



SUSTAINABILITY REPORT 2020



This report is intended to highlight the Company's performance on key issues. Details can be found on the Company's website and/or in the Company's Annual Report. The information contained in this report covers all associates, joint ventures and subsidiaries under Gulf Group. The Sustainability Report is produced at the beginning of each year and reflects data about the Company's activities from 1 January to 31 December of the previous year. External assurance for selected topics may be found in the Sustainability section of the Company's website at www.gulf.co.th/en/sustainability_overview.php. Questions regarding the report may be directed to the Company's Sustainability Unit.

CONTENTS

02

Statements
from Directors

04

Sustainability
Framework

06

Sustainability
Governance

08

Global Trends

09

Business
Strategies

10

Overview of Business
Achievements in 2020

12

Materiality

14

Stakeholder
Engagement

16

Risk Management

18

GULF Family

22

GULF Community
and Society

24

Human Rights

26

Climate
Management

28

Water
Management

30

Operational
Eco-Efficiency

32

Waste
Management

33

Biodiversity

34

Demonstration
Farm

36

Awards &
Recognition





“ The Company places the highest importance on conducting business in a sustainable manner. For this reason, in 2020, the Board of Directors established the Sustainability and Risk Management Committee in order to increase involvement on matters related to sustainability at the highest levels of governance. We are committed to consistently improving our sustainability to create shared value for all our stakeholders. ”

Mr. Viset Choopiban

Chairman of the Board

“ Our business strategies and management practice are focused on promoting sustainability in the economic, environmental and social dimensions. We continue setting and working towards more challenging sustainability targets including increasing our investment in renewable energy, reducing our carbon intensity, and maintaining our zero-accident record. We are confident that we can continue to build GULF into a company that is recognized internationally for its strength in business and sustainability. ”

Mr. Sarath Ratanavadi

Chief Executive Officer

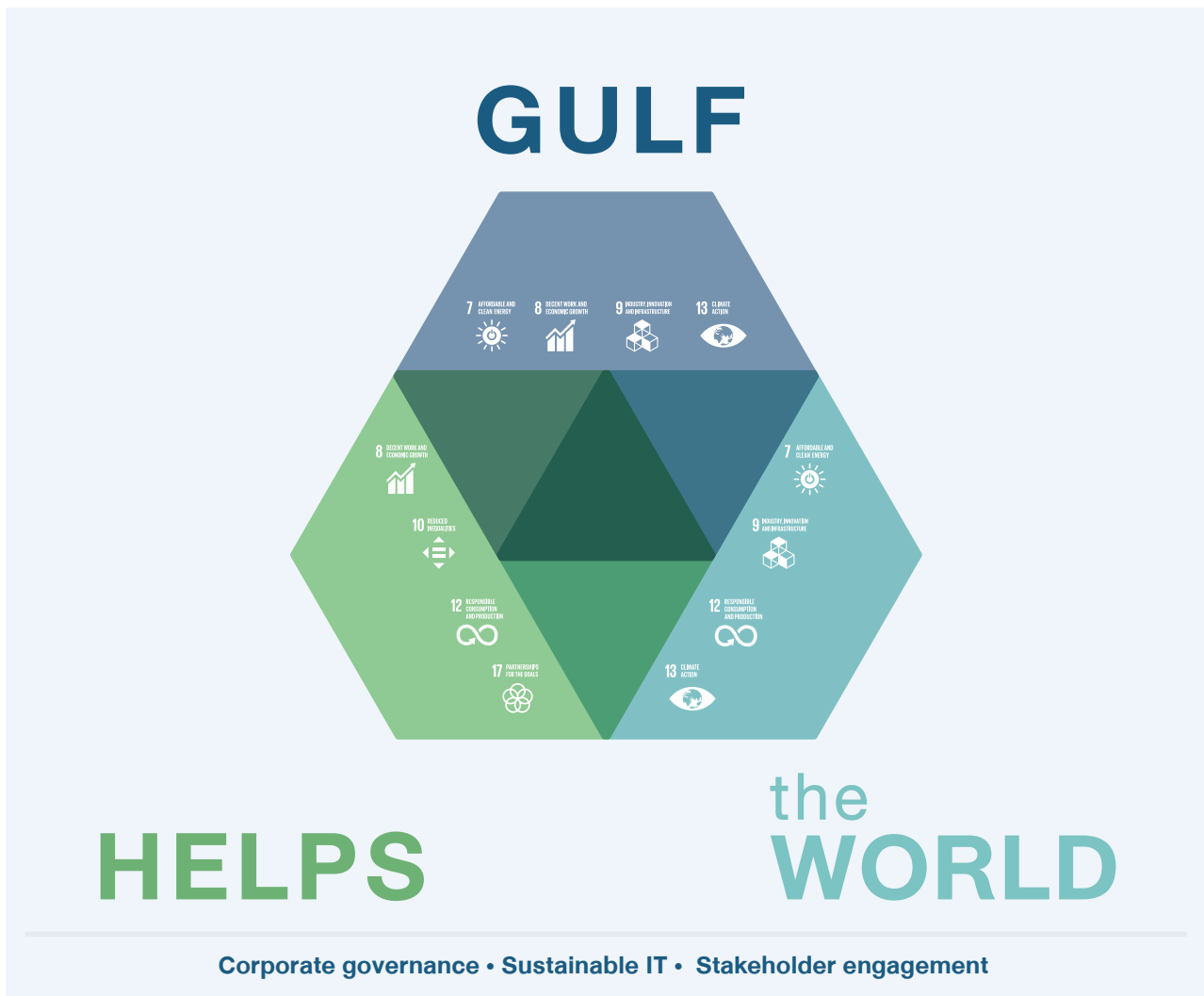
“ On behalf of the Sustainability and Risk Management Committee, I am honored to accept the role and responsibility of providing oversight and guidance on matters related to sustainability for the Company. The Committee is well-qualified to consider the wide range of issues including environmental concerns, social responsibility, health and safety, human and labor rights, information and cybersecurity, risk management, and corporate governance, from a perspective that balances business and other stakeholder needs. We are dedicated to enhancing the Company’s sustainability and hope our guidance will help GULF become an international leader in sustainability in the near future. ”

Mr. Sommai Phasee


Chairman of the Sustainability
and Risk Management Committee


SUSTAINABILITY FRAMEWORK


The Company has developed a Sustainability Framework that seeks to balance the needs of all three dimensions of sustainability – economic, social and environmental – using the concept of “GULF HELPS the WORLD” which reflects the Company’s commitment and focus to grow the business responsibly under the principles of good corporate governance and supported by a sustainable IT system and strong stakeholder engagement.




In addition, the Company also recognizes the importance of supporting the United Nations Sustainable Development Goals, with emphasis on the following four goals:

- 

access to affordable and clean energy
- 

decent work and economic growth
- 

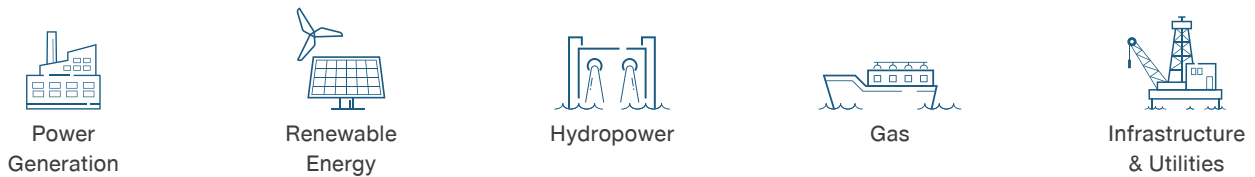
industry, innovation and infrastructure
- 

climate action

GULF

The economic dimension

GULF seeks to invest in projects that will create positive impacts in the long term to create opportunities for both the current and future generations.



HELPS

The social dimension

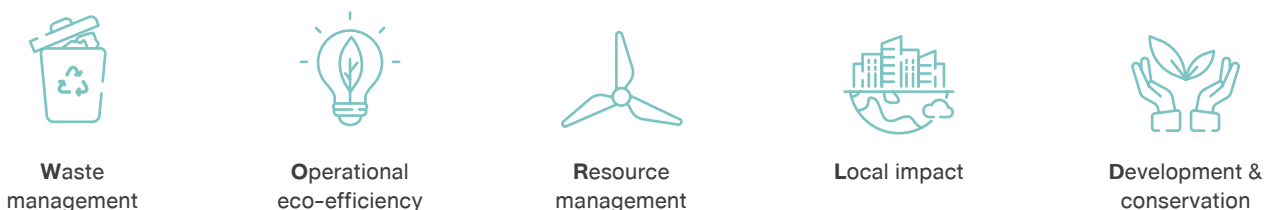
GULF aims to contribute to improving the quality of life for people in society through positive impacts created by the Company's operations.



the WORLD

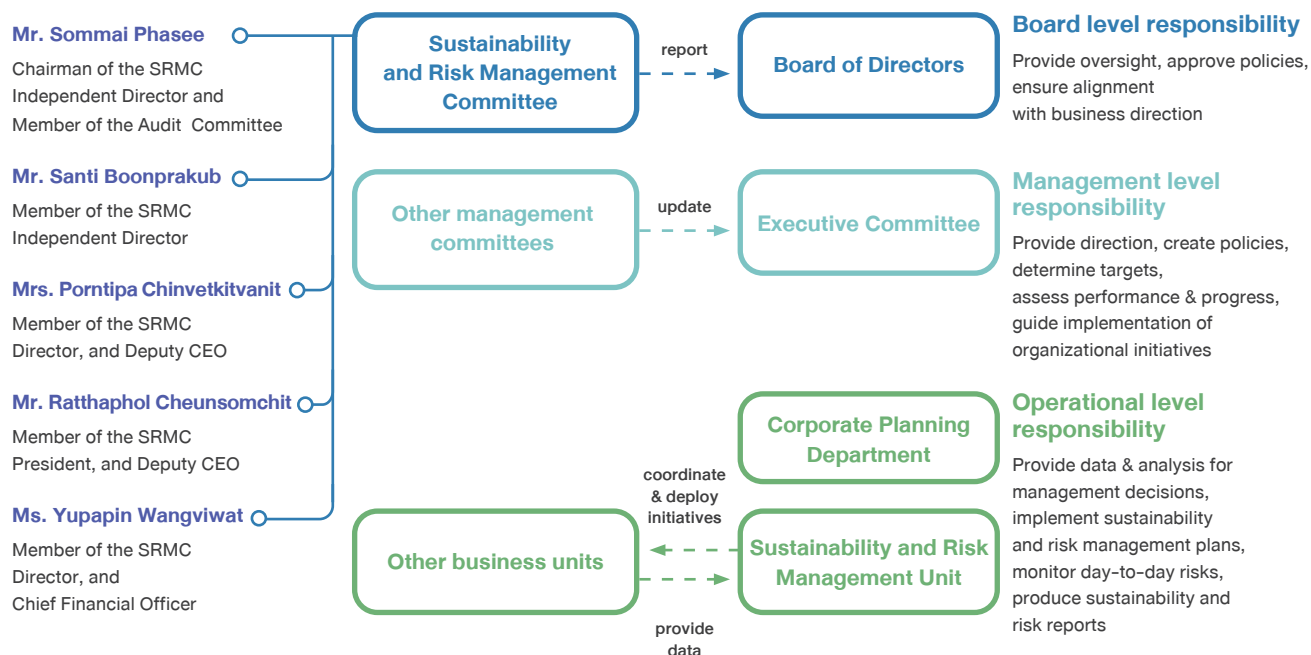
The environmental dimension

GULF recognizes the importance of environmental management to support climate action and promote environmental conservation.



SUSTAINABILITY GOVERNANCE

In 2020, GULF's Board of Directors established the Sustainability and Risk Management Committee (SRMC), a sub-committee of the Board, to provide greater oversight on matters related to sustainability and risk management within the Company. The SRMC comprises two independent directors, the Deputy CEO and Chief Financial Officer (who also serve as directors on the Board), and the President.



In 2020, the SRMC conducted its duties in line with the responsibilities set out in the SRMC Charter, as follows:

1. Guidance on Company policies related to sustainability and risk management

- Creation of 5 new policies
 - Human rights policy
 - Diversity policy
 - IT policy
 - Biodiversity policy
 - GULF Supplier Code of Conduct
- Update of 2 policies
 - Risk management policy
 - Environmental and social management policy

2. Sustainability oversight

- Sustainability report
- Sustainability/ESG assessments
 - Thailand Sustainability Investment questionnaire by the Stock Exchange of Thailand
 - CDP Climate Change questionnaire by CDP
 - SAM Corporate Sustainability Assessment questionnaire (DJSI) by S&P Global
 - CDP Water Security questionnaire by CDP

3. Risk management oversight and risk monitoring

- Enhanced risk assessment process
- COVID-19 risk monitoring
- Acknowledgement and guidance of risk reports



SUSTAINABILITY POLICY



1. Strive to achieve sustainability in all dimensions of its operations – including the economic, environmental and social dimensions – and promote sustainable practices among all employees and community member.



2. Act within the confines of the law, uphold its commitments to mandatory and voluntary agreements, and respect international standards of human rights and labor rights.



3. Adopt good corporate governance practices to ensure transparency, avoid corruption, and encourage fair and ethical behavior.



4. Assess and manage risks in a systematic manner through regular and consistent performance monitoring and evaluation, internal and external audits, and strong internal controls.



5. Encourage dialogue and participation with internal and external stakeholders by establishing clear communication channels, providing accurate and reliable information, and managing complaints and requests for consults.



6. Provide a safe and healthy work environment that promotes non-discrimination, gender equality, personal development and well-being.



7. Adopt technologies and practices which reduce negative impacts on the environment, ensure a commitment to environmental protection during all stages of project development, and promote environmental awareness and conservation.

GLOBAL TRENDS

GULF recognizes that a number of interconnected trends are driving the world forward. Global trends that have the potential to significantly change the energy industry include decarbonization, decentralization and digitalization, the adoption of which is accelerated by the rapid advancement of new and potentially disruptive technologies.



Decarbonization

There is a strong emphasis on taking action, in all sectors, to combat the negative impacts from climate change. Key to this is the global effort to reduce greenhouse gas emissions, especially from the power generation and transportation sectors, in order to limit the rise in global average temperature to 1.5°C as the target was set out in the Paris Agreement.



Decentralization

Improvements in the efficiency of alternative energy technology and storage systems, as well as the significant reduction in cost, has led to an increase in “prosumers” – energy consumers who now act as power producers. This, coupled with advancements in grid technology, supports the expansion of distributed energy resources that will change the structure of the energy industry across the world.



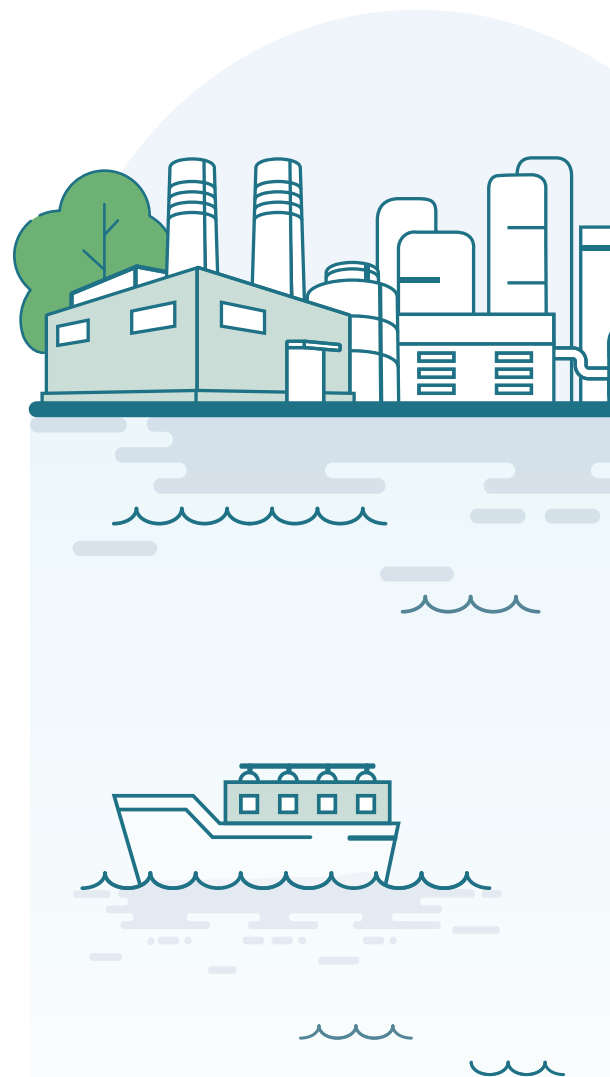
Digitalization

The move towards digitalization supports the creation of a data-driven society. At the same time, advancements in the development of robotics and artificial intelligence will also contribute to changing the face of the industrial workforce and the way businesses operate.



Disruptive technologies

With the rapid advancements in technology and the expansion of distributed energy resources, there is strong potential for disruption not just in the energy industry but in other sectors as well. Such disruption provides strong opportunities for business in terms of improvement and growth if organizations can adapt quickly enough.

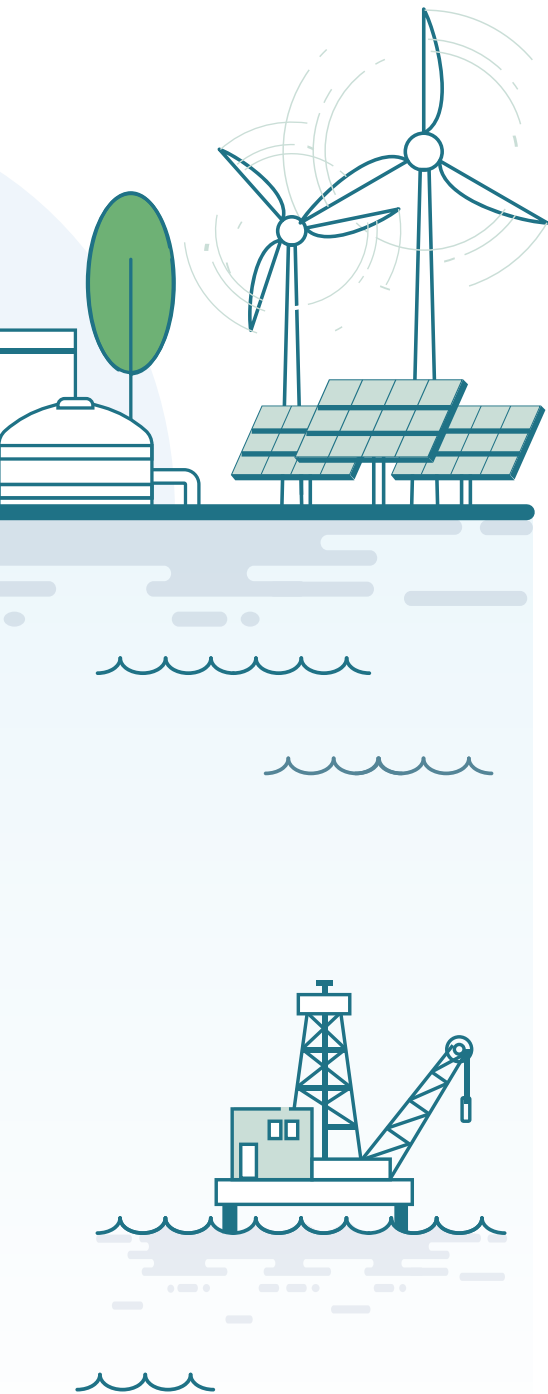




BUSINESS STRATEGIES

The Company has developed the following business strategies to support its objective of improving the quality of life of people in society through sustainable value creation while maintaining its competitiveness by evolving with the changing world.

The Company supports the implementation of its business strategies with sound management practices and good corporate governance, seeking opportunities to form strategic partnerships with key players at the local and global level while maintaining its commitment to corporate social responsibility to ensure that all projects are developed within the set budget and timeframe and operate with high efficiency without neglecting the Company's environmental and social responsibility.



Driving the energy transition through increasing investment in renewable energy

The Company endeavors to build on its extensive experience in conventional power to become an internationally-recognized player driving the transition to a low carbon society by prioritizing its investment in renewable energy projects while maintaining its No Coal Policy, with the goal of increasing the proportion of energy generated from renewable sources to at least 30% of its total gross installed capacity by 2030. The Company also continues to manage its existing projects to maintain the highest levels of efficiency and expects to reduce its carbon intensity by 25% within the next ten years.



Supporting economic growth through diversification into infrastructure and utilities

The Company understands that strong economic growth is a key part of sustainable development as it drives wealth creation and employment as well as a healthy exchange of knowledge and technology. Thus, the Company aims to support the development of major infrastructure projects that will serve as the backbone for industrial and economic expansion in Thailand and the ASEAN region.



Enhancing energy security through development of the gas business

The Company has also made it a priority to develop its gas business, both in Thailand and overseas, by increasing its investment in all aspects of the business, covering supply and distribution as well as storage and processing of liquefied natural gas (LNG). These efforts align closely with Thailand's national strategy to increase the competitiveness of the country's natural gas business which will allow the country to become a regional LNG hub and contribute to energy security and sustainable growth in the ASEAN region.



Preparing for the future through exploration of new technologies and businesses

The Company recognizes the many business benefits that technology provides and has thus made it a major part of its strategy to utilize state-of-the-art technology in all its projects to achieve the highest levels of efficiency and remain relevant in the long term, and to use digital tools in its management of the business. Furthermore, the Company aims to closely monitor and explore new technologies and businesses to ensure that GULF remains an agile and dynamic company that can maintain sustainable growth.

OVERVIEW OF BUSINESS ACHIEVEMENTS IN 2020



1

Project in operation

Germany



- Invested 50% equity interest in BKR2, an operating offshore wind project

1

Project under construction

Oman



- Changed the shareholding structure of DIPWP project to hold 49% of shares in Marafiq



Gas-fired power projects



Solar power projects



Wind power projects



Biomass power projects



Gas Distribution projects



26

Projects
in operation

5

Projects
under construction

Thailand



- Acquired 49% equity interest in HKP
- Acquired 35% equity interest in BPP
- GCG commenced commercial operation
- Established Gulf LNG Co., Ltd.
- Established Gulf1 Co., Ltd.
- Acquired 40% equity interest in PTT NGD

2

Projects
in operation

1

Project
under construction

Vietnam



- Mekong Wind started construction

MATERIALITY

GULF's identification of material issues is informed by conclusions drawn from its stakeholder engagement process and risk assessment process as well as from input provided by management and by benchmarking against other companies. Material issues are prioritized based on their impact to the Company and to stakeholders, and validated at the executive and Board levels.

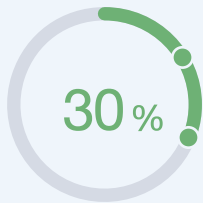


In 2020, GULF identified 20 material issues, focusing especially on the following:



Corporate Governance and Anti-Corruption

- Conduct business in a transparent and trustworthy manner
- Maintain adequate and appropriate governance and internal controls



Target

- Declare intention to join Thailand's Private Sector Collective Action Against Corruption (CAC) in 2020
- Become a certified member of CAC by 2022



Cybersecurity

- Ensure information technology systems are secure and data is protected
- Be vigilant to external cyber attacks and continuously improve security



Target

- Achieve ISO 27001 certification within 2021



Risk and Crisis Management

- Implement enterprise risk management in line with COSO standards including ESG and emerging risks
- Embed and foster risk management culture in the organization



Target

- 100% of employees participating in risk-related training annually by 2021



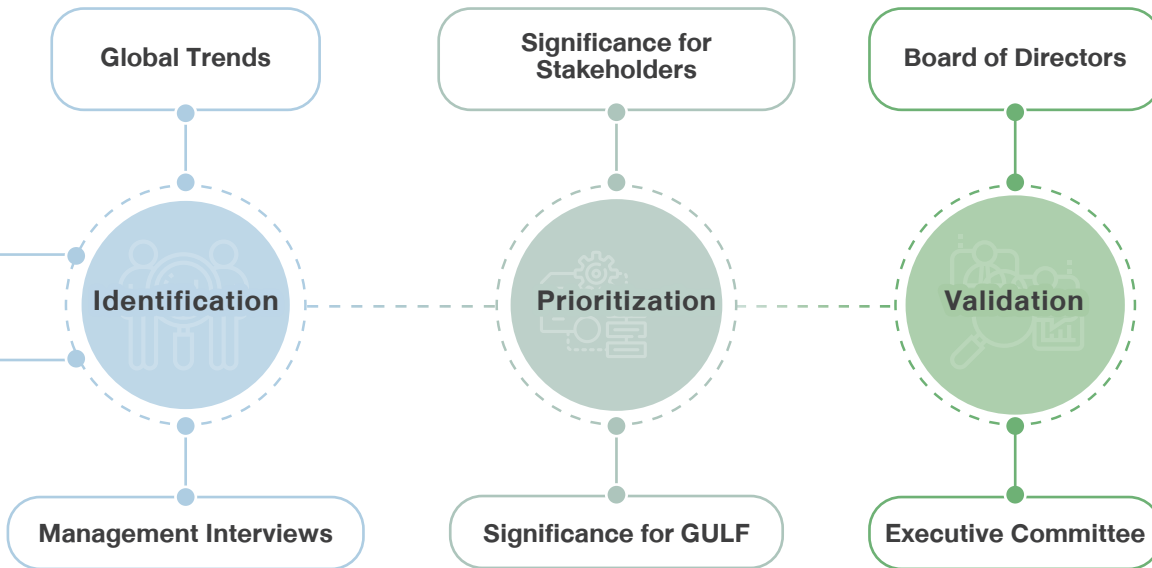
Stakeholder Engagement

- Ensure regular, open communication with all key stakeholder groups
- Monitor and manage key concerns appropriately



Target

- 100% of complaints investigated and closed within set timeframe



Human Capital Management

- Attract and retain high potential personnel
- Support employee development to prepare for potential changes



Target

- 100% of critical positions filled by 2020



Innovation + Technology

- Monitor and study new and potentially disruptive technologies
- Utilize state-of-the-art technology and promote innovation



Target

- Increase investment in new technologies and collaborations for innovation



Transitional Impacts from Climate Change

- Become a major player in contributing to decarbonization and the energy transition
- Significantly increase investment in renewable energy



Target

- Increase proportion of renewables in the generation mix to at least 30% of total gross installed capacity by 2030



Water Management

- Implement comprehensive water management plans at all operating projects
- Conduct water-related risk assessments and regularly monitor risks



Target

- 100% of projects with comprehensive water management plans by 2020

STAKEHOLDER ENGAGEMENT

1. Identify

Establish which organizations/ individuals are directly/indirectly affected by or may have an impact on the Company

2. Profile

Determine the potential impacts and key concerns of each stakeholder group as well as the nature of the relationship

3. Map

Identify the level of interest and influence of each stakeholder group and prioritize groups based on matrix quadrants

4. Engagement Plan Design

Determine programs, including grievance mechanisms, to build and maintain constructive relationships with stakeholders

5. Implement

Set resources, frequency, communication channels and person/team responsible for implementing each program

6. Monitor

Monitor and report on the status of the stakeholder engagement plan, including how stakeholders will be informed of the plan

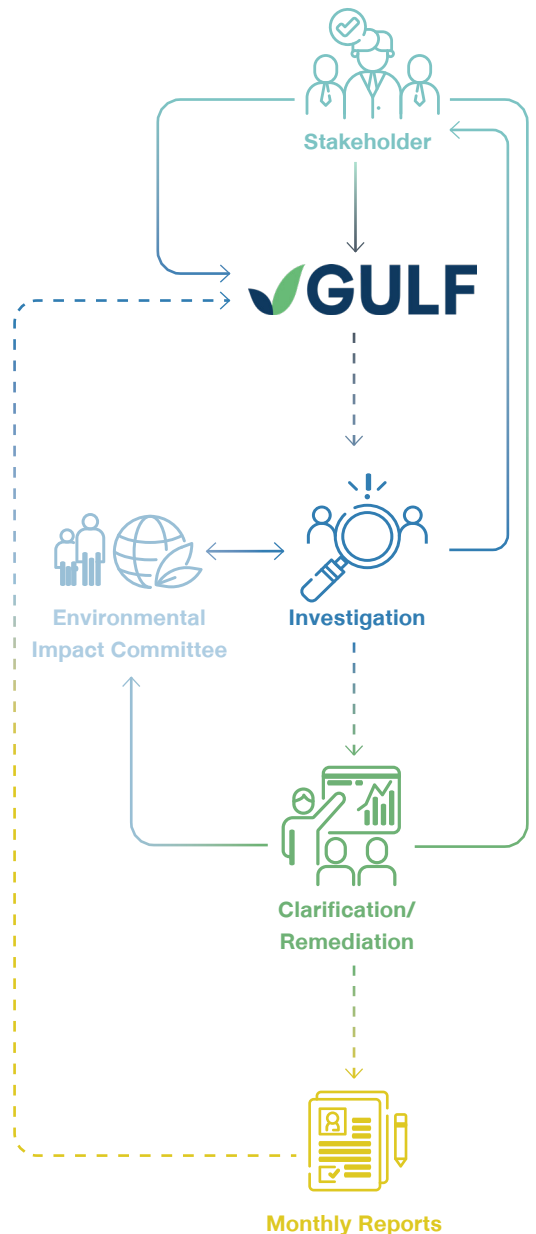
7. Review

Evaluate effectiveness of the plan based on stakeholder feedback and Company objectives, and update as required

GULF places great importance on understanding and addressing the needs of its stakeholders. The Company ensures that it is effectively engaging with all its stakeholders by implementing a 7-step cyclical stakeholder engagement process that allows the Company to constantly communicate with stakeholders in order to identify and prioritize stakeholder needs, design appropriate engagement plans, and monitor the effectiveness of those plans. The Company also has a clear grievance mechanism allowing stakeholders to voice their concerns and receive feedback through multiple channels.



Grievance mechanism





Investors

Key Issues: Sustainable business growth, providing funding for new projects while maintaining financial stability and profitability

Management method: Seek and build strategic partnerships with experienced players to manage risks (especially financial risks) and find alternate ways to raise funds without diluting shares for current shareholders

Engagement channels: Investor Relations section in the Company’s website, annual reports, annual shareholder meetings, analyst meetings, and other activities such as power plant site visits and roadshows



Local Communities

Key Issues: Manage impacts from the Company’s operations, increase positive impacts, improve quality of life for the people in the community, promote sustainable communities

Management method: Invest in community development projects such as building and repairing roads, dredging canals and installing light poles, support educational and health projects such as scholarships, internships and hospital renovations, support activities such as sports tournaments and cultural events

Engagement channels: Environmental impact committee, community surveys, regular visits from the Community Relations and EH&S departments



Employees

Key Issues: Mental and physical well-being, occupational health and safety, career advancement, job security

Management method: Foster corporate values, create a safe and happy work environment, provide opportunities for learning and development, provide competitive compensation, emphasize fair and non-discriminatory treatment

Engagement channels: Employee engagement survey, activities such as sports day, new year party and company-sponsored sports clubs, management visits, townhall events, and regular visits from the human resources department

Other Stakeholders



Local Government



Regulatory Agencies



Business Partners



Customers



Competitors



Media

The Company has dedicated teams that are responsible for ensuring regular and frequent communication with other stakeholder groups. The Company’s overall stakeholder engagement process seeks to balance the needs of all its stakeholders while striving for business success.

ZERO

- Incidences of human rights violations
- Complaints/incidences of misconduct
- Complaints/incidences of harassment
- Environmental fines/official warnings
- Social fines/official warnings

RISK MANAGEMENT

The Company assesses ESG (Environmental, Social, Governance) issues as part of its enterprise risk management process. Such risks are integrated in all aspects of the Company's activities and operations, as detailed in the Risk Management section of the Annual Report.

Labor Practices

Respecting labor rights is not only about ensuring compliance with laws and regulations, but helps to build strong human capital within the organization, a key factor in supporting sustainable business growth.

Management approach

The Company's human resources policies cover key issues from the attraction and recruitment stage through to the end of employment. The Company provides fair and competitive compensation, comparable to peer benchmark companies and reflective of economic conditions as well as the Company's and the employee's performance. The Company's labor practices reflect its commitment to equality and non-discrimination, as well as employee development and occupational health and safety. See the GULF Family section for details of the Company's performance regarding labor practices.

Human Rights

The Company evaluates human rights risks within the organization, with the local communities where the Company operates, and at project sites under construction and in operation.

Management approach

See the Human Rights section for details on the Company's human rights due diligence process.

Health and Safety

The Company places great importance on monitoring and managing risks that could potentially affect the health and safety of employees, contractors, and the local community. These include accidents, impacts to air or water quality, noise levels, and other emergency situations.

Management approach

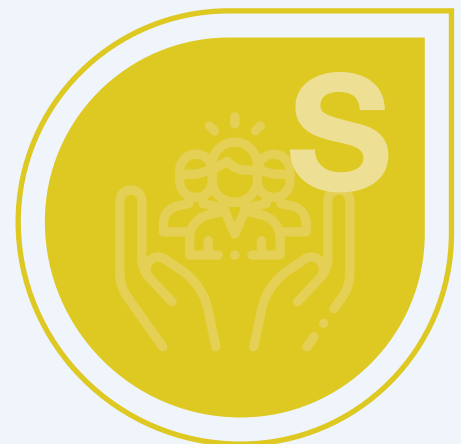
The Company has strict safety standards in place and has adopted digital tools to help employees jointly monitor safety practices at all sites. In addition, the Company ensures employees and contractors undergo regular safety training. The Company also has strong emergency, crisis and business continuity plans in place and tests them on a regular basis to make improvements. In 2020, the Company undertook additional measures to protect the health and safety of its employees during the COVID-19 situation and ensure zero transmission within the organization.

Local Impacts

The Company recognizes the concern that local communities have about large corporations moving into a new area and disrupting the local way of life or affecting people's livelihood, as well as concerns about sharing resources.

Management approach

The Company's business conduct is founded on the principle that GULF works to enhance quality of life. Thus, the Company works closely with the local communities in the areas where it operates to support community development including improving local infrastructure, supporting local agriculture and businesses, and engaging as members of the local community. The Company also engages with state agencies and community representatives through its site-based Environmental Impact Committees to discuss matters such as water-sharing schemes and joint community-building activities. See the GULF Community and Society section for more details.





Climate Change

The Company evaluates both physical and transition risks, as well as opportunities, arising from climate change.

Management approach

See the Climate Management section for details on the Company's assessment and management of climate-related risks and opportunities.

Water Management & Water-related Risks

The Company evaluates risks related to water availability, including water stress and water scarcity, as well as physical risks such as storms or floods that may affect operations.

Management approach

See the Water Management section for details on water-related risks and the Company's approach to water management.

Non-Compliance

As the Company operates its business in both domestic and overseas markets, it is essential that any changes in laws or regulations are closely monitored to ensure compliance.

Management approach

The Company proactively monitors changes in laws and regulations, including holding regular internal and external training and consultations with subject matter experts, and utilizes an internal communication platform to effectively disseminate relevant information across the organization.

Local Impacts

The Company monitors a number of factors that could potentially affect the local ecosystem such as risks related to biodiversity, air and water quality, use of natural resources, and operational safety.

Management approach

The Company completes Environmental Impact Assessments before beginning construction on any project to ensure project development and operations avoid or minimize any potential effects to the environment. The Company monitors air emissions and water quality, and conducts carbon and water footprint assessments annually as part of its strategy to improve resource and waste management. In addition, the Company has implemented, and regularly tests, emergency response plans to ensure any unforeseen events can be handled in a timely manner. Details of the Company's environmental management can be found on pages 26–33.

Corruption & Internal Fraud

The Company places great importance on conducting business in a responsible manner, in accordance with the principles of good corporate governance, with the aim of preventing intentional or unintentional misconduct which may affect the Company's reputation and operations.

Management approach

The Company conducts annual Code of Conduct training and testing for all employees. In addition, it holds regular, independent internal audits, with the results reported directly to the Audit Committee which is composed entirely of independent directors. Internal and external audits are conducted in line with relevant laws and standards. In 2020, the Company declared its intention to join the CAC (Thailand's Private Sector Collective Action Against Corruption).



GULF FAMILY

GULF is aware that business success is highly dependent on human capital. The Company believes that leading internationally-recognized companies are not those that achieve only financial success but rather are those companies that can develop “capable” and “responsible” employees who create value for and make positive contributions to society, while embracing new challenges as opportunities arise in order to continue growing. Thus, the Company has established human resources management policies and guidelines that prioritize the development of “good people” by fostering the company’s core values which emphasize dedication, teamwork, learning, and adaptation for the current and future success of the company.

CORE VALUES

The Company promotes core values that reflect what it means to be “GULF”, providing a guide for employee conduct which serves as the foundation of the business, creating a strong organizational culture and increasing stakeholders’ confidence that the Company will be able to achieve its goals with stability and sustainability.

G U L F



Be motivated and courageous to overcome limitations

The Company encourages and supports personal development so that employees can achieve the Company’s goal and confidently push their limits and overcome obstacles together.

Be devoted to a common goal, work as one team for mutual success

The Company creates a work environment that facilitates knowledge-sharing and exchange, and supports activities that encourage positive interactions among employees.

Love learning and be curious to initiate and explore new things

Employees are challenged to think outside the box, learn from mistakes, look for new ideas, and seek personal development through training opportunities provided throughout the year.

Be flexible and agile to all challenges

The Company and its employees must be able to adapt to an ever-changing environment, be open to new ideas and perspectives, and be resourceful and flexible in their work.

DIVERSITY

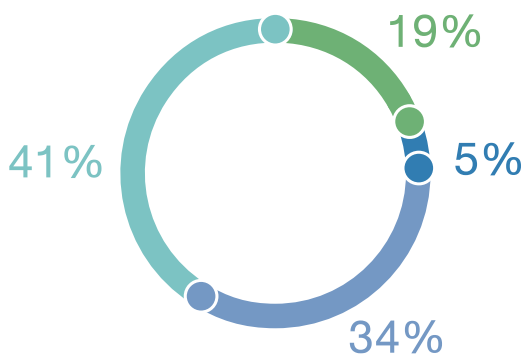
The Company emphasizes non-discrimination and the fair and equitable treatment of every employee. The Company's policies support gender equality in all aspects of work including ensuring fair and transparent performance evaluations, performance-based promotions, and equal pay for equal work*.

11

Members of the Board of Directors

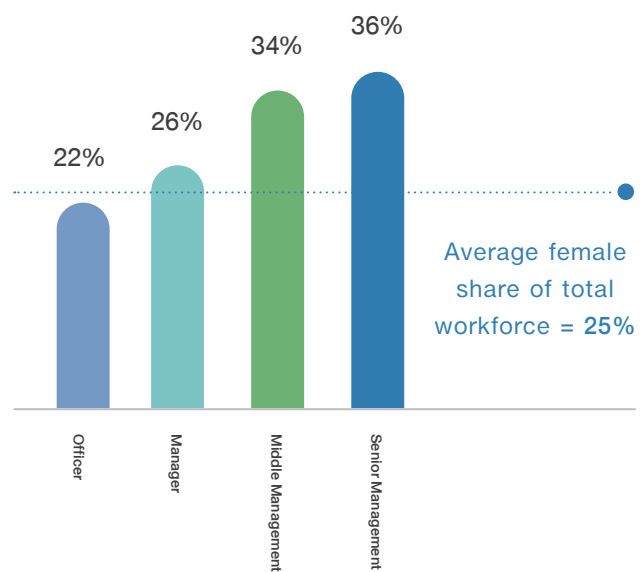


4 Females on the Board of Directors



- Below 30
- 30-39
- 40-49
- 50 and over

Proportion of Employees by Age Group



Proportion of Females in Each Job Level

*Variations in pay for workers of the same level may occur due to differences in professional qualifications or experience. The average female:male salary ratio across the Company is very close to 1:1.

GULF FAMILY

3H STRATEGIES



People are key to achieving sustainable business growth. Thus, the Company endeavors to support all aspects of human capital development within the organization under the 3H strategy – Head, Heart, and Health.

Encourage knowledge-sharing and communication as well as training and development programs for all employees.

Employee Engagement & Satisfaction

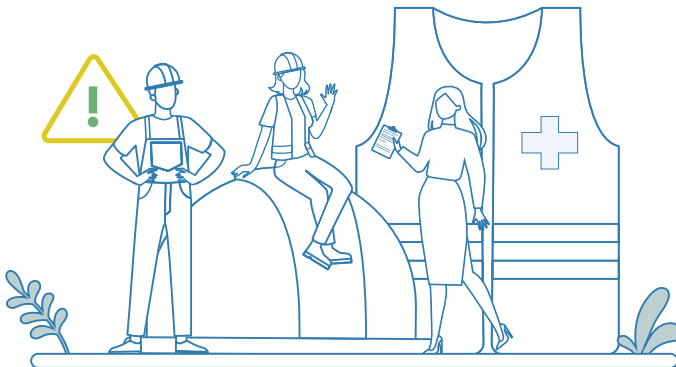
The Company conducts employee engagement surveys every two years, placing emphasis on employee well-being, providing fair and competitive compensation and benefits, ensuring a safe and healthy workplace, supporting learning and development, and promoting employee activities such as sports clubs and talent competitions.

91%
Employee satisfaction

81%
Employee engagement

0 complaints related to employee well-being

Occupational Health & Safety



The Company has consistently maintained high safety standards since the development of its first project, leading it to achieve the Zero Accident Award certification from the Ministry of Labour every year. The Occupational Health and Safety Committee oversees all aspects of employee safety including ensuring the continual improvement of the Company's health and safety procedures, and providing regular and intensive safety training for employees and contractors.

0
Employee fatalities

0
Lost-Time Injury Frequency Rate (LTIFR) – Employees

0.66
Lost-Time Injury Frequency Rate (LTIFR) – Contractors



HEART

Build positive interaction among employees through a variety of activities in order to encourage employee engagement.



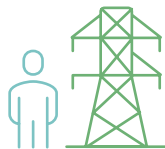
HEALTH

Provide a safe and healthy work environment, including taking care of employees' well-being during COVID-19.

Training & Development



42
Average training hours per person



142
Technical skills development courses



10
Specialized skills development courses



19
Soft skills development courses



8
Compliance* courses

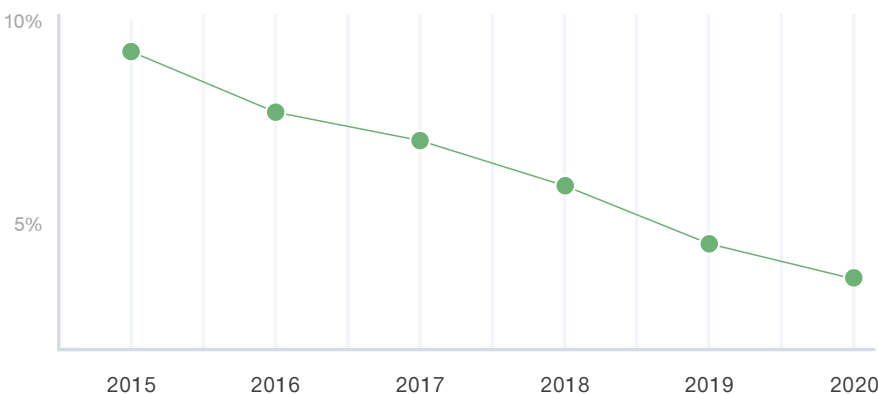


3
Other development courses

The Company aims to be an internationally-recognized industry leader. Thus, it has established a human capital development roadmap to enhance the competencies of the organization and build future leaders. The roadmap consists of 4 training paths including Leading Self, Leading Others, Leading Team, and Leading Function, ensuring all employees are given equal opportunities for development.

Employee Turnover Rate

% Turnover rate



The total turnover rate has decreased significantly and consistently every year, reflecting the Company's efforts to attract and retain capable employees and provide a supportive, safe and happy workplace for all its employees.

*Covering topics such as safety, cybersecurity and anti-corruption.

GULF COMMUNITY AND SOCIETY

Aside from its responsibility to stakeholders directly related to the Company's operations, such as investors and employees, GULF recognizes it also has a responsibility to the general society. Thus, in addition to its corporate social responsibility demonstrated through its commitment to value creation for its shareholders and investors, and through its commitment to safe and responsible operations, the Company's corporate social responsibility is directed towards creating a positive impact on the quality of life for members of the local communities where the Company operates and for society as a whole.

The Company emphasizes 6 areas of social development under the framework of IMPACT. In 2020, the Company contributed well over 100 million THB to more than 100 projects under the framework, benefiting over half a million people in Thailand and Vietnam.

40 Projects
427,711
Beneficiaries

Medical services

- In 2020, the Company chose to direct the bulk of its corporate social responsibility initiatives towards medical services, supporting frontline healthcare workers, medical facilities, and vulnerable groups affected by COVID-19.

Meal boxes and survival kits

During the peak of the pandemic in Thailand, the Company provided over 150,000 meals to urban communities across Bangkok and partnered with the Electricity Generating Authority of Thailand (EGAT) to provide over 10,000 survival kits for people in Nonthaburi province.

Medical equipment

The Company funded the procurement of essential medical equipment such as Extracorporeal Membrane Oxygenation (ECMO) machines, ventilators, and central monitors for major hospitals treating COVID-19 patients.

Masks and sanitizing kits

The Company secured and distributed over 100,000 KN95 medical masks to frontline hospitals throughout Thailand. Cloth face masks and sanitizing kits were also distributed to smaller hospitals in the south of Thailand and to sub-district health screening teams, village health volunteers, and frontline municipal officers around the country.

Vietnam

In addition to its COVID-19 initiatives in Thailand, the Company also provided 3 billion VND (approximately 4 million THB) in financial aid to help alleviate the hardship faced by local communities in Ninh Thuan and Ben Tre provinces resulting from the COVID-19 pandemic.

I

Infrastructure

Development of basic infrastructure and public spaces for local communities and other groups

M

Medical services

Promotion of public health through funding the construction and renovation of healthcare facilities as well as the purchase of medical equipment

P

Productivity

Establishment of a New Theory Agriculture Learning Center to support farmers and other local business groups

A

Activity

Promotion of and support for sports and exercise activities

C

Conservation

Promotion of the rehabilitation and conservation of natural resources and the environment

T

Teaching & Learning

Promotion of education, development of teaching and learning, and providing knowledge and skills to members of local communities



13 Projects

40,043

Beneficiaries

Infrastructure

- Supported the improvement of electrical and ventilation systems for local state agency buildings in Vietnam
- Improved and expanded greenspace for local communities in Thailand and Vietnam

4 Projects

400

Beneficiaries

Productivity

- Provided tools and equipment local people used in making a living
- Supported rice farming and crop cultivation under the concept of sufficiency agriculture through the Company's Demonstration Farm, including providing plants for agriculture, organizing knowledge sharing sessions, and improving soil quality using ash received from the power plant's production process

17 Projects

8,300

Beneficiaries

Activity

- Sponsored various local and Thai League football teams to help bring Thai football industry to the international level

10 Projects

29,600

Beneficiaries

Conservation

- Organized power plants visits and environmental knowledge & environmental quality measurement equipment training for schools, local state agencies, and other organizations
- Conducted environmental awareness and conservation activities such as tree-planting days with the local community and state agencies

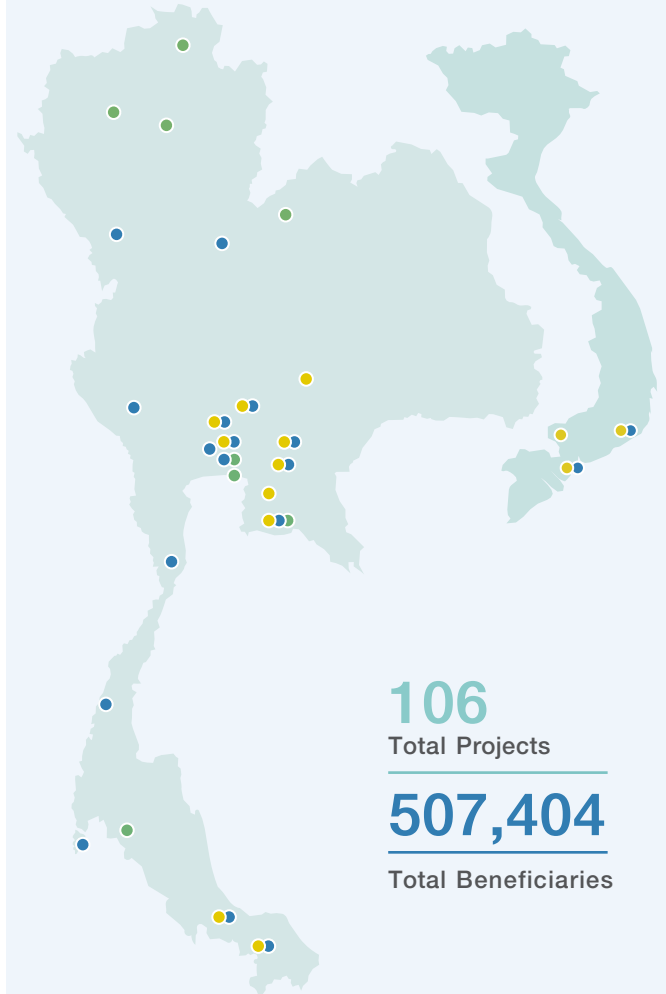
22 Projects

1,350

Beneficiaries

Teaching & Learning

- Provided educational scholarships and subsidized lunches for local school children in Thailand and Vietnam
- Supported the purchase of teaching equipment and renovated school buildings and playgrounds for local schools in Thailand and Vietnam
- Organized environmental knowledge training for local school children in Thailand



106

Total Projects

507,404

Total Beneficiaries



Local Communities around GULF's projects

- (Thailand) Nakorn Ratchasima, Ayutthaya, Saraburi, Prachinburi, Chachoengsao, Rayong, Pathumthani, Songkla, Yala, Chonburi
- (Vietnam) Tay Ninh, Ben Tre, Ninh Thuan



COVID-19

- (Thailand) Bangkok, Nonthaburi, Pathumthani, Kanchanaburi, Ayutthaya, Tak, Saraburi, Prachinburi, Phitsanulok, Ranong, Prachuap Khiri Khan, Chachoengsao, Rayong, Phuket, Songkla, Yala
- (Vietnam) Ninh Thuan, Ben Tre



Others

- Bangkok, Chiang Rai, Chiang Mai, Lampang, Krabi, Loei, Samut Prakarn, Rayong

HUMAN RIGHTS

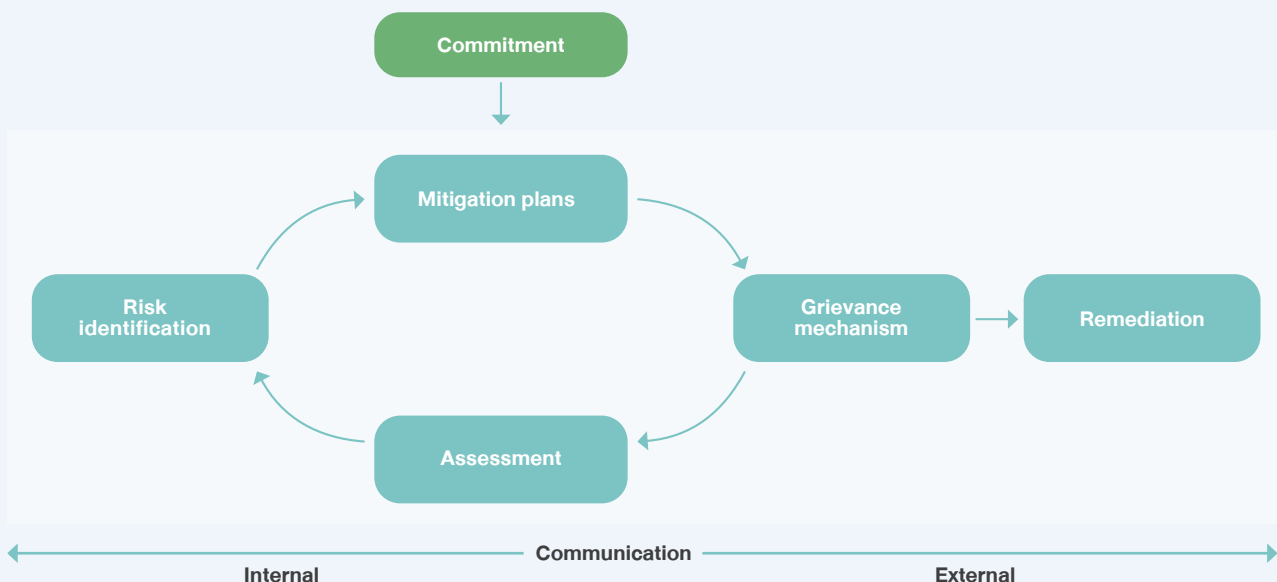
Respect for human rights is a key component of GULF's sustainability framework and part of the Company's foundational beliefs on how business should be conducted. That said, the nature of the energy industry and accompanying regulatory frameworks in Thailand, where GULF is based and where the majority of its business operations are located, already facilitate – and in fact require – socially responsible corporate conduct. In any case, the Company continues to expand on its commitment to respect human rights both within and outside the organization.

The Company's Human Rights Policy, approved at the highest level by the Board of Directors and guided by the Universal Declaration of Human Rights and the Conventions of the International Labour Organization, covers the following key points:

1. Engage with stakeholders to identify, engage, and manage human rights concerns and issues.
2. Ensure fair and equal treatment of stakeholders, placing emphasis on the diversity and inclusion of employees and avoiding discrimination based on sex, gender, age, race, ethnicity, religion, nationality, and any other non-merit-based attributes.
3. Respect labor rights and ensure full compliance with labor laws.
4. Provide and maintain a safe and healthy workplace for employees with consideration for all aspects of employee well-being (including physical, mental, emotional, social well-being), and comply with applicable safety and health laws and regulations.
5. Support human rights throughout the Company's value chain through monitoring and advocacy.
6. Educate and advocate for human rights both within the Company and among external stakeholders including business partners, suppliers, contractors, and the communities in which the Company operates.
7. Maintain a ZERO TOLERANCE POLICY regarding child labor, slave labor, forced labor, or any form of human trafficking.

HUMAN RIGHTS DUE DILIGENCE

The Company also works to ensure that no human rights violations occur anywhere within its value chain as a result of its activities and operations. Thus, the Company has developed a human rights due diligence and assessment process to help identify, mitigate and prevent human rights risks.



Key groups/issues assessed

This process begins with an examination of different areas of the Company's business, especially 1) within the organization among the Company's employees, 2) within the local communities where the Company operates, 3) at sites under construction and development, and 4) at sites in operation. In addition to the universal human rights mentioned in the Universal Declaration of Human Rights, the Company's potential human rights risks identification also covers labor rights as well as the rights of vulnerable groups. The Company also extends its commitment to respect human rights to its business partners, suppliers and other external parties through the GULF Supplier Code of Conduct.

Within the Company



Employees



Health and safety



Labor rights



Non-discrimination



Gender equality

Sites under construction and development



Contractors



Labor rights



Migrant labor



Child labor



Health and safety

Within the local communities



Impacts from business operations



Health and safety

Sites in operation



Labor rights



Health and safety

The Company's assessments are conducted on an ongoing basis and at least annually for every key area and issue. The Company has developed a clear grievance mechanism to ensure any cases received are given immediate attention and handled by the appropriate internal departments. Findings from the due diligence process and results of grievance responses are reported to management and the SRMC on a regular basis. The Company also ensures its commitments are communicated to stakeholders including employees, regulatory agencies, and suppliers and partners.

With the strong emphasis on ethical and responsible business conduct, GULF is able to report that the Company has not received any complaints regarding human rights violations. The Company's assessments have also determined that its internal control and human rights risk mitigation plans are adequate and appropriate at all sites.



of sites assessed



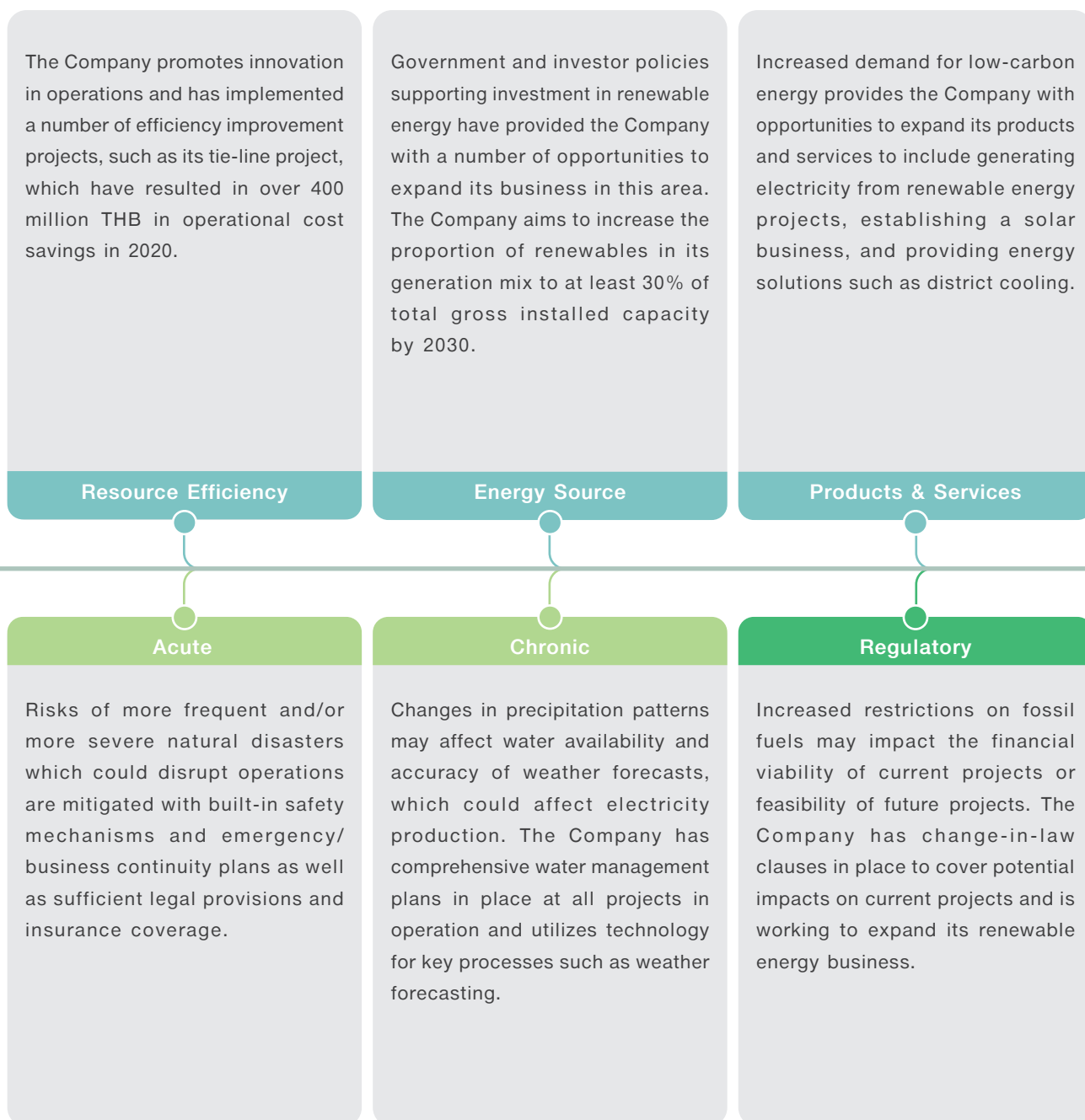
with sufficient internal controls and mitigation plans



confirmed incidences of human rights violations

CLIMATE MANAGEMENT

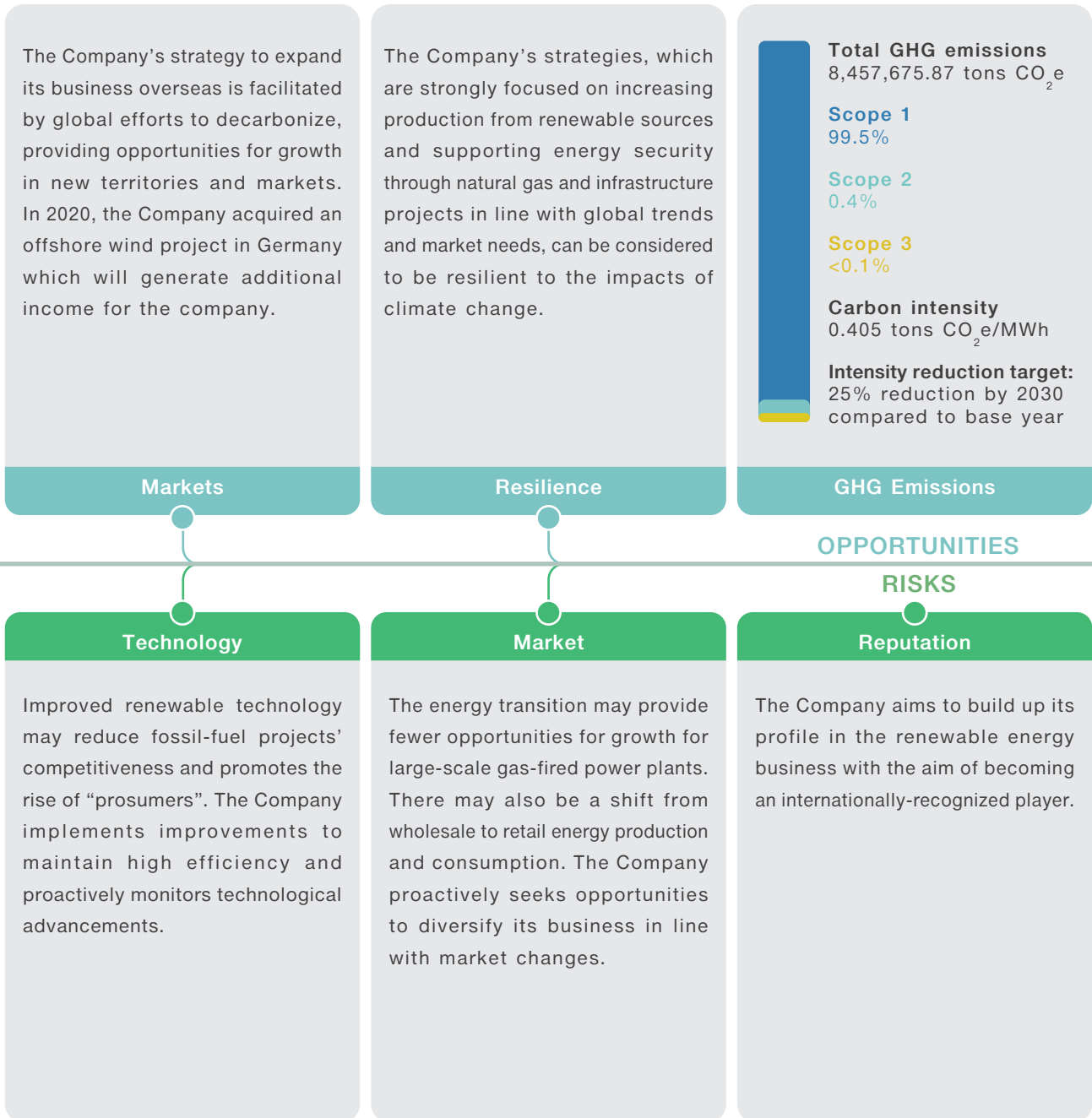
GULF recognizes that climate change will have significant impacts on business, especially for the energy industry. The Company has therefore established business strategies to manage climate-related risks and opportunities which are assessed for the short, medium and long term as part of its enterprise risk management process. The major scenarios used for analysis include business-as-usual scenarios, aggressive carbon reduction scenarios and intermediate scenarios*. Risks and opportunities are reported in line with TCFD recommendations.



Physical

*IPCC RCP8.5, IEA STEPS, IPCC RCP2.6, IEA SDS, WEC Unfinished Symphony

The Company’s climate strategy focuses on reducing the proportion of electricity generated through combustion through increasing investment in renewable energy and other related businesses. The Company has also developed measures to reduce energy consumption and greenhouse gas emissions including implementing a No Coal Policy and promoting innovation in operations to improve efficiency. Aside from managing its direct impact, the Company also contributes indirectly to climate action by providing services that help its customers reduce their own emissions.



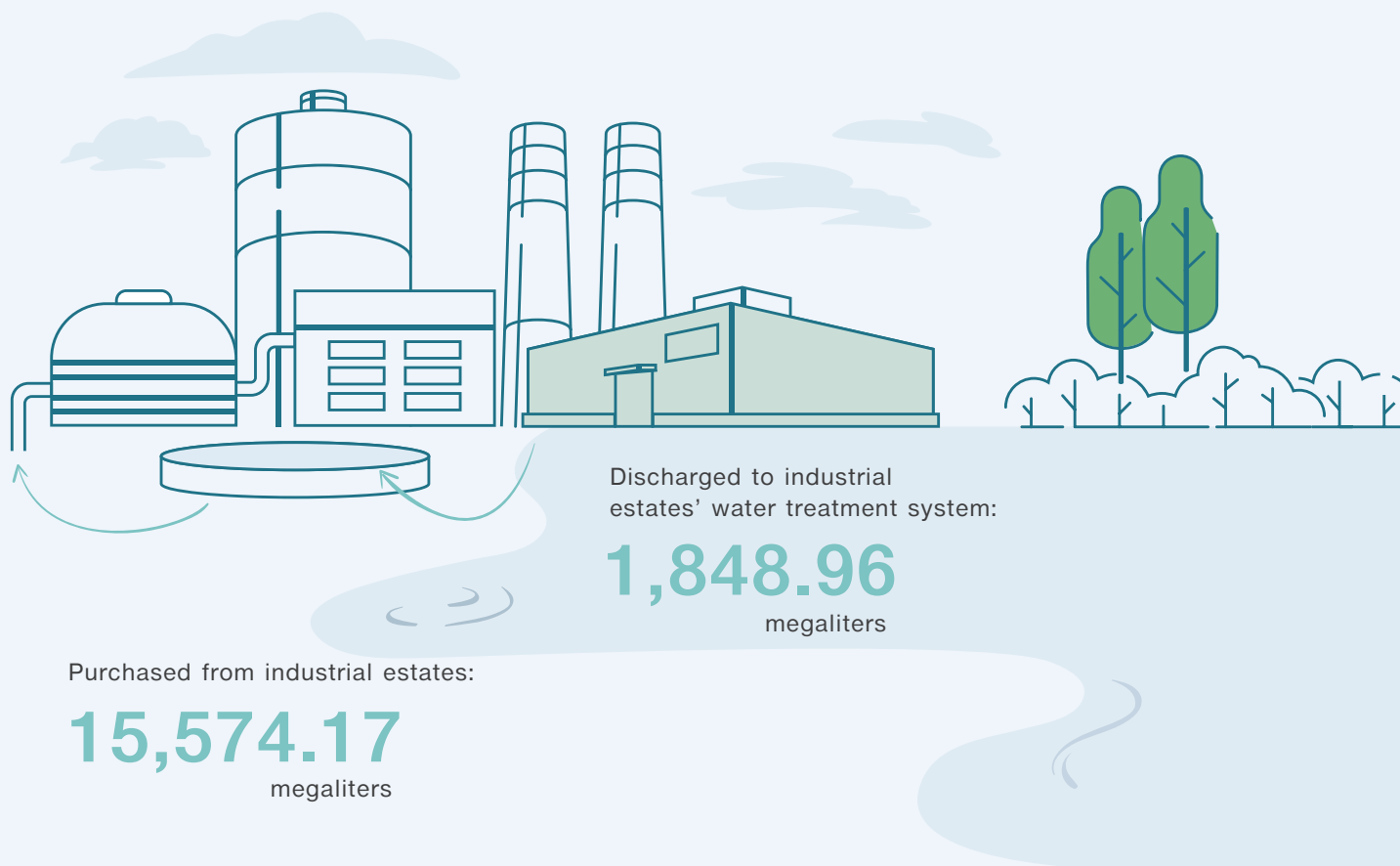
Transition

WATER MANAGEMENT

GULF recognizes that water is a valuable natural resource that must be efficiently and effectively managed. As such, the Company has made it a priority to ensure all its projects have a comprehensive water management plan in place which takes into account key issues including water-related risks, water quality, and water availability and consumption. As of 2020, all projects in operation have clear site-specific water management plans in place.

REDUCING CONSUMPTION

Almost all of the Company's water consumption occurs at its power projects' cooling towers where water is evaporated to maintain operational temperature in the plants. Thus, a key priority of the plans is to develop ways to increase water cycling within the cooling towers, thus reducing total water withdrawal. As a result of these efforts, the Company's water intensity decreased 9.06% from the previous year.



Projects located in industrial estates purchase water directly from the estate and discharge to the estate's water treatment system in line with standards set by the industrial estate. The Company works closely with water suppliers, regulators and the local community to seek methods to reduce freshwater withdrawal. Thus, in 2020, the Company implemented an initiative to purchase treated waste water from industrial estates to supply its power projects, allowing the estate to reduce freshwater withdrawal.



WATER AVAILABILITY

Industrial estates have water storage facilities with sufficient back-up supplies. The Company’s standalone projects have raw water storage ponds on site with up to 60 days’ capacity. The Company also has contingency plans in place to source water from alternative suppliers or sites if needed.

0 projects
in water-stressed areas¹



Projects located outside industrial estates withdraw water directly from major waterways. The quality of water discharged directly to natural waterways is far within regulatory limits set by the Royal Irrigation Department² and is often of better quality than the waterways to which it is being discharged. Furthermore, water-sharing schemes are in place to ensure water availability for the local community and agricultural sector is not affected by the Company’s operations.

¹ As identified by the UN FAO AQUASTAT tool

² TDS ≤ 1300 mg/L

OPERATIONAL ECO-EFFICIENCY

Eco-efficiency can be defined simply as creating greater business value with fewer negative environmental impacts. For GULF, this concept forms the foundation of its operational objectives, as maintaining high levels of efficiency allows for greater productive output while using fewer resources and thus lowering operating costs. Since 2017, the Company has adopted an Environmental and Social Management System (ESMS)* which takes into consideration the interrelation between humans and the environment. Thus, the Company's environmental management measures are developed with input from local communities and other relevant stakeholders to seek outcomes that create benefits in all dimensions of sustainability.

ENERGY CONSUMPTION

Almost all of the Company's energy consumption can be attributed to the consumption of natural gas which is used to generate electricity in its power projects. Thus, while the Company encourages energy conservation in all areas of operations, its main strategies for reducing its energy consumption and energy intensity are aimed at attaining the highest possible levels of efficiency. The Company achieves this in three ways:



1. **Technology:** The Company's policy is to use high-quality state-of-the-art technology from internationally recognized suppliers with strong technical expertise in power plant equipment.



2. **O&M Planning:** The Company has carefully planned operation and maintenance schedules, including a proactive preventive maintenance regime, to prevent unnecessary shutdowns that would reduce efficiency.



3. **Innovation:** The Company encourages its employees to seek ways to improve efficiency in operations by setting key performance indicators (KPIs) which reflect the successful implementation of various improvement projects.

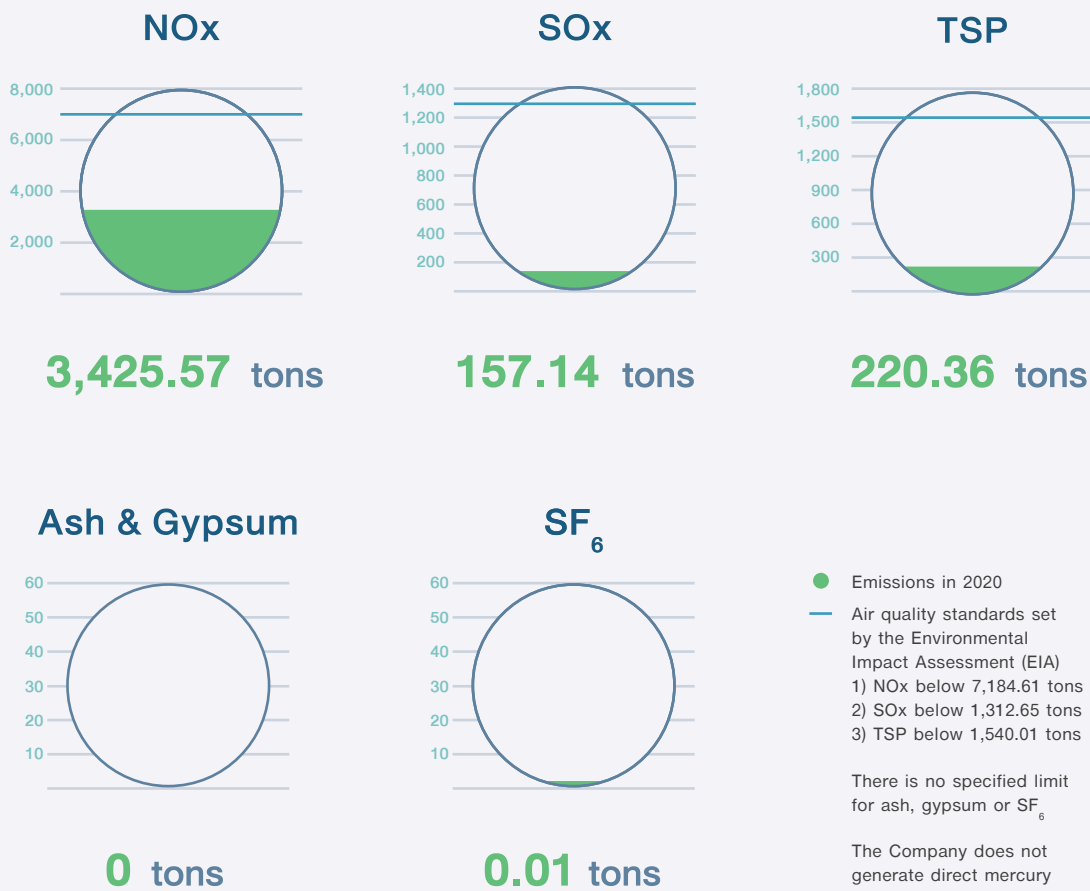
In 2020, the Company's total energy consumption increased as a result of new projects achieving commercial operation in 2019 and 2020. However, as a result of its energy management strategies, the Company's energy intensity was 7.40 (GJ/MWh), a reduction of 5.25% from the previous year.

*based on the ADB Safeguard Policy Framework

EMISSIONS MANAGEMENT

The Company completes stringent Environmental Impact Assessments (EIA) on all its projects before beginning construction. These assessments are conducted to incorporate measures within the design and subsequent construction and operation phases of the project to minimize negative impacts on the surrounding environment and local communities. Thus, the Company is held to emissions standards that are stricter than legal or regulatory requirements.

Performance in 2020



WASTE MANAGEMENT

The electricity generation process does not generate large amounts of waste as few raw materials or chemicals are used in the production process, with the majority of the waste comprising natural sediment filtered out of water used in electricity generation. Regardless, the Company places great importance on responsible production and consumption, having set a target of “Zero Waste to Landfill” by 2020, which the Company achieved as planned. Thus, the Company has set a new target of “Zero Waste Incineration” to be completed within 2021. In addition, the Company also encourages its employees to help reduce waste in general, especially plastic waste which is a major global issue.

Non-Hazardous Waste



87%

Hazardous Waste



13%

100% of waste disposed of sustainably*



*At the beginning of 2020, the Company had not yet found a sustainable method to manage waste insulation resulting in a small amount (0.03%) of total waste being disposed of in landfills in 2020. A non-landfill method to dispose of such waste was adopted at the beginning of Q2/2020 allowing the Company to achieve its “Zero Waste to Landfill” target after that.

BIODIVERSITY

GULF is fully aware of its environmental responsibility and aims to avoid and minimize any potential negative impacts to the ecosystem in the areas where the Company operates. The Company upholds this commitment through sufficient and appropriate governance and oversight as well as responsible management practices. In addition, the Company supports education and advocacy initiatives related to biodiversity and other environmental issues.

The Company conducts extensive environmental impact assessments and outlines appropriate environmental management plans before starting development on any project. GULF develops projects only in industrial estates or areas where the government allows industrial development. Thus, most of the Company's projects are located in industrial estates which pose limited impacts to biodiversity and the ecosystem. For projects outside industrial estates, the Company only develops projects in areas that are not environmentally vulnerable or of high biodiversity value. In addition, the Company does not engage in any forest-clearing. To explore and monitor the biodiversity of the areas around its projects, the Company conducts regular biodiversity surveys every six months to record the number of species found in the area.*

In 2020, with close monitoring and good environmental management practices, the majority of the surveyed sites showed that the biodiversity index downstream had no significant difference from that upstream, indicating that the discharge water from the Company's projects have no impact to the biodiversity of the aquatic biological habitat in the surrounding areas.

0 projects
 located in areas that are high in biodiversity value or environmentally vulnerable



8 projects
 located outside industrial estates conduct biodiversity surveys every 6 months



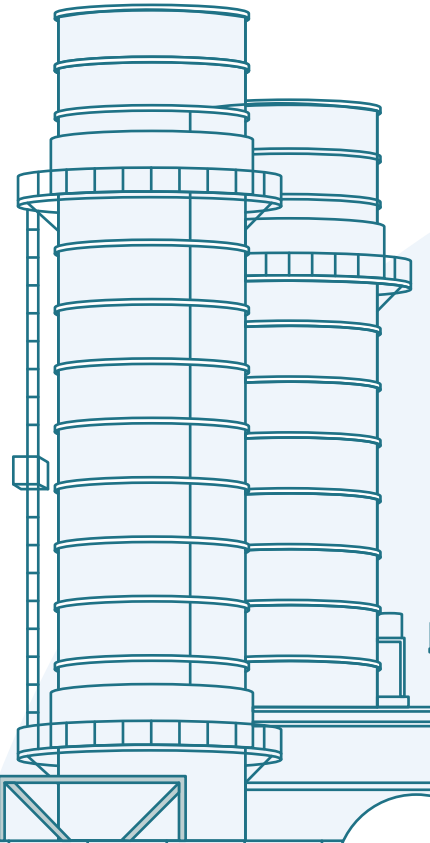
16 projects
 located in industrial estates are deemed to have no direct impacts on biodiversity



*There are no IUCN Red List or national conservation species in the areas where GULF operates.

NEW THEORY AGRICULTURE LEARNING CENTER AND DEMONSTRATION FARM

New Theory Agriculture Learning Center and Demonstration Farm is located next to the Gulf Nong Saeng (GNS) power plant, Nong Saeng district, Saraburi province. The project was established in 2015 to serve as a center for community learning, local farmer skills development and knowledge sharing, as well as to improve the well-being of the community around power plant. The success of the New Theory Agriculture Learning Center and Demonstration Farm over the past 6 years also demonstrates that the Company's power plants and surrounding communities have been able to coexist together sustainably with no negative impacts to the agriculture in the local area.



A VARIETY OF FRUITS

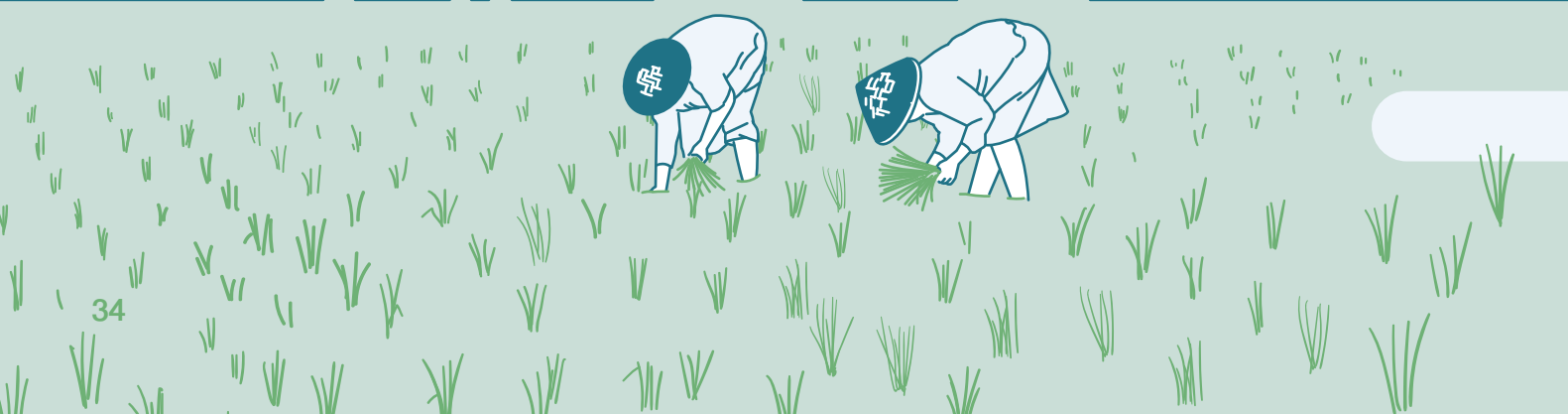
such as mango, lemon, lychee, longan, star fruit, pomelo, jackfruit, tamarind, guava, durian, watermelon, melon, and various types of bananas

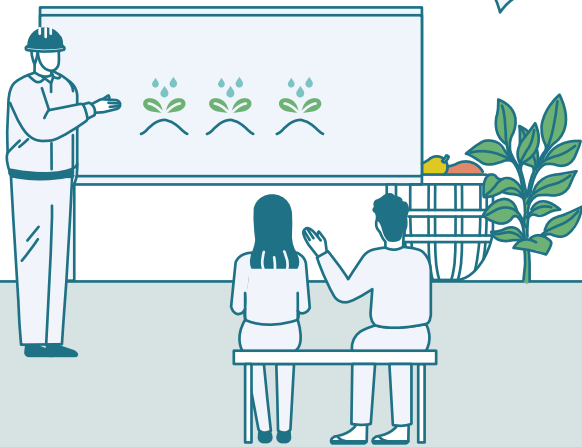
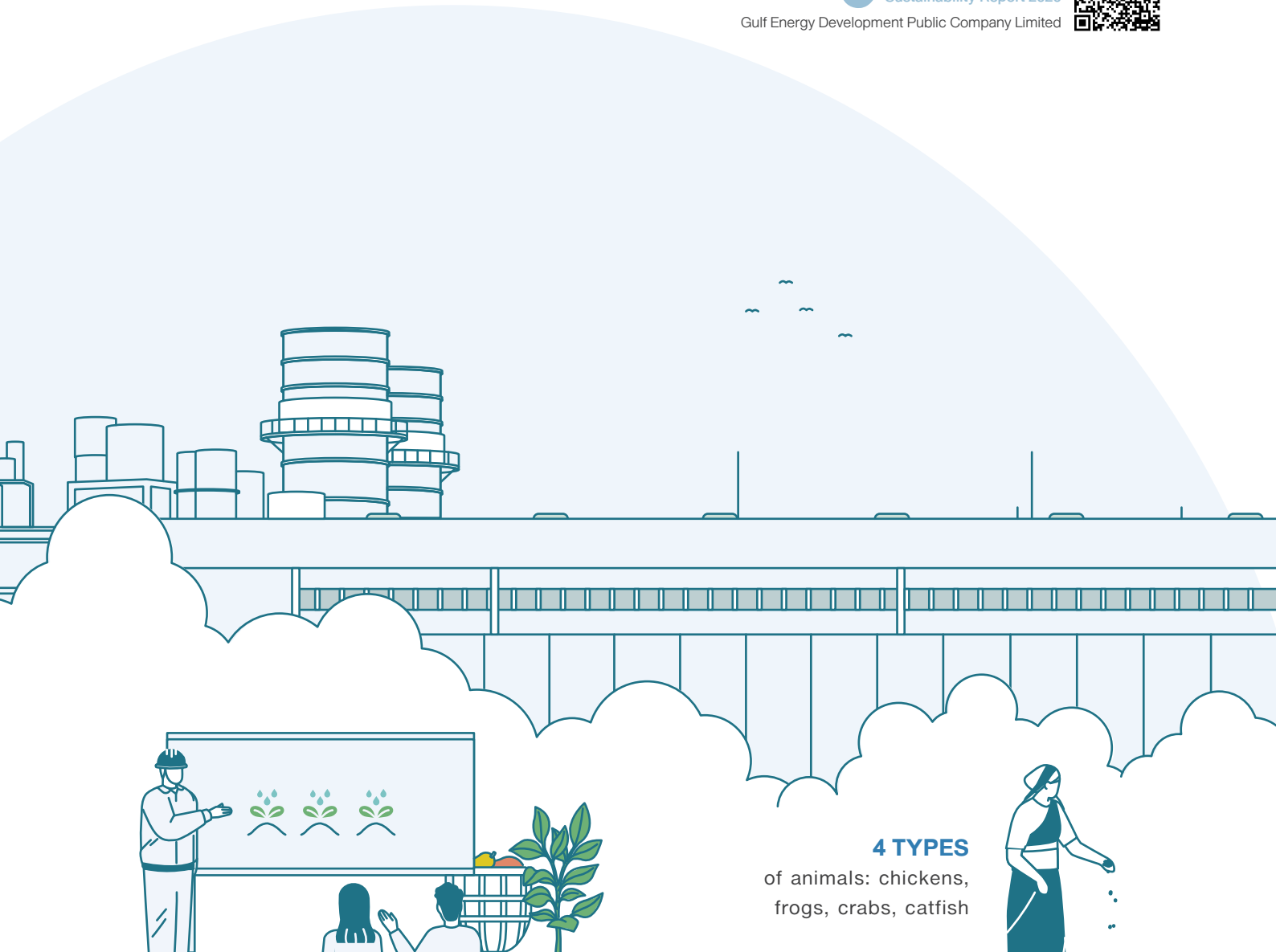
Use of agricultural equipment and supplies from local shops in the community helps distribute approximately

300,000 BAHT PER YEAR IN ADDITIONAL INCOME to the community

EMPLOYING LOCALS IN THE COMMUNITY

to take care of plants in the New Theory Agriculture Learning Center, helping to create extra income for people in the community totaling over 564,000 baht per year



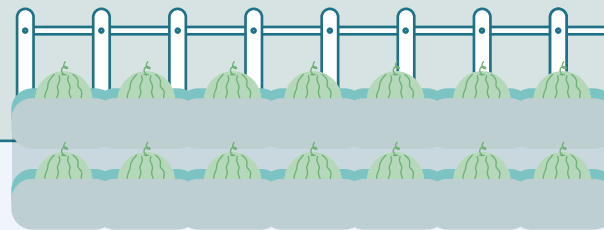


4 TYPES
of animals: chickens,
frogs, crabs, catfish



A place where farmers can
apply knowledge and become
SUCCESSFUL IN FARMING,
therefore increasing their income
and sharing their knowledge with
other farmers

A place to **ORGANIZE LOCAL
CULTURAL ACTIVITIES**, helping to link
the coexistence between the people in the
community and the power plant



10 types of medium- and
long-term **ECONOMIC
PLANTS** such as mahogany,
teak, eucalyptus and bamboo

DEMONSTRATION FARM

for crops that use less water such as
pumpkin, corn, and watermelon,
planted after the rice harvesting season
and before the rice farming season
to improve soil quality, eliminate pests,
and reduce the use of chemicals





AWARDS & RECOGNITION

<p>Awarded</p> <p>the Southeast Asia Awards 2020 Best in Sector: Utilities</p> <p>by IR Magazine 1</p>	<p>Awarded</p> <p>the Industry Mover Award in the Sustainability Yearbook 2021</p> <p>by S&P Global 2</p>	<p>Awarded</p> <p>the Thailand Best Employer Brand Awards 2021</p> <p>by the World HRD Congress 3</p>
<p>Awarded</p> <p>the Sustainability Disclosure Acknowledgement 2020 Award</p> <p>by the Thaipat Institute 4</p>	<p>Awarded</p> <p>the Green Office Award: (Gold Level)</p> <p>by the Ministry of Natural Resources and Environment 5</p>	<p>Awarded</p> <p>the Green Industry Award</p> <p>by the Ministry of Industry 6</p>
<p>Included</p> <p>in the Thailand Sustainability Investment Index (THSI) 2020</p> <p>by The Stock Exchange of Thailand 7</p>	<p>Received</p> <p>the Carbon Footprint for Organization (CFO) Certification</p> <p>by the Thailand Greenhouse Gas Management Organization (Public Organization) 8</p>	<p>Received</p> <p>the Carbon Footprint for Product (CFP) Certification</p> <p>by the Thailand Greenhouse Gas Management Organization (Public Organization) 9</p>
<p>Received</p> <p>the Water Footprint Certificate</p> <p>by the Water Institute for Sustainability, The Federation of Thai Industries 10</p>	<p>Awarded</p> <p>the Zero Accident Campaign Certificate</p> <p>by the Ministry of Labour 11</p>	<p>5: GKP1, GKP2, GNRV1, GNRV2</p> <p>6: GBL, GBP, GNC, GTLC, GNRV1, GNRV2, GNLL2</p> <p>8: GBL, GBP, GNC, GKP1, GKP2, GTLC, GNNK, GNLL, GNLL2, GCRN, GNK2, GVTP, GTS1, GTS2, GTS3, GTS4, GNS, GUT</p> <p>9: GBL, GBP, GNC, GNLL2, GTS1, GTS2, GTS3, GTS4, GNS, GUT</p> <p>10: GTS1, GTS2, GTS3, GTS4, GNLL2</p> <p>11: GBL, GBP, GNC, GKP1, GKP2, GTLC, GNNK, GNLL, GNLL2, GCRN, GNK2, GVTP, GTS1, GTS2, GTS3, GTS4, GNS, GUT</p>



Gulf Energy Development Public Company Limited

87 M.Thai Tower 11th Floor, All Seasons Place, Wireless Road,
Lumpini, Pathumwan Bangkok 10330

Tel: +662-080-4499 **Fax:** +662-080-4455 **E-mail:** contact@gulf.co.th

