineration (without energy recovery) of waste to less than or equal to 20% of total waste disposal by 2025. Furthermore, WHAUP aims to achieve the most appropriate and minimal waste disposal by 2030.

In 2022, WHAUP adopted the principles of the Circular Economy as part of its operational plan to reduce the amount of waste that needs to be disposed of through landfilling or incineration (without converting it into energy). Based on the previous results, it was found that the total waste quantity decreased by 5% compared to 2021. This reduction in waste volume was a result of WHAUP's development and commitment, such as research and development of waste reduction processes,

waste recycling, and investment in technologies for waste management alternatives beyond landfilling and incineration. Additionally, other projects were implemented, including sourcing necessary resources for customers and communities, as well as engaging in activities to raise awareness and promote the adoption of sustainable waste management practices and related systems. To ensure that everyone involved in the business operations has knowledge and understanding of waste management, WHAUP, in collaboration with WHA Group, provided efficient training programs for employees, industrial factory workers, and contractors. For instance, contractors were required to undergo training before starting their work, which emphasized the correct waste management practices and compliance with regulations. Furthermore,

knowledge was disseminated through various projects such as SORT N' SAVE and “Your Bottle, Your Responsibility.” Additionally, waste separation principles from construction projects were utilized to promote recycling, reuse, and proper disposal. The majority of waste generated during construction was recycled and transformed into soil amendment materials. As for other waste generated by contractors, they were responsible for the transportation and disposal. WHAUP also purchased raw materials for construction or business operations from recycling sources, and in turn, sold recycled raw materials, totaling approximately 36 tons in 2022. This helped reduce the amount of waste sent for disposal and maximize the utilization of resources.



In developing new projects, WHAUP has implemented a waste management plan as part of the Environmental Impact Assessment (EIA) process. The objective is to ensure that the waste management processes implemented throughout the project lifecycle are efficient. WHAUP communicates with customers in various industrial estates about these waste management plans, and they also oversee the progress based on the reports received from customers.

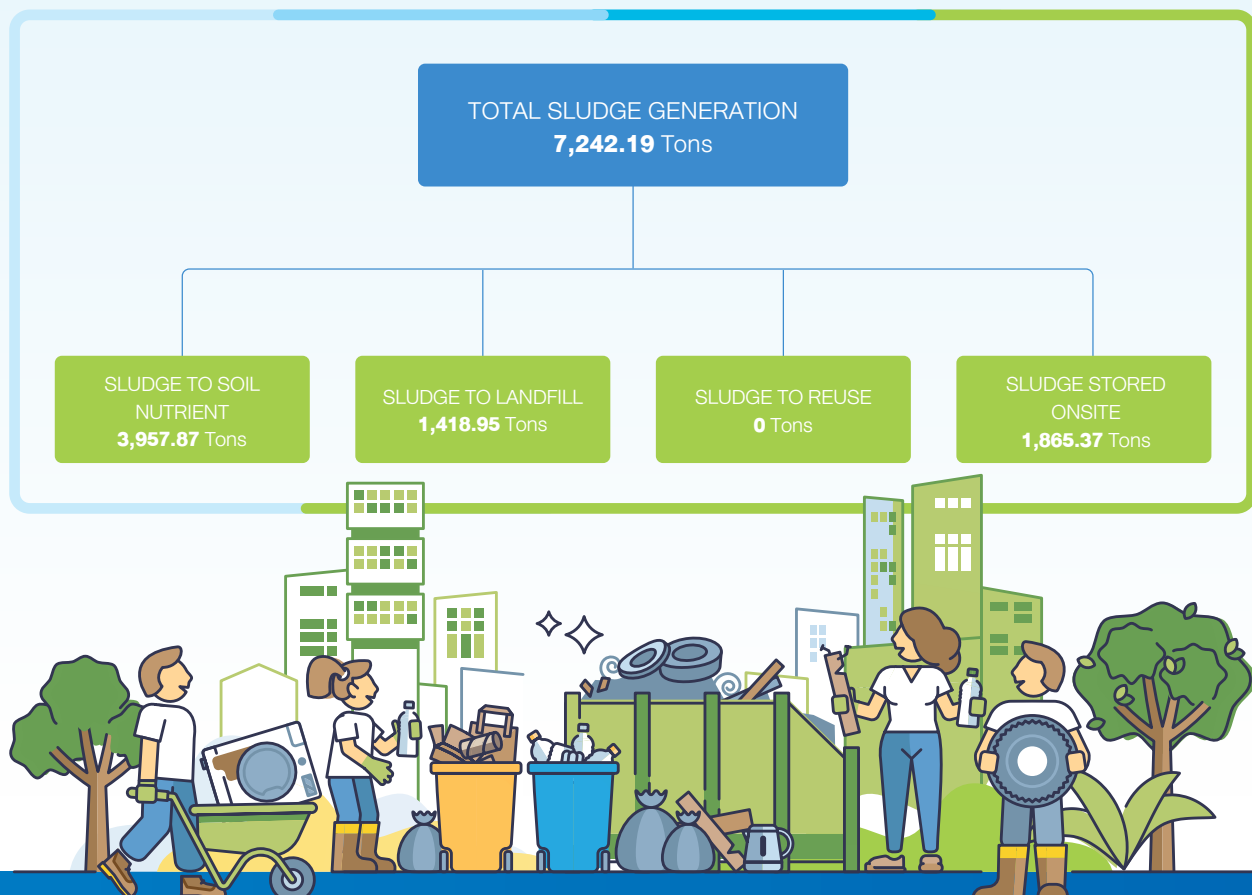
TRANSFORMATION FROM THE PAST TO THE FUTURE

WHAUP has placed great importance on waste management for many years and is committed to developing waste management systems for various types of waste generated in the utilities and power activities. Particularly, WHAUP focuses on managing waste from sludge generated by wastewater treatment systems, which has social and environmental impacts. To prevent such issues, WHAUP has explored innovative approaches by embracing the concept of the circular economy. This entails changing the mindset regarding how waste is

managed, starting from the source. For example, shifting towards the use of precast and creating value through the transformation of waste into new products, such as converting sludge into soil conditioner.

SLUDGE TO SOIL NUTRIENT

WHAUP has jointly implemented a continuous project for producing soil nutrient from sludge residue. In 2022 the project involved the production of soil nutrient to reduce the amount of waste disposed of in landfills or through incineration. Soil nutrient quality analysis was conducted to ensure the absence of heavy metals, organic compounds, and plant disease pathogens in the soil. The target was set to utilize sludge residue for producing soil nutrient, replacing landfill disposal by 50% of the total sludge volume. This year, the company group has achieved 55% of the target, utilizing 3,957.87 tons of sludge to produce soil nutrient, surpassing the initial goal of 1,000 tons. In the future, the company group is determined to continue implementing projects to further reduce waste to 20% by 2025, ultimately minimizing the remaining waste volume.



WASTE TO ENERGY



Broadly, the waste-to-energy concept utilizes all resources including the residues of everyday operations and converts the otherwise waste, into a valued resource ready for the next cycle of use. In alignment with Alternative Energy Development Plan B.E. 2558-2579 (AEDP 2015) which proposes a target of using 30% renewable or green energy of the total energy consumption by 2036. WHAUP views that converting waste to electricity is the prevailing method to tackle the significant waste problems and support concerns on energy demands. As a result, WHAUP, WHA Group along with other two shareholders, invested in a waste-to-energy power plant known as Chonburi Clean

Energy (CCE). CCE is the first industrial waste to energy facility in Southeast Asia to meet European emission standards. CCE was awarded by the Commission of Energy, Ministry of Industry to be constructed as the first industrial waste-to-energy power plant in the Eastern Economic Corridor (EEC). CCE falls in line with the concept of circular economy and sets a good example for sustainable non-hazardous industrial waste management. It has the capacity to generate electricity by converting non-hazardous waste to energy at 400 tons per day, or approximately 100,000 tons per year, enabling a maximum output of 8.63 MW of electricity energy per year.

CCE contribution in 2022:



CCE

has incinerated
104,208 waste

CCE

has generated
57,297 MWh to the PEA

CCE

has saved around
38,000t CO₂

Sustainable electricity

for around
32,000 homes



Since 2020, WHAUP and WHA Group has signed an agreement with Waste Management Siam Co., Ltd. (“Waste Management Siam”), a transportation and waste disposal service provider. Under this agreement, WHAUP sends its waste to the CCE project annually to produce alternative energy. Therefore, from 2020 to 2022, a total of 2,829 tons of waste were sent to CCE project, which were converted into electricity at a rate of 2,449 megawatts per hour.

PAPERLESS TRANSFORMATION



The crisis caused by the global spread of the COVID-19 virus has accelerated the adoption of digital technology in businesses worldwide, including our own company. The use of digital technology has been leveraged to reduce face-to-face interactions and protect employees from health risks. Additionally, it has facilitated the transition to online platforms for communication, data management, and meetings, resulting in a significant reduction in paper usage. Furthermore, our company has implemented the “E-Paperless” project across all business groups as part of our goal to drive digital transformation. We encourage employees to embrace available technologies and tools to enhance their work efficiency. Tablet devices have been provided to employees to promote a paperless work culture and facilitate easy access and viewing of content during meetings, presentations, reports, checklists, and meeting records. Currently, the project has helped save paper by approximately 2% compared to the previous year. WHAUP has set a target to reduce paper usage by 5% in 2023.

HAZARDOUS CHEMICAL CONTAINMENT REDUCTION

WHAUP is dedicated to reducing the total volume of hazardous waste generated from its operation. Therefore, starting in 2020, WHAUP procured most of the chemical substances for its water and wastewater treatment facilities via loading tankers. Poly Aluminium Chloride (PAC) 20% concentration and liquid chlorine are still procured within chemical containers, but an agreement was made for the suppliers' responsibilities to reuse or dispose the empty containers. By procuring via loading tankers, it helped to reduce WHAUP's disposal efforts of empty chemical storage containers to landfill by 2 ton per year.

SORT N' SAVE PROJECT

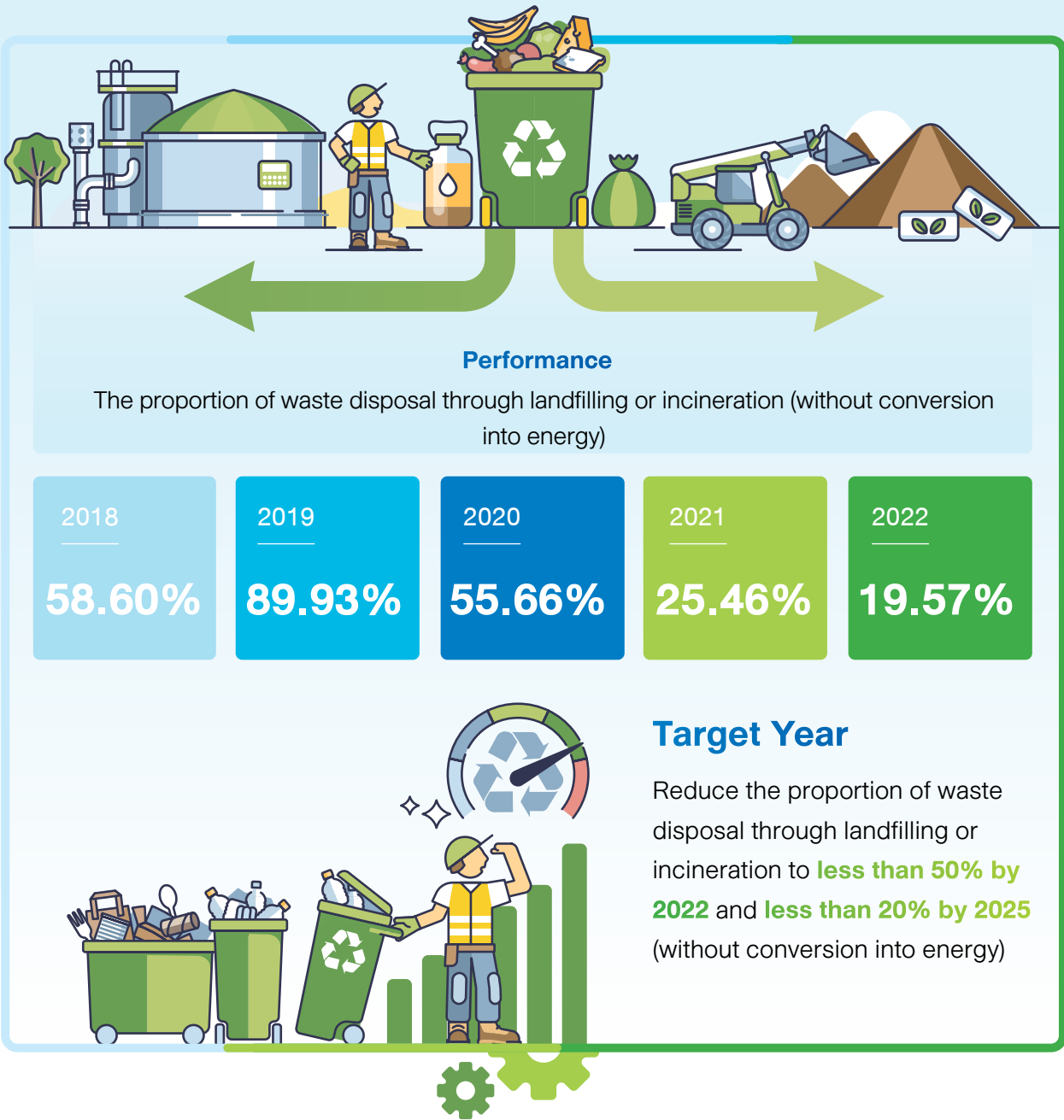
In 2022, as part of WHA Group, WHAUP continued its commitment to the Sort N' Save project, which was initiated in 2019. The project originated from one of the initiatives of WHA Innovation Leader, aimed at promoting environmental awareness among WHAUP personnel and driving business innovation under the concept of the circular economy. Numerous projects were developed to encourage WHAUP employees to change their behaviors and recognize the importance of recycling and waste reduction. These projects utilized various communication media, including visual backgrounds on screens, messaging through LINE application, emails, and WHAUP's monthly newsletters.

REDUCE DEPENDENCY ON PLASTICS

Served together with comfort and convenience, single-use plastics without proper management are the manmade predators in the ecosystem, imposing potential irreversible, global impacts on vital climate processes and biodiversity levels. To combat this, WHAUP is taking steps to reduce the consumption and disposal of single use plastics. Since 2020, WHAUP stopped serving plastic bottled drinking water to its guests and visitors.



PERFORMANCE AGAINST TARGETS





AIR EMISSION MANAGEMENT



GLOBAL TRENDS AND IMPACT

Air pollution is a growing concern that is becoming increasingly severe with the development of global society. It is a significant problem that has a profound impact on the health and lives of people worldwide, particularly in social sectors. According to data from the World Health Organization, approximately 7 million people worldwide die each year due to air pollution-related causes. At the same time, 90% of the population is exposed to air quality that does not meet the standard. Recognizing the seriousness of the problem and its consequences, efforts have been made to foster collaboration between governments and international organizations to promote and support the development of air quality. Currently, efficient air quality management is identified as part of the sustainable development goals (SDGs) because air pollution is considered a major threat to human life, health, population well-being, and future economic systems of countries. It requires comprehensive cooperation from all sectors to address the problem collectively.

Therefore, WHAUP has recognized the potential impact of air pollution arising from its direct and indirect activities and services on the population and the environment as a whole. Factors such as global warming and climate change have led to proactive measures being taken to address both short-term and long-term air pollution issues. The company has established core values in its Environmental Quality, Energy Conservation, and Biodiversity Policies, guided by the use of Green Technology or environmentally-friendly technologies. Under the “Mission To The Sun” project, WHAUP, together with WHA Group, actively participates in reducing the environmental impact of industrial activities. A key principle guiding this project is that industrial parks, communities, and nature must coexist in harmony and sustainability, without causing harm to individuals, legal entities, or stakeholders in other sectors, which would have detrimental effects on society, communities, and the environment.



MANAGEMENT APPROACH

WHAUP, as a service provider, specializes in industrial water management, wastewater treatment, electricity generation from renewable and exhausted energy, and supplying natural gas to manufacturers and operators in industrial estates and comprehensive industrial zones. In terms of the electricity business, including the distribution of natural gas through pipelines, WHAUP operates as an investment partner and is not subject to the operational control of WHAUP. Therefore, it can be said that WHAUP's activities may not have significant issues in terms of air pollution that would directly impact the environment and stakeholders.

However, in order to comply with the Environmental Quality, Energy Conservation, and Biodiversity Policies, WHAUP monitors air pollution through measurement reports. Parameters such as Total Suspended Particles (TSP), Nitrogen Oxides (NOx), and Sulfur Dioxide (SO₂) are measured by WHA Group to assess the emission levels from their activities in compliance with the law. Air quality is monitored for Total Suspended Particles (TSP), Particulate Matter not exceeding 10 micrometers (PM₁₀), Particulate Matter not exceeding 2.5 micrometers (PM_{2.5}), Nitrogen Oxides (NOx), and Sulfur Dioxide (SO₂) within a radius of 5 kilometers around the industrial estate and neighboring communities at least twice a year. If the measurement results do not meet the targets, WHAUP collaborates with WHA Group to consider appropriate remedial actions.

Furthermore, as of 2022, the overall air quality indicators in the ambient air are within the established standards.

Although WHAUP's business activities do not significantly contribute to air pollution, WHAUP continues to prioritize and actively participate in reducing air pollution. WHAUP has implemented technology to collect data on electricity distribution from solar energy. Previously, employees had to travel and record data related to each customer's business operations. This technological implementation not only reduces air pollution but also improves work efficiency and reduces the risk of accidents.

Furthermore, WHAUP focuses on using renewable energy sources that do not continuously contribute to air pollution. This includes utilizing renewable energy sources such as solar power. The company has also implemented projects to promote efficient energy usage by employing clean and energy-saving technologies. For example, using LED lighting, implementing motor control systems to optimize the operation of electrical equipment, and replacing electrical devices with more suitable options for energy usage. Additionally, WHAUP manages energy consumption to reduce and optimize it appropriately. These initiatives were carried out in 2022 and resulted in a reduction of approximately 526,476 kWh per year, which is equivalent to reducing carbon dioxide emissions by approximately 263,186 kgCO₂e.



TRANSFORMATION BETWEEN THE PAST AND THE FUTURE

WHAUP has actively sought suitable technologies to help reduce air pollution problems, focusing on using energy from renewable sources and utilizing communication technologies to monitor the situation and establish more efficient solutions. These initiatives have resulted in improved control and a reduction in activities that contribute to air pollution.

AIR POLLUTION MANAGEMENT PROJECT

In 2022, WHAUP, in collaboration with WHA Group, initiated new projects and continued implementing various projects from previous years with the goal of reducing air pollution emissions. These projects included studying and developing innovative technologies for use in solar energy businesses, such as Peer-to-Peer (P2P) energy trading within the industrial estate of WHAUP, and Smart Microgrid systems. The Peer-to-Peer energy trading project was developed in partnership with leading energy

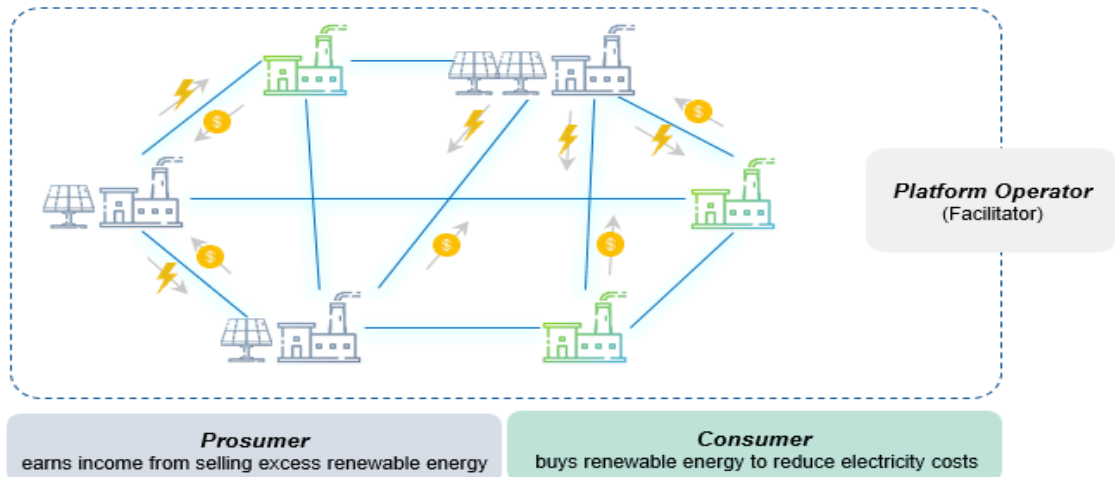
and technology allies, utilizing blockchain technology. This project is also part of the ERC Sandbox project under the Energy Regulatory Commission, currently undergoing testing in preparation for commercial trading and awaiting approval from regulatory authorities. Once completed, this project is expected to contribute to an additional 100-200 megawatts of renewable energy portfolio for WHAUP, leading to a significant reduction in overall air pollution emissions.



TRIPARTITE MEETINGS TO MONITOR AND INSPECT THE AIR QUALITY OF FACTORIES WITHIN INDUSTRIAL ESTATES

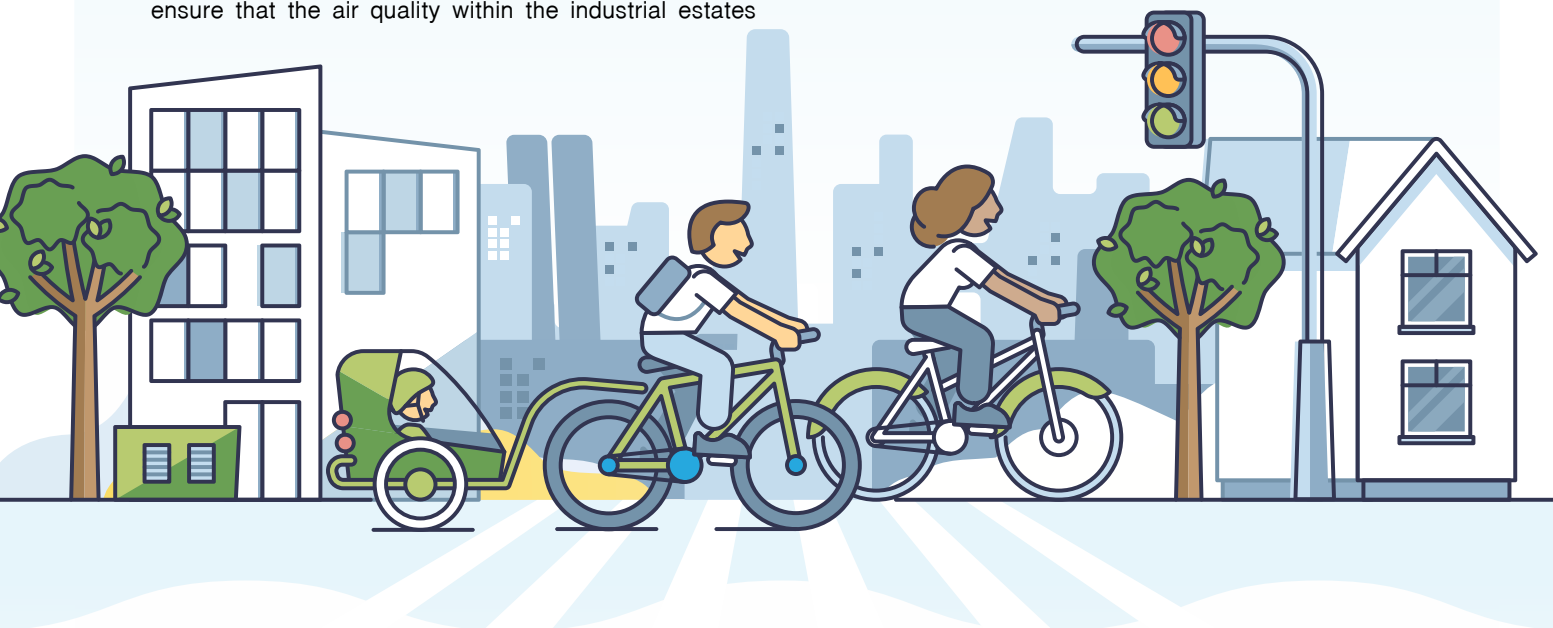


Platform Participants :



WHAUP participates in the Tripartite Committee meetings, which comprise representatives from WHAUP, government representatives, and relevant government agencies. The three parties work together to ensure that WHAUP's business operations do not have negative impacts on the community, society, or the environment. We also aim to promote and improve the quality of life in the surrounding communities and the overall environmental conditions. Air quality is one of the key topics discussed in these meetings, where continuous monitoring is conducted to ensure that the air quality within the industrial estates

complies with standards and agreed-upon regulations. Furthermore, these meetings serve as a platform to listen, discuss, and address complaints or concerns raised by different stakeholder groups regarding environmental issues, including air quality. The information gathered from these discussions is used for further improvement and development. The outcomes of these meetings are documented in the Environmental Impact Assessment (EIA) reports, which are presented to the Natural Resources and Environmental Policy and Planning.



PERFORMANCE AGAINST TARGETS

- WHAUP controls and manages the air pollution emissions of industrial factories located within the industrial estate in accordance with the air emission standards set by the Ministry of Industry and the Industrial Estate Authority of Thailand.
- WHAUP controls and monitors air pollution emissions to comply with the allocated emission rates specified in the Environmental Impact Assessment (EIA) reports of each industrial estate.
- WHAUP maintains air pollution levels below 20% of the specified emission intensity per unit area.

PERFORMANCE AGAINST TARGETS

TARGET

Ensure the proper management and control of air pollution emissions from industrial factories located within the industrial estate of WHA Industrial Group in accordance with the air emission standards set by the Ministry of Industry of Thailand

TARGET

Ensure the proper monitoring and control of air pollution to comply with the specified emission standards as stated in the environmental impact assessment (EIA) reports of each industrial estate. This is part of the measures taken to prevent and mitigate environmental impacts

TARGET

Control and maintain air pollution levels below 20 percent of the specified emission intensity per unit of designated area



Additional air quality performance can be found in the performance data at the end of this report.





CLIMATE STRATEGY

GLOBAL TRENDS AND IMPACT

The phenomenon of global temperature rises and sea level increase, coupled with the increasing volatility of weather patterns, has significant impacts on the economy, society, and human livelihood. Therefore, the issue of climate change has garnered global attention over the past few years and is considered highly important. As a result, all relevant sectors must prepare to cope with the multifaceted impacts that may arise. In November 2022, representatives from various countries participated in the 27th Conference of the Parties (COP27) to accelerate efforts towards achieving the goal of controlling global temperature increase to no more than 1.5 degrees Celsius above pre-industrial levels (1850 AD), as agreed upon in the Paris Agreement and the United Nations Framework Convention on Climate Change (UNFCCC). Thailand has committed to reducing greenhouse gas emissions by 40% by 2030.

As WHAUP's business operations are directly related to the use of natural resources and rely on natural factors (e.g., rainwater for water sourcing and production, and

solar energy for renewable energy services), the impacts of climate change, such as floods, droughts, or storms, may affect WHAUP's services and disrupt its business operations and customers. Therefore, WHAUP adheres to sustainable business practices in all dimensions, including environmental, social, and governance (ESG), and places great importance on addressing climate change to prevent violations of rights towards individuals, legal entities, or stakeholders in various sectors, including business operations, livelihoods of the population, and equal access to resources.

However, on the other hand, WHAUP sees the issue of climate change as an opportunity for business expansion, as it can provide services and products that address the needs and demands of customers to solve problems and reducing the impacts of climate change. WHAUP and WHA Group have initiated various projects, such as renewable energy services, particularly solar energy services on rooftops and have embraced new technologies and innovations, including peer-to-peer (P2P) electricity trading systems and smart microgrid networks.



WHAUP closely monitors the COP27 conference and plans its operational framework to meet international standards. It also aligns with government policies to reduce the impacts of climate change and greenhouse gas emissions, supporting the government’s declared targets set at the COP27 conference. Therefore, WHAUP has established an Environmental Quality, Energy Conservation and Biodiversity Policy that in line with the environmental policy of WHA Group. We also promote the adoption of new innovations for development and business operations. WHAUP focuses on promoting and utilizing green energy, such as solar energy, and other kinds of circular energy, to reduce greenhouse gas emissions from its related activities. Additionally, WHAUP aims to minimize its impact on biodiversity.

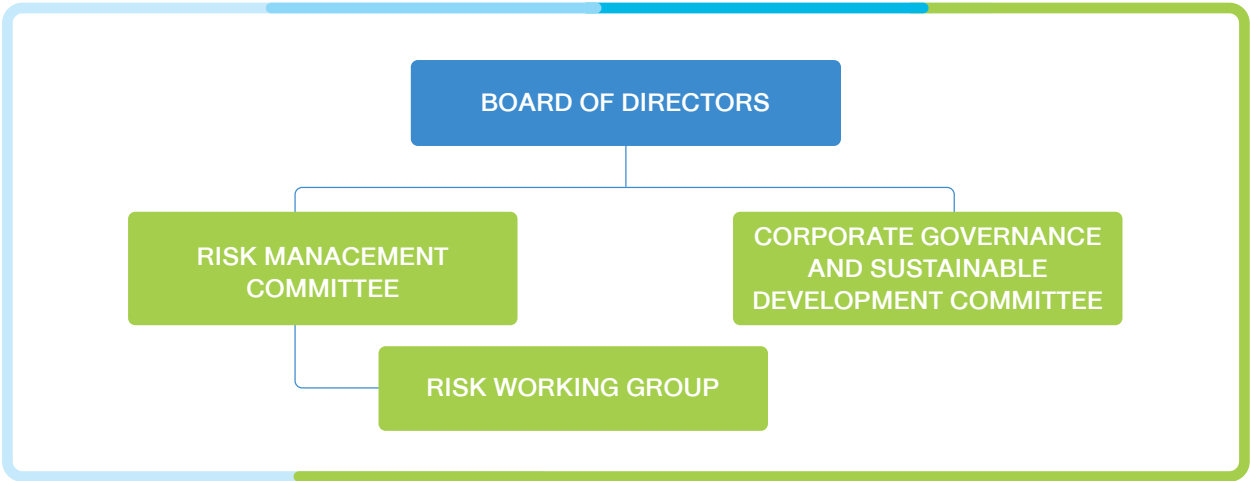
WHAUP acknowledges the urgency of the challenges posed by climate change and has collaborated with WHA Group to accelerate our efforts in line with relevant action plans. The organization has adopted the Task Force on Climate-Related Financial Disclosure (TCFD) framework to manage risks associated with climate change. It integrates risk into strategies, analyzes and assesses risks, establishes risk management rankings, and monitors outcomes. WHAUP conducts analysis on financial risks, impacts, and opportunities arising from climate change, following the TCFD guidelines, as disclosed in this sustainability report. The organization annually reviews and updates

the data to ensure transparency and meet stakeholders’ expectations. Furthermore, these efforts demonstrate that WHAUP’s initiatives in addressing climate change have been effective and continuously improved.

GOVERNANCE

As part of WHA Group, WHAUP has conducted its business by adhering closely to the environmental strategies of WHA Group. The Board of Directors has established a working group for managing risks and opportunities related to climate change, specifically. This working group consists of WHAUP’s executive management, who engage in discussions and evaluate risks from both external and internal factors. These factors include strategic risks, operational risks, financial risks, compliance risks, as well as emerging risks such as climate change and Digitalization & Business Model Disruption.

The risk management working group actively monitors risk factors with the support of relevant departments and provides reports to the Risk Management and Assessment Committee. The aim is to report the outcomes to the Board of Directors at least four times a year, ensuring close monitoring of results. Additionally, WHAUP ensures that risks are maintained within acceptable levels of risk appetite and contribute to achieving WHAUP’s set objectives.



CLIMATE CHANGE GOVERNANCE AND RESPONSIBILITIES

Role	Responsibilities
Board of Directors (BOD)	The BOD provides visions, missions, directions, and operational strategies with an efficient performance monitoring as well as evaluation system in place, which is independent from the management, to review the operation of Executives.
The Corporate Governance and Sustainable Development Committee	The Corporate Governance Committee is responsible for developing strategies associated with climate change, which is a part of WHAUP's agenda on planning and performance related to sustainable development.
Chief Executive Officer (Group CEO)	The CEO is responsible to manage the Company according to the established and agreed policies, plans and budget under the authority granted by the Board of Directors. In regard to Climate Change, CEO has the responsibility of strategic movement to manage climate related risk and opportunities, and ensure sufficient resources are allocated for mitigating climate related risk.
Risk Management Working Team, Sustainable Development Working Team, in collaborations with divisions and business units	The RMC and business units working team are tasked to define comprehensive key risk management policies and practices, which include climate-related risks. They assess and review risks, taking into account both internal and external factors which may affect the achievement of the Company's goals in order to ensure that appropriate measures that in line with the business are taken place to tackle climate change.

In addition to that, WHAUP has implemented environmental quality, energy conservation, and biodiversity management policies to demonstrate its commitment to addressing climate change issues. These policies serve as a motivating factor for employees at all levels, including executives and staff, as well as related stakeholders to raise awareness about the organization's objectives related to climate change within the company.

STRATEGY AND RISK MANAGEMENT PROCESS

WHAUP strongly believes that without effective management of risks arising from climate change, its business operations may face severe impacts from volatile weather conditions such as droughts and floods. Therefore, WHAUP emphasizes the importance of considering the impacts of climate change from the planning stage of project development and providing utility systems to ensure appropriate management of significant impacts caused by climate change. Additionally, various preventive measures have been implemented throughout the project operations, along with continuous risk assessment processes, to mitigate potential impacts on the industrial estate of WHA Group.

Furthermore, WHAUP is acutely aware of the risks associated with climate change and its influence on the provision of utilities and power services, which directly affects our clients' businesses. In situations where risk management is not standardized, it could result in business interruptions or asset damage. Therefore, a climate change related risk assessment was conducted as part of the Enterprise Risk Management of WHAUP. The objectives of conducting such risk assessment are to:

- Identify significant risks based on hazards, vulnerability, and exposure.
- Understand the impacts of climate change on business operation.
- Evaluate the effectiveness of existing mitigation measures, and
- Address future challenges imposed by climate change.

Climate change can have financial implications for WHAUP, such as resource scarcity, volatility in raw material prices, and changes in laws and regulations related to business operations. WHAUP is aware of these risks and has incorporated climate change issues into its organizational risk management to prevent, mitigate, and minimize the impacts of various risks that may arise. WHAUP recognizes the interconnectedness of the value chain, from the upstream activities to the downstream operations, regarding climate change issues. As part of its risk management approach, WHAUP has established a timeframe for risks associated with physical changes (Physical Risk) and risks associated with transitions (Transition Risk). These timeframes are categorized as short-term (1-3 years), medium-term (3-10 years), and long-term (10 years and beyond). Moreover, WHAUP has developed plans to address these risks, including adaptation plans for physical risks and strategies for managing regulatory risks related to the environment.

SCENARIO ANALYSIS

WHAUP has conducted an analysis of the climate change situation for the company, which encompasses two scenarios based on the Representative Concentration Pathways (RCP) framework developed by the Intergovernmental Panel on Climate Change (IPCC). These scenarios provide a simulated projection of greenhouse gas emissions.

RCP 8.5 Business as Usual (4 Celsius)

Physical changes, transition risks, and the impacts of climate change, as well as the financial opportunities for businesses in normal circumstances, are considered. The policy for improving air quality is not highly stringent, and greenhouse gas emissions remain high. This may result in increased temperatures, water scarcity, and more frequent and severe weather changes.

RCP 1.9 LOW FUTURE CARBON (1.5 CELSIUS)

With rapid changes occurring in an economy shifting towards low-carbon energy consumption, there is a development of technologies and policy changes aimed at limiting the global temperature increase to no more than 1.5 degrees Celsius.

RISK MANAGEMENT PROCESS



Risk Identification

- Identification of internal and external risk, along with business impacts.
- Categorization of identified risks under four categories: Strategic, Financial, Operation and Compliance.



Risk Assessment

- Calculation of risk levels following standardized assessment criteria.
- Prioritization of risks based on risk profile and appetite.



Risk Response and Mitigation Measures

- Determine actions to respond, mitigate potential impacts and ultimately reduce high level risks to acceptable levels.



Risk Reporting, Monitoring, and Communication

- Communication of risks to all executive and employees to build a strong risk management culture.
- Risk Working Group reports risk management action plans, results and progress to RMC on a Quarterly basis.
- Optimize internal communication channels to disseminate relevant risk information.

THE PHYSICAL RISKS AND TRANSITION RISKS ASSOCIATED WITH CLIMATE CHANGE

WHAUP has identified financial risks associated with climate change and has conducted scenario analysis in collaboration with WHA Group. The analysis covers two key aspects related to climate change, including physical risks and risks arising from environmental policies, resulting from climate change and the subsequent impacts. It also considers financial opportunities in a business-as-usual scenario (4 degrees Celsius temperature increase) and in a low-carbon economy transition (1.5 degrees Celsius temperature increase) (as shown in the table below). The analysis takes into account potential requirements of Thailand that may be enforced, such as achieving carbon neutrality by 2050 and net zero greenhouse gas emissions by 2065.

Type of Physical Risk	Financial Impact	
	Business as Usual + 4 °C	Low future carbon + 1.5 °C
<p>Acute Risk: The increasing volatility and severity of weather patterns, including the occurrence of natural disasters, pose significant risks to WHAUP's operational areas.</p>	<ul style="list-style-type: none"> The expenses for flood prevention and maintenance may increase due to higher levels of flooding and soil erosion. The demand for water in industrial estates may decrease, resulting in a reduction in WHAUP's revenue. <p>Impact: Medium Period: Short to Medium (1-5 years)</p>	<ul style="list-style-type: none"> The impact of floods would be less severe compared to the scenario where the temperature increases by 4 degrees Celsius, and the likelihood of experiencing flooding would be lower. It is anticipated that the impact would result in a slight increase in expenses for prevention and maintenance. <p>Impact: Low Period: Medium to Long (More than 5 years)</p>
<p>Acute Risk: The increasingly severe and frequent fluctuations in weather conditions, including droughts, pose a risk to the operational areas of WHAUP.</p>	<ul style="list-style-type: none"> The increased costs from expenses related to acquiring water resources (such as constructing reservoirs and water storage facilities) will have a financial impact on WHAUP. There is a need to increase research and development investment in new products and services to address drought-related challenges. Insufficient water supply to meet the demand of industrial park customers will affect profitability and the reliability of WHAUP. <p>Impact: Medium Period: Short to Medium (1-5 years)</p>	<ul style="list-style-type: none"> The impact of drought will be less severe compared to the scenario where the temperature increases by 4 degrees Celsius, and the likelihood of drought occurrence will be lower. However, it is anticipated that there will still be an impact in terms of expenses for developing new products and services. <p>Impact: Low Period: Medium to Long (More than 5 years)</p>
<p>Acute Risk: Increasingly severe and unpredictable weather conditions, including storms, thunderstorms, and lightning. (Considering the level of impact on water and energy systems)</p>	<ul style="list-style-type: none"> Thunderstorms and lightning may cause damage to WHAUP's assets, which can affect overall operations, such as increased repair and maintenance costs and higher insurance premiums. WHAUP's revenue may decrease as a result of temporary business interruptions. There will be a direct impact on WHAUP's assets and infrastructure. <p>Impact: Medium Impact to energy system: High Period: Short to Medium (1-5 years)</p>	<ul style="list-style-type: none"> The impact of thunderstorms will be less severe compared to the case of a temperature increase of 4 degrees Celsius, and there will be a lower likelihood of lightning occurrences. It is anticipated that there will be a slight increase in expenses for repair and maintenance and a slight decrease in profitability. <p>Impact: Low Impact to energy system: Low Period: Medium to Long (More than 5 years)</p>

Type of Physical Risk	Financial impact	
	Business as Usual + 4 °C	Low future carbon + 1.5 °C
Chronic Risk: Increasing mean temperature (Considering the level of impact on water and energy systems)	<ul style="list-style-type: none"> The increase in average temperature will impact the operation of systems and machinery, requiring additional resources and increasing the cost of doing business. There will be increased expenses for upgrading and reinforcing infrastructure and equipment to withstand high temperatures. It will directly affect the assets and infrastructure of WHAUP. <p>Impact: Low Impact to energy system: High Period: Short to Medium (1-5 years)</p>	<ul style="list-style-type: none"> The impact of the average temperature in this case will be less severe compared to a scenario where the temperature increases by 4 degrees Celsius, and the likelihood of various natural disasters occurring will be lower. However, it is anticipated that there will still be significant impacts on the expenses involved in conducting business, which are expected to increase. <p>Impact: Low Impact to energy system: Low Period: Medium to Long (More than 5 years)</p>

Type of Transition Risk	Financial impact	
	Business as Usual + 4 °C	Low future carbon + 1.5 °C
Policy & Legal: Changes in laws and regulations related to greenhouse gas reduction.	<ul style="list-style-type: none"> It is predicted that by 2025, the Thai government will still not have implemented greenhouse gas control laws. However, it is anticipated that changes in policies and regulations will only have a low impact on WHAUP's business operations, as the current operations are able to manage risks effectively. <p>Impact: Low Period: Short to Medium (More than 5 years)</p>	<ul style="list-style-type: none"> The private sector may need to reduce carbon dioxide or greenhouse gas emissions through Cap & Trade programs and carbon tax policies. However, these laws and regulations could have long-term impacts on WHAUP's business strategies and objectives, as well as operational costs. <p>Impact: Low Period: Medium to Long (More than 5 years)</p>
Technology: Rapid development of technology to reduce greenhouse gas emissions.	<ul style="list-style-type: none"> The company has considered that the impacts are low, as it already possesses technologies related to renewable energy. These technologies enable the company to efficiently and timely meet the demands of its customers. <p>Impact: Low Period: Medium to Long (More than 5 years)</p>	<ul style="list-style-type: none"> It is expected that there will be no impact on business operations, as the technology for generating electricity from renewable energy sources, such as solar energy, has been continuously developed to meet the increasing demand. <p>Impact: Low Period: Medium to Long (More than 5 years)</p>

Type of Opportunity	Financial impact	
	Business as Usual + 4 °C	Low future carbon + 1.5 °C
Market: Changing customer behavior in energy production with low-emission technologies.	<ul style="list-style-type: none"> WHAUP anticipates that changing customer behaviors will create more business opportunities, leading to increased revenue for the company. 	<ul style="list-style-type: none"> WHAUP anticipates that changing customer behaviors will create more business opportunities, leading to increased revenue for the company.
	Impact: Low Period: Medium to Long (More than 5 years)	Impact: Low Period: Medium to Long (More than 5 years)
Technology: Technologies and innovations in solar energy production and storage.	<ul style="list-style-type: none"> WHAUP expects that advancements in technology and innovation in solar energy production and storage will create more business opportunities, leading to increased revenue for the company. 	<ul style="list-style-type: none"> WHAUP expects that advancements in technology and innovation in solar energy production and storage will create more business opportunities, leading to increased revenue for the company.
	Impact: Low Period: Medium to Long (More than 5 years)	Impact: Low Period: Medium to Long (More than 5 years)

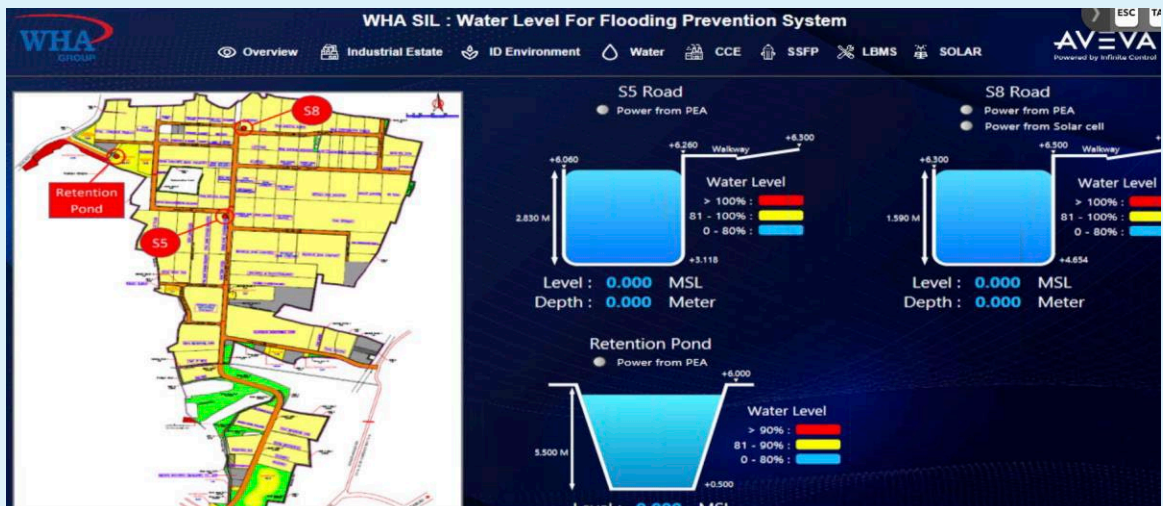
WHAUP's business strategy and operational approach encompass addressing the risks and opportunities arising from climate change. This allows the company to maintain a flexible and resilient business model that drives continuous organizational development. Through risk assessments related to climate change, WHAUP has implemented plans to adapt to potential future risks. These initiatives align with the climate change strategy of WHA Group and are aimed at ensuring the organization's ability to respond to changing weather conditions.

PHYSICAL CLIMATE RISK PROJECT AND ADAPTATION PLAN

MANAGING FLOOD RISK

- Designing and constructing flood prevention systems that are appropriate for the rainfall and water conditions in each project area, including the installation and monitoring of water levels in water storage reservoirs and rainwater retention ponds for every industrial estate project. Additionally, WHAUP excavates pits to accommodate continuous water drainage in the event of regular flooding. However, it is essential that the design of the drainage system does not impact the natural water systems and surrounding communities by avoiding the construction of barriers to natural watercourses.

- Continuously installation and monitoring of rainfall depth measurements devices in every industrial estate.
- Inspect and maintain water barriers and water pumps as required to ensure they are in proper working condition at all times.
- Install water level monitoring and alert systems in the drainage channels of the WHA SIL industrial estate in order to provide timely notifications and enable proactive planning and problem prevention in case of flooding.
- Install water level monitoring devices in water reservoirs and canals within the WHA ESIE 2 to monitor water levels and effectively manage rainwater drainage in the industrial zone.
- Install water level monitoring and alert systems, including SCADA systems, to control the operation of water pumps and closely monitor water levels. Additionally, allocate raw water quantities in the raw water reservoir and water retention ponds within ESIE, WHAESIE 1, and WHARIL, WHA CIE 1, and WHA ESIE 2
- Establish emergency response plans and procedures, including conducting drills to prepare for and respond to volatile weather conditions.



MANAGE DROUGHT RISK

- Implement the Natural Water SCADA project to efficiently manage the utilization of water from natural sources. This includes installing water level monitoring devices in water storage reservoirs and an automated control system for water pumping equipment to closely monitor water levels. Additionally, allocate the raw water quantity in raw water storage tanks and water retention ponds in ESIE, WHA ESIE 1, and WHA RIL, WHA CIE 1, and WHA ESIE 2 industrial zones.
- Consider local government or private sector water sources that have the potential to increase the raw water supply for industrial customer services (Alternative Raw Water Resources). Study and develop desalination technologies to convert seawater into fresh water (Desalination Technologies).
- Monitor and assess the usage of water from natural sources and provide reports to relevant parties at least once a month to keep them informed.
- Repairing and maintaining the surrounding soil around the water barriers in the water distribution system to prevent erosion and instability.
- Constructed additional ponds and reservoirs to ensure an adequate water supply in the WHA SIL industrial zone. A new reservoir will be built in the WHA SIL area, increasing the water capacity from 416,671 cubic meters to 800,271 cubic meters.
- Upgrading the groundwater reservoir at WHA RIL industrial zone to increase the water supply efficiency within the area by a daily increment of 1,121 cubic meters, which accounts for 10% of the water demand.
- WHAUP implements a water reclamation system, which helps reduce reliance on natural water sources. This system enables the reuse of wastewater and reduces the volume of discharged water into public water sources. The project not only reduces the cost of sourcing raw water but also avoids potential conflicts arising from shared resources with the local community. As a result, the project has been considered for license renewal to continue its sustainable business operations.
- Assessing the changes in the environment and the surrounding areas of each project on a regular basis.



Reclamation plant at ESIE



WHA SIL

MANAGING STORMS AND LIGHTING RISK

- Select construction materials that meet high standards for utility and power systems to ensure durability and resilience to withstand severe weather conditions.
- Studying and developing innovative materials and equipment used in the construction of solar power generation projects to reduce temperatures, prevent overheating, and protect against lightning strikes.
- Monitor closely the weather conditions and changes through various news channels
- Regularly assess the environmental changes and the surrounding areas of each project.

MANAGING RISKS FROM INCREASE IN AIR TEMPERATURE

- Choose innovative materials for constructing utility and power system that can help reduce internal temperatures and enhance the efficiency of the overall structure, including air ventilation.
- Develop a long-term disaster management and risk mitigation plan.
- Upgrade the utility and power system to accommodate events that may arise from climate change.
- Enhance awareness and capabilities to effectively manage the entire value chain.

TRANSITION CLIMATE RISK ADAPTATION PLAN

MANAGING POLICY & LEGAL RISK

- Track relevant legal changes and establish guidelines for effective mitigation actions.
- Plan to increase energy production from renewable energy to reduce greenhouse gas emissions and environmental impact as well as control greenhouse gas emissions.

MANAGING TECHNOLOGY RISK

- Expand to alternative energy services for customers. With the readiness from the design process of the building that can install solar panels on the roof immediately.
- Study various technologies in the reabsorption and storage of carbon dioxide to reduce the impact of climate change in the future.

MANAGING MARKET RISKS

- Continue to adopt cutting-edge technologies in generating alternative energy to complement the concept of SMART ECO Industrial Estates, which supports and ensure smoothness of the production of factories, logistics and other businesses processes.
- Design and construct buildings that are environmentally friendly and adhere to international standards.
- Provide alternative energy services, especially solar energy, fully integrated in WHA Group warehouse building that can enable customers to reduce energy costs including reducing the environmental impact of customers as well.

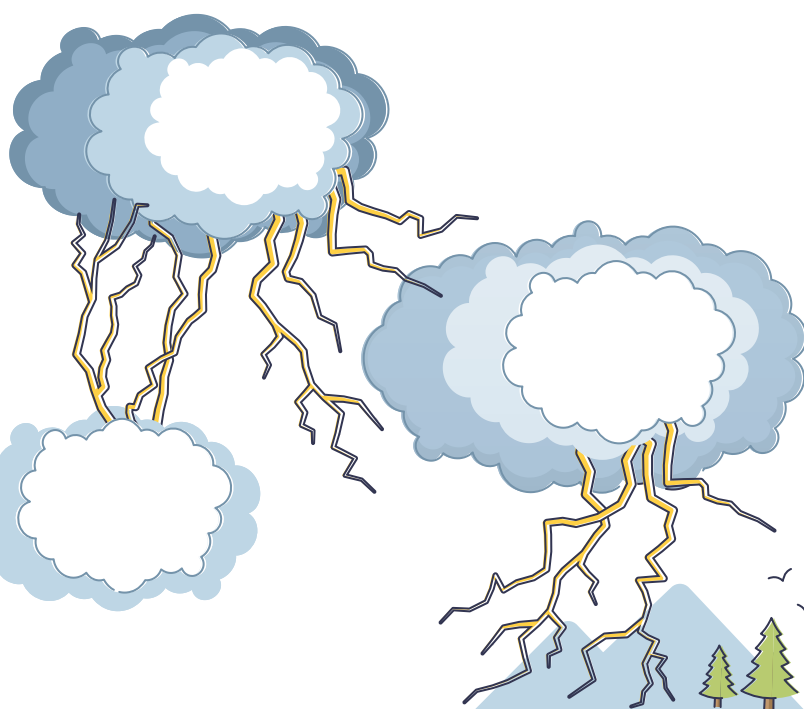


MANAGING REPUTATION RISK

- Planning and implementing strategy towards becoming Net Zero while also supports customer and partners in utilizing and transitioning to renewable energy.
- WHAUP hopes to work together with its customers and partners to reduce climate change challenges throughout its business value chain.

STRATEGIES AND BUSINESS OPPORTUNITIES IN RESPOND TO CLIMATE CHANGE

WHAUP recognizes that climate change presents an opportunity for sustainable investment. For instance, reducing water consumption in industrial areas, implementing renewable energy projects, and installing solar panels are among the strategies WHAUP focuses on. In 2022, clean energy generated from solar panels installed on the roofs of industrial water treatment plants in WHA ESIE 2 and ESIE resulted in a reduction of approximately 1,249,074 kilowatt-hours of electricity produced from commercial fuel sources. This contributed to a decrease of 624 tCO₂e in Scope 2 greenhouse gas emissions. Furthermore, solar energy systems installed in parking areas at ESIE Plaza 1, ESIE Plaza 2, and WHA ESIE 4 in ESIE allowed for a substitution of approximately 362,761 kilowatt-hours of electricity from the normal power supply system, leading to a reduction of over 181 tCO₂e in emissions. In addition to these



initiatives, WHAUP implements energy-saving measures and infrastructure systems in industrial estates, promotes energy conservation awareness, and implements energy-efficient practices such as LED lighting, motor control systems, and appropriate selection and management of electrical equipment. These efforts have resulted in a reduction of approximately 526,476 kilowatt-hours of electricity consumption per year, equivalent to a reduction of approximately 263 tCO₂e in greenhouse gas emissions.

These projects not only help mitigate the risks associated with climate change but also reduce operational costs for WHAUP and enhance business resilience in the infrastructure sector. This has a positive impact on all

business units within WHA Group, making operations more sustainable.

Furthermore, WHAUP is dedicated to addressing the challenges of climate change by promoting the adoption of renewable energy among its customers. They offer solar rooftop installation services and act as an investor in solar rooftop systems installed on their customers' roofs. WHAUP also serves as an electricity supplier through long-term Power Purchase Agreements (PPAs). Through these investments, WHAUP has generated approximately 332 million baht in revenue from its solar energy business per year.



CLIMATE ADAPTATION

WHAUP has developed risk management processes to address the risks associated with climate change, which could potentially disrupt WHAUP's operations and impact other stakeholders in the value chain, such as customers within industrial estates and surrounding communities. Comprehensive risk assessments and mitigation measures have been implemented to effectively manage these risks. WHAUP remains prepared and adaptable to always

changing climate conditions. The CEO of WHAUP sets the environmental policy and oversees environmental initiatives within the organization. Key Performance Indicators (KPIs) related to environmental performance are considered in evaluating the performance of executives, with proportions varying based on their positions and responsibilities.

In 2022, WHAUP set the following targets regarding climate change:

- **GHG EMISSION REDUCTION TARGETS (E.G., SCOPE 1, SCOPE 2, SCOPE 3)**

WHAUP has set a long-term target to sign agreements for the purchase and provision of renewable energy systems, including solar power, totaling 300 megawatts by 2023. This initiative is aimed at reducing greenhouse gas emissions, specifically Scope 2 emissions, which equivalent to 171,000 metric tons of carbon dioxide equivalent annually.

Target Year
2023

Offset from Grid Electricity Consumption
(tCO₂e) per year

171,000

OTHER CLIMATE-RELATED TARGETS

- **WATER MANAGEMENT TARGETS**

WHAUP targets to double its reclaimed industrial water for industrial use from 30,200 cubic meter/day to 60,400 cubic meter/day by 2025.



Target Year
2020

Reclaimed Industrial
Water for Industrial Uses
(cubic meter/day)

30,200



Target Year
2025

Reclaimed Industrial
Water for Industrial Uses
(cubic meter/day)

60,400



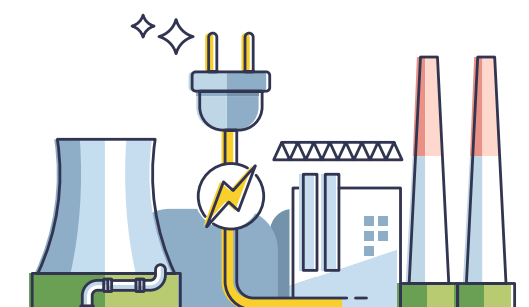
Target Year
2028

Reclaimed Industrial
Water for Industrial Uses
(cubic meter/day)

83,000

- **ENERGY TARGET**

WHAUP targets to reduce grid electricity consumption within its own operation by 3% within 2023 against 2019 baseline.





- **WASTE MANAGEMENT TARGET**

WHAUP targets to optimize proportion of waste to landfill or incineration without energy recovery by 2025.

CLIMATE-RELATED MANAGEMENT INCENTIVES

WHAUP is committed to conducting business while fostering sustainable growth together with all stakeholders, emphasizing the importance of environmental, social, and governance aspects. One of the key issues that WHAUP is determined to address as part of its management is greenhouse gas emissions and tackling the problem of global warming. This involves reducing negative impacts and mitigating greenhouse gas emissions, as well as promoting essential infrastructure development, such as promoting renewable energy utilization and utilizing existing technologies. Additionally, the company focuses on studying innovations and technologies that provide sustainable solutions to the issue of global warming, aligning with the global direction in addressing climate change. WHAUP has already achieved carbon neutrality by 2022. However, the company continues its commitment to reducing environmental impacts and being part of the solution to climate change, aiming to reach net zero emissions by 2050. The company has established operational strategies to reduce greenhouse gas emissions through various business activities. This includes maximizing the use of renewable energy sources to minimize greenhouse gas emissions and setting targets of obtaining contract and distribution of electricity generated from renewable energy sources by 300 megawatts by 2023. Moreover, WHAUP is determined to reduce dependence on natural resources and promote their circular use to maximize benefits. This includes the sale of reclaimed water, which directly reduces the use of water from natural sources, after undergoing wastewater treatment processes. The company has set a goal to double the production capacity of reclaimed water from 30,200 cubic meters per day in 2020 to 60,400 cubic meters per day by 2025.

In addition, key performance indicators (KPIs) have been established to create motivation in managing climate change. For example, setting the rate of increasing electricity production from renewable energy sources as a KPI for WHAUP, representing 14% of the KPI for the entire business group. Furthermore, the financial performance of the business group also considers the results of climate change management as part of its KPIs. These KPIs serve as important metrics for evaluating the performance of the management team, with different proportions assigned to each position based on their roles and responsibilities.

For performance measurement criteria, WHAUP and WHA Group emphasize the importance of monitoring the release of various gases, including greenhouse gases (GHGs), by measuring Scope 1, Scope 2, and Scope 3 emissions that have an impact on the atmosphere. The aim is to control the emission rates of these gases to ensure compliance with relevant legal standards. Specific reports are provided on the release of ozone-depleting substances (ODS), such as chlorofluorocarbon CFC-11 or its equivalent, in 2022. WHAUP has also established channels for receiving complaints and feedback from stakeholders, including customers and the surrounding community, in order to listen to their opinions and suggestions for future development and improvement. In this regard, WHAUP has implemented a complaint management process in line with the ISO 14001:2015 standard, which involves investigating the root causes, implementing corrective actions, and mitigating recurring impacts. Appropriate preventive measures are also established to prevent the recurrence of similar issues.



ENERGY MANAGEMENT



WHAUP is well aware that energy usage in operations is a significant factor in climate change impacts. Therefore, WHAUP is committed to conducting its business with global quality standards and in harmony with environmental conservation. This is achieved through energy conservation efforts, with WHAUP playing a crucial role in setting energy conservation policies approved by management. WHAUP and WHA Group have established an Environmental Committee to plan and develop operational strategies, set environmental and energy conservation targets, and implement various activities and projects that demonstrate the importance of energy conservation within WHAUP. These policies cover employee practices and the management of construction projects or utility systems in compliance with the Building Control Act B.E. 2540 (1997) and the Environmental Conservation Promotion and Enhancement Act (No. 2) B.E. 2550 (2007). They aim to respond to the global objective of achieving net zero greenhouse gas emissions and a low-carbon society, taking into account factors such as market mechanisms,

government plans and regulations, business opportunities, and societal goals. All of these factors drive the transition to a green economy and facilitate the adoption of innovative technologies and solutions to reduce carbon emissions and enhance operational efficiency within WHAUP. As “The Ultimate Solution for Sustainable Growth,” WHAUP offers services to customers who seek to compensate for their carbon footprint through a diverse range of renewable energy solutions. By utilizing renewable energy, customers can efficiently manage their energy, reduce reliance on the electricity grid, and minimize environmental impact. WHAUP provides comprehensive solar energy services to customers, including design, permitting, long-term operation, and maintenance, without any upfront costs.

Even though WHAUP, as a provider of utility and power system in industrial estates, does not have the authority to control industrial operators in industrial estates or warehouse tenants to reduce energy consumption, WHAUP is committed to supporting its customer base



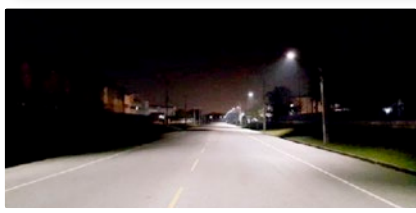
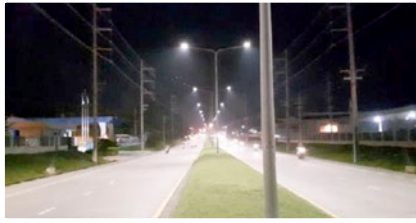
in transitioning to renewable energy. This is achieved through the offering of solutions and renewable energy services, such as providing solar energy systems on rooftops through the operations of WHAUP. The intention of WHAUP's commitment can be demonstrated by its goal to increase the production capacity of renewable electricity by an additional 300 MW by 2023. Additionally, WHAUP has set targets to reduce electricity consumption from non-renewable sources in its own operations through various activities. As WHAUP continues to expand its business, it considers the proportion of electricity consumption from non-renewable sources in relation to revenue and profit sharing. In 2022, WHAUP was able to reduce electricity consumption from its sources, resulting in a decrease in revenue and profit sharing from 3,031 kilowatt-hours per million baht in 2021 to 2,314 kilowatt-hours per million baht in 2022. This represents a reduction of 24 percent.

To further increase WHAUP's renewable energy generation capability, the company has developed a pilot project to install solar rooftop panels coupled with battery energy storage system (BESS) at the water plant in Eastern Seaboard Industrial Estate (ESIE). The system's solar installed capacity is 813.2 kW with BESS capacity of 550 kWh. This project will help WHAUP reduce around 1,150 MWh of electricity off-take from the grid each year, which is equivalent to saving on electricity expenses of around 4 million Baht per year. In parallel, WHAUP will be able to reduce greenhouse gas (GHG) scope 2 emissions by 15,000 tCO₂e due to grid electricity substitution throughout the project's lifetime.



ENERGY SAVING IN INDUSTRIAL COMPLEX

Using LED light bulbs instead of the conventional type



Using flashing light signals from sunlight for traffic system



WHAUP has implemented energy-saving and utility systems within industrial estates, warehouse leasing projects, and built WHA Tower, aiming to promote energy conservation awareness and efficient energy utilization. These projects include the use of LED lighting, the implementation of motor control systems to optimize the operation of electrical devices, the adaptation of

electrical equipment to match usage requirements, and the management of energy consumption to reduce and optimize usage. As a result, WHAUP has been able to reduce electricity consumption by approximately 526,476 kilowatt-hours per year, which is equivalent to reducing greenhouse gas emissions by approximately 263,186 tCO₂ e.

ENERGY SAVING IN OFFICE BUILDINGS

WHAUP has also collaborated with other businesses within WHA Group to fully support energy conservation efforts. The “Let’s Save the World Together” project has been initiated with the objective of inspiring employees to change their energy consumption behaviors and contribute to energy savings. This includes optimizing the operation of air conditioning and lighting systems, such as turning off electrical appliances when not in use and using stairs instead of elevators, among other measures. These efforts have led to positive behavioral changes and a reduction in energy consumption. In 2022, WHAUP achieved significant electricity savings within the WHA Tower through various measures, such as adjusting the operation of the cooling system and optimizing the air replenishment system for the air conditioning system to be more efficient. Additionally, appropriate control of lighting based on the characteristics and working hours of employees, as well



as the installation of equipment like inverters to maximize electricity efficiency, were implemented. As a result of these initiatives in 2022, energy consumption was reduced by more than 391,876 kilowatt-hours.

RAISING AWARENESS ON ENERGY CONSERVATION



In 2022, WHAUP has organized a workshop session on energy conservation awareness and saving technic for employees at the Eastern Seaboard Industrial Estate (ESIE). The session was led by Dr. Weera Sriyarakul, a specialized lecturer on energy from Energy Quality Services Co., Ltd. The workshop was held online and with 60 participants.

In addition, in 2022, WHAUP collaborated with the WHA Industrial Development (WHAID) to conduct practical training on internal energy management system audits

for operational staff. The training sessions were honored to have Dr. Anek Thianthong, an associate professor, as a guest speaker. A total of 60 participants attended the training, and they were required to take a post-test to assess their knowledge after the training. Upon completion of the course, participants received certification. It is worth noting that 100% of the participants passed the post-test and received certification. Furthermore, WHAUP organized a game and sports competition as part of its energy conservation promotion efforts, with a total of 250 participants.





BIODIVERSITY AND NO DEFORESTATION



WHAUP is aware of the significant impact on biodiversity resulting from climate change. Therefore, WHAUP has established a biodiversity policy, approved by the WHAUP and WHA Group's company boards, to mitigate the impact of business operations on biodiversity. The aim is to ensure that WHAUP's business activities generate a net positive impact or, at the very least, no net loss in terms of biodiversity value. This commitment includes adhering to the Mitigation Hierarchy (avoid, minimize, restore, and compensate) as part of WHAUP's policy, with the goal of maintaining biodiversity by 2030. In the current operations, WHAUP strictly adheres to legal requirements and regulations stated in the Environmental Impact Assessment (EIA) report. It actively avoids negative impacts by carefully selecting business locations and planning appropriate designs. WHAUP has a policy to avoid conducting business in areas registered by UNESCO

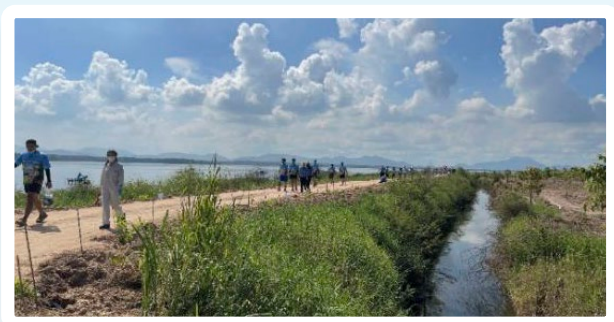
as World Heritage Sites or protected areas under IUCN Category IV. However, if there are business operations near these conservation areas, WHAUP will implement measures to mitigate any negative impacts. In cases where WHAUP cannot avoid deforestation, it will compensate by implementing reforestation measures in another suitable area. The reforestation area must be equal to or larger than the area affected by deforestation.

In addition to these measures, WHAUP also implements control measures to reduce other impacts and restore damages caused by business activities, as well as compensating for any negative impacts that occur. Furthermore, WHAUP promotes and seeks cooperation from business partners such as contractors and direct suppliers (Tier 1) to consider forest conservation and biodiversity during their operations. WHAUP also has

a process for assessing the risks of business activities to ensure that they do not have negative impacts on biodiversity. This assessment covers WHAUP's operational scope, areas adjacent to operations, upstream activities, and downstream activities.

WHAUP collaborates with WHA Group to develop collaborative plans with external organizations to align with the declared commitments. In 2022, together with the Eastern Seaboard Industrial Estate Authority (ESIEA) in Rayong, WHAUP and industrial estate operators, as well as ecotourism groups in the Nong Pla Lai Reservoir, implemented a walking and running event to support the health and tree-planting objectives. The aim was to support

sustainable business practices in the industrial estate, increase green areas as oxygen producers, and become a new lung for the community. Additionally, it aimed to reduce greenhouse gases and achieve sustainable global warming reduction. The event took place on June 17, 2022, at the Nong Pla Lai Reservoir in Ploen Daeng Subdistrict, Ploen Daeng District, Rayong Province. Participants included local government agencies, industrial estate developers, 47 companies operating in the industrial estate, and community representatives. A total of 2,854 trees of three different species, namely rubber trees, golden teak trees, and bamboo, were planted during the event.



BIODIVERSITY PROTECTION MEASURES

The environmental impact assessment (EIA) indicates that WHA ESIE 4 poses risks to biodiversity due to its proximity to the Nong Pla Lai Reservoir, which receives treated wastewater from the company's treatment plants in WHA ESIE 4. Therefore, the company acknowledges the potential impacts on biodiversity and commits to closely monitoring the environmental and biodiversity effects of its operations.

The company assures us that it has successfully implemented preventive measures and mitigation actions outlined in the relevant EIA report. For example, water samples are collected from the natural water sources, starting from upstream to the discharge point of WHA ESIE 4, to assess the impacts on the water environment. Additionally, samples are collected to study the biodiversity indicators, such as plant plankton, animal plankton, aquatic animals, aquatic plants, and terrestrial animals. The results are compared with the evaluation conducted in 2022, showing that the biodiversity index remains within the standard range. This demonstrates that WHA ESIE 4's operations have not significantly impacted biodiversity. The EIA-mandated monitoring and reporting will be submitted to local authorities and the EIA committee of the industrial estate.

Furthermore, the company guarantees the sustainability and non-hazardous nature of its operations, services, and products, including tap water. It has undertaken various projects to achieve this goal, including the wastewater reuse project, which involves using treated water for premium industrial purposes and distributing it to customers within ESIE, WHA ESIE 1, and WHA EIE in Map Ta Phut. The total production capacity exceeds 36,200 cubic meters per day, equivalent to industrial water production from wastewater of approximately 13 million cubic meters per year.

This amount of water is equivalent to the domestic water consumption of approximately 240,000 people per day, based on the calculation of 150 liters per person. This means that the company can conserve groundwater, which accounts for approximately 32% of the total population in Rayong Province (based on the registered population of 751,000 people in 2021). This volume of water is the amount of treated wastewater that is not discharged into natural sources and is solely through water restoration projects. Similarly, other projects such as rainwater harvesting and increasing oxygen levels in the treated water system also contribute to environmentally friendly operations and biodiversity conservation.

Apart from water development projects, the company has also implemented various renewable energy projects, including solar power generation with a contracted capacity of 133 megawatts in 2022. This offsets greenhouse gas emissions by approximately 93,100 tons per year from Scope 2 emissions.

NO DEFORESTATION

In line with the biodiversity conservation guidelines, WHAUP has adhered to the anti-deforestation policy approved by WHA Group's supervisory committee. The company is committed to ending all forms of gross deforestation and aims to offset any deforestation through future reforestation efforts (no net deforestation). This applies to the operational activities of WHAUP suppliers (Tier 1) and collaborative partners within 2022, and the set goals have been successfully achieved.

Furthermore, WHAUP has developed supporting plans to manage risks and impacts in line with the anti-deforestation policy. A system has been established to monitor and track compliance with the policy and relevant forestry regulations and/or standards. The Implementation and Environmental Operations (IEO) department has been assigned to conduct audits and controls, including reporting results, as a regular measure specified in the Environmental Impact Assessment (EIA) every 6 months.

TRANSFORMATION FROM THE PAST TO THE FUTURE CLIMATE CHANGE

WHAUP is acutely aware of the risks associated with climate change. Therefore, the company has conducted assessments and implemented measures to mitigate the impacts on WHAUP, both directly and indirectly. This includes analyzing opportunities for new business ventures, such as the installation of solar power systems. WHAUP has been consistently engaged in these activities for several years. Additionally, WHAUP measures and controls greenhouse gas emissions in Scope 1 and Scope 2. This demonstrates their commitment to monitoring and reducing greenhouse gas emissions, aligning with WHA Group's business objectives and national targets. WHAUP is prepared to drive progress and align with international agreements. In 2022, WHAUP collaborated with WHA Group to promote various measures and expand controls to reduce greenhouse gas emissions in Scope 3 among stakeholders in various areas. This includes contractor management and customers. They also played a crucial role in initiating the 5-year Mission To The Sun project, ensuring that various factors are aligned with sustainable business operations. Importantly, WHAUP has provided assurances and announced its goal of transitioning towards a carbon-neutral organization. These efforts mark significant milestones for WHAUP as it embraces a new era of environmentally conscious operations.



ENERGY MANAGEMENT

WHAUP plays a crucial role in driving WHA Group's development of renewable energy systems. The company aims to increase the volume of electricity purchased from renewable energy sources to 300 megawatts (MW) by the end of 2023. As of the end of 2021, WHAUP had contracts to purchase electricity from renewable energy sources totaling 136 MW. This has the potential to reduce greenhouse gas emissions by more than 77,400 tons of CO₂e per year.

BIODIVERSITY AND NO DEFORESTATION

WHAUP is committed to preserving and promoting biodiversity and actively seeks to mitigate the impacts on biodiversity. One of the key goals is to end all forms of deforestation, including encouraging suppliers to participate as Tier Suppliers in our operations. This aims to expand the scope of our work towards biodiversity conservation and combatting deforestation by achieving results within 2030.

WHAUP believes that business operations cannot achieve their goals without incorporating environmental factors as part of driving sustainable business and reducing the impacts of climate change. This includes safeguarding biodiversity and mitigating negative impacts. WHAUP plays a crucial role in initiating and continuing projects that address and mitigate the effects of climate change, which are directly linked to the efficient use of energy to reduce greenhouse gas emissions, ultimately leading to net zero emissions and a low-carbon society.

ENERGY EFFICIENCY PROJECT

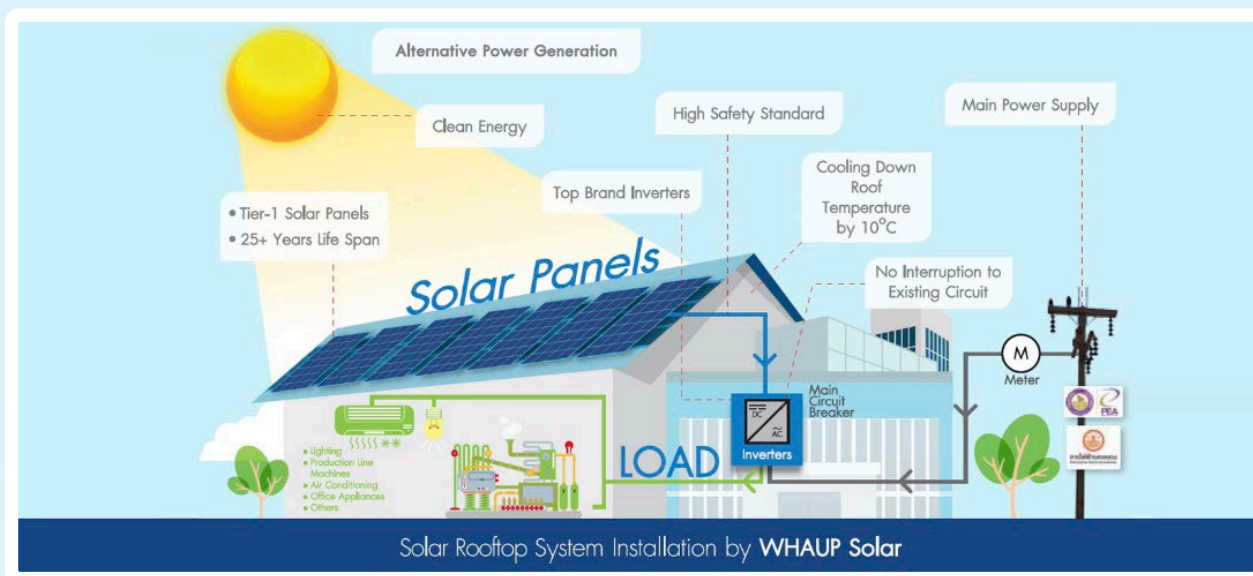
WHAUP has implemented an energy conservation project in the industrial estates of WHA Group, focusing on utility systems and environmentally friendly energy within the industrial estates. The aim is to promote efficient energy use, such as the use of LED lighting, motor control systems to regulate the operation of electrical equipment, and the replacement of electrical equipment to better suit the usage. Additionally, energy management practices are employed to reduce energy consumption.

INTEGRATED SOLAR SYSTEM SOLUTIONS FOR CUSTOMERS



Due to the increasing interests from industrial operators looking to transition to green energy for lower costs and to protect the environment, installing solar rooftops have matured into the preferred solution. WHAUP's reputation

for high engineering and safety standards along with expertise in solar roof has fundamentally embedded the trust of customers to the company.



In addition, WHAUP offers an all-in solar rooftop service package for customers including design, permitting, installation, and long-term operation and maintenance at no upfront cost to customers. With zero investment and

zero maintenance costs, WHAUP's solar rooftop package helps businesses be a part of the green energy cycle under a long-term power-purchase agreement. This solar rooftop is cost-effective and has less impact on the environment.



With a strong awareness of the potential environmental impacts associated with stakeholders throughout the value chain, WHAUP is committed to achieving its goal of signing contracts and providing services for a total renewable energy capacity of 300 megawatts by the end of 2023. By the end of 2022, WHAUP had signed a contract to install

a solar energy system on the rooftops of its customers, with a combined installed capacity of 133 megawatts. This solar energy can be used as an alternative to grid-supplied electricity, resulting in a potential reduction of up to 93,100 metric tons of CO₂e emissions per year from Scope 2 emission to the environment.

SOLAR SYSTEM REPLACEMENT PROJECT SOLAR ROOFTOP AND SOLAR CARPARK



In 2022, WHAUP, in collaboration with WHA Group, has developed the Solar Rooftop project, with a capacity of 19.44 megawatts, is implemented on the rooftop of Prinx Chengshan Tire (Thailand) Company Limited, a leading tire manufacturer from China, located in the Eastern Economic Corridor (EEC), specifically in WHA ESIE 3.

The installation covers an area of 219,000 square meters. This project aims to reduce greenhouse gas emissions and lower electricity costs for customers, resulting in a total savings of over 1,757.99 million baht throughout the 25-year project lifespan.

SOLAR PV ECO SYSTEM AT THE CONTINENTAL TYRES FACTORY IN RAYONG



The solar PV ECO system is for the tires manufacturing facility of Continental, located in WHA Eastern Seaboard Industrial Estate 4, comprising a floating solar system on the factory's water pond, a solar rooftop system on its factory buildings as well as a solar car park. Solar rooftops, representing a combined space of 27,400 square meters, have been installed on two factory buildings, with a power

generating capacity of 482 and 2,275 KW respectively. Solar carparks, covering a total of 8,400 square meters, will generate 958 KW while a floating solar system, on a 7,000 square meter pond, will produce 475 KW. The complete 42,800 square meters installation will generate 4.2 MW of electrical power throughout the entire 15-year service agreement.



PERFORMANCE AGAINST TARGET

CRITERIA FOR MEASURING PERFORMANCE AND TARGETS

CRITERIA FOR MEASURING PERFORMANCE IN RELATION TO CLIMATE CHANGE

Performance	Unit	2018	2019	2020	2021	2022
 Direct (Scope 1) GHG emissions	tons CO ₂ e	119.60	89.28	251.57	274.00	356.00
 Energy indirect (scope 2) GHG emissions	tons CO ₂ e	14,758.82	15,730.07	15,782.32	13,458.00	12,083.00
 GHG emissions (Scope 1 and Scope 2)	tons CO ₂ e	14,878.42	15,819.34	16,033.88	13,732.00	12,439.00
 GHG emissions intensity (Scope 1 and Scope 2)	tons CO ₂ e/ THB Million	0.0000087095	0.0000085178	0.0000094428	0.0000062968	0.0000050918
Coverage	%	100	100	100	100	100

PERFORMANCE INDICATORS FOR ENERGY SAVING TARGET

Energy Saving	Performance			Target		
	2020	2021	2022	2021	2022	2023
 Contracted Capacity (End of Year) (MW)¹	51	92	133	90	150	300
 GHG Emission Offset from Grid Electricity Consumption (tCO₂e) per year (assuming full year operation basis)²	35,700	64,400	93,100	63,000	105,000	210,000

Remark: ^{1/} Included MW under both operation and development stage; as of end 2022, operational 94 MW and 39 MW under development

^{2/} Expected level of GHG offset on per year basis. Actual level can be varied with multiple operating parameters and standard used to calculate kg CO₂e/kwh of the grid.



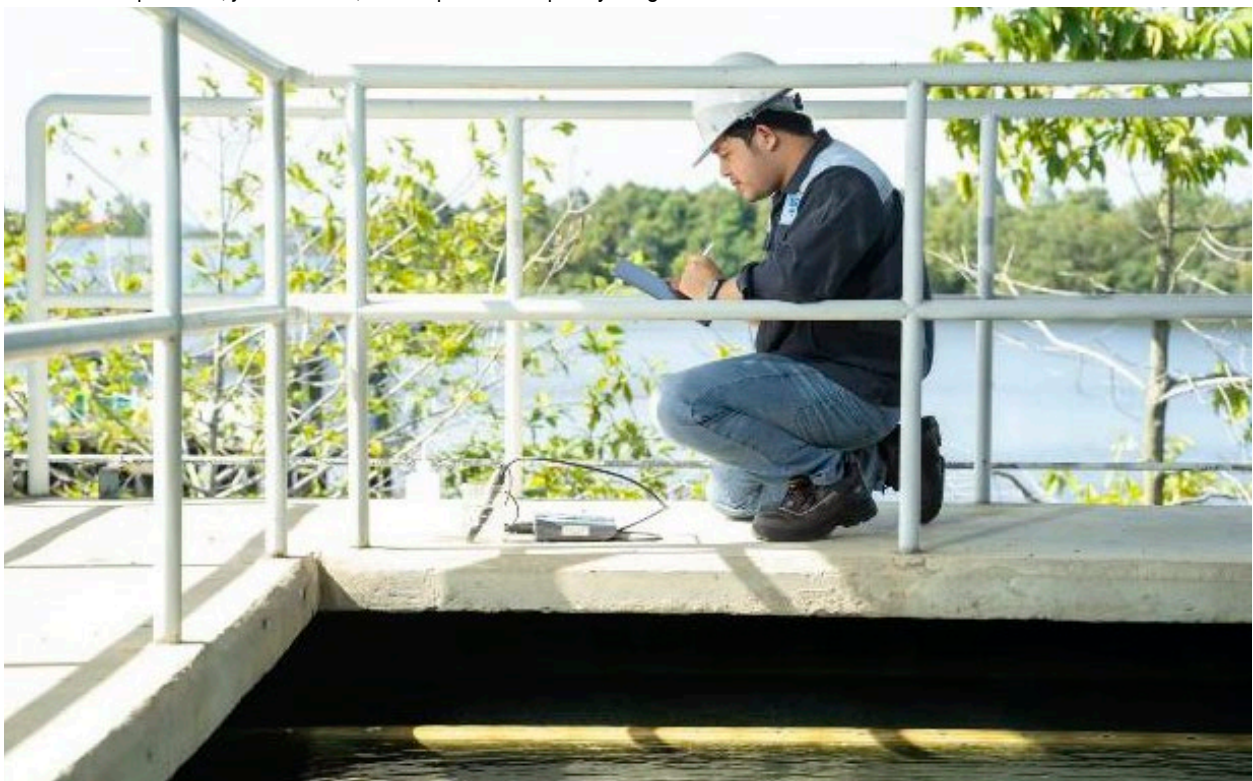
WATER MANAGEMENT

GLOBAL TRENDS AND IMPACT

Water is a crucial resource that plays a vital role in all aspects of life, including health, well-being, social development, and environmental systems. It is important in agriculture, industry, recreation, and various human activities. Currently, the expansion of industrial sectors and the intensification of climate change have significantly affected the quantity and quality of water resources. This includes natural disasters that disrupt seasonal rainfall patterns, leading to issues such as water scarcity (drought), water excess (flooding), and challenges in accessing water sources. These are critical problems that impact the economy, society, and the environment. Currently, countries worldwide are placing increasing importance on water resource management. This is especially true for various economic zones, such as Thailand's Eastern Economic Corridor (EEC), which is a significant area under the country's Thailand 4.0 strategic plan. The focus is on enhancing capabilities and competitiveness to promote economic expansion, job creation, and improve the quality

of life and income for the population. Additionally, societal pressure in the environmental aspect in recent years has pushed the industrial sector to reduce wastewater production and ensure that discharged water meets quality standards before entering natural water sources.

Therefore, water resource management is considered a challenging issue for utility service providers in ensuring an adequate supply of water for business operations while not violating the rights of individuals, legal entities, or stakeholders in other sectors regarding water sharing. Concerns regarding social and environmental aspects continue to drive WHAUP to enhance the efficiency of water management, secure alternative water sources, and ensure proper treatment of wastewater to meet quality standards before releasing it into natural water sources. This is done to reduce the impact on society, communities, and the environment while promoting sustainable economic growth.





MANAGEMENT APPROACH

As a water producer for industrial use and a wastewater treatment service provider, WHAUP recognizes the importance of water management for both businesses within WHA industrial estates and the surrounding communities. This approach aims to promote equal access to water resources among different user groups and prevent conflicts in water allocation. Additionally, emphasis is placed on managing the quality of wastewater by treating it to meet the standards set by the Ministry of Industry before discharging it into centralized treatment facilities within each WHA industrial estate. Treated water can then be released into natural water sources or reused in production processes, helping prevent and mitigate potential impacts on communities and the environment.

WHAUP has incorporated water management as part of its environmental quality management policy and has assigned the Environmental Committee to plan

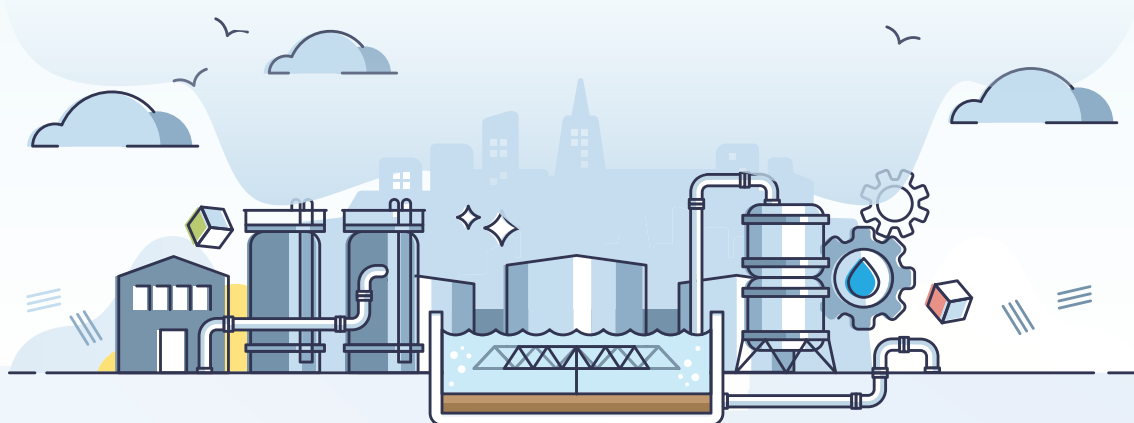
and provide guidance for operations. This promotes the participation of all executives and employees in water resource management through operational activities aimed at reducing water losses. By 2022, WHAUP has set short-term and long-term goals for water management and water usage reduction. The short-term goals include reducing water losses in the production and distribution systems and continuously developing the Reclamation Water project. The target is to increase production capacity from 30,200 cubic meters per day in 2020 to 60,400 cubic meters per day by 2025. Additionally, WHAUP has set long-term goals for the next five years. By 2027, WHAUP aims to treat approximately 30 million cubic meters of treated wastewater annually, producing Reclamation Water. This would result in a reduction of 21 million cubic meters of water usage from natural sources, signifying a significant reduction in reliance on natural water sources.

WHAUP's water resource management aligns with the guidelines set forth in its environmental quality policy, energy conservation, and biodiversity. This policy has received approval from the management team, providing a framework for efficient water balance management. WHAUP's intention is to maintain and preserve the infrastructure, water production systems, and wastewater treatment systems to meet the required standards. This ensures confidence that operations will have minimal environmental impact and reduce dependence on natural water sources. Additionally, it aims to minimize water losses resulting from WHAUP's operations. Water management falls under the supervision of the Industrial Estate Operation (IEO) division of WHAID, which operates under WHA Group. The IEO division collaborates with WHAUP's utility operations, working together in roles related to water management and environmental impact reduction.

The overall process of water management of WHAUP includes industrial water supply management, wastewater treatment system and reclamation water management. This is to ensure effectiveness of water resource management, reduce risk related to water, as well as comply with relevant regulations. In order to achieve the water management programs, WHAUP is using technology in finding new source of water to reduce impact to community (R&D technology that reduces surface water dependency). In 2022, the technology applied in water management includes not only to enhance the existing implemented technologies such as the wastewater reclamation into



the value added product in order to introduce the new utilities to those manufacturers who may need the variety of utilities, but also to start the new frontier in developing the new projects to transform water services and management from mostly physical to digital systems. An example of such a project is the real-time monitoring and control of water management systems through SCADA. This system provides reliable, accurate data and helps in quickly detecting and resolving issues such as water leakage, thereby reducing water loss. Additionally, the establishment of the Unified Operations Center (UOC) allows management to track and command the operational activities of each unit through the UOC located in WHA Tower building. Furthermore, the implementation of Smart Utilities Solutions at WHA EIE includes the transformation of water pump meters and flow rate meters from traditional devices to smart devices. These initiatives ensure the highest level of confidence in water usage within WHA Group, reducing water loss and minimizing reliance on natural water sources.



WATER RECLAMATION PROCESS, INPUT RECCYCLE, AND PRODUCT RECYCLE



WHAUP has initiated the development of a new wastewater reuse system, known as Reclamation Water, to serve as a sustainable alternative water source, particularly within the Eastern Economic Corridor (EEC) region. This project combines existing technologies with innovative approaches to create additional value from wastewater. The process involves treating wastewater from

the wastewater treatment system to produce Demineralized Water and Premium Clarified Water, which are high-quality industrial water products. This transformation increases the market value of the products while reducing costs. In 2022, WHAUP generated 178.6 million Baht in revenue from the Reclamation Water project, accounting for 7.3% of the total revenue. The sales of Reclamation Water for industrial use, which involves reusing treated wastewater, contributed to this revenue. This approach enables WHAUP to reuse 7.0 million cubic meters of water, resulting in a reduction of 7.0 million cubic meters of water usage from natural water sources. This represents 9.4% of the total water consumption. Consequently, the project brings environmental and societal benefits by reducing wastewater discharge, minimizing the extraction of water from natural sources, and conserving natural resources. It also helps mitigate the potential conflicts and concerns with nearby communities.

WATER USAGE AND WATER MANAGEMENT

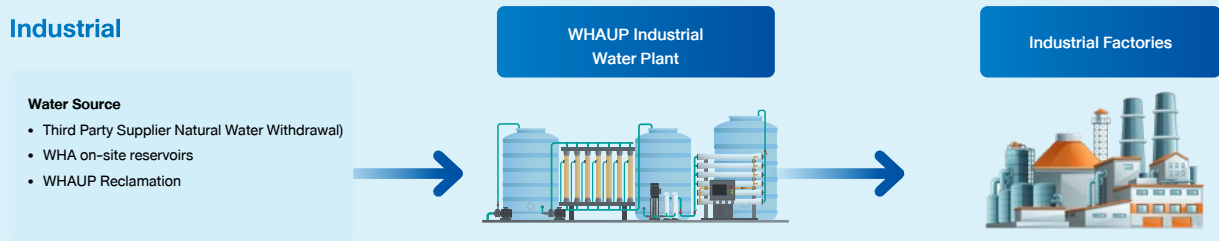
Currently, the water used in WHAUP's industrial operations comes from natural water sources, including rivers, groundwater, and purchased water from suppliers. There is a meticulous process of examining the sources of water and ensuring that the water quality meets the standards required for the water treatment system. These water sources are then used in the production processes and distributed to customers in various industries. In addition to that, WHAUP has implemented measures to reclaim and reuse water. The water that has been used is treated in a centralized wastewater treatment plant using the main process of Reverse Osmosis (RO). This process treats the water and allows it to be reused in production processes. Additionally, the wastewater is treated using biological methods before being discharged into natural water bodies, ensuring that the quality of the treated water



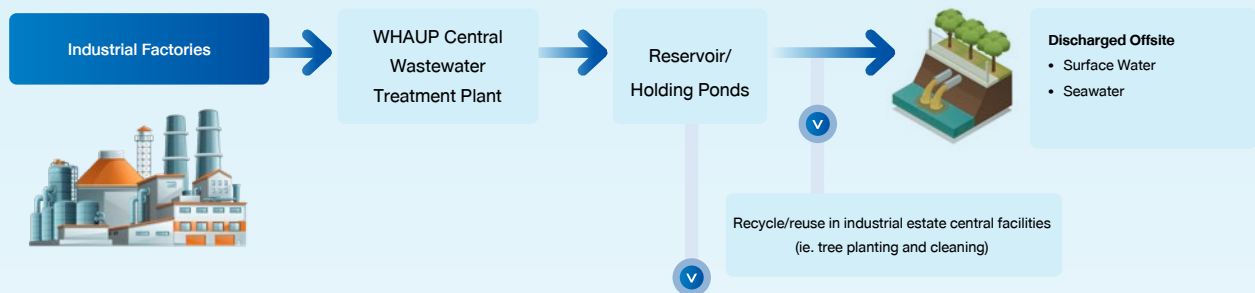
meets the specified standards and is of sufficient quality to prevent adverse impacts on the natural water sources from WHAUP's activities. Furthermore, there are measures in place to reduce water usage in office spaces, such as selecting equipment and materials that contribute to water conservation efforts.

Reverse Osmosis : RO

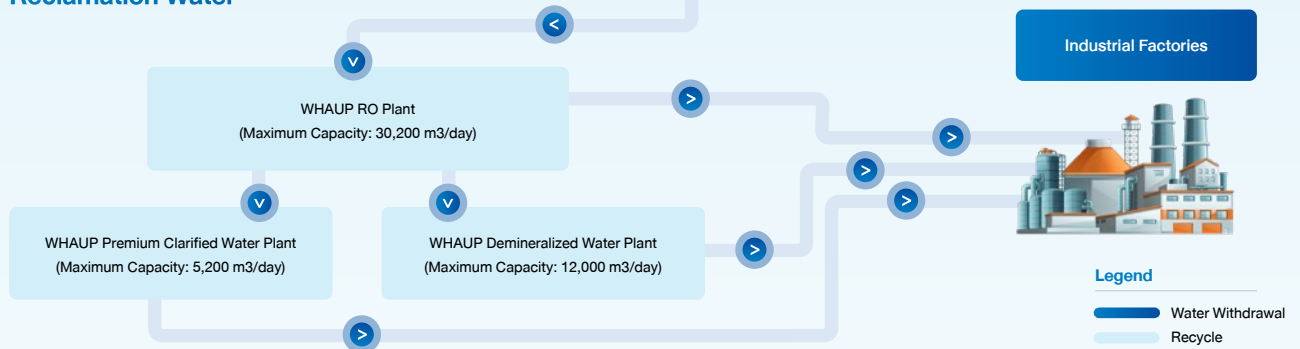
Industrial



Wastewater Treatment

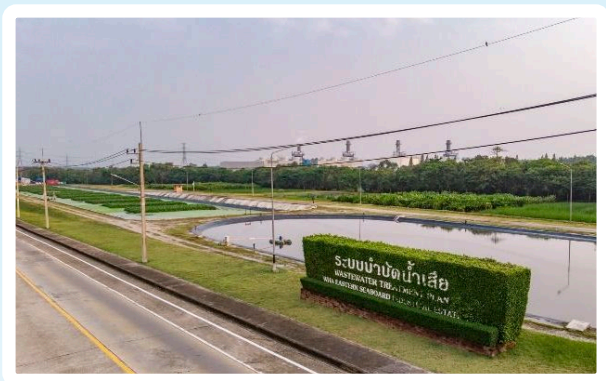


Reclamation Water



WHAUP provides wastewater treatment services to industrial estates according to the specific industrial processes of each customer. These services include various wastewater treatment systems such as Accelerated Settling (AS) systems, Aerated Lagoon (AL) systems, and Hybrid Rotating Biological Contactor (Hybrid-RBC) systems. The Hybrid-RBC system combines the efficiency of Rotating Biological Contactor (RBC) and Accelerated Settling (AS) systems, making it highly effective in treating wastewater with high organic loading

rates (OLR) compared to conventional systems. And the vertical flow constructed wetland system, which WHAUP has developed and used since 2003, has been transferred and shared knowledge with the community to develop it into an efficient and cost-effective community wastewater treatment system. This was achieved through the Clean Water for Planet project, which is the main corporate social responsibility (CSR) initiative of WHAUP. The project has been dedicated to the continuous development and advancement of wastewater treatment since 2016.



After undergoing treatment at the central wastewater treatment plant, WHAUP conducts quality testing of the treated water to ensure compliance with the standards set by the Ministry of Natural Resources and Environment, the Ministry of Industry, and the Industrial Estate Authority of Thailand, as well as the Environmental Impact Assessment (EIA) requirements before discharging the water into the environment. The parameters measured include pH, temperature, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), fats and oils, Suspended Solids (SS), Total Dissolved Solids (TDS), and heavy metals. The water discharge is prioritized based on its type to ensure compliance with the standards specified by the relevant regulations and authorities, including the Industrial Estate Authority of Thailand, to avoid any adverse impacts on the environment. In 2022, all measured parameters were within the standard limits, and each year, an assessment of the water's impact on stakeholders, including communities, customers, and contractors, is conducted through an engagement process. The purpose is to identify and address any impacts resulting from WHAUP's operations, and the outcomes of the engagement process are used to improve future operations. Additionally, plans are in place to provide remedial measures for individuals or groups affected by any actual impacts, ensuring that they can return to their previous conditions. In 2022, no complaints

or impacts were reported regarding water quantity and quality, indicating that WHAUP's business activities have not caused any adverse effects.

In the case where the results of random sampling from a customer's factory exceed the specified limits, WHAUP will take the following measures:

1. Issue a warning letter and provide instructions for the operator to treat the wastewater from their factory.
2. If the issue is not resolved, the valve receiving water from the central wastewater treatment pond will be closed.
3. Suspend the supply of water for industrial use.
4. Coordinate with the Industrial Estate Authority of Thailand (IEAT) to implement further measures, such as ordering a work suspension until the issue is resolved.

In 2022, WHAUP started using the 'WHAUP Intelligence Platform', an intelligent operational technology, to embark on digital transformation. They also developed accurate digital as-built drawings for their wastewater management system. Additionally, they implemented hydraulic modeling, GIS, smart meters, OCR, AMR, signal transmitters for pressure, and data integration. The budget allocated for this project was 10 million baht per year.



TRANSFORMATION FROM THE PAST TO THE FUTURE

WHAUP recognizes the importance of water as a crucial resource for business operations. To ensure smooth business operations for WHAUP and its customers, they have initiated various projects for maximizing the benefits of water management. In 2022, WHAUP began seeking water reserves (Water Reservoirs) to reduce the amount of water extracted from natural sources and mitigate the risk of water scarcity. There are six water sources available, with a total capacity of up to 14 million cubic meters. Furthermore, WHAUP has collaborated with Asia Industrial Estate Co.,

Ltd., expanding our utility business to enhance their ability to reuse water beyond WHAUP's industrial estate area. This aligns with WHA Group's strategy to jointly develop utility and continuous energy businesses, as part of their expansion plan for providing utilities and power services and becoming a leader in Asia.

Additionally, WHAUP has applied digitalization technologies to improve operational efficiency. With a continuous focus on business development, WHAUP aims to enhance capabilities and customer satisfaction. They have developed a Smart Metering system to reduce data collection costs and prevent abnormalities during water distribution. By observing water usage behavior and detecting anomalies, they can optimize the utility system digitally. This approach supports WHAUP's strategies and business plans, focusing on the development of comprehensive and agile digital utility systems.

In 2022, WHAUP expanded the utilization of the "WHAUP Intelligence Platform" technology platform to transform the organization into a Tech Company by 2024. This initiative aimed to enhance efficiency and accuracy in the creation of as-built drawings for the digital management of wastewater systems. The platform incorporated intelligent data analysis and smart operational technology to develop various projects undertaken by WHAUP. These projects included the GIS Hydraulic Model system, Smart Meter system, Optical Character Recognition (OCR) technology for converting image to digital data, Automatic Meter Reading (AMR) system, Pressure Transmitter equipment system, and Data Integration database system. WHAUP allocated a budget of 10 million baht per year for projects under this platform.

DEMINERALIZED RECLAIMED WATER: THE REAL SUSTAINABLE RESOURCE FOR FUTURE DEVELOPMENT



WHAUP invested in Demineralized Water Project, a large-scale project, consisting of 2 operations, each have maximum capacity of 5.18 mm3/year, covering 4% of total industrial water capacity. The project is developed in WHA Eastern Industrial Estate (WHA EIE) and aimed to increase treated water quality with low cost and using environmentally friendly methodology.



WHAUP has developed the Demineralized Reclaimed Water Project as an alternative water source for sustainable industrial development in the country. This is considered to extend the existing technology and create innovations to increase product value, from wastewater by turning it into demineralized industrial water.

The implementation of the aforementioned project has received positive results for the industrial development in many dimensions, such as

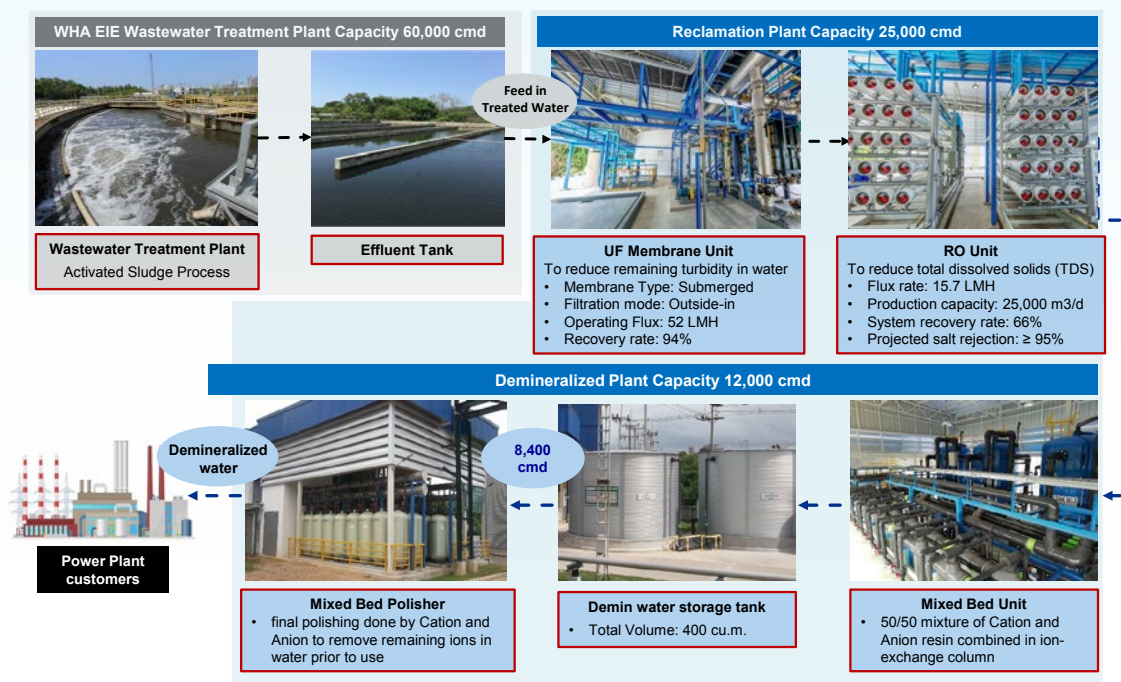
1. Significantly reduce the amount of wastewater entering the environment.
2. Reduce government investment budget in the development of water storage and delivery.
3. Reduce conflicts between the community and industry on the allocation of water resources.
4. The industry uses high quality water at a competitive cost.
5. Industrial operators in WHAUP's estates receive comprehensive utility services, with a wide variety of products.

Moreover, the project also helps WHAUP in reducing its dependence on major raw water distributors as well as alleviating uncertainty and impacts on both the quantity and quality of upstream water sources due to drought, pollution, contamination, etc., which are the main risk factors for utility providers. This is because if the water source is not able to supply sufficient production to meet the demand for a certain period of time, it will have a significant impact on the business continuity and

the customers' operations within the industrial estates. The project also helps WHAUP's customers, which are entrepreneurs in various industries, to access high quality water products and services at reasonable cost. In addition, the Demineralized Reclaimed Water innovation is a prototype project that can be expanded in new industrial estates of WHA Group as well as extending and expanding the results to the community, for example, using domestic wastewater that has been treated to improve its quality to produce high-quality transformed water, etc. Through such demineralized water systems, WHAUP was able to reduce and minimize 3.0 Mm3 of total water withdrawal and water discharge per year. By this reclamation program, WHAUP could save the cost on raw water sourcing by 35 million baht annually.

In 2022, WHAUP collaborated with Asia Industrial Estate Corporation Limited to engage in a business partnership. They began operating the water supply within the Asia Industrial Estate (Map Ta Phut) in order to expand their capabilities in reclaiming and reusing water. This endeavor is part of the Reclaimed Water project, aimed at sustainable development in collaboration with dedicated partners.

DEMINERALIZED RECLAIMED WATER PROCESS



SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) TECHNOLOGY AT WASTEWATER TREATMENT PLANT

Currently, WHAUP has implemented SCADA (Supervisory Control and Data Acquisition) technology to maximize efficiency in wastewater treatment plants located within the Eastern Economic Corridor of Innovation (EECi) in Wang Chan District, Rayong Province. This technology system enables continuous monitoring of the wastewater treatment operations 24 hours a day. WHAUP can effectively manage operations and reduce costs by eliminating the need for on-site personnel.

PERFORMANCE AGAINST TARGETS

2022 Performance

Increase production capacity for Reclamation Water Project by

36,200

cubic meters per day

2025 Target

Increase production capacity for Reclamation Water Project by

60,400

cubic meters per day

2022 Performance

Reduce the usage of water from natural sources by approximately

6,950,940

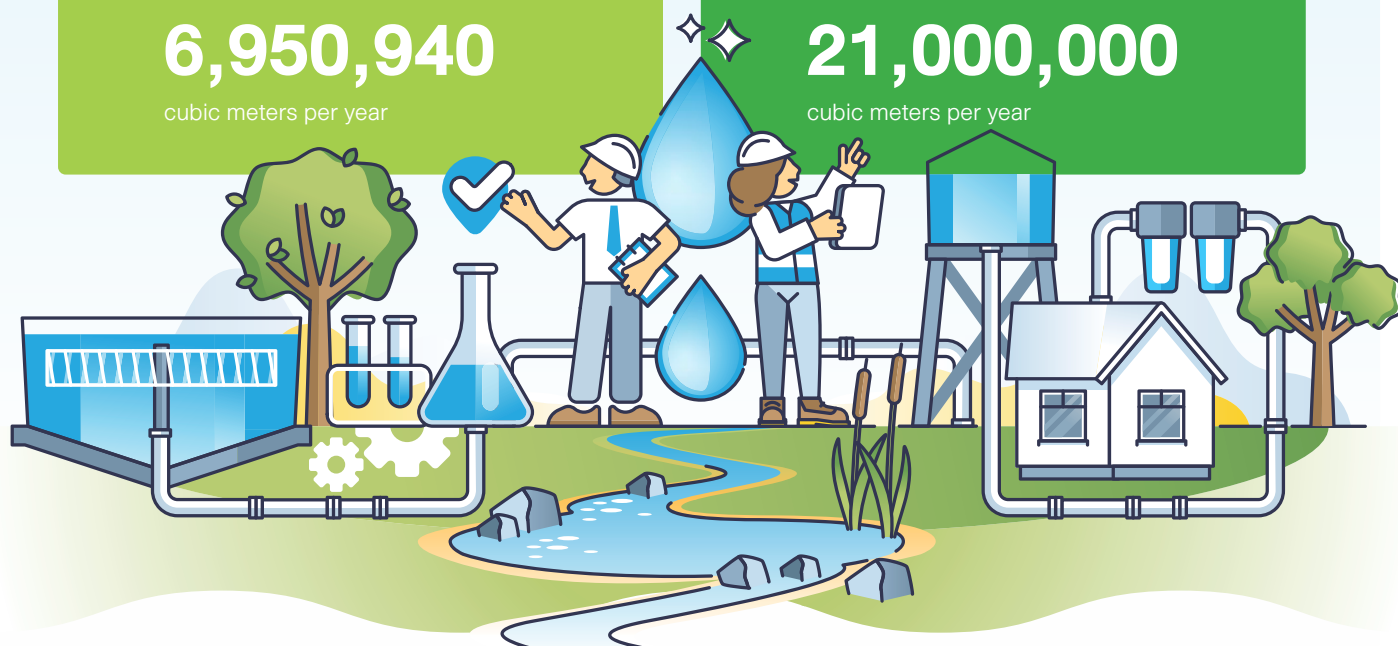
cubic meters per year

Long term Target 2027

Reduce the usage of water from natural sources by approximately

21,000,000

cubic meters per year





GRI CONTENT INDEX

GRI Standard	Disclosure	Location		Omission		
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	2-9 Governance structure and composition	Governance Structure	21			
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	2-10 Nomination and selection of the highest governance body	Codes of Business Conduct	36-37			
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2-12 Role of the highest governance body in overseeing the management of impacts	Codes of Business Conduct	37-38				
2-13 Delegation of responsibility for managing impacts	Codes of Business Conduct	37-38				
2-14 Role of the highest governance body in sustainability reporting	Sustainability Material Issues	24-26				
2-15 Conflicts of interest	Codes of Business Conduct	36-37				
2-16 Communication of critical concerns	Codes of Business Conduct	40-42				
2-17 Collective knowledge of the highest governance body	Codes of Business Conduct	37				
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GRI Standard	Disclosure	Location		Omission		
		Chapter	Page/ Note	Requirement(s) Omitted	Reason	Explanation
	2-19 Remuneration policies	Codes of Business Conduct	38		Data unavailable	No policy on clawbacks / on process of development
	2-20 Process to determine remuneration	Codes of Business Conduct	38			
	2-21 Annual total compensation ratio	Performance Data 2022	-			
	2-22 Statement on sustainable development strategy	CEO Message	3-4			
	2-23 Policy commitments	Codes of Business Conduct	38-39			
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	2-25 Processes to remediate negative impacts	Codes of Business Conduct	41-42			
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	2-27 Compliance with laws and regulations	Performance Data 2022	-			
	2-28 Membership associations	Awards and Memberships	7			
	2-29 Approach to stakeholder engagement	Stakeholder engagement	28-34			
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Sustainability Material Issues	24-27			
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GRI Standard	Disclosure	Location		Omission		
		Chapter	Page/ Note	Requirement(s) Omitted	Reason	Explanation
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	2-16 Communication of critical concerns	Codes of Business Conduct	40-42			
	2-17 Collective knowledge of the highest governance body	Codes of Business Conduct	37			
	2-18 Evaluation of the performance of the highest governance body	Codes of Business Conduct	37-38			
	2-19 Remuneration policies	Codes of Business Conduct	38	a.) iv.	Data unavailable	No policy on claw backs / on process of development
	2-20 Process to determine remuneration	Codes of Business Conduct	38			
	2-21 Annual total compensation ratio	Performance Data 2022	-			
	2-22 Statement on sustainable development strategy	CEO Message	3-4			
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	2-24 Embedding policy commitments	Codes of Business Conduct	37-39			
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	2-26 Mechanisms for seeking advice and raising concerns	Codes of Business Conduct	41-42			

GRI Standard	Disclosure	Location		Omission		
		Chapter	Page/ Note	Requirement(s) Omitted	Reason	Explanation
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	2-28 Membership associations	Awards and Memberships	7			
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GRI Standard	Disclosure	Location		Omission		
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LRQA INDEPENDENT ASSURANCE STATEMENT

Relating to WHA Utilities and Power Public Company Limited 's GHG Assertion for the calendar year 2022

This Assurance Statement has been prepared for WHA Utilities and Power Public Company Limited in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

LRQA (Thailand) Limited was commissioned by WHA Utilities and Power Public Company Limited (WHAUP) to provide independent assurance on its GHG Assertion 2022 against the AccountAbility's AA1000AS v3 assurance criteria to a moderate level of assurance with reference to the GRI specific standard disclosures listed below and materiality level of the professional judgement of the verifier is applied, where the scope was a Type 2 engagement.

Our assurance engagement covered WHAUP's financial control in Thailand only and specifically the following requirements:

- Evaluating the reliability of data and information for only the selected environmental indicators listed below:
 - GRI 305-1: Direct GHG emissions (Scope 1)^{1, 2}
 - GRI 305-2: Energy indirect GHG emissions (Scope 2)

Our assurance engagement excluded the data and information of WHAUP's financial control and activities outside Thailand, as well as suppliers, contractors and any third parties mentioned in the report.

LRQA's responsibility is only to WHAUP. LRQA disclaims any liability or responsibility to others as explained in the end footnote. WHAUPs' responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Assertion and for maintaining effective internal controls over the systems from which the Assertion is derived. Ultimately, the Assertion has been approved by, and remains the responsibility of WHAUP.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that WHAUP has not, in all material respects:

- Met the requirements above
- Disclosed reliable performance data and information as no errors or omissions were detected

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate level of assurance engagement is less than for a high level of assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagement is substantially lower than the assurance that would have been obtained had a high assurance engagement been performed.

¹ <https://www.globalreporting.org>

² GHG quantification is subject to inherent uncertainty.

LRQA's approach

LRQA's assurance engagements are carried out assurance using AA1000AS v3. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Auditing WHAUP's data management systems to confirm that there were no significant errors, material mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions, and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Sampling of evidence during remote verification from facilities level, only the selected indicators to confirm its reliability.

Observations

Further observations and findings, made during the assurance engagement, is:

- Reliability: Data management systems are properly defined for the selected environmental indicators. However, should consider interim verification to further improve the reliability and timeliness of its disclosed data and information

LRQA's Standards, competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification is the only works undertaken by LRQA for WHA Utilities and Power Public Company Limited and as such does not compromise our independence or impartiality.

Dated : 22 March 2023

Opart Charuratana

LRQA Lead Verifier

On behalf of LRQA (Thailand) Ltd.

No.9, G Tower Grand Rama 9, FL. 30, Room H14,

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LRQA reference: BGK406924B

Table 1. Summary of WHA Utilities and Power Public Company Limited, GHG Assertion 2022

Scope of CO ₂ emissions	CY 2021 01 Jan - 31 Dec 2021	CY 2022 01 Jan - 31 Dec 2022
GRI 305-1: Direct GHG emissions (Scope 1). Biogenic emissions.	274 23	356 27
GRI 305-2: Energy indirect GHG emissions (Scope 2).	13,458	12,083
Notes : <ul style="list-style-type: none">• Data is presented in tonnes of CO₂ equivalent.• CY2021 is an organization selected base year.		

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The English version of this Assurance statement is the only valid version. LRQA Group limited assumes no responsibility for versions translated into other languages.

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