



TOWARDS
CLEAN WATER
FOR
ALL

SUSTAINABILITY REPORT 2023

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LETTER FROM THE BOARD

On behalf of the Board of Directors (“Board”) of Moya Holdings Asia Limited (the “Company” or “Moya,” and together with its subsidiaries, the “Group”), we are pleased to present you with the Company’s Sustainability Report (“Report”) for the financial year ended 31 December 2023 (“FY2023”).

Water Capacity Growth

We are proud to report another year of significant growth for our organization. Our total water treatment capacity under management on behalf of municipal water authorities in Indonesia has now surpassed the milestone of 32,000 litres per second.

Jakarta 100% Clean Piped Water Access

This year also saw the inception of our new subsidiary, PT Air Bersih Jakarta (“ABJ”), which has embarked on an ambitious project aimed at helping to achieve 100% access to clean piped water in Jakarta. This initiative is crucial for improving the health and well-being of Jakarta’s residents and represents a significant step forward in our mission to provide sustainable water solutions to communities.



Recycling Expansion

Our commitment to environmental stewardship was further demonstrated through the continued expansion of our waste sludge recycling programs. These initiatives are pivotal in our strategy to minimize environmental impact and promote a circular economy.

Zero Serious Accidents

We are also proud to report that this year, we have maintained our record of zero serious accidents, reflecting our unwavering commitment to safety and the well-being of our employees.

Improving Water Quality Compliance

Additionally, our relentless focus on improving water quality has yielded results well exceeding regulatory requirements, ensuring that we continue to deliver safe and clean water to our customers.

Solar Power

As part of our sustainability push, the Group has also laid the groundwork in FY2023 to launch our first solar project in FY2024, aimed at materially reducing our electricity usage.

Looking Ahead

Looking ahead, we remain committed to driving the growth of water treatment as well as increasing transparency and ESG reporting of our core business while balancing the needs of all our stakeholders in our ESG matrix. We look forward to reporting back on our progress in 2024 and continuing to work together towards a more sustainable future.

Thank you to all our stakeholders

As we reflect on the achievements of the past year, I would like to extend my sincerest gratitude to our dedicated staff, reliable suppliers, loyal customers, and steadfast investors. Your support and trust in our vision have been instrumental in our success.

Signed,

TODUNG MULYA LUBIS

Chairman

MOHAMMAD SYAHRIAL

Executive Director

Chief Executive Officer

Jakarta, May 29, 2024

OUR WATER BUSINESS

Moya Holdings Asia Limited, together with its subsidiaries known as Moya operates in the water treatment and management sector. Our operations focus on providing sustainable water solutions from source to tap in Indonesia. Here is an overview of our operations:

WATER TREATMENT AND MANAGEMENT

We manage and operate water treatment plants, raw water intakes, and dams, as well as distribution networks. We collaborate with municipal water authorities to ensure a consistent supply of clean and safe water to urban and rural areas.

Our operations include:

1. **Raw Water Intakes and Dams:** We manage the intake of raw water from natural sources and maintain dams to ensure a reliable and steady supply of water for treatment and distribution.
2. **Water Treatment Plants:** We design, build, operate, and maintain water treatment facilities. These plants treat raw water from various sources, including rivers and dams, to meet stringent quality standards before distribution to consumers.
3. **Water Distribution Networks:** We are involved in the installation, maintenance, and expansion of water distribution pipelines, water connections, billing, and customer service. This ensures that treated water is efficiently delivered to residential, commercial, and industrial users.

EXPANSION PROJECTS

1. **Capacity Expansion:** We continuously work on increasing our water treatment capacity to meet growing demand. Our managed capacity has surpassed 32,000 litres per second, indicating significant operational scale.
2. **New Subsidiaries:** We have launched subsidiaries like PT Air Bersih Jakarta (ABJ) to tackle specific regional projects. ABJ is focused on achieving 100% access to clean piped water in Jakarta, reflecting our commitment to improving public health and well-being through reliable water supply.

ENVIRONMENTAL INITIATIVES

“Our managed capacity has surpassed 32,000 litres per second, indicating significant operational scale.”

1. Recycling Programs: We run waste sludge recycling programs as part of our commitment to environmental sustainability. These programs aim to reduce waste and promote a circular economy by repurposing sludge by-products.
2. Solar Power Projects: We are investing in renewable energy projects, such as solar power, to reduce our carbon footprint and operational costs. Our first solar project is set to launch in the near future, significantly reducing electricity usage in our operations.

SAFETY AND QUALITY

1. Safety Standards: We maintain rigorous safety protocols to ensure a safe working environment for our employees. Our track record of zero serious accidents highlights our dedication to safety.
2. Water Quality: We prioritise delivering high-quality water that exceeds regulatory standards. Continuous improvement initiatives ensure that the water we provide is safe and clean, meeting the needs of our customers.

FUTURE COMMITMENT

We are committed to innovation, operational efficiency, and sustainability. Our goal is to enhance our core business operations while balancing the needs of all stakeholders, ensuring long-term success and a positive impact on communities and the environment. Overall, our operations are characterised by a strong focus on sustainable water management (as described in our Sustainability Policy below), environmental stewardship, safety, and quality, with ongoing projects aimed at expanding our capacity and impact in Indonesia.

Below is the data for Moya water treatment operations ranked by capacity, with a total at the end:

Company	Capacity (lps)
PT Air Bersih Jakarta (ABJ)	17,300
PT Traya Tirta Cisadane (TTC)	3,500
PT Air Batam Hulu & Hilir (ABH)	3,980
PT Moya Tangerang (MT)	2,250
PT Moya Bekasi Jaya (MBJ)	1,650
PT Tirta Kencana Cahaya Mandiri (TKCM)	1,600
PT Aetra Air Tangerang (AAT)	1,200
PT Air Semarang Barat (ASB)	1,000
PT Acuatico Air Indonesia (AAI)	85
Total	32,565

Table 1: Moya water treatment operations ranked by capacity.

AIR BERSIH JAKARTA: TOWARDS 100% ACCESS TO CLEAN WATER IN JAKARTA BY INCREASING TO 2 MILLION CONNECTIONS



1. **Comprehensive Coverage Expansion:** – The project aims to increase Jakarta's tap water coverage from the current 46% to 100%, ensuring that all residents have access to clean piped water by 2030.
2. **Significant Investment:** – With an investment of US\$1.8 billion, this initiative represents one of the largest private sector infrastructure projects in Indonesia's water sector, highlighting the scale and importance of the endeavour.
3. **Bundling Project:** – A combination of efforts from the local government (PAM Jaya Jakarta), the private company PT Air Bersih Jakarta (PT ABJ), and the central government, working together to bring Jakarta to 100% access to clean piped water.

The bundling project involves:

1. **Maintenance & Rehabilitation of Existing Water Treatment Capacity:** Upgrading and maintaining five major existing upstream to downstream, to enhance their efficiency and capacity, which is 16,800 liters per second.
2. **New Buaran 3 Water Treatment Plant:** Constructing a new water treatment plant with a capacity of 3,000 liters per second.
3. **New Pipe Network for Buaran 3:** Establishing a new pipeline network to support the Buaran 3 water treatment
4. **New Pipe Network for Karian Serpong Plant:** Developing a pipeline network to support the Karian Serpong water treatment plant (3,000 liters per second).
5. **New Pipe Network for Jatiluhur Plant downstream:** Implementing a new pipeline network for the Jatiluhur water treatment, (4,000 liters per second).

This approach ensures that the various stakeholders work together to achieve a unified goal of providing clean residents.

SUSTAINABILITY TEAM STRUCTURE



Moya's sustainability strategy is directed by the Board following comprehensive input from the management teams and through stakeholder engagements. The Sustainability Team, headed by Mohamad Selim, CEO of Moya Indonesia Holding Pte Ltd (a wholly owned subsidiary of the Company), assisted by the Head of Sustainability, is tasked with operationalising the Group's sustainability strategy.

The team coordinates with all key functions in the group, including compliance, internal audit, human resources, legal, health and safety, and corporate social responsibility. The Sustainability Division was initially formed as a task force in FY2017 and has been progressively augmented over the past years in line with our business growth and sustainability imperatives. External sustainability consultants have also been involved in the Group's sustainability programs.

SUSTAINABILITY POLICY FROM THE CEO'S OFFICE

Moya aligns its operations with the 17 Sustainable Development Goals set by the United Nations in 2015.

In April 2023, the CEO further refined Moya's ESG operational policies by endorsing a groupwide **Sustainability Policy**, which has been communicated across the organisation, including to our suppliers and partners.

To maximise our contribution to these goals, Moya commits to:

1. Optimising the use of energy and natural resources, preserving the environment, and minimising waste, including reducing greenhouse gas emissions.
2. Providing a healthy and safe working environment to prevent work accidents, eliminate fatalities, and prevent occupational diseases.
3. Enhancing employee competencies in accordance with government competency requirements as well as national and/or international standards and committing to the implementation of consultation and worker participation.
4. Upholding the policy that every employee is given an opportunity without discrimination based on group, religion, gender, and ethnicity. Employees are expected to provide decent work and effort.
5. Prioritising the use of local labour and contractors as long as it meets operational needs.
6. Continuously striving to implement social responsibility programs consistently every year to balance business with community welfare and support sustainability.
7. Working with partners and suppliers towards the procurement of environmentally friendly and sustainable goods and services to ensure minimal impact on the environment.
8. Fulfilling and complying with regulations related to quality, health, safety, and the environment by considering social, environmental, health and safety, and business aspects as well as the application of good corporate governance.
9. Detecting and preventing fraud, misappropriation, and other misconduct.

RELATING MOYA'S SUSTAINABILITY POLICY TO THE SUSTAINABLE DEVELOPMENT GOALS AND GRI REPORTING

Moya's Sustainability Policy aligns closely with the United Nations Sustainable Development Goals (SDGs) and the Global Reporting Initiative (GRI) Standards. Below, we outline how specific components of Moya's Sustainability Policy connect to relevant SDGs and GRI standards.

SUSTAINABILITY POLICY	SUSTAINABLE DEVELOPMENT GOALS (SDGs)	GLOBAL REPORTING INITIATIVE (GRI) STANDARDS
Optimising the Use of Energy and Natural Resources	SDG 6: Clean Water and Sanitation – Ensuring sustainable management of water.	GRI 302: Energy – Reporting on energy consumption and reductions.
	SDG 7: Affordable and Clean Energy – Enhancing energy efficiency and use of renewable energy.	GRI 303: Water and Effluents – Managing water withdrawal, consumption, and discharge.
	SDG 13: Climate Action – Reducing greenhouse gas emissions.	GRI 305: Emissions – Reporting on greenhouse gas emissions.
Providing a Healthy and Safe Working Environment	SDG 3: Good Health and Well-being – Ensuring healthy lives and promoting well-being for all ages.	GRI 403: Occupational Health and Safety – Reporting on the health and safety management system, incidents, and prevention measures.
	SDG 8: Decent Work and Economic Growth – Promoting safe and secure working environments.	
Enhancing Employee Competencies	SDG 4: Quality Education – Providing lifelong learning opportunities.	GRI 404: Training and Education – Reporting on programs for upgrading employee skills and lifelong learning.
	SDG 8: Decent Work and Economic Growth – Promoting sustained, inclusive economic growth through skill development.	
Upholding Non-discrimination and Equal Opportunities	SDG 5: Gender Equality – Ensuring women's full and effective participation and equal opportunities.	GRI 405: Diversity and Equal Opportunity – Reporting on diversity of governance bodies and employees.
	SDG 10: Reduced Inequalities – Reducing inequality within and among countries.	
Prioritising Local Labor and Contractors	SDG 8: Decent Work and Economic Growth – Promoting local employment and sustainable economic growth.	GRI 202: Market Presence – Reporting on local hiring and sourcing.
	SDG 9: Industry, Innovation, and Infrastructure – Supporting sustainable industrialisation and fostering innovation.	GRI 204: Procurement Practices – Reporting on procurement from local suppliers.

Implementing Social Responsibility Programs	SDG 1: No Poverty – Reducing poverty through community engagement.	GRI 413: Local Communities – Reporting on the impact of operations on local communities.
	SDG 11: Sustainable Cities and Communities – Making cities inclusive, safe, resilient, and sustainable.	
Procuring Environmentally Friendly Goods and Services	SDG 12: Responsible Consumption and Production – Ensuring sustainable consumption and production patterns.	GRI 301: Materials – Reporting on the materials used and their impacts.
	SDG 15: Life on Land – Protecting, restoring, and promoting sustainable use of terrestrial ecosystems.	GRI 308: Supplier Environmental Assessment – Reporting on environmental impacts in the supply chain.
Complying with Regulations and Good Governance	SDG 16: Peace, Justice, and Strong Institutions – Promoting just, peaceful, and inclusive societies through strong governance practices	GRI 307: Environmental Compliance – Reporting on compliance with environmental laws and regulations.
		GRI 419: Socioeconomic Compliance – Reporting on non-compliance with laws and regulations in the social and economic areas.
Preventing Fraud and Misconduct	SDG 16: Peace, Justice, and Strong Institutions – Strengthening institutions to prevent corruption and misconduct.	GRI 205: Anti-corruption – Reporting on operations assessed for risks related to corruption and anti-corruption policies and actions.

Table 2: Moya Sustainability Policy alignment with relevant SDG and GRI Standards

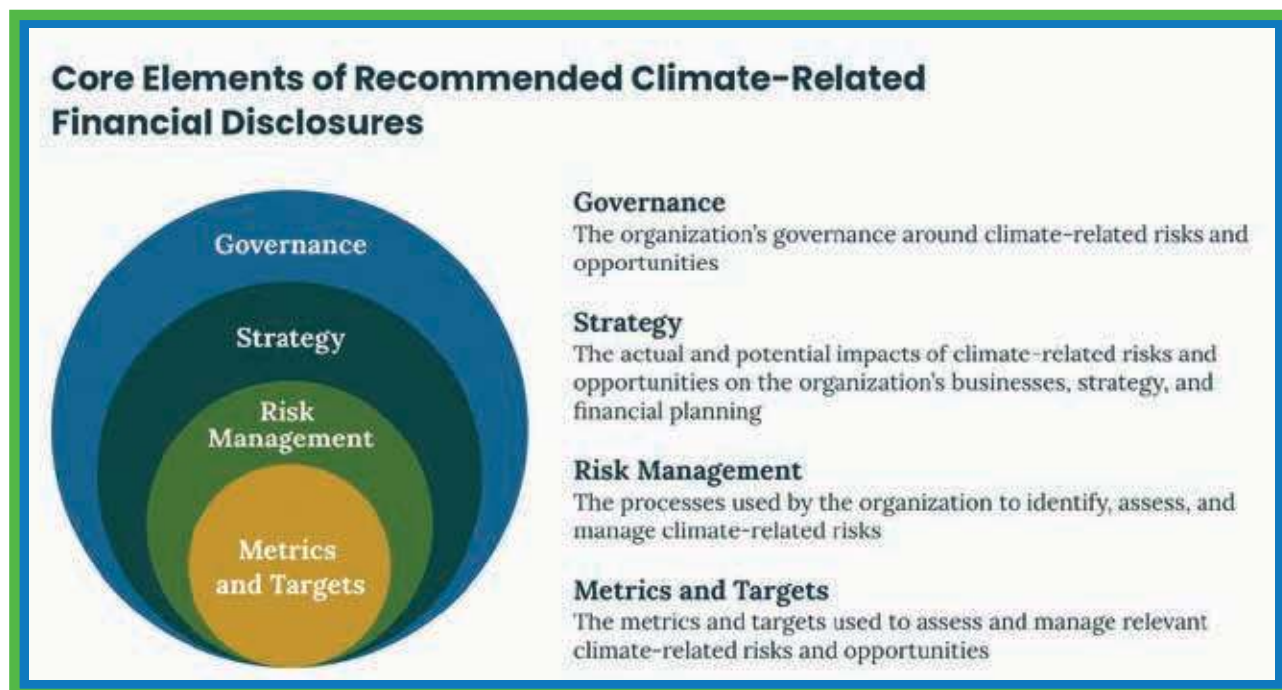
“Mapping our Material Factors to the SDGs and GRI Standards for sustainability management and reporting”

SUMMARY

Moya’s Sustainability Policy not only supports the company’s commitment to environmental, social, and governance (ESG) excellence but also aligns with the broader goals outlined by the United Nations SDGs and GRI Standards. This alignment ensures that Moya’s sustainability efforts contribute to global sustainability objectives while adhering to internationally recognised reporting frameworks.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Moya notes that the Task Force on Climate-related Financial Disclosures (TCFD) recommendations are increasingly used by business organisations as well as government entities to report and manage carbon emissions.



At this stage, the Board has assessed that our Group's business is not a major source of carbon emissions which warrant TCFD-based reporting. However, the Company's Sustainability Division will review and update the Board on the need for TCFD-based reporting as well as the management of related risks and opportunities.

ACCREDITED AND CERTIFIED OPERATIONS



The Group's water treatment plants continue to achieve Halal and ISO certifications, demonstrating our unwavering commitment to upholding the highest industry standards. This rigorous certification process ensures that our operations meet internationally recognised benchmarks, from quality control to occupational health and safety. By continuously improving our practices and expanding certification to all operational plants, we provide our customers with strong quality assurance in our products and services.

The Halal water certification by Majelis Ulama Indonesia (MUI) since 2022 also demonstrates that the Group is fully committed to serving the substantial population of households and industries in Jakarta that require "halal" water.

"Halal water certification since 2022"

List of Quality Certifications

ISO 45001:2018 Occupational health & safety

ISO 17025:2017 General requirements for the competence of testing and calibration laboratories

ISO 9001:2015 Quality management systems

HAS 23000 Halal water certification

SLUDGE CREATION AND RECYCLING IN WATER TREATMENT PLANTS

In water treatment plants, sludge is generated as a byproduct of the water purification process. This sludge, primarily composed of organic materials, microorganisms, and inorganic particles, needs to be treated and recycled to minimise environmental impact. Here, we describe two common methods used for sludge treatment: drying beds and dewatering machines.

DRYING BEDS

Process:

- **Sludge Collection:** After the primary and secondary treatment processes in the water treatment plant, the sludge is collected in sludge thickening tanks where excess water is removed.
- **Transfer to Drying Beds:** The thickened sludge is then pumped or transported to drying beds, which are shallow, typically sand-filled beds.
- **Spreading:** The sludge is evenly spread over the surface of the drying beds to a thickness of a few centimetres to a few meters, depending on the design.
- **Drying:** The sludge is left to dry naturally through evaporation and drainage. Sunlight and wind play significant roles in evaporating the water content.
- **Turning and Mixing:** Periodically, the sludge may be turned or mixed to enhance the drying process and ensure uniform drying.
- **Collection:** Once sufficiently dried (reaching a specific solid content), the sludge is collected manually or mechanically.
- **Recycling:** The dried sludge can be used as a soil conditioner, compost material, or disposed of in an environmentally safe manner.

Advantages	Disadvantages
<ul style="list-style-type: none"> – Low operational costs. – Simple and easy to manage. – Effective in warm, dry climates. 	<ul style="list-style-type: none"> – Requires large land areas. – Dependent on weather conditions. – Long drying times.

“Hybrid sludge treatment systems for improved waste management”

DEWATERING MACHINES

Process:

- Sludge Collection: Similar to drying beds, sludge is first collected in a sludge holding tank.
- Transfer to Dewatering Machines: The sludge is then pumped to mechanical dewatering devices such as centrifuges, belt filter presses, or screw presses.
- Dewatering Process:
 - Centrifuges: These machines thicken the slide using high-speed rotational force to separate water from the sludge, effectively concentrating the solids.
 - Belt Filter Presses: Sludge is fed onto a moving belt, where it is subjected to pressure between two belts, squeezing out the water.
 - Screw Presses: A screw mechanism forces the sludge through a gradually narrowing space, squeezing out water.
 - Collection: The dewatered sludge, now with a much higher solid content, is collected from the machine.
 - Recycling: This dewatered sludge can be further processed for use in agriculture, as a fuel source, or safely disposed of in landfills.

Advantages	Disadvantages
<ul style="list-style-type: none"> – Requires less space compared to drying beds. – Faster processing time. – Consistent and reliable regardless of weather conditions. 	<ul style="list-style-type: none"> – Higher operational and maintenance costs. – Requires technical expertise to operate. – Energy consumption can be significant.

SUMMARY

Both drying beds and dewatering machines offer effective solutions for sludge treatment in water treatment plants. Drying beds are cost-effective and straightforward but require large areas and are weather-dependent. Dewatering machines, on the other hand, are more space-efficient and faster but come with higher costs and technical requirements. The choice between these methods depends on the specific needs and resources of the water treatment plant. At Moya, we use both methods of recycling. We measure the monthly amount of recycling we do each month using the average hours of operation of recycling across all water treatment facilities. This data for 2023 is presented below.

MEASURING THE QUALITY OF TREATED MUNICIPAL WATER USING NTU

WHAT IS NTU?

NTU stands for Nephelometric Turbidity Unit, which is a measure of the turbidity (cloudiness or haziness) of water. Turbidity is caused by the presence of suspended particles, such as silt, clay, microorganisms, and other impurities, which scatter light passing through the water. The NTU value indicates how much light is scattered by these particles; the higher the NTU value, the more turbid the water.

HOW IS TURBIDITY MEASURED?

Turbidity is measured using a device called a nephelometer or turbidity meter. This device shines a light through a water sample and detects the amount of light scattered at a 90-degree angle from the light source. The degree of light scattering is converted into an NTU value, providing a quantifiable measure of water clarity.

IMPORTANCE OF MEASURING TURBIDITY

Turbidity is a critical parameter in assessing water quality because high turbidity levels can:

- Indicate the presence of harmful microorganisms that can cause waterborne diseases.
- Reduce the effectiveness of disinfection processes, as particles can shield microorganisms from disinfectants.
- Lead to aesthetic and operational issues in water distribution systems.

INDONESIAN STANDARD FOR DRINKING WATER

In Indonesia, the standard for drinking water quality mandates that turbidity must not exceed 2 NTU. This stringent standard ensures that the water is safe, clean, and aesthetically pleasing for consumers.

MOYA'S COMMITMENT TO WATER QUALITY

At Moya, we are dedicated to exceeding regulatory standards for water quality. Our operations consistently maintain turbidity levels well below the Indonesian standard of 1 NTU. This commitment to superior water quality is achieved through:

- Rigorous monitoring and control processes at our water treatment plants.
- Advanced treatment technologies that effectively remove suspended particles and impurities.
- Regular maintenance and calibration of our turbidity measurement equipment to ensure accurate and reliable results.

“Exceeding national drinking water standards”

By maintaining low turbidity levels, Moya ensures that the treated municipal water we provide is clear, safe, and of the highest quality for all consumers.

Month	NTU
Jan	0.87
Feb	0.88
Mar	0.83
Apr	0.78
May	0.81
Jun	0.74
Jul	0.79
Aug	0.75
Sep	0.86
Oct	0.71
Nov	0.67
Dec	0.65

Table 3: Monthly Average NTU Levels Across Moya Operations (2023)



MOYA Water Treatment facility

ELECTRICITY USAGE AND GHG EMISSION CALCULATION

WATER MOVEMENT AND TREATMENT PROCESSES

At Moya, we strive to use gravity as much as possible to move water through our systems. Gravity flow is a natural, energy-efficient method that helps reduce the reliance on external energy sources. However, the complete water treatment and distribution process requires substantial use of electricity for various stages, from raw water intake to final distribution.

1. Raw Water Intake:

- Water is initially drawn from natural sources such as rivers, lakes, or dams. While gravity can assist in moving water from higher elevations, pumps powered by electricity are often necessary to lift water to treatment plants, especially when the source is at a lower elevation.

2. Water Treatment Process:

- The treatment process involves multiple stages, including coagulation, flocculation, sedimentation, filtration, and disinfection. Each of these stages may require mechanical mixing, chemical dosing, and other operations powered by electricity.

3. Sludge Recycling:

- During the treatment process, sludge is generated and must be processed. Methods like drying beds and dewatering machines require pumps and other equipment that consume electricity.

4. Distribution Network:

- Treated water must be pumped into the distribution network to reach consumers. Depending on the terrain and distance, this can involve significant energy use to overcome gravitational challenges and maintain adequate pressure.

ELECTRICITY SOURCES

1. Electrical Grid:

- The primary source of electricity for our operations comes from the national electrical grid. This ensures a steady and reliable supply to keep our systems running efficiently.

2. On-site Generators:

- We also utilise our own generators, primarily running on diesel fuel, to provide backup power. These generators ensure continuous operation during grid outages.

3. Solar Power:

- Starting in the second half of 2024, we will begin using solar power with our first solar project coming online. This initiative is part of our commitment to sustainability and reducing our carbon footprint.

“Diversifying our energy mix to solar”

SEASONAL AND DEMAND VARIATIONS

Electricity usage can fluctuate throughout the year based on several factors:

Water Supply and Demand:

- During dry seasons or periods of high demand, we may need to pump more water from sources or increase treatment plant operations, leading to higher electricity consumption.
- Conversely, during wet seasons or lower demand periods, electricity usage may decrease as natural water flow assists more in the distribution process.

Recycling Activities:

- Enhanced recycling activities, such as sludge treatment and reuse processes, also contribute to variations in electricity consumption. Increased recycling efforts often lead to higher energy use.

Month	Electricity Usage Index
Jan	100
Feb	100
Mar	100
Apr	98
May	101
Jun	101
Jul	102
Aug	103
Sep	103
Oct	105
Nov	103
Dec	101

Table 4: Monthly Electricity Usage Index for 2023 (Base 100 as of January 2023)

This index reflects how our electricity usage has varied month-to-month in 2023, starting at a base of 100 in January. Notable increases in electricity usage occurred in the later part of the year, peaking at 105 in October, likely due to higher water demand and intensified recycling activities.

GREENHOUSE GAS EMISSION CALCULATIONS IN SUSTAINABILITY REPORTING

Greenhouse gas (GHG) emission calculations have become a critical component of sustainability reporting. These calculations help organisations quantify their carbon footprint and identify areas for improvement. By reporting GHG emissions, companies can demonstrate their commitment to environmental stewardship, comply with regulatory requirements, and meet the expectations of stakeholders, including investors, customers, and the community.

GHG emissions are typically categorised into three scopes:

- Scope 1 (Direct Emissions): Emissions from sources that are owned or controlled by the organisation, such as on-site fuel combustion.
- Scope 2 (Indirect Emissions): Emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the organisation.
- Scope 3 (Other Indirect Emissions): All other indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions.

By accurately measuring and reporting these emissions, organisations can set reduction targets, track progress, and implement effective strategies to mitigate their impact on climate change.

“Measuring and Managing GHG to minimise our carbon footprint”

Moya Operations: Annual Energy Usage and GHG Emission Calculation

Annual Energy Usage:

- Electricity Consumption: 195,251,892 kWh
- Diesel Consumption: 48,798 litres

Estimated Emissions:

Electricity:

- Estimated Emissions (tons CO₂): 169,869
- Electricity consumption results in significant GHG emissions due to the energy mix of the grid. The emissions factor is used to convert kWh into tons of CO₂.

Diesel:

- Estimated Emissions (tons CO₂): 130
- Diesel fuel combustion generates CO₂ emissions. The emissions factor for diesel is used to convert litres into tons of CO₂.

Direct Emissions (Scope 1):

- Direct Emissions (tons CO₂): 130
- These are emissions from the combustion of diesel fuel used in on-site generators and other equipment directly controlled by Moya.

Indirect Emissions (Scope 2):

- Indirect Emissions (tons CO₂): 169,869
- These emissions arise from the consumption of purchased electricity. The emissions are indirect because they occur at the power plants generating the electricity that Moya uses.

Total Emissions:

- Total Emissions (tons CO₂): 169,999
- The total GHG emissions from Moya's operations are the sum of direct and indirect emissions.

(Conversion to GHG emissions is done using IPCC guidelines.)

SUMMARY

Moya's annual energy usage includes substantial electricity consumption and a smaller amount of diesel usage. The estimated GHG emissions from these energy sources are as follows:

- Electricity: 169,869 tonnes of CO₂
- Diesel: 130 tonnes of CO₂

The total GHG emissions from Moya's operations are 169,999 tons of CO₂, with direct emissions (from diesel) accounting for 130 tons and indirect emissions (from electricity) accounting for 169,869 tons. This data highlights the significant impact of electricity consumption on Moya's carbon footprint, underscoring the importance of initiatives like our upcoming solar power project to reduce reliance on grid electricity and lower our overall GHG emissions. By incorporating these calculations into our sustainability reporting, Moya can better manage our environmental impact and work towards our sustainability goals.

IMPORTANCE OF HEALTH AND SAFETY AT MOYA

“Zero Accidents record maintained”



RISKS OF HEALTH AND SAFETY INCIDENTS

Our operations involve several high-risk activities, including:

- Raw Water Intakes & Dams: Employees working in or around water bodies face risks such as drowning and exposure to contaminants while cleaning intakes.
- Water Treatment Plants: Handling chemicals, including chlorine, poses significant risks of chemical burns, respiratory issues, and poisoning. Additionally, managing diesel and electrical systems involves risks of fires, explosions, and electrocution.
- Distribution Pumping Stations: High noise levels and mechanical hazards from pumps and other machinery can lead to hearing damage and physical injuries.
- Construction Activities: Inherent risks include falls, machinery accidents, and injuries from handling heavy materials.

SAFETY MEASURES AND EQUIPMENT

To mitigate these risks, we employ comprehensive safety measures and provide appropriate Personal Protective Equipment (PPE) to our workforce, including:

- Wet Suits: For protection while working in or near water.
- Safety Boots: To prevent foot injuries from heavy objects and hazardous environments.
- Safety Hats: To protect against head injuries.
- Gloves: To safeguard hands from chemical and mechanical hazards.
- Protective Eyewear: To shield eyes from chemicals and debris.
- Ear Defenders: To protect against hearing loss in noisy environments.
- High Visibility Clothing: To ensure visibility and reduce the risk of accidents, especially in low light conditions.
- Showers for Chemical Contamination: Immediate decontamination facilities to prevent chemical burns and poisoning.

Month	Accidents	Hours Lost	Fatalities
Jan	1	2	0
Feb	0	0	0
Mar	0	0	0
Apr	0	0	0
May	0	0	0
Jun	1	0	0
Jul	0	0	0
Aug	0	0	0
Sep	1	0	0
Oct	1	0	0
Nov	2	0	0
Dec	0	0	0

Table 5: Monthly Record of Health and Safety Incidents (2023)

Despite the occurrence of minor accidents, our commitment to stringent safety protocols and immediate response measures has ensured that there were no hours lost and no fatalities throughout the year. This record reflects our dedication to creating a safe and secure working environment. By continuously investing in safety training, equipment, and procedures, Moya remains dedicated to protecting our employees and maintaining our high standards of health and safety in all operations.

IMPORTANCE OF HUMAN RESOURCES IN WATER TREATMENT

Human Resources (HR) plays a critical role in the water treatment sector, particularly in a technically demanding field like ours. At Moya, our operations are heavily inclined towards engineering, which influences the mix of our workforce. The specialised nature of water treatment requires a skilled and dedicated team to manage complex processes, ensure compliance with regulatory standards, and maintain the infrastructure necessary for delivering clean water.

KEY ROLES OF HR IN WATER TREATMENT

- 1. Recruitment and Retention:** HR is responsible for attracting and retaining skilled engineers, technicians, and other essential staff. Given the technical nature of our work, finding the right talent is crucial for operational efficiency and innovation.
- 2. Training and Development:** Continuous training is essential to keep our employees updated with the latest technologies and best practices in water treatment. HR facilitates professional development programs that enhance employee competencies.
- 3. Work Conditions:** HR ensures that all employees work in safe and healthy environments. This includes providing personal protective equipment, safety training, and maintaining compliance with occupational health and safety regulations.
- 4. Employment Practices:** We are committed to providing stable employment. This includes reducing the number of contract employees and increasing the number of permanent employees to offer more job security and benefits.

EMPLOYMENT DATA

We are committed to growing our operations to increase employment while also giving our employees the best working conditions. Over the past year, we have focused on reducing the number of contract employees and increasing the number of permanent employees.

2022 Employment Data			
Type of Employment	Male	Female	Total
Contract Employees	371	69	440
Permanent Employees	1,288	230	1,518

2023 Employment Data			
Type of Employment	Male	Female	Total
Contract Employees	118	12	130
Permanent Employees	867	165	1,032

Table 6: Employment data for 2022 and 2023

EMPLOYEE TURNOVER

Year	Turnover rate
2022	4.52%
2023	3.06%

TRAINING AND DEVELOPMENT

Year	Total Training Hours	Training Hours per Employee
2022	5,889	7.5
2023	14,481	12.7

“Transitioning to more permanent workforce in line with capacity jump”

SUMMARY

At Moya, we recognise the importance of a skilled and committed workforce in achieving our operational goals. By prioritising the transition from contract to permanent employment, we aim to provide our employees with greater stability and a conducive working environment. This strategy not only benefits our employees but also enhances our capacity to deliver high-quality water treatment services.

Our commitment to improving employment conditions and providing ongoing professional development ensures that we remain at the forefront of the water treatment industry, delivering sustainable and efficient solutions to our communities.



MOYA operations inspector at inspection site

GOOD CORPORATE GOVERNANCE, CSR & PREVENTING FRAUD

As a leader in our field and an upstanding corporate citizen, our sustainability policy commitments include maintaining good corporate governance including corporate social responsibility (CSR) and preventing fraud and misconduct.

We adopt several strategies for compliance in these areas:

1. **Internal Standard Operating Procedures:** We have established internal Standard Operating Procedures (SOPs) for all activities within the company. These procedures are monitored and maintained by supervisors in each division, who are managed by department heads and our CEO.
2. **Internal Audit Team:** Our internal audit team regularly checks and, if necessary, investigates to ensure procedures are being followed.
3. **Legal Oversight:** Any external issues are handled by our internal legal team.

In 2023, there were no incidents of corruption, and therefore no actions were required.

GOOD CORPORATE GOVERNANCE & FRAUD

Number of Incidents	2023
0	0

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Corporate Social Responsibility (CSR) represents a company's commitment to the well-being of society, the environment, and the social impacts of its operations. It involves continuous efforts to foster a sustainable community, aiming to enhance societal welfare while balancing stakeholder interests in line with the company's principles. CSR fundamentally reflects a commitment to sustainable economic growth and improved quality of life for beneficiaries. The concept of CSR has become central and integral to corporate strategy, reflecting a dedication to Good Corporate Governance (GCG), which can enhance a company's reputation. GCG provides essential guidance for managing stakeholder relationships proportionately, balancing the needs of the company, society, and the environment, and fostering collaboration in addressing social and environmental challenges. Effective CSR programs create a virtuous cycle benefiting both the company and its stakeholders.

CSR Activities in 2023

In alignment with MOYA's vision to be "The leading provider of clean water by offering integrated and beneficial solutions for a better life," the CSR activities in 2023 were focused on environmental and natural resource initiatives.

“Bakti Kita Untuk Jakarta” Program

The persistent threat of flooding in Jakarta prompted the “Bakti Kita untuk Jakarta” initiative, aiming to unite all stakeholders in collective action. This program was initiated by the Provincial Government of DKI Jakarta through the DKI Jakarta Provincial Water Resources Office. PT Moya Indonesia supported this initiative to help mitigate flooding risks, working with the Regional Disaster Management Agency (BPBD) of DKI Jakarta and extending support to the sub-district level.

This initiative goes beyond mere rainy season preparation; it represents a unified effort to combat Jakarta’s persistent flooding issues. The city’s slope and the flow of 17 rivers crossing the region contribute significantly to seasonal flooding.

PT MOYA Indonesia supplied 25,400 units of logistical items, distributed across DKI Jakarta and the Thousand Islands, to support flood management activities. Additionally, MOYA Indonesia provided sacks for collecting mud and debris from river cleanup operations, thereby increasing water retention capacity and addressing flood risks.

Provision of Trash Motorcycles and Trash Drums for Residents of Tangerang

Proper waste management is a shared responsibility, requiring collective effort to preserve the environment. In support of effective waste management, PT MOYA Indonesia provided trash motorcycles and trash drums to the residents of RT 05 RW 02 Kp. Bunut, Pasir Jaya Village, Cikupa District, Tangerang. This initiative aims to minimize improper waste disposal and promote a clean, healthy, and attractive environment for residents. From the company’s perspective (“PT Aetra Air Tangerang”), this support underscores its commitment to social responsibility and contributes to building a positive company image.

Total Investment in CSR Programs

The total investment for these two programs in 2023 amounted to IDR 1,369,847,000.

CONCLUSION

This concludes Moya Holdings Asia Limited’s Sustainability Report for 2023. We look forward to continuing our journey towards a sustainable future and sharing our progress in the coming years. Thank you for your continued support and trust in our vision.

NOTES TO SUSTAINABILITY REPORT

REPORTING FRAMEWORK

This Report is prepared with reference to the GRI Sustainability Reporting Standards. We have chosen to adopt the GRI Sustainability Reporting Standards as it is the most widely accepted global framework for voluntary corporate reporting of environmental and social performance. In articulating our approach, we have applied the GRI principles of accuracy, balance, clarity, comparability, reliability, and timeliness. Corresponding GRI disclosures can be found in the GRI Standards Content Index Section of this Report.

This Sustainability Report includes GHG reporting, partly in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Additional corporate information is available on our website at <http://www.moyaasia.com>.

DATA DISCLOSURES

The reporting scope in FY2023 focuses on maintaining readability to the works of Moya, and highlights the impacts of our efforts to improve on the influence of our sustainability report. The reporting scope covers Moya's business operations in Indonesia and ESG performance year-on-year.

All data is reported in good faith and to the best of our knowledge.

No external assurance has been obtained for this report.

FEEDBACK

We welcome all feedback to help us improve our sustainability report, policies and practices.

Please send your comments or feedback to <http://www.moyaasia.com>.



GRI Standard	Disclosure	Location
GRI 2: General Disclosures 2021	Reporting period, frequency and contact point	Page 28
	External assurance	Page 28
	Employees	Page 24
GRI 3: Material Topics 2021	Process to determine material topics	Page 9-12
	List of material topics	Page 9-12
	Management of material topics	Page 9-12
GRI 302: Energy 2016	Energy consumption within the organisation	Page 17 – 20
	Energy intensity	Page 17 – 20
GRI 303: Water and Effluents 2018	Water withdrawal	Page 17 – 20
GRI 305: Emissions 2016	Total GHG emissions	Page 17 – 20
GRI 401: Employment 2016	New employee hires and employee turnover	Page 24
GRI 403: Occupational Health and Safety 2018	Occupational health and safety management system	Page 21 – 22
	Worker training on occupational health and safety	Page 21 – 22
	Work-related injuries	Page 21 – 22

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