

2015

SUSTAINABILITY HIGHLIGHTS

MARINA BAY SANDS®





“

The world came to an agreement during the **2015 Paris Climate Conference** that climate change is indeed a major issue affecting the globe and our future. With that, countries have started to make efforts in their pledge to reduce the effects on the climate...

Mr. Kevin Teng
Executive Director, Sustainability

As a stakeholder, Marina Bay Sands is well-poised to contribute our part to these country-specific efforts, through the use of innovative technologies and a consistent focus on our environmental footprint.



Every Team Member at Marina Bay Sands contributes to ensure that our property is performing to meeting high environmental standards. Since its inception, we have seen our ECO360 programme grow from strength to strength, embedding the best environmental practices into our operations. Sustainability remains a focal point for our business as we understand its importance to our stakeholders. Through engagement, constant improvement of our operational efficiencies and the use of environmental tools, we have worked tirelessly towards achieving our sustainable goals. In 2015, our success was recognised through the many accolades we received - reinforcing Marina Bay Sands' position at the forefront of sustainability.





To achieve our goals in 2015, departments throughout the property worked on over **430** environmental actions.

2015 GOAL

Improve property recycling rate by 10% from the 2011 baseline by end of 2015.

Reduce energy consumption by 12% from the 2012 baseline.

Increase awareness of sustainability among Team Members.

Increase supply chain sustainability.

Excel in health and safety property wide.

Increase our use of sustainable food on property.

Increase client awareness of sustainable meeting packages.

ACHIEVEMENT

Although our waste diversion rate of **19.3%** remained the same as our 2011 figure, our overall recycling increased by **24%**.

Achieved a **12.2%** decrease in energy consumption.

Increased individual actions of Team Members by **96%** from 2014. Unique participation also increased by **14%**.

Over **27%** of sustainable products purchased in 9 categories.

Improved on our 2015 goal by **34%**.

55 Green Meetings selected in 2015, which included the sustainable harvest menu

Number of impact statements requested by clients increased by **60%** from the previous year.

Governance

Our ECO360 strategy is determined at a global level by Las Vegas Sands. The strategy is based on the issues identified as most important to our business, to stakeholders and society. The issues pertaining to our Sands ECO360 strategy are monitored through regular interaction with internal and external stakeholders across the business globally.

- RESOURCE MANAGEMENT & CONSERVATION
- BUSINESS INTEGRATION
- COMMUNITY ENGAGEMENT
- TEAM MEMBERS
- REPORTING & INCLUSIVITY
- COMPLIANCE

Las Vegas Sands

President & Chief Operating Officer

Las Vegas Sands

Sr. Vice President & Sustainability Officer

Property Sustainability Department

Environmental Management System (EMS)

Marina Bay Sands Green Council

Facilities, Hotel Operations, Casino Operations, Food & Beverage, Purchasing, Sales, Convention & Catering, Human Resources, Marketing, Communications, Information Technology



GREEN BUILDINGS
Building renovation and new development.
Sustainability certifications
New technologies and innovation.



STAKEHOLDER ENGAGEMENT
Team Member education.
External communication.
Community outreach.

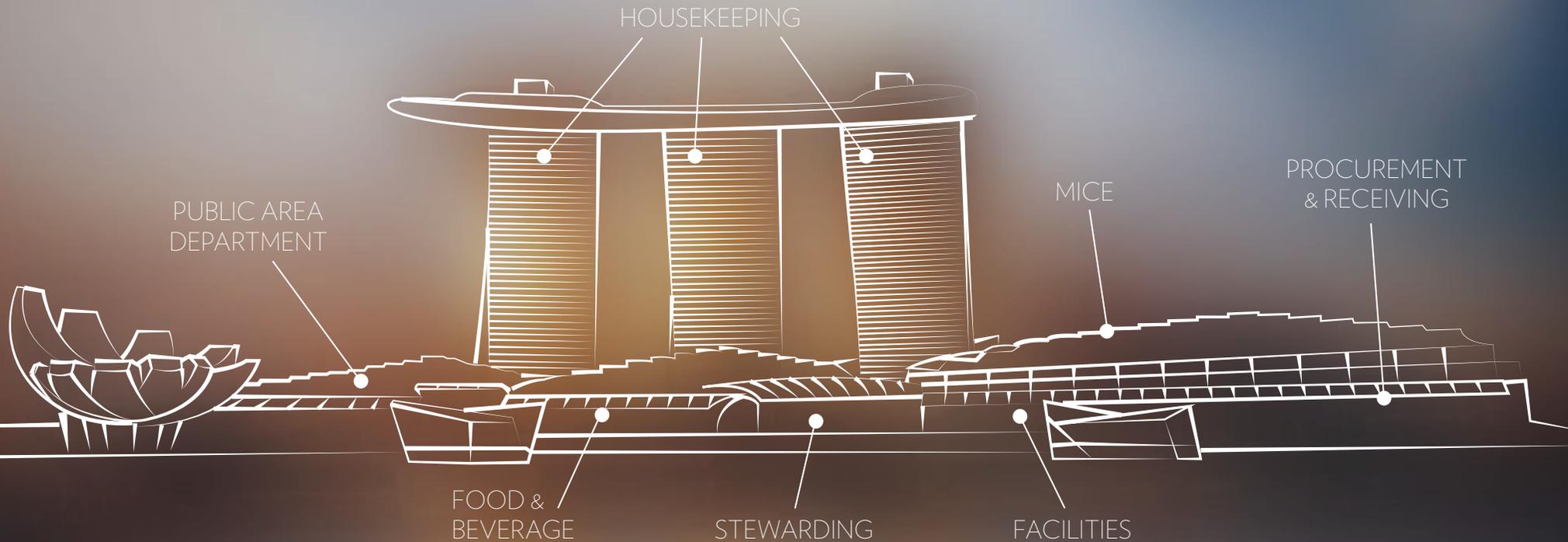


ENVIRONMENTALLY RESPONSIBLE OPERATIONS
Resource conservation.
Waste management and recycling.
Sustainable products and materials.



SUSTAINABLE MEETINGS
High-performance facility.
Standard responsible meeting practices.
Sustainable meeting options.

Highlights of Our Environmentally Responsible Operations



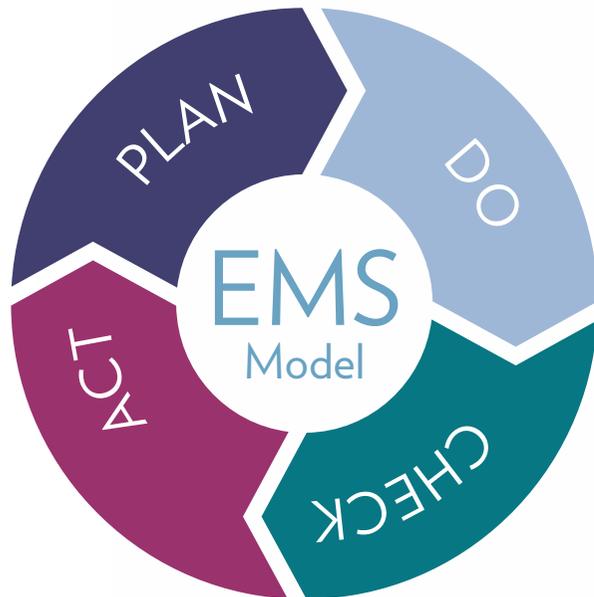
Operations

All of our departments and Team Members are integral to our performance and in achieving our targets. The Sands ECO360 programme comes alive when our Team Members are engaged in all of our environmental aspects. Essential to this engagement are the **60** Go Green Ambassadors representing each department. These Green Ambassadors encourage participation and disseminate sustainability information across our entire operations. The following pages highlight various departmental functions and activities that have contributed to our environmental and social footprint in 2015.

Environmental Management System (EMS)

EMS is a strategic system put in place to help integrate sustainability into our operations. Introduced in 2013, our EMS ensures that our processes conform to our certification requirements, while providing a framework that is used to manage environmental issues property-wide.

The system's **“Plan, Do, Check, Act”** model emphasises the control and continual improvement of the processes and products. Elected by the departments, our ambassadors are tasked to follow-up on sustainability actions that arise from the EMS process.



“The EMS is a great tool to communicate sustainable actions with the department and assign ownership. The whole department is engaged in the process, which helped to complete our sustainable actions in 2015 - such as the implementing of a paperless transaction programme”

*—Laurissa Generoso
Assistant Front Office
Groups Billing Manager*

Housekeeping & Public Area Departments

These departments are integral to the success of our waste diversion, moving waste from the end user to the appropriate waste or recycling stream. They also play a vital role in maintaining in-room efficiencies and turning off appliances and lights when not in use.

Soap for Hope

As part of the internal Soap for Hope programme, used bottles of shampoo, shower gel, conditioner, and body lotion are collected daily from our over 2,500 hotel rooms and shared amongst Team Members.

Towel Reuse Programme

This initiative creates an opportunity for guests to take part in our Sands ECO360 programme. They can choose to be more eco-friendly by reusing their towels during their stay, saving valuable resources such as water and electricity.

Clean The World

A new initiative in 2015, where housekeeping guest service agents collect left-over bar soap and donate them to Clean the World, one of our partners. Used soaps are recycled into new bars and given to families in need. In 2015, our property donated over **4,900kg** of bar soap, which is equivalent to providing essential items to **12,250** families for a month.



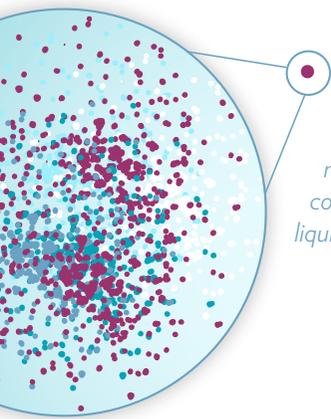
Soap for Hope diverted 3.9 tonnes of amenities from landfills in 2015.

Food Digester

The introduction of our five food digesters has enabled our business to further manage our waste streams and engage our tenants. Located in areas with the largest concentrations of food waste - such as the hotel, Sands Expo & Convention Centre, and The Shoppes at Marina Bay Sands. These digesters are able to convert most pre- and post-consumer waste to liquid, except for bones and food with heavy oil content. The system uses a unique microscopic enzyme to “eat” the food waste in the same process that humans use to process food. The end result is a waste liquid which is flushed away. Over **20** Team Members have been trained to use this new technology.

Food From The Heart Donations

A local community organisation and partner of Marina Bay Sands, Food From The Heart engages the communities in Singapore by alleviating hunger through food distribution. Food from the Heart also provides the food & beverage industry in Singapore with a waste minimisation programme allowing them to donate their left-over food items to this worthy cause. In 2015, the stewarding and kitchen departments of both RISE® Restaurant, and Sands Expo & Convention Centre worked diligently to donate over **32,000** buns (3021kg) to this programme, benefiting over **138** underprivileged families in Singapore.



It takes less than 1 gram of a non-pathogenic enzyme to convert 1 kg of food waste to liquid in one day.

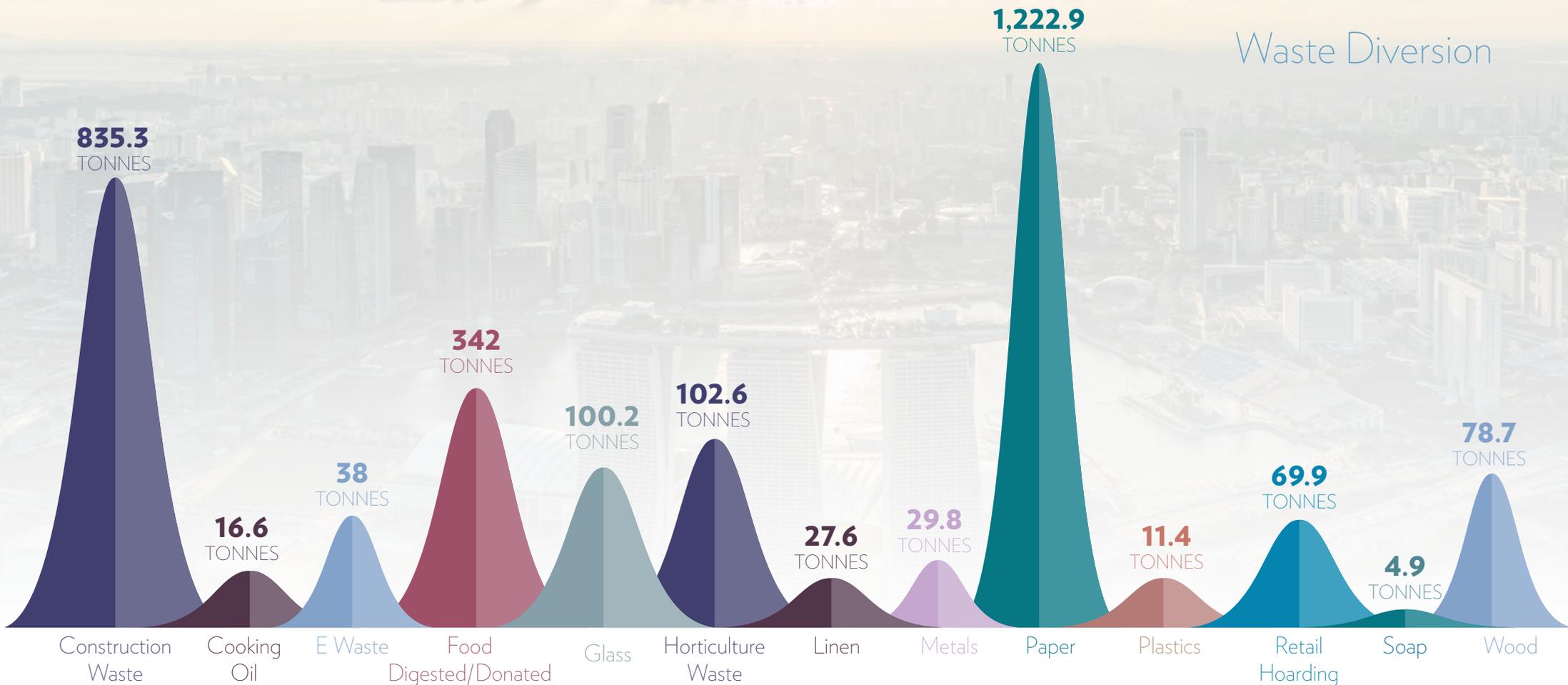
Food & Beverage



“I am delighted to see that nothing goes to waste through the work I do, and this also benefits the broader community.”

*– Tim Lim Chan Beng
Baker Commis I*

Waste Diversion



Materials recycled or reused in 2015

Waste in 2015

We lowered our impact on the environment by ensuring that used materials are properly separated into the correct waste streams for optimal diversion results. Our dedication to reducing, reusing and recycling, combined with our effort to convey these procedures to our Team Members, has contributed significantly to meet these targets. To further understand our recycling needs and improve our future diversion, we conducted a full assessment in 2015 reviewing both waste streams and their loads. As a result, we were able to focus our resources on areas that could contribute more to waste diversion or those needing further engagement.

Waste Diverted from Landfill in 2015 **19.3%**

Total Diverted Waste in 2015 **2,541 TONNES**

Overview of waste diversion



“Our innovative systems allow for the live monitoring of resource use. This enables our dedicated team to quickly fix any issues that arise, reducing the possibility of wasted resources.”

—Kyaw Kyaw Khaing, CCMS Supervisor

Event Booking Management System & Central Control Management System Integration

One of the largest contributors to energy reduction has been the installation of a system that allowed the Events Booking Management System to communicate automatically with the Central Control Management System for meeting spaces. This interface enables automatic energy savings in empty rooms, lowering essential systems such air-conditioning which may have been switched on in a manual system. Over **11,000MWh** of energy is estimated in savings each year as a direct result.

Our Facilities team is essential in monitoring and maintaining our entire operations while creating a comfortable environment for our guests and Team Members. To achieve this, we use the latest technologies and preventative maintenance programmes, to ensure all aspects of indoor and outdoor spaces are at their most efficient with as little impact to the environment as possible. The dedication has resulted in Marina Bay Sands achieving decreased energy consumption for the fourth year in a row.

2012

2013

2014

2015

126,035.42 MT CO₂E

Green House
Gas Reduction
Scope 1 & 2

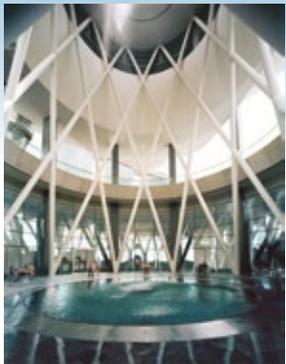
Green House Gas Emissions (GHG) are produced as part of our operational activities. As the majority of these emissions are contributed by direct sources such as natural gas and bought electricity, our results are monitored on a daily basis and scrutinised for improvement.



The reduction of GHG emissions by **23%** since 2012 is equivalent to taking 8,100 cars off the roads for 1 year **OR** the amount of carbon absorbed by over **996,000** tree seedlings grown for 10 years.

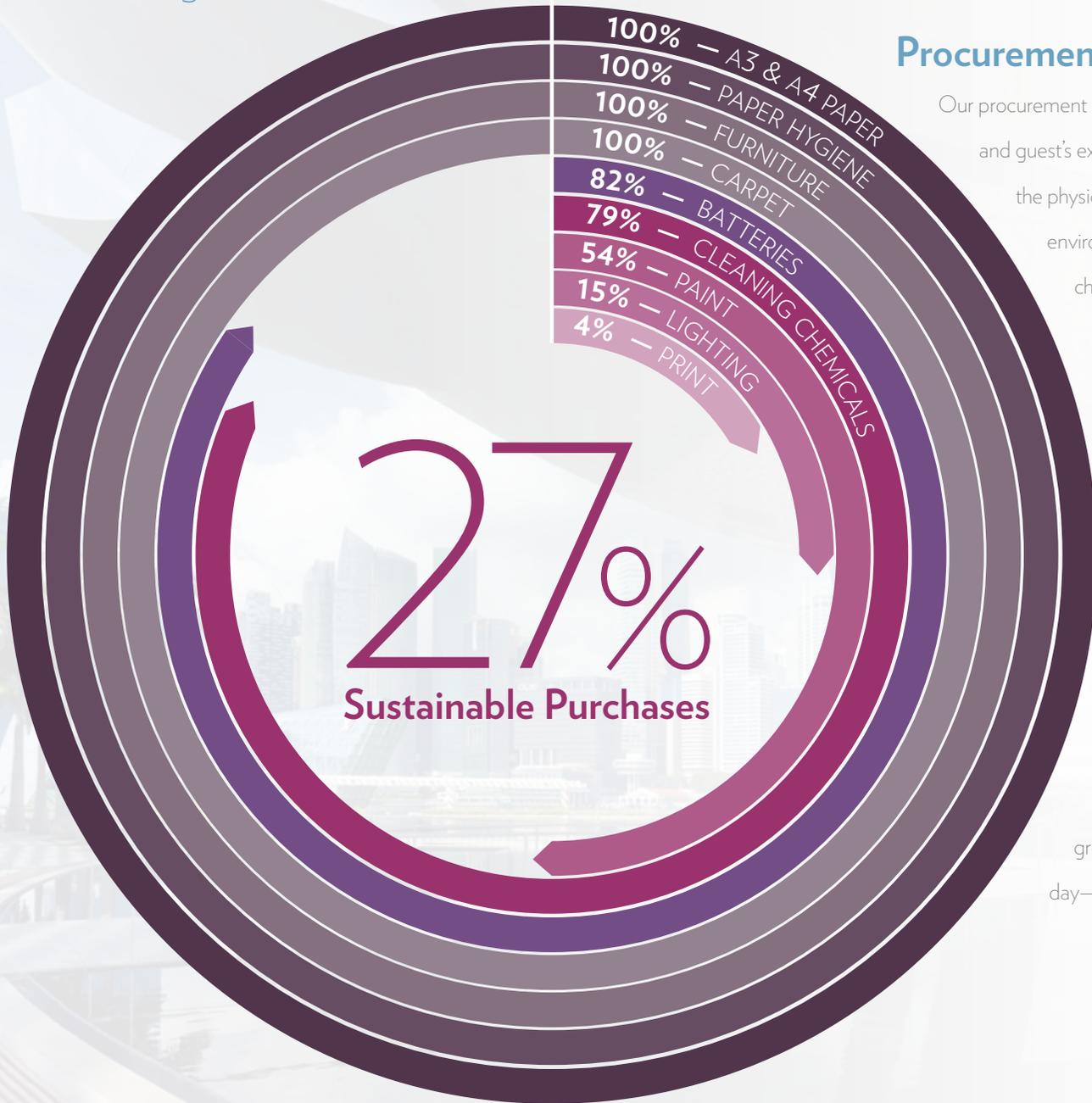
Energy Management

Energy is needed to power all of our essential components; such as indoor climate control, cooking, heating, and lighting. We follow a strict regimen to efficiently manage this resource at Marina Bay Sands; from hourly performance monitoring to installing technologies like motion-controlled lighting, electrical regenerating drives to our elevators, and the automatic management of in-room electricity with hotel room key cards. All of these steps contribute lowering our consumption during our daily operations, and helped achieve **12.2%** reduction in 2015 from 2012.



Water Management

Rain water captured from the rain oculus at ArtScience Museum™ is mixed with local reclaimed water and used as a potable water alternative for landscape irrigation, façade maintenance, and topping up ponds. This reduces our reliance on potable water and further lowers our impact. This non-potable water now accounts for **6%** of our total water consumption, enough potable water in one year to fill the Marina Bay Sands infinity pool over **68** times.



Procurement & Receiving

Our procurement and receiving systems are essential to ensuring that our end product, services, and guest's experiences remain as sustainable as possible. We go beyond the purchasing of the physical item. The team ensures that they consider the life span of the product, the environmental impact as well as the relative, social and health benefits of all available choices. To establish the sustainability of products and services purchased, the procurement department follows strict sustainable criteria and certification. In 2015, just over **27%** of purchases in 9 categories were achieved.

Case Study: Packaging Reduction

In 2015, **18 vendors** participated in a plastic basket and pallet exchange programme, accounting for over **36%** of all food and beverage daily spend. Over **12,000** plastic baskets and **1,300** plastic pallets have been purchased for this programme to date. This initiative has significantly improved the loading dock efficiency, increased vendor environmental awareness, improved food hygiene and quality, and reduced the clutter within and around the loading dock. Waste generated at the receiving area has been greatly reduced, with an estimated **50 boxes** (cardboard & styrofoam) saved per day—equalling nearly **13.2 tonnes** of waste annually.

Fast Fact: *If stacked on top of each other, the amount of packaging avoided through the plastic basket program would be taller than the three towers of Marina Bay Sands end to end.*

Meetings, Incentives, Conferences, & Exhibitions (MICE)

The MICE department works tirelessly to attain the highest environmental standard. This is demonstrated through the awards and certifications achieved—examples include **APEX/ASTM** and **ISO 20121 Events Management**.

With over **250** meeting rooms and exhibition space at the Sands Expo & Convention Centre, the MICE department is essential in creating memorable experiences for our guests and meeting their sustainable needs. Sands ECO360 Meetings provides a perfect platform to deliver sustainable options to meeting planners and clients.

The customisable programme offers options in **waste management, sustainable set-ups**, and a **harvest menu** that focuses on fresh, locally sourced produce, therefore reducing food miles. Meeting space is **sub-metered** to provide individual energy data that our dedicated **sustainability coordinator** can provide to the client through an **impact statement**.

Green Meetings

In 2015 over **50** green meetings were chosen by clients which included our harvest menu. Further engagement was achieved with **16** of these clients who received a bespoke environmental impact statement that presented the measured waste diversion, GHG emissions and water and energy consumption for their event. This provided them with the necessary information for their own environmental reporting, and helped to set benchmarks for future sustainable events with us.





Certifications

- ISO 20121 Sustainability Events Management
- EarthCheck Certification Silver
- BCA Green Mark Platinum
- ASTM/APEX Certification
- ECO Office Certification
- ECO F&B Certification
- ECO Shop Certification

Awards

- Singapore Business Federation Sustainable Business Award
- UFI Sustainable Development Award 2015
 - IMEX-GMIC Green Award 2015
- SEC-Kimberly-Clark Singapore Environmental Achievement Award (Services) 2015

Partnerships

- World Wide Fund for Nature
- Food from the Heart (FFTH)
- Cerebral Palsy Alliance Singapore
- Association for People with Special Needs (APSN) Delta Senior School
- Clean The World
- Singapore Association for the Deaf
- Art Outreach Singapore

Certification, Awards, & Partnerships

We are constantly striving towards the highest environmental standards and we value certification programmes that challenge our operations. Awards that we have directly achieved reflect the commitment we have to sustainable business practices, while we partner with environmental and social organisations that share our core values.



Team Member Engagement

Engagement is an essential component of our sustainability foundation, highlighting our core values and enabling collaborative efforts between our Team Members and the local community. These efforts and activities allow our company to achieve more in reducing our impact. Team Members were very enthusiastic in volunteering for activities in 2015 with a **101%** participation increase from the previous year, and a **14%** increase in unique participation.

Earth Hour is an environmental awareness campaign organised by the World Wildlife Fund for Nature, and has grown to be a worldwide calendar event. Marina Bay Sands kicked off our participation, engaging Team Members by encouraging environmental pledges, green photo competitions, individual recycling, and purchasing LED bulbs in-house, culminating over **6,900 actions**. Earth Hour was concluded with a Go Green Night Walk around the bay, where over **350 Team Members** braved the elements with a countdown to signify the end of the hour.



“We hoped to raise awareness of the Earth Hour event by participating in the Go Green Night Walk and engaging many more people on the street in support of our sustainability initiatives. It was also a great opportunity for team bonding and exercising! I will definitely join it again next year.”

—Jenna Xue

Marketing Manager,
Destination Marketing

Engagement Activities in 2015

| | |
|-----------------------------|---------------|
| Earth Hour 2015 | 13,081 |
| World Hunger Week | 1,603 |
| Other Engagement Activities | 166 |
| Go Green for the Holidays | 221 |
| 2015 Total Actions | 15,071 |
| 2014 Total Actions | 7,481 |

Food & Beverage outlets form a significant part of our business and resource use. Therefore our sustainable actions in purchasing, waste diversion, and promotion of sustainable products like healthy alternative meals are critical in lessening our overall environmental impact.

Meatless Mondays at Mozza

Founded in 2003, the popular US based 'Meatless Mondays' has become a worldwide phenomenon. Introduced to create health awareness around eating meat alternative dishes, it is supported by individuals and organisations that are committed to offering healthier food options—including our very own Mozza by Chef Mario Batali.

ECO-Food & Beverage Certification

As part of our sustainability engagement with our restaurant tenants and outlets, we embarked on the ECO-F&B certification programme from the Singapore Environment Council. This programme assesses the environmental management system of food establishments by addressing their environmental policies, air quality, as well as water, energy, and waste management. In 2015, **8** of our outlets received certification, including our celebrity chef restaurants:

ADRIFT BY DAVID MYERS
BREAD STREET KITCHEN BY GORDON RAMSAY
CUT BY WOLFGANG PUCK
db BISTRO & OYSTER BAR BY DANIEL BOULUD

MOZZA BY MARIO BATALI
SKY ON 57 BY JUSTIN QUEK
WAKU GHIN BY TETSUYA WAKUDA
RISE RESTAURANT & LOUNGE

"The fact is, most people eat way more meat than is good for them or the planet. Asking everyone to go vegetarian isn't a realistic goal but we can focus on a more plant-based diet, and support the farmers who raise their animals humanely and sustainably. That's why I'm such a big believer in the Meatless Monday movement."

—Chef Mario Batali



"I feel encouraged knowing that Marina Bay Sands places a great importance on social issues. By participating in the annual bake sale during World Hunger Week gave me the opportunity to contribute in different ways."

—Jen Hee Lan Heng
Wardrobe Coordinator

Key Awards

CORPORATE GOLD AWARD
Community Chest Awards (2011)

CORPORATE PLATINUM AWARD
Community Chest Awards (2012)

World Hunger Week

Developed by The Hunger Project UK, World Hunger Week celebrates sustainable solutions in ending extreme hunger and poverty. We have developed a number of activities for Team Members to highlight the importance of access to food and poverty. Over **\$18,000** in cash and packaged goods were donated to our partnered charity Food From The Heart during World Hunger Week activities:

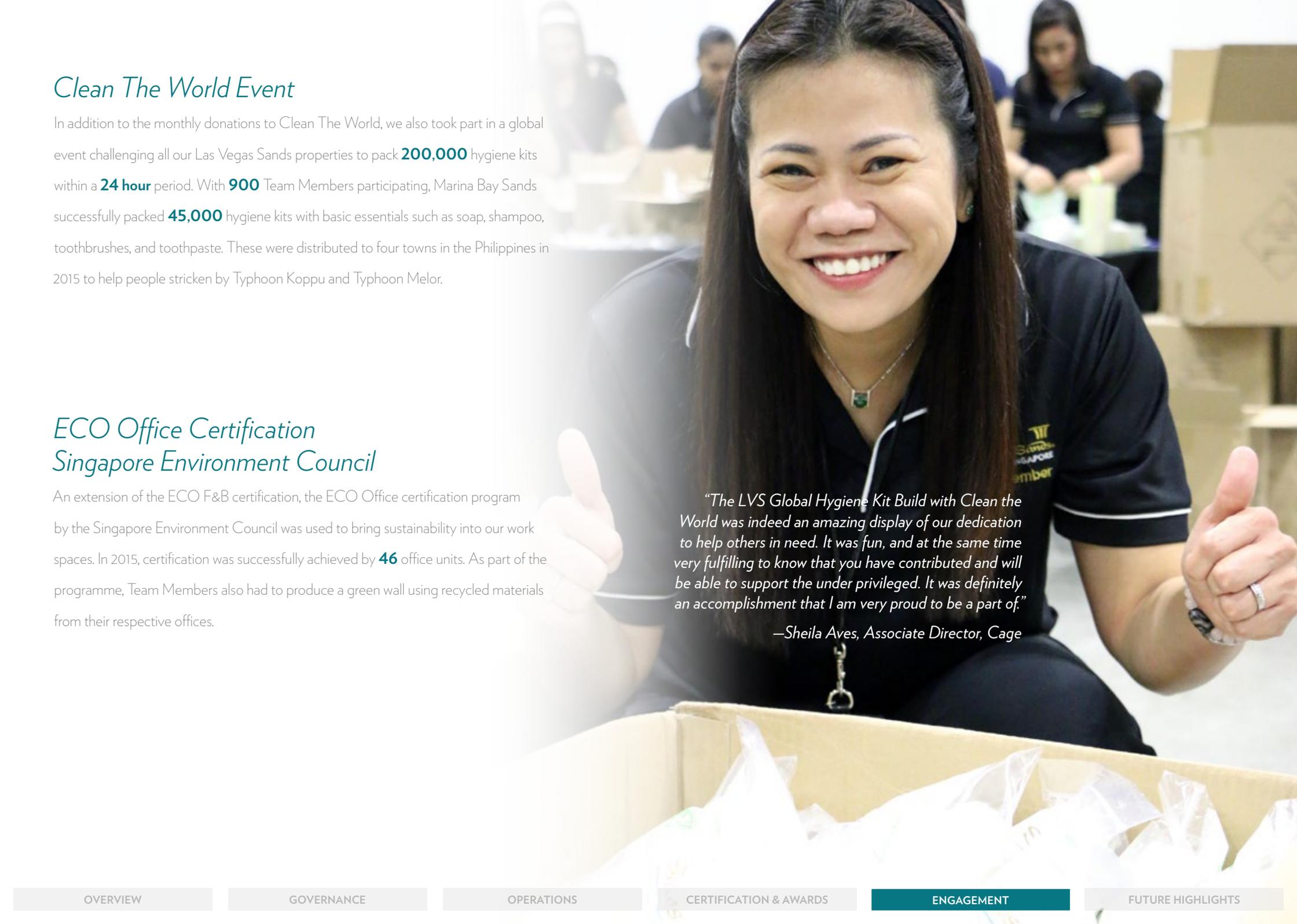
- ➔ Team Members took part in the **Clean Plate Challenge** focusing on the reduction of food waste with over **3,650** clean plates. We donated one dollar to charity for every clean plate counted.
- ➔ The Annual Bake Sale saw the participation of over **1,100** Team Members who took the opportunity to bake and sell homemade cakes and baked goods for charity, raising over **\$15,000** in donations.
- ➔ Over **4,000** canned and packaged goods were donated by Team Members to less fortunate families.

Clean The World Event

In addition to the monthly donations to Clean The World, we also took part in a global event challenging all our Las Vegas Sands properties to pack **200,000** hygiene kits within a **24 hour** period. With **900** Team Members participating, Marina Bay Sands successfully packed **45,000** hygiene kits with basic essentials such as soap, shampoo, toothbrushes, and toothpaste. These were distributed to four towns in the Philippines in 2015 to help people stricken by Typhoon Koppu and Typhoon Melor.

ECO Office Certification Singapore Environment Council

An extension of the ECO F&B certification, the ECO Office certification program by the Singapore Environment Council was used to bring sustainability into our work spaces. In 2015, certification was successfully achieved by **46** office units. As part of the programme, Team Members also had to produce a green wall using recycled materials from their respective offices.



“The LVS Global Hygiene Kit Build with Clean the World was indeed an amazing display of our dedication to help others in need. It was fun, and at the same time very fulfilling to know that you have contributed and will be able to support the under privileged. It was definitely an accomplishment that I am very proud to be a part of.”

—Sheila Aves, Associate Director, Cage

Our sustainable journey has just begun. In 2016, we will continue our commitment to operate with a focus on our environmental impact and set new benchmarks through certification programmes. By innovating our operations, committing to our strategy and integrating our environmental management system, we will achieve our new goals set for 2016.

OBJECTIVES

Reduce our energy usage

Reduce our water usage

Increase on property waste diversion rate

Increase Team Member awareness of sustainability

Increase client awareness of sustainable meetings

Increase health and safety throughout the property

Increase supply chain sustainability

Increase social impact of environmental issues

Increase sustainability into development and design

Improve our environmental management system

2016 GOAL

1.25% on 2012 baseline

6% on 2015 baseline

10% reduction on 2015 baseline in waste to landfill

Unique Team Member participation rate of **70%** and **30k** Team Member actions

65 Green Meetings, 5 signature meetings

Increase harvest menu use by **10%** on 2015 baseline

Increase to **35%** spend on sustainable products

Engage with an NGO partner and integrate communication into business unit operations

Incorporate Sustainable Development Standards into contracts

Improve document management system and expand EMS Scope to include F&B divisions



Contact Us

Email: gogreen@marinabaysands.com

Online: www.marinabaysands.com/sustainability

*For more information on Sands ECO360
and our our Global Reporting Initiatives...*

[CLICK HERE](#)

*To download our Annual Sustainability Report...
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Sands

ECO 360°

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