



STRACO
星雅集团



**STRACO
CORPORATION
LIMITED**

Sustainability Report 2017



Contents

Board Statement	1
2017 Sustainability Highlights	2
About This Report	3
Stakeholder Engagement	4
Materiality Assessment	5
Economic Performance	5
Energy	6
Water Management	7
Animal Sourcing and Wellbeing	9
Talent Retention and Training	10
Health and Safety	14
Local Community	14
Regulatory Compliance	17
Awards and Recognitions	17



Board Statement

Straco Corporation Limited (“Straco”) is a leading developer, operator and investor of premier attractions and tourism-related projects, including giant observation wheel, public aquariums and cable-car facilities. The company is also involved in the protection and redevelopment of historical sites. Serving and interacting with thousands of visitors on a daily basis, Straco believes sustainability-related considerations, such as high quality, safe and educational exhibitions, create a unique and enriching visitor experience. Therefore, Straco have integrated sustainability decisions into both management and operational decisions and integrates entertainment, cultural exposure and education within our services.

The Board believe that it is important to focus on areas which are most relevant to Straco’s business. Through a materiality assessment, Straco has identified eight environmental, social and governance (“ESG”) factors that underpin our sustainability endeavours, which have been endorsed by the Board. The Board also oversees the management and monitoring of key sustainability issues and approves the sustainability report.

This inaugural sustainability report provides a platform via which Straco formally communicates our sustainability approach, performance and targets. Straco will publish this report annually in accordance to the requirements of Singapore Exchange (SGX) Listing Rules 711A and 711B and with reference to the Global Reporting Initiative (GRI), to continually update our stakeholders with the company’s progress and achievements in sustainability.

2017 Sustainability Highlights

Material factors	Indicator	Performance for FY2017	Target for FY2018
Economic			
Economic Performance	Details of the financial performance in 2017 can be found in Straco's Annual Report		
Environmental			
Energy	Energy consumption	64,679,091 MJ	Maintain current energy intensity level
	Energy intensity	5,118 MJ / hour of operation	
Water Management	Water withdrawal	231 ML	Maintain current levels of water consumption
	Water discharge	212 ML	
Animal Sourcing and Wellbeing	Follow accepted global standards, where available and relevant, for responsible animal sourcing and animal wellbeing		Continue to practice responsible sourcing of animals and explore new ways to further enhance the wellbeing of our animals
Social			
Talent Retention and Training	Diversity of employees		Continue to provide fair and competitive compensation to employees
	Average monthly new hires rate	2.2%	
	Average monthly turnover rate	2.3%	
	Average training hours per employee, per year	10 hours	
Health and Safety	Percentage of eligible permanent employees receiving regular performance review	100%	Continue to provide relevant training on health and safety and aim to maintain zero work-related fatalities
	Number of workplace fatalities	0	
	Number of high-consequence workplace injuries	0	
Local Communities	Accident Frequency Rate	3.9	Continue to support conservation and contribute back to society <ul style="list-style-type: none"> • Singapore Flyer: commit at least 300 volunteer hours for charitable causes • Underwater World Xiamen: continue their efforts in conservation education, targeting to reach out to at least 1,700 recipients • Shanghai Ocean Aquarium: organise at least 10 educational programmes
	Initiatives on conservation education and research, and charitable events		
Governance			
Regulatory Compliance	Number of environmental and socio-economic non-compliance	Zero non-compliance	Uphold the same high standard of conduct and maintain zero non-compliance.

About This Report

This sustainability report summarises the sustainability approach and performance of Straco from 1st January 2017 to 31st December 2017 (“2017”). The report covers the listed entity, Straco Corporation Limited, and its three main revenue-generating assets, Shanghai Ocean Aquarium (SOA), Underwater World Xiamen (UWX) and Singapore Flyer (SF). As the corporate headquarters consume insignificant amount of environmental resources, “Energy” and “Water Management” sections in this report solely focus on the three above-mentioned assets, SOA, UWX and SF. Meanwhile, “Animal Sourcing and Wellbeing” section is only applicable to the two aquariums, SOA and UWX.

This report is aligned with the reporting requirements of SGX Listing Rules 711A and 711B and prepared with reference to the GRI Standards, one of the most commonly-used practice guides for sustainability reporting. This report references the following topic-specific disclosures:

- Disclosure 302-1 and 302-3 from GRI 302: Energy 2016
- Disclosure 303-3 and 303-4 from GRI 303: Water and Effluents 2018
- Disclosure 307-1 from GRI 307: Environmental Compliance 2016
- Disclosure 401-1 from GRI 401: Employment 2016
- Disclosure 403-9 from GRI 403: Occupational Health and Safety 2018
- Disclosure 404-1 and 404-3 from GRI 404: Training and Education 2016
- Disclosure 413-1 from GRI 413: Local Communities 2016
- Disclosure 419-1 from GRI 419: Socioeconomic Compliance 2016

No external assurance has been sought for this report. Straco welcomes your feedback. Please forward enquiries and feedback to contact@stracocorp.com.



Stakeholder Engagement

Open and relevant engagement is essential to create value for Straco's key stakeholders. This engagement communicates expectations and supports improvement in our sustainability practices. The following table identifies Straco's key stakeholders and shows how they are engaged.

Stakeholders	Main objective	Engagement methods	Frequency
Customer	To understand customer expectations and enrich customer experience	<ul style="list-style-type: none"> • Feedback box • Customer newsletter 	<ul style="list-style-type: none"> • Throughout the year • Quarterly
Local Communities	To contribute to local communities through conservation education and research, as well as charitable activities	<ul style="list-style-type: none"> • Education programmes • Charitable events 	<ul style="list-style-type: none"> • Throughout the year
Employees	To create a safe, inclusive and rewarding working environment to sustain employee morale	<ul style="list-style-type: none"> • Safety training • Suggestion box • Welfare Committee meeting • Team bonding activities 	<ul style="list-style-type: none"> • Once a year • Throughout the year • Monthly • Twice a year
Investors/ Shareholders	To disseminate accurate and timely information on the company's progress and direction	<ul style="list-style-type: none"> • Release of financial results and other relevant disclosures through SGXNet and Straco's website • Annual General Meeting • Participation in non-deal road show • Meeting with investors and stock analysts 	<ul style="list-style-type: none"> • Throughout the year • Once a year • Ad hoc



Materiality Assessment

The aim of a materiality assessment is to identify ESG risks and opportunities that are most important to our business and stakeholders. The assessment process, facilitated by an external consultant, was guided by the GRI Principles of Materiality and Stakeholder Engagement, and considered the following aspects:

- Global and local emerging sustainability trends;
- Main topics and future challenges for the tourism sector, as identified by peers;
- Insights gained from interactions with stakeholders.

Eight material factors were identified from the assessment and are shown in the table below.

Economic	Environmental	Social	Governance
<ul style="list-style-type: none">• Economic Performance	<ul style="list-style-type: none">• Energy• Water Management• Animal Sourcing and Wellbeing	<ul style="list-style-type: none">• Talent Retention and Training• Health and Safety• Local Community	<ul style="list-style-type: none">• Regulatory Compliance

Economic Performance

In 2017, domestic tourism in China sustained its momentum, registering double-digit growth. Meanwhile, Singapore welcomed 17.44 million visitors during the year, a 6.2% increase from the previous year.

In this growing market, Straco strives to stay relevant and competitive. In 2017, we embarked on several major asset enhancement programmes to improve the customer experience. We will continue to make progress in this regard, while maintaining minimal disruption to our normal operations. We also keep a keen look out for promising projects to build or acquire for new growth opportunities.

Overall, Straco's performance remained strong with revenue increasing by 2.6% to S\$128.44 million and net profits increasing by 2.7% to S\$47.74 million. Details of the financial performance in 2017 can be found in Straco's Annual Report.

We believe that long-term value creation depends on the sustainable development of our business. We aim to deliver sustainable economic performance coupled with good ESG performance.

Energy

Straco seeks to identify, measure and understand the direct and indirect environmental impacts of our operations and develop innovative and realistic solutions for mitigating those impacts. Against the background of intensifying global warming, energy use and associated greenhouse gas (“GHG”) emissions are emerging concerns. Straco is committed to adopting energy-efficient practices to reduce our GHG emission contributions.

SOA, UWX and SF have each developed its respective energy management framework. This involves the operational teams conducting regular maintenance on equipment and tracking consumption. Any significant flux in consumption effects a closer investigation on the cause, helping Straco to identify issues and improve performance over time. As part of national legislation, Singapore Flyer also submit annual electricity consumption data to the Building and Construction Authority (BCA) of Singapore.

During the year, Straco has put in place various practices and initiatives to improve energy efficiency of our assets, including:

- Setting air conditioning to appropriate temperature according to visitor traffic and weather to minimise energy demand
- Utilising energy-efficiency appliances, for example, LED lights and air source heat exchanger (for the cooling or warming of aquarium water)
- Using escalators with motion sensors to automatically adjust their operating capacity to demand
- Trimming landscape to allow higher natural light penetration and reducing artificial lighting
- Supporting environmental initiatives, such as “Earth Hour” and “Earth Day”

Case Study: Energy-efficient cooling and heating in SOA

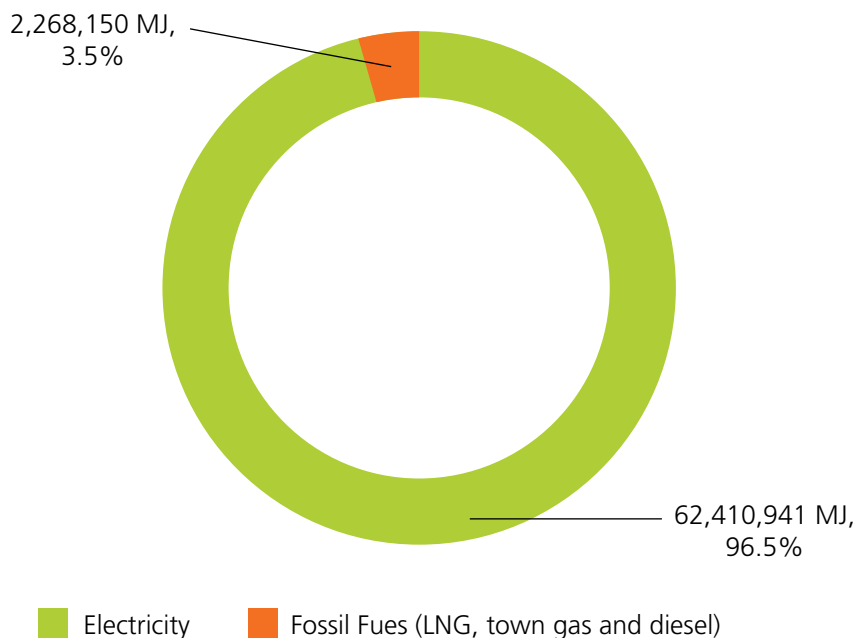
Many of our marine species require a specific range of water temperature to thrive. Since SOA is located in a temperate region, there is a need to cool or warm the water according to the seasons. In one of our pools, the performance of the heat exchanger significantly dropped, causing inadequate cooling in the summer months. In addition, because of a lack of proper heat dissipation outlets, the operation of the equipment also added to an increase in the internal air temperature, putting a strain on the air-conditioning system. The ageing equipment had a high energy demand and in the winter this often led to grid overloading, which caused frequent power disruptions and posed a potential fire hazard.

To address these issues, the engineering team added a network of pipes connected to the centralised air-conditioning system to the proximity of the pool. These pipes made full use of the cold and hot water balance of the air-conditioning system to provide potent ambient cooling or heating to the pool. This solution has offered thermal stability and improved the energy efficiency of the heat exchanger without the need for costly equipment replacement.



Overall, electricity usage accounted for more than 96.5% of total energy consumption, among other types of energy such as Liquefied Natural Gas (LNG), town gas (Singapore) and diesel. In 2017, Straco's three main assets, SOA, UWX and SF consumed 64,679,091 mega joule ("MJ") of energy. Energy intensity was 5,118 MJ per hour of operation. In 2018, we aim to maintain our current energy intensity level.

Energy Consumption in FY2017



Water Management

Straco recognises that water is a resource under pressure and aims to conserve water. As our major locations of operation are all categorised under "Areas of High or Extremely High Water Stress" by the World Resource Institute's "Aqueduct Water Risk Atlas", we consider both our water withdrawal and discharge in a local context. Moreover, across our main operation sites, the utility companies all practise tiered pricing for water, to discourage excess consumption. Therefore, water conservation also presents opportunities for cost saving.

Our operation teams proactively adopt water-efficient initiatives and closely monitor water consumption. In Singapore, Singapore Flyer (SF) supports the national water conservation movement initiated by the Public Utility Board (PUB). SF has developed a Water Efficiency Management Plan (WEMP), which describes water management policies, water saving measures and implementation timelines. WEMP is submitted annually to PUB for review. SF uses water fittings certified under the Water Efficiency Labelling Scheme (WELS) or equivalent to reduce water consumption. Sub water meters are also added to track and monitor the breakdown of water usage. Moreover, SF uses NEWater for non-potable purposes, such as landscape watering.

What is NEWater?

NEWater is a form of ultra-clean, high-grade reclaimed water from treated used water. This practice cushions Singapore's water supply against dry weather and moves the nation towards greater water sustainability.

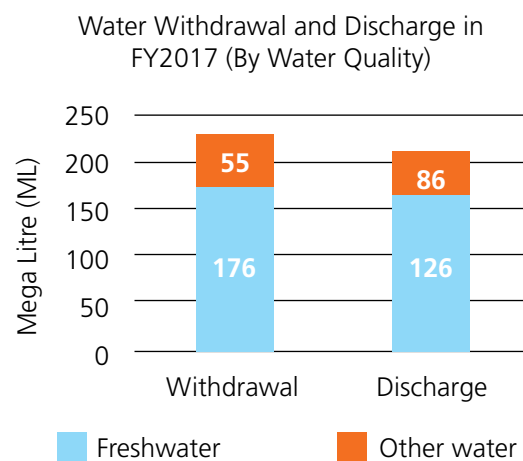
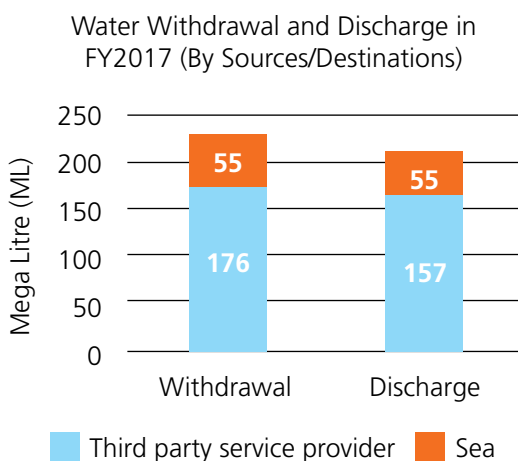
Straco's aquariums have adopted green practices to conserve water. Located on Gulangyu Island, Underwater World Xiamen (UWX) takes advantage of the asset's proximity to the sea to use treated natural seawater for the aquarium. This minimises the disturbance to local freshwater supplies. In Shanghai Ocean Aquarium (SOA), due to the lack of nearby natural saltwater resources, artificial saltwater is manufactured from municipal water. Both

aquariums uses a Life Support System¹ (LSS), which allows water to be filtered and re-circulated within the system, thus reducing water consumption.

SOA adopts a closed-loop concept in its LSS. Only a marginal amount of new saltwater needs to be added to replace small amount of water lost through evaporation and other unrecoverable needs. Through upgrading of the piping system, SOA can separately manage and utilise water of different grade. This enables SOA to make use of recycled treated water for purposes with less stringent demands on water quality, such as the washing of the bait incubation room and for supplementing water supply in the seal and penguin enclosures. In recognition of the innovative use of recycled treated water, SOA was awarded Third Prize in the 2017 Pudong Employees Science and Technology Innovation Competition².

Any water that cannot be reused will be discharged. Straco either sends effluent to third party water treatment facilities or treats the effluent in-house before discharging to the sea. Straco takes precautions to control the quality of water discharged from our assets. We conduct regular maintenance at our various sewage systems and have procedures in place to check that effluent complies with local water discharge standards.

In 2017, overall, SOA, UWX and SF withdrew 231 mega litres (ML) of water, comprising 176 ML of municipal water and 55 ML of water from the sea. In turn, 157 ML of used water was sent to third party water treatment facilities and 55 ML of used water was discharged to the sea. Out of the total 212 ML of discharged water, 126 ML was freshwater³ and 86 ML was other water⁴. In the coming year, Straco aims to maintain the current level of water consumption.



¹ For more information on LSS, please refer to the “Animal Sourcing and Wellbeing” section

² For more information, please refer to the “Awards and Recognitions” section

³ Based on GRI Standards (2018), freshwater is defined as water with concentration of total dissolved solid equal or below 1000 mg / L

⁴ Based on GRI Standards (2018), other water is defined as water with concentration of total dissolved solid more than 1000 mg / L.

Animal Sourcing and Wellbeing⁵

Biodiversity and the health of natural ecosystems are increasingly a global concern. In line with the mission of our aquariums, Straco is committed to obtaining animals in an ethical and sustainable manner with the aim of protecting the viability of wild populations. For animals kept in our aquariums, we strive to provide them with a healthy and low stress environment, while encouraging natural behaviours. We also avoid controversial species, such as dolphins and whales, which are arguably less suitable for captivity.

Sourcing

In general, our animals come from in-house breeding programmes, certified suppliers and donations from civic society and fishery rescues. Straco diligently tracks and records the method of acquisition, origin and quantity of animals, particularly for endangered species falling under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) or national legislation. The records are regularly updated to reflect addition or removal of animals. Radio-frequency identification (RFID) electronic chips or tags are attached to animals for identification of new births within the aquarium. When practical, we prefer the use of more sustainable alternatives to minimise the impact of removal from natural ecosystems. For example, we use artificial corals in our displays, thus preventing their removal from wild habitats.

DO YOU KNOW?

CITES is an international agreement between governments, with the principle aim to prevent the international trade in specimens of wild animals and plants from threatening their survival. Some animal and plant species face high levels of exploitation and trade; together with other factors, such as habitat loss, can heavily deplete their populations, even bringing some species close to extinction. For the many non-endangered wildlife species in trade, the existence of an agreement adds extra assurance of the sustainability of the trade in the long run.

Life Support System (LSS)

Life Support Systems (LSS) are needed when keeping animals and are vitally important for the animal's welfare. In a closed-loop LSS, there are stringent requirements regarding the processes of changing water, filtration, chemical treatment and water quality monitoring.

In marine LSS, a substantial amount of seawater is needed for changing the water. At our assets we make use of a process that regenerates seawater, which significantly reduces the need to source fresh seawater. We also design our LSS to maximise the use of biological filtration. On top of conventional mechanical filters, the filter media is also treated in such a way that it creates a "living biome" of beneficial microbes, which helps to process the animal excreta in the water. At each stage of the filtration loop, optimal conditions are provided to maintain a positive and effective biological filtration operation, supplemented by a UV lamp and low concentration ozone to remove unwanted germs and impurities. This use of more natural methods reduces the need for chemicals.

Our commitment:

We do not practice punitive animal training. We refrain from animal performance purely for commercial purpose, instead, we focus on displaying natural behaviours for education.

⁵ This chapter focuses on Straco's two aquariums, SOA and UWX only.

Wellbeing

Once the animal is in our aquarium, they are in the good hands of our team of highly professional curators and veterinarians. New animals are quarantined to detect potential disease for treatment before being introduced into the tanks, preventing pathogens from being brought into the closed living system. This quarantine system, coupled with effective filtration, helps to avoid growth of harmful bacteria and the deterioration of water quality, thereby safeguarding animal health. Our aquatic department regularly examines health conditions of all animals and observes any abnormal behaviour. Standard operating procedures are established to handle potential issues regarding animal health, such as weak feeding behaviour, or system failure, such as power blackout. We keep a detailed record of animal mortality and conduct autopsy on key incidents to understand the cause of death, so as to remediate any potential health hazards promptly.

Straco practices stringent quality control on animal feed. Guided by sound nutritional science, we have developed a well-structured feeding plan, specifying the type and amount of feed for different animals. Our main types of feed include frozen bait and dry feed, supplemented with nutritional additives. Straco has specified our expected quality of animal feed and any sub-standard feed will be rejected upon receipt. In SOA, the in-house laboratory conducts regular spot-checks on the level of microbes in animal feed, to prevent contamination of the LSS system.

Straco strives to provide a low stress environment for our animals in order to encourage natural behaviour. We include environmental enrichment features in our enclosures where possible, to mimic the natural environment. For example, to encourage social behaviour and natural reproduction of penguins, we followed AZA's (Association of Zoos and Aquariums) recommendations and guidelines. We also offer deep pools to allow for circular swimming and sufficient land area for them to roost, nest and hide.



Figure 1 Penguin Enclosure in SOA

Going forward, we will continue to practice responsible sourcing of animals, taking into consideration the local context and latest conversation status updates. Meanwhile, we will also continue to explore new ways to further enhance the wellbeing of our animals.

Talent Retention and Training

As the job market and employee expectations evolve, talent management is transforming. Straco seeks to understand and adapt to these changes in order to attract, retain and train a pipeline of capable and committed employees.

An efficient human resource management framework helps to integrate systems and procedures, providing a strategic view of talent management. The Management Manual and Employee Handbook set out clear instructions on Straco's policies and practices concerning recruitment, turnover, reimbursement, training and education, performance appraisal and employee benefits.

Building up a talent reserve: SOA internship programme

SOA partners with leading educational institutions, such as Shanghai Ocean University, Shanghai Agriculture and Forestry Vocational and Technical College, as well as Xiamen University, to roll out an internship programme. The selected interns will undergo job orientation, on-the-job training and performance feedback. This internship programme not only exposes students to work experience, but also helps SOA to identify promising candidates for hire. In 2017, out of 14 interns, three were offered permanent positions upon the completion of their internships.

Hiring and retention

Straco's human resource policies are grounded in the principles of transparency and equal opportunity. Straco seeks to maintain a diverse workforce, which in turn brings together different perspectives and encourages creativity. For example, for employees approaching retirement age, we provide assistance to help them transit between two lifestyles. For those who wish to continue working, we also offer employment opportunities with equal employment terms. We believe it is important that our employees are fairly compensated in line with market standards and employees are also entitled to a variety of benefits, such as medical insurance, paid annual leave, complimentary tickets to attractions, team-building trips and tokens of appreciations. As of 31 December 2017, we have a total of 510 permanent employees. The charts below provide a quantitative measure of employee diversity.



Figure 2 UWX's team-building trip to Lushan (Mount Lu) in 2017.

FY2017 Workforce



By Location

China: 350
Singapore: 160



By Gender

Female: 235
Male: 275



By Employee Category

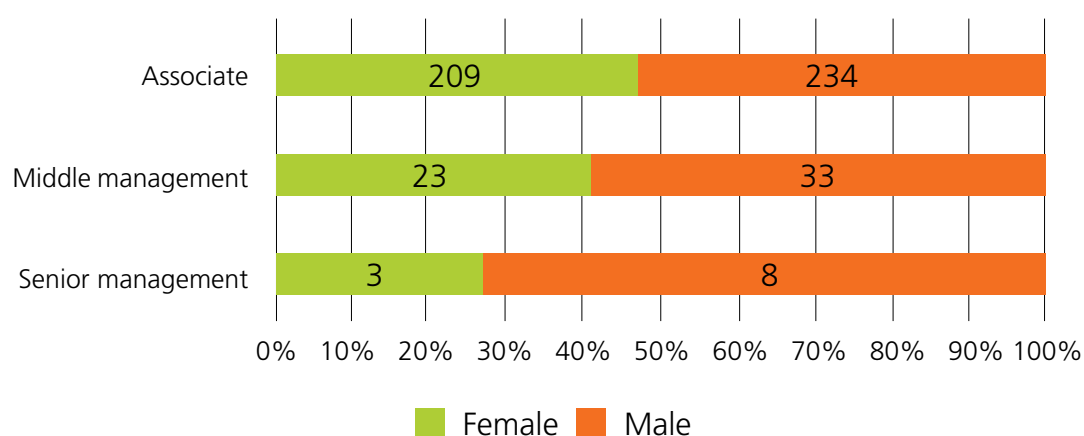
Senior Management: 11
Middle Management: 56
Associate: 443



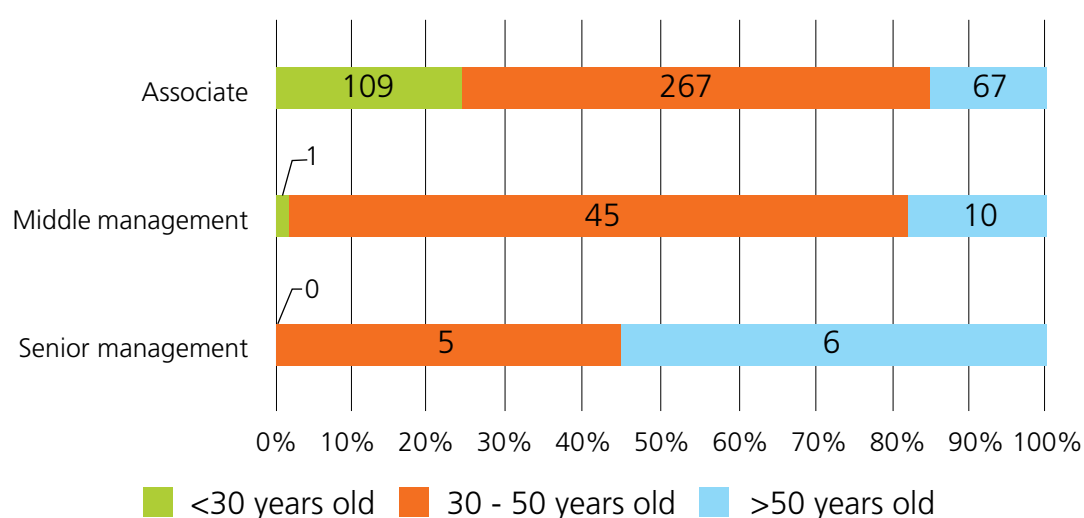
By Age Group

<30 years old: 110
30 – 50 years old: 317
> 50 years old: 83

Percentage of Employees per Employee Category By Gender



Percentage of Employees per Employee Category By Age Group



In 2017, the average monthly new hires rate and turnover rate for permanent employees were 2.2% and 2.3% respectively. The table below provides a breakdown by age, gender and region.

FY2017	Monthly new hires rate	Monthly turnover rate
By age group		
< 30 years old	4.4%	4.7%
30 - 50 years old	1.7%	1.7%
> 50 years old	1.1%	1.3%
By gender		
Male	2.0%	2.2%
Female	2.4%	2.3%
By region		
China	2.1%	2.3%
Singapore	2.4%	2.2%
Overall		
Overall	2.2%	2.3%

Training

To remain competitive, Straco recognises the need to equip our employees with the essential knowledge and skills needed for their jobs. We are committed to providing our employees with opportunities for systematic, long-term and continued training. We provide a diverse range of learning and development programmes to cater to their professional needs. Some examples are illustrated in the table below.

Type	Programmes available
Orientation	<ul style="list-style-type: none"> • New staff orientation • Code of conduct
Capacity Building	<ul style="list-style-type: none"> • Personal grooming • Managerial and leadership skills
Service Quality	<ul style="list-style-type: none"> • Service etiquettes • Tour guide certification • How to conduct educational tours • Business English
Health and Safety	<ul style="list-style-type: none"> • First Aid • Fire drill SOPs • Maintenance of hazardous chemicals • Handling of dangerous animals • Safety management
Specialised Training	<ul style="list-style-type: none"> • Care of aquatic animals and animal training • Biology and nutrition of aquatic life • PADI (Professional Association of Diving Instructors) diving courses • Understanding Life Support System (LSS) • Human Resource management • Landscape naturalisation • Accounting • Engineering and equipment maintenance

To encourage active learning, Straco provides reimbursement for costs incurred on training programmes. Straco also recognises the achievement in training and education, by offering preferential compensation and promotional opportunity to employees who undergo skills upgrades. The Human Resource department tracks attendance for various training and collects feedback to continuously improve the various programmes. In 2017, our permanent employees received on average 10 hours of training, with a breakdown shown in the table below.

FY2017	Average hours of training per permanent employee per year
By gender	
Female	11 hours
Male	10 hours
By employee category	
Associate	9 hours
Middle management	20 hours
Senior management	21 hours
Overall	
Overall	10 hours

Job analysis and design are conducted to match the best talent to the right job. To further support the professional growth of our employees, Straco provides regular performance reviews to communicate employees' performance and career goals. The results of our employee appraisals can help Straco make informed decisions on promotion, transfer, remuneration adjustment and training planning. Overall, 100% of eligible permanent employees⁶ have received at least one performance review in 2017.

Going forward, Straco will continue to provide fair and competitive compensation to employees.

⁶ Exclude permanent employees who were under probation.

Health and Safety

Straco recognises the responsibility to provide a safe and healthy environment for both our employees and visitors. We have established SOPs and contingency plans, to prevent and minimise health risks.

As a responsible employer, we are committed to ensuring that safety risks are properly identified and mitigated, wherever possible. Occupational health and safety risk assessments are conducted, reviewed and updated regularly to anticipate and prepare for new risks as and when they arise. To improve accountability, we also provide an open channel of communication across all levels to gather feedback on safety and health related issues. In recognition of their robust occupational health and safety management, Singapore Flyer has achieved OHSAS 18001 and BizSafe level Star certification.

For work where there are safety hazards or that requires high specifications, such as operating machinery and handling animals, employees will receive appropriate training and certifications before commencement of work. For example, in Straco's aquariums, there are established manuals to guide diver safety. Apart from the necessary scuba diving certificates, divers are also trained on safe handling of aquatic animals, especially for predatory and venomous species. As part of the SOP, divers should always work in pairs, so that underwater emergencies can be addressed promptly by dive buddies.

Straco also seeks to protect the health and safety of customers. As we operate tourist attractions with a high volume of visitors, we place particularly high emphasis on fire safety. Our safety equipment is inspected and upgraded whenever necessary, to check that it is in sound working condition. To re-enforce emergency preparedness, company-wide fire drills are conducted regularly, especially before major public holiday with peak visitor traffic. Straco's employees have received the necessary fire safety training to facilitate a safe evacuation for all. For example, in SF, designated employees form a Company Emergency Response Team (CERT). CERT members will receive intensive fire-fighting training and will undergo refresher courses on a regular basis. Moreover, with appropriate training courses in place, Straco is able to offer timely and suitable medical assistance to visitors in need. For example, SOA has invited Shanghai Red Cross to conduct on-site training on emergency response and First Aid. Similarly, in SF, 1 out of 20 employees is a Certified First Aider.



Figure 3 UWX undergoing fire drill

In 2017, there were zero workplace fatalities and zero high-consequence injuries. The accident frequency rate (AFR) for permanent employees was 3.9⁷. In FY2018, we will continue to provide relevant training on health and safety and aim to maintain zero workplace fatalities.

Local Community

Straco aspires to bring about positive social and environmental impacts to the local community. As a responsible corporate citizen, Straco prioritises two important social missions, namely, conservation education and research and social charity.

⁷ As per definition of Ministry of Manpower (MOM) of Singapore, Accident Frequency Rate = $\frac{\text{Number of Reportable Injuries}}{\text{Number of Man - hours Worked}} \times 1,000,000$. A reportable injury is any workplace or work-related traffic injury that results in at least 24 hours of hospitalisation or more than 3 days of MC due to a single work-related accident (whether consecutive or not).

Conservation Education and Research

Our aquariums seek to realise their public value as providers of conservation education and research. SOA and UWX strive to raise awareness on conservation issues and inspire passion for marine animals through guided tours, school outreach programmes and social media activities. Resident marine biologists and veterinarians also actively participate in wildlife rescue and research programmes. Below are the highlights of our activities in 2017.

- **Educational outreach programmes**

During the year, SOA and UWX organised multiple outreach programmes to schools and local communities. During campus tours, our science and educational team from SOA brought live aquatic animals and specimens into schools, and conducted mini-lectures covering a range of marine science topics. The outreach programme is not only designed to be educational, engaging and interactive, the programme also seeks to raise awareness of conservation issues. For example, “The Science of Sharks” programme advocated against consumption of shark fin, to raise awareness among the students on the conservation issues of sharks and to encourage students to pass on this message to a wider circle of families and friends. The “Penguin Diary” programme introduced kindergarten kids to the science of global climate change and drew their attention to the issue of marine debris, calling for proper disposal of rubbish.



Figure 4 SOA conducting campus tour in Zhangjiang Hi-tech Experimental Primary School

In 2017, Xiamen City hosted the BRICS Summit. To celebrate this event, UWX launched a special exhibition “Fish babies of BRICS countries”, showcasing juvenile fishes of signature species from the respective countries. To engage the local community, UWX launched a lecture series for community centres across the city to introduce the rich aquatic biodiversity of BRICS countries. Meanwhile, UWX also hosted the “Underwater Creative Landscaping Competition”, in which participants were required to build underwater fish nursery models from recycled material with sound scientific principles.



Figure 5 UWX conducting outreach programme in Shuanglianchi Community

In 2017, SOA and UWX organised in total 29 outreach programmes and reached out to a total of more than 8,000 recipients.

- **Marine science research**

SOA conducts on-site research and breeding programmes for marine life, focusing on endangered species. Through research on the target species’ preferred living conditions, including environmental features, animal behaviours, water quality and nutrition, SOA has achieved considerable progress in the breeding of big-belly seahorse, leopard shark, bay pipefish and pacific sea nettle. This artificial breeding can alleviate the demand for wild aquatic animals, thus protecting the wild population. Moreover, publishing research results in scientific journals can help with the advancement of conservation science and may support the long term viability of the species.

- **Wild dolphin rescue**

With a wealth of expertise in wildlife biology and veterinary science, Straco's aquariums collaborate with local wildlife departments and contribute to wildlife rescue missions. In May 2017, UWX helped to rescue stranded dolphins in local waters. UWX also assisted in the rehabilitation programme, to enable the rescued dolphin to be released back into the wild. UWX signed up as the inaugural member of the Association for the Protection of Indo-Pacific Bottlenose Dolphin, which aims to build multi-lateral synergy in dolphin research, conservation and rescue.



Figure 6 A rescued dolphin being examined by the UWX team.

- **Campaign for Sustainable Seafood**

Straco uses social media to reach out to a wider audience. In 2017, SOA launched an interactive "Sustainable Seafood" programme through its WeChat official account. By answering to an online quiz on sustainable seafood and sharing their thoughts about this issue, participants stood a chance to win tickets to SOA. This programme helped to draw public attention to the issue of overfishing and raised awareness on the environmental impacts of seafood, thus encouraging environmentally responsible consumption. A total of 1,200 people participated in the programme and shared this initiative on their WeChat Moment, spreading the words of conservation to many more.

"Sustainable seafood is seafood that comes from trusted sources. Whether wild caught or farmed, the harvesting method should be sustainable in the long-term and not negatively impact the local ecosystem. People should avoid consuming seafood that is from unsustainable sources. When it comes to sustainability, it always starts from our little actions."

--A quote from "Mr. Deng," participant of "Sustainable Seafood" programme

Social Charity

Straco is committed to serving the local community through charitable activities. Below are the highlights of our activities in 2017.

- **Enrichment activities for underprivileged children**

SOA commits to a long-term volunteering programme with Shanghai Pudong Special Education School. Every month, SOA volunteers facilitate enrichment activities for children with special needs, including interactive games and activities to build social skills. This programme helps to raise social awareness on the needs of the underprivileged children and instill a sense of purpose for SOA's staff volunteers.



Figure 7 SOA staff volunteers facilitating jigsaw games

- **Support for low income families**

UWX has continued their 18-year long initiative to provide assistance to low income families in the Longtou Community in Xiamen City. Collaborating with the Longtou Community Centre, UWX gives away household essentials and packets of 200 RMB cash. 20 low income families benefit from the programme every year.

- **Sponsorship for community events**

SF offers special discount for welfare groups and community centres. In 2017, more than 4,800 people have benefited from the discount. Furthermore, SF also supported various community events through cash donation, complimentary ride tickets and venue sponsorship. Some of the events that received sponsorship include PAP Community Foundation (PCF) South West District Charity Golf and Dinner, Consumers Association of Singapore's (CASE) fund raising lunch, National Day Parade, as well as Nanyang Technological University Alumni Club's (NTUAC) annual fundraising event for Cerebral Palsy Alliance Singapore.

In the coming year, we will continue to support conservation and contribute back to society. In 2018, SF aims to commit at least 300 volunteer hours for charitable causes. Meanwhile, UWX will continue their efforts in conservation education, targeting to reach out to at least 1,700 recipients. SOA aims to organise at least 10 educational programmes.

Regulatory Compliance

Complying with regulation is a baseline expectation that our stakeholders have for us and is essential for maintaining our license to operate. Straco strives to adhere to relevant environmental and socio-economic compliance.

At Straco, we actively identify and manage our regulatory risks. We adhere to relevant environmental and socio-economic laws concerning a range of issues like effluent discharge, labour practices, marketing and labelling, health and safety, wildlife trading, as well as animal wellbeing and prevention of zoonotic diseases. Strong governance helps Straco to monitor compliance and minimise risks. Relevant topics are covered in our employee induction programme and formalised as part of our employee conduct. As part of the assurance and monitoring process, Straco have established whistle-blowing channels for employees to report any impropriety in good faith.

The management team monitors changes to the applicable laws and regulations and relevant matters are discussed during management meetings. Our internal risk management policies and employee communications are updated accordingly to keep abreast of regulatory changes. At the same time, we also make sure all voluntary and mandatory licenses are updated as necessary. For example, Straco's aquariums closely follow the changing requirements of CITES and conduct thorough supplier due diligence before any purchase. Upon the successful acquisition of the animals, UWX and SOA also comply with the regulations on quarantine for reasons of biosafety.

In 2017, there was no incidence of non-compliance with environmental and socio-economic laws and regulations which resulted in significant fines or sanctions. In 2018, Straco intends to uphold the same high standard of conduct and maintain zero non-compliance.

Awards and Recognitions

Straco has received a number of awards in recognition of its achievement in sustainability. Below are some examples:

Shanghai Ocean Aquarium

- Reuse of Recycled Treated Water Project: Third Prize in 2017 Pudong Employees Science and Technology Innovation Competition
- Artificial Breeding Project of Pacific Sea Nettle (*Chrysaora fuscescens*): Qualifying Prize in 2017 Pudong Employees Science and Technology Innovation Competition
- Outstanding Team in Year 2017 by China Aquarium Association (CAA)
- Science Education Themed Exhibition of Shanghai City (A Grade, awarded 500,000 RMB cash)
- National Science Education Base
- National Marine Science Education Base
- Shanghai Pudong Environmental Education Base
- Shanghai Pudong Patriotic Education Base
- Outstanding Team in 2017 Pudong Science Festival
- Credit Shanghai Five Star Company by Shanghai Tourism Trade Association

Underwater World Xiamen

- National Marine Science Education Base
- Outstanding Activities in 2017 National Science Day by China Association for Science and Technology
- Member of Association for the Protection of Indo-Pacific Bottlenose Dolphin

Singapore Flyer

- Certified Water Efficient Building by Public Utility Board of Singapore
- Certificate of Environmental Excellence (Year 2017) by Chiang Kiong Maintenance Pte Ltd
- OHSAS 18001 Health and Safety Management System
- BizSafe Star Certification by Workplace Safety and Health Council



(Company Registration No.200203482R)

(Incorporated in the Republic of Singapore on 25 April 2002)
10 Anson Road, #30-15 International Plaza Singapore 079903
Tel: (65) 6223 3082 Fax: (65) 6223 3736
www.stracocorp.com