



# **Sustainability 2011**

WE CARE WE MANAGE



## Chief Executive's Statement

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As the owner, developer and manager of some 450,000 m<sup>2</sup> (5,000,000 ft<sup>2</sup>) of prime office and retail space in the heart of Hong Kong's Central Business District, we are keenly aware of Hongkong Land's duty of care to the environment.

Our unique position as operator of a network of properties which themselves form a significant part of the local environment gives Hongkong Land the opportunity – and the responsibility – to lead by example as a good corporate citizen. The interaction between our properties and the communities where they are located is central to our business strategy and philosophy.

Hongkong Land has a strong record over many years of continually researching and implementing new technologies and solutions to enhance the health and safety of all who use our buildings. We have a very strong track record, too, of pioneering products and solutions that benefit nature as well as our tenants: our use since 1964 of sea water to chill air, for example, was energy-efficient and environmentally friendly in an age where those terms – all-too familiar today – had not yet been coined. We hope, too, that our latest initiative, creating rooftop micro-ecosystems on our CENTRAL properties in order to reduce buildings' carbon footprint, will prove as meaningful and long-lasting. Today, Hongkong Land implements solutions which are designed with environmental health as part of their mandate.

These commitments are consistent and ongoing. Our policies on the environment and health and safety and our strategic integration of sustainability into business planning make clear our determination to take a leading role in corporate citizenship. This report provides a review of our activities and performance in this area during 2010, benchmarking Hongkong Land's results against external standards and illustrating our policies and commitments through case studies.

**Y.K. Pang**

## Key Issues in this Report

These symbols offer an easy visual guide to the key areas covered in this report. Use them to see at a glance what strategies, products and processes we are using to address them.



### Sustainability

Sustainability has been integral to our business philosophy for many years, and we are committed to the ongoing reduction of carbon emissions from our buildings. Energy efficiency, new technologies, new materials and applying best practices are just some of the initiatives here.



### Working with the Environment

This symbol designates projects and initiatives where we are working to 'give back' to nature – greening cityscapes, recycling and creating healthy, sustainable micro-ecosystems.



### Health and Safety

We take an uncompromising approach to the health and safety of everyone visiting or working in our properties, and to all staff – both our own and our appointed contractors' – working on our construction sites and renovation projects.



### The Community

We are proud that our buildings are integral components of the neighbourhood and city where they stand, helping to anchor and develop communities. We believe we have a responsibility to contribute to the life and well-being of those communities, too.



Sustainability



Hongkong Land is committed to exercising sustainability management of the properties we develop and manage to minimise our impact upon the environment as far as it is practicable. In doing so, we create long-term value and minimise risk to our business.

- We believe that sustainability is a necessary and attainable goal to strive for through improved products and processes, diligence and innovation.
- We regard full compliance with statutory requirements as a minimum standard and we seek and apply best practices wherever possible.
- We are committed to improving our environmental, health and safety standards by modifying, upgrading, or replacing our buildings' facilities and systems.
- We set long-term targets for improvement and measure our performance against these goals.

### Early Movers

- 1964** Hongkong Land pioneers the use of sea water to chill conditioned air for circulation in its Central buildings.
- 1995** Hongkong Land co-founds Hong Kong BEAM (the Building Environmental Assessment Method for Hong Kong)
- 1996** Hongkong Land signs the International Chamber of Commerce Business Charter for Sustainable Development
- 1999** Hongkong Land signs the Hong Kong Government Labour Department and Occupational Safety and Health Council Health and Safety Charter





## It Takes a Lot of Effort...

### ...to Use a Little Energy

Hongkong Land's commitments to reducing carbon emissions and achieving sustainable use of natural resources in the buildings we construct and facilities we manage are long-term and unwavering. In 1995, Hongkong Land was one of the founders of Hong Kong BEAM, the Building Environmental Assessment Method for Hong Kong Buildings, and in 1996 we signed the Business Charter for Sustainable Development of the International Chamber of Commerce.

We believe in innovation. We invest strongly in research and development. We are early adopters of new technologies.

Yet we know from over 100 years' experience in our industry that evolutionary, not revolutionary change is the key to success, and that the most effective way to reduce carbon emissions is by working to make the technologies, processes and even attitudes we already have more efficient.

We believe that continuous improvement requires clear and consistent values, that constant diligence and good housekeeping are the strategic cornerstones of improved efficiency, and that it is essential to set stretching, but realistic, objectives.

Energy reduction targets – yearly and long-term – form part of our strategic objectives at Hongkong Land and are reviewed annually. We implement a range of specific measures to achieve those targets and support them with tailored management programmes and training where necessary.

In the three years 2008-2010, Hongkong Land achieved a total 11% reduction in electricity consumption across our portfolio, equivalent to 10 million tonnes of CO<sub>2</sub> emission saved, or 531,260 additional trees planted to ingest and process naturally this amount of carbon. The target for 2011 is a further 3% saving.

	2008	2009	2010
Reduction in electricity (%)	-0.09	-7	-4.05
Equivalent reduction in CO <sub>2</sub> (MT)	0.086MT	6.5MT	3.5MT

## Contributors to Reduced Energy Consumption 2007-2010

Many different factors have contributed to these successes, as can be seen from the long list below. What binds them together is not a technology, but a state of mind shared by all Hongkong Land personnel. Concern for the environment is now an integral component of our corporate culture.

### Critical Review of Existing Operations

- Adjustments to chiller plant operation and chilled water supply temperatures
- Optimisation of fresh air control
- Elimination of unnecessary operation hours (e.g. lighting, lift and air conditioning plant operation hours adjustment)
- Removal of unnecessary lighting

### Improvements and upgrades to operating systems

- Installation of condenser cleaning systems for chiller plants
- Upgrades to Building Management Systems and Controls to improve performance and efficiency
- Implementation of variable speed and variable frequency technologies wherever possible
- Imposed switch to LED and other energy-efficient lighting technologies
- Add speed control to escalators

### Building infrastructure (major facilities) replacements and upgrades

- Lift modernisations to improve service performance and energy efficiency
- Replacement of chiller plants to improve efficiency
- Replacement of air-cooled chiller plant with more energy efficient water-cooled chiller plants



## Lighter Lighting

Lighting is one of the biggest consumers of electricity in commercial buildings. Indoor lighting alone can account for up to 60% of total electricity consumption in buildings which have not been upgraded to modern technologies.

Outdoor lighting, too, has traditionally consumed large amounts of electricity, especially in cities such as Hong Kong, where the lighting forms an integral part of the urban nightscape. Recent technological advances, particularly the development of high-luminosity, energy-efficient LED systems, have opened up new opportunities for lighting systems that are aesthetically pleasing and highly effective, yet still compatible with Green Building sustainability objectives.

Working closely with lighting manufacturers and architectural lighting consultants, Hongkong Land implements an ongoing programme of re-design and retrofitting to enhance the effectiveness, aesthetics and energy efficiency of lighting systems in all the tenant, public and outdoor areas of our properties.

- Systematic replacement of magnetic ballast type fluorescent tubes with electronic type tubes in tenant areas, reducing energy consumption and carbon emissions at no cost to tenants.
- Retrofit of all older generation lighting with LED or other energy-efficient systems to reduce carbon emissions.
- Improved light settings to optimise new lighting technologies and 'delamping' of old lights made redundant by the upgrade.



- Intelligent light control systems, managing light output based on time, work schedules, etc., and elimination of multiple lamps controlled by single switches.
- Replacement of incandescent signage, such as car park exit signs, with LED, photoluminescent or other technology options.
- Re-education: reducing energy consumption by lighting can reduce light pollution, too. Lighting streets is necessary. Lighting the stratosphere is wasteful.



# Upgrades and Modernisations

## The Environment is our Stakeholder, too

At Hongkong Land every facility system reaching the end of its working life is an opportunity to install a major performance upgrade, with a strong focus on energy efficiency and sustainability.

### Performance 'Up', Carbon Footprint 'Down': Jardine House, Hong Kong

The Jardine House Lift Modernisation Project exemplifies Hongkong Land's Whole Life Cycle approach to facility management.

From an initial mandate to replace old technology at the end of its working life, the project became an opportunity to seek new ways of implementing carbon footprint-reducing and energy-efficient technologies resulting in up to 35% energy-efficiency improvements compared with the replaced units.

In a project lasting from late-2008 to mid-2010, the 24 Jardine House passenger lifts were refitted with vastly improved latest technology main systems: gearless motors, drive management (energy conversion and variable frequency control), controllers (computerised lift allocation), and completely new interiors. The new lifts are also compatible with the security card access systems that we are implementing elsewhere in our CENTRAL buildings.

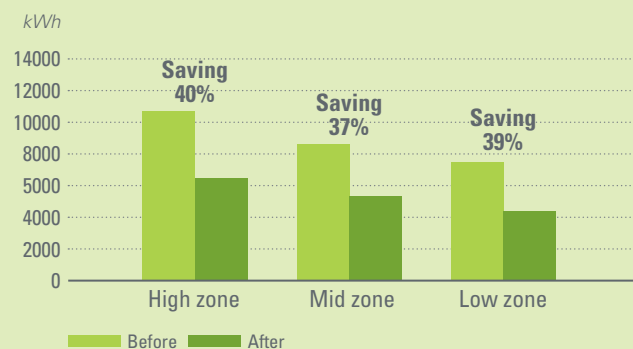
#### Main Benefits

- Improved energy efficiency: the Power Factor One drive system is up to 35% more energy-efficient than the technology it replaced, in line with our environmental commitments.
- Improved performance: >15% improvement in overall travelling time. 30% uplift in total traffic handling capacity.
- Improved comfort: the passenger identification system reduces crowding in the lobbies and inside the cars even during rush hours, and the new elevator drive controls deliver smoother acceleration, levelling accuracy and ride comfort.
- Improved aesthetics: New décor for the interiors.
- Personalised security access: the new system allows integration of destination input and security access before passengers even enter the lift car.

Hongkong Land has an ongoing lift modernisation programme. Gloucester Tower has been completed; Prince's Building and Edinburgh Tower are in progress. Further energy-saving technologies under study for future upgrades include capture of the lifts' surplus energy when travelling downwards in the shafts (i.e., when the drive system does not need to propel the lift's motion upwards, but generates heat through braking instead) and regeneration of electricity back into the mains.



#### Energy Consumption





## Chilling Facts – Chater House, Hong Kong

Since 1964, Hongkong Land has used sea water, the most environmentally-friendly and readily available source known, to cool the air we circulate through our Hong Kong Central Business District portfolio.

The sole exception was Chater House, where it was not feasible to use sea water, and – at the time of construction in 2000 – the use of freshwater systems was still under study in Hong Kong due to concerns over local water consumption and effluent processing capacities. Consequently, Chater House was fitted with air-cooled chillers.

Hongkong Land continued to work closely with the government on options for converting Chater House to a freshwater-cooled air-conditioning system due to water's key environmental advantages over air:

- Water-cooled air-conditioning uses 20-30% less energy than air-cooled air-conditioning<sup>1</sup>. It is also both more energy-efficient on a day-to-day basis and has longer plant life. Consequently its life cycle carbon footprint is much lower than that of air-cooled chillers.
- Water-cooled systems generate less noise and less heat than air-cooled systems.

As soon as the Hong Kong government approved its 'Wider Use of Fresh Water in Evaporative Cooling Towers for Energy-efficient Air Conditioning Systems' programme in mid-2008, Hongkong Land began to implement the Chater House chiller replacement project.

- The project was completed in 2011. Five air-cooled chillers were replaced by freshwater-cooled chillers. The chiller control software was also upgraded to optimise chiller plant control to further enhance efficiency.
- The chiller plant enclosure is constructed using PhotoVoltaic panels, which act as a source of renewable energy that is recycled into the building system.
- Annual reduction of 3 million tonnes of carbon emissions will be achieved with this upgrade.



### When More (water) = Less (energy) Central's Dual-Feed Sea Water Supply

Hongkong Land currently has four sea water cooled air-conditioning systems serving our buildings in Central. In 2009, we further demonstrated our commitment to maximising the efficiency and effectiveness from existing processes and technologies by implementing a dual-feed sea water supply to all our sea water cooled buildings. The project was conducted in close cooperation with the Hong Kong government, which facilitated the necessary infrastructure work along Central's roads and public areas.

The dual supply Sea Water Cooled Air Conditioning System not only increases the effectiveness of the air-conditioning system in our buildings, it also enables more comprehensive and systematic maintenance and makes future upgrades easier to fulfil, which in turn leads to better reliability and performance.

<sup>1</sup> Figures cited from 'Wider use of water-cooled air-conditioning systems' published by the Audit Commission of the Hong Kong Electrical and Mechanical Services Department, October 2009.



## Green Building – BEAM Certification

The HK BEAM (Hong Kong Building Environmental Assessment Method) Society, which Hongkong Land co-founded in 1995, is the recognised standard in Hong Kong for measuring the environmental performance of buildings.

This voluntary scheme provides third-party verification and assurance of 'Green Building' status, using assessment criteria based on worldwide best practices and standards. The scheme covers the planning, design, construction and lifecycle operation of buildings.

Hongkong Land has systematically retrofitted new systems and technologies to its Hong Kong CENTRAL portfolio following the BEAM goals of improved energy efficiency, reduced lifecycle carbon footprint and minimised impact on the environment.

A typical example is an extensive project to upgrade the air-conditioning controls in Exchange Square, where we implemented the latest Direct Digital Control (DDC) technology to replace the original controls. This has made it possible to maintain the optimum indoor temperature simply, quickly and conveniently - at the same time as improving energy efficiency and saving costs.

Another Hongkong Land initiative was to improve air quality across all of our properties by implementing a system of best practices recommended by the US Environmental Protection Agency. Key features included eliminating use of all but the most benign and non-toxic cleaning products available, and obligatory use of vacuum



cleaners that are specified by the American Carpet and Rug Institute Green Standard and fitted with High Efficiency Particulate Air (HEPA) filters. HEPA filters can remove at least 99.97% of airborne particles down to 0.3 micrometers (µm) in diameter. These key features ensure that our tenants are catered for with the most ecological and healthiest cleaning practices.

To date, eight Hongkong Land office buildings have undergone independent assessment through HK BEAM and achieved the highest Green Building rating possible. The two remaining buildings in our Central portfolio were still undergoing assessment as this report was published. Hongkong Land is a Patron Gold member of the Green Building Council.

## Waste Not, Want Not – Recycling

It is, or certainly should be, standard practice for property managers to organise collection and recycling of commodities such as paper, plastic, aluminium and fluorescent tubes. Much of this potentially recoverable waste, however, is still wasted, mainly because it is not identified and separated prior to disposal.

One example of what can be achieved was the success of a scheme to recover used fluorescent lamps. All of our cleaning and maintenance service providers were instructed to send spent fluorescent lamps and tubes to the dedicated collection points in the respective refuse rooms. As a result, in 2010, 2.83 tonnes of expired tubes were recovered and diverted from the landfill and recycled.

Hongkong Land has also rolled out a voluntary system encouraging tenants' staff to place recyclable paper material into dedicated recycling bins located at individual desks. Better separation at source has proved to be by far the best method of avoiding waste products being rejected for recycling due to comingling.

Hongkong Land has been recognised by the Hong Kong Government Programme on Source Separation of Commercial and Industrial Waste for Best Practice in waste management across our CENTRAL portfolio.





## More than a Drop in the Ocean

### Potable Water Supply

The potable water supply system in any building is not just important - it can be a matter of life and death. Hongkong Land has an uncompromising commitment to maintain the highest standards of potable water in all its properties and participates actively in the Quality Water Recognition Scheme for Buildings (QWRSB) run by Hong Kong's Water Supplies Department. All buildings in our CENTRAL portfolio have been certified under this scheme. The QWRSB certification underlines Hongkong Land's value-added performance in providing the highest levels of service in every aspect of building management to its tenants.

### Water Conservation

If the quality of the water we use is critical, so too today is the quantity we consume. Hongkong Land looks continually at reducing water consumption and water waste through new technologies and better practices, including:

- A portfolio wide toilet renovation scheme in Hong Kong to improve toilet facilities. The scheme commenced in 2009. Under this scheme, all water taps and toilet sanitary fittings are being systematically replaced by automatic controlled-flow taps and flushes, in combination with other water-saving processes and technologies.
- Using return sea water from the sea water cooling system as flushing water, contributing to reduced energy and lower water consumption.



### Did You Know?

- A running tap wastes up to 6 litres of water per minute.
- By reducing the maximum opening of taps on handbasins, thousands of litres of water can be saved every day in commercial buildings.
- Automated flushing systems and water taps are saving millions of litres of water in Hongkong Land buildings every month.



## Greening Central



### Green Roof

A Green Roof can make a valuable contribution to balancing our fragile eco-systems. Most tall commercial buildings have large unused surfaces on their roofs which, although mostly unsuitable as public areas, can be used to grow vegetation and assorted plant life that will contribute towards rainwater management, energy conservation and mitigation of the urban heat island effect.

Hongkong Land's pilot Green Roof project, a complete retrofit of both Podium 3 of The Landmark Atrium and The Rotunda, Exchange Square, was completed in May 2010. The result is a rooftop environment that can encourage and sustain plant life, is aesthetically pleasing and reduces air conditioning load on the floor beneath the roof.

Hongkong Land is committed to further developing the Green Roof concept and implementing Green Roof plant-growing environments wherever feasible throughout our Central portfolio.

### CENTRAL Cityscape

Hongkong Land has been actively involved in enhancing the public areas around our buildings for many years now.

Working in close cooperation with the Hong Kong government, Hongkong Land launched in 2003 'CENTRAL Cityscape', a project to enhance the facilities, services and attractiveness of the public areas in the vicinity of our properties.

Using international urban design consultants and focusing on key features that have proven critical in other major cities – trees and greenery, signage, lighting – CENTRAL



Cityscape developed rapidly from an initial pilot scheme near Prince's building to cover areas adjacent to The Landmark, Chater House and Jardine House, too.

CENTRAL Cityscape is a flexible and economical solution to improving urban public areas that is easy to implement and maintain. The scheme makes areas more attractive to the community by using greenery, lighting and well-designed landscaping to create a welcoming ambience. CENTRAL Cityscape also aims to enhance personal safety and security where possible, too, through better lighting solutions, improved pavements and drainage, and inobtrusive railings separating pedestrians from the traffic.

CENTRAL Cityscape is an ongoing Hongkong Land initiative, which we hope to continue to extend within Central in partnership with the Government and the local business community.



## Every Breath You Take



The air we breathe in modern commercial buildings is, as it says on the label, 'conditioned'. Clean air not only improves everyone's quality of life while in the building, it also contributes to health. To ensure optimal conditions for the delivery of conditioned air to our premises, we implement a rigorous programme of maintenance, upgrading and cleaning for air-conditioning systems. In addition, we execute stringent source controls to achieve good air quality. These include:

- Regular maintenance, inspection and cleaning of air conditioning systems and equipment
- Life cycle replacement of air conditioning equipment including air ducts and air handling units
- Upgrading of air filters to high efficiency types
- Periodic cleaning of air filters
- Cyclic cleaning of air ducts. Hongkong Land was one of the first developers to implement cyclic cleaning of air ducts for better air quality
- Optimisation of fresh air flow
- Frequent monitoring of air quality



- Rigorous control of emitting sources, including monitoring of materials used for fit-out works and recommendations to tenants suggesting alternative organic emission materials

Under the Hong Kong Government's Voluntary Indoor Air Quality Certification Scheme, eight Hongkong Land buildings have obtained the highest-possible rating: 'Excellent'.





## Health and Safety Training

With so many people working, shopping, entertaining or just passing through Hongkong Land-owned or – managed facilities in Central, we believe it is our duty to ensure an uncompromising Health and Safety Management Programme that defines clearly all the health and safety procedures to be followed by both staff and tenants in our buildings.

We are happy to report that there have been no critical injuries or fatalities to staff or visitors either on Hongkong Land construction sites or in our managed premises for over ten years.

### Training Programmes

All Hongkong Land building staff receive compulsory Health and Safety training as soon as they join the company. Green Card Safety Training (Mandatory Basic Safety Training) is also provided every three years by an external safety consultant approved by the Labour Department.

Hongkong Land has its own dedicated Training School. Upon entering the company, every member of Building Staff receives a full month of induction training on full pay covering not only safety, First Aid and job familiarisation

but also guidelines on subjects ranging from awareness of sustainability to Code of Conduct and language.

The training does not stop with induction. In 2010 alone, each Hongkong Land building staff member received an average of 45 hours of additional training on a wide variety of topics relevant to their work. Use of external consultants alongside the in-house trainers adds a valuable extra dimension, ensuring consistently high standards and encouraging staff to view all issues critically and from multiple perspectives.

# Case study

## When Every Second Counts... Help is Less than 5 Minutes Away – Throughout Hongkong Land's Central Portfolio

Sudden Cardiac Arrests (SCAs) are an unfortunate fact of life - and sadly of death, too. Millions fall victim to them every year. In Hong Kong, an estimated 18 people per 100,000 of the population die from SCAs each year. That's low by global standards, but it still adds up to some 1,500 very real people losing their lives to these shockingly sudden cardiac events annually. Just as shocking is the universal medical consensus that many of those lives might have been saved if only the victim could be reached and treated with an Automatic External Defibrillator within five minutes of the SCA taking place. Those are the 'Golden Five Minutes': 300 seconds within which it is still statistically probable that the patient can be revived.

In 2010 Hongkong Land launched an important initiative to make AEDs available throughout its Central Portfolio and to train all of the company's customer service employees as government-certified AED operators. The goal was simple: to ensure that anyone suffering an SCA on Hongkong Land-managed premises in Central can be reached and treated with an AED inside the Golden First Five Minutes.

A total of eight AED devices have been purchased by Hongkong Land and are now deployed on-site at The Landmark, Exchange Square, Chater House, Alexandra House, Jardine House and Prince's Building. Over 200 Hongkong Land front-line staff have been given training in the use of the AEDs by the Hong Kong St. John's Ambulance and are now certified as Hong Kong Government-recognised AED rescuers.

The AED deployed by Hongkong Land is a safe, easy-to-use portable medical device designed expressly to optimise SCA survival rates in public locations. It first automatically analyses the patient's heart rhythms, using voice and visual prompts to guide the operator through each step of the defibrillation process. Then, only if the AED analysis confirms the need for intervention, cardio-resuscitation is measured and delivered automatically by the AED using an electric charge.



### First Aid Training

Hongkong Land has also provided St. John's Ambulance First Aid Training to building and technical staff since the early 1990's. Reinforcement training is provided to all First Aid-certified staff every two years. Thanks to this concerted effort, we guarantee 24/7 availability of staff members who have been trained in First Aid by St. John's Ambulance.





## Minimum Risk, Maximum Response

### The Hongkong Land Health and Safety Management Programme

There are proven, rigorous systems and procedures in place throughout the Hongkong Land organisation to minimise the risk of personal injury to anyone using our facilities in the event of emergency situations such as fires, explosions and extreme weather conditions. Prevention is always preferable to cure, but we have to be prepared for the worst, too.

The Hongkong Land Health and Safety Management Programme defines procedures for each of our stakeholders: tenants, staff and contractors to follow in the event of all predictable Health and Safety incidents. The programme, which is directed by our Fire Health and Safety Team, also details Hongkong Land's provisions for planning, organising, controlling, monitoring and reviewing our compliance with statutory health and safety precautions. This comprehensive programme, rigorously structured and managed with great attention to detail, is a significant factor behind our ability to report once again that no fatalities or serious injuries were sustained in any of our Hong Kong facilities during the past year.

The Health & Safety Management Programme comprises five main elements: Emergency Response Plans, Precautionary Measures, Tenant & Building Staff Training, Fire and Safety Protection and Regular Audits. Additional details of the initiatives are presented in the following sections.

#### Emergency Response Plans

The risk of a disaster event can never be completely eliminated, however comprehensive the precautions in place. We maintain clear and comprehensive Emergency Response Plans outlining all procedures and instructions to be followed by staff and tenants in the event of threats from Fire, Terrorist Activity, Typhoons or Adverse Weather. These are distributed to all relevant staff and are reviewed and updated regularly. We also provide the training necessary to enable all recipients of the manuals to implement the prescribed procedures under pressure.

#### Precautionary Measures

Since property management involves ongoing maintenance, repair and fitting-out works, all external contractors who wish to carry out work on our premises are required to follow Hongkong Land-prescribed building rules. A work permit system, which allows contractors to start work on Hongkong Land premises only after obtaining authorisation from our Building Management Office, ensures that all external workers are registered, properly informed, instructed, trained and supervised to minimise the risk of fire and unsafe practices causing injury during operations.

Tenants are also obliged by our Management Regulations to comply with all statutory fire safety and health requirements. Since a number of our tenants are restaurateurs, the regulations give added focus to kitchen operations, which pose statistically higher fire risks.





### Audits and Inspections

Every three months, independent safety consultants perform audits at each of our buildings to assess our compliance with all standards, statutes and ordinances relating to fire, health-and-safety and security. Reports are issued to our Property Managers with findings and recommendations, and corrective actions instigated wherever necessary. An internal Hongkong Land Health and Safety Committee, chaired by our dedicated Fire, Health and Safety Manager and with members drawn from our Property Managers and Building Supervisors, meets every two months to monitor, assess and authorise action on all health-and-safety-related initiatives.

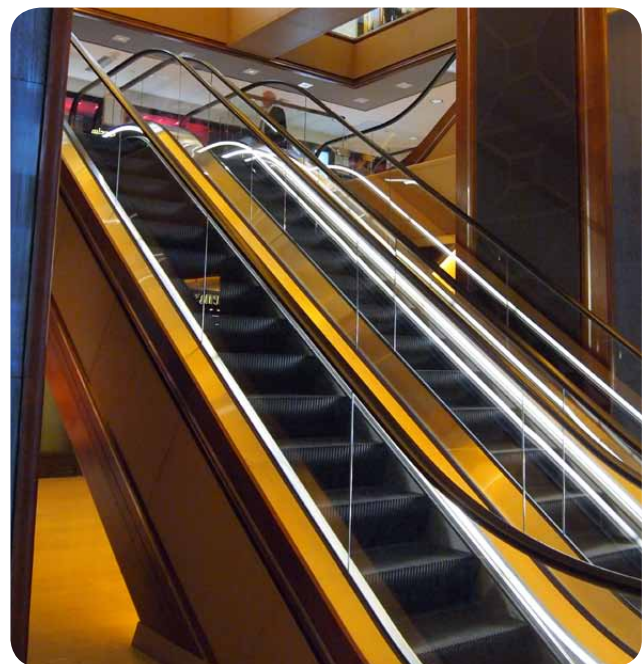
We also carry out a variety of inspections designed to prevent, identify and address any potential hazardous situations on our premises. Hongkong Land building staff conduct regular health and safety inspections, focussing particularly on tenant's fitting-out works and higher-risk premises such as restaurants and supermarkets. We also inspect our own higher-risk facilities just as stringently: plant rooms, refuge floors, rubbish rooms, pump houses and lift machine rooms. All fire service equipment, fire exits and staircases are checked to ensure cleanliness, unimpaired access and full equipment functionality.

### Lift and Escalator Audits

Hongkong Land's uncompromising attitude to safety is exemplified by our insistence that the many lifts and escalators at the heart of our extensive CENTRAL portfolio are maintained exclusively by the Manufacturer's own qualified staff, and only Manufacturers' spare parts and components are used for repairs. Best-in-class quality assurance systems are also a must.

Hongkong Land's specifications for lifts and escalators are demanding and rigorous, with no corners cut and our staff working closely with the Manufacturer - often visiting the factory manufacturing the units we have specified to confirm at first hand quality assurance and technical compliance prior to installation.

Hongkong Land also commissions annual independent maintenance and safety audits from a globally renowned third party specialist in order to benchmark our maintenance and safety standards against international best practices.





## Fight Fire with...Procedures

Fire, as anyone who has witnessed a severe one knows, can grow to critical mass, move fast and create more devastation in a very short space of time than our imaginations can conceive. At Hongkong Land, we fight fire by minimising the risk of it occurring, and then by treating what little risk is left with the greatest respect.

Hongkong Land has been at the forefront of imposing stringent precautions and the highest level of internal training and preparation. We focus on minimising every possibility of creating unwanted fire. And if the worst happens and there is a fire, our staff and tenants are trained for a single overriding priority: safe, swift, efficient evacuation of all personnel.



# Hongkong Land Fire Management Programme

## Fire Orders



Hongkong Land maintains regularly updated Emergency Response Plans covering three key risk areas: Fire, Terrorist Activity, Typhoon and Adverse Weather. These Plans are issued as manuals to building staff and tenants according to requirement.

The Emergency Response Plan for Fire - more familiarly known as the Fire Orders, is divided into two manuals:



one issued to Building Staff setting out the procedures for the building management team to follow in the event of a fire-related emergency; and a separate Fire Orders (Tenant) manual detailing evacuation procedures for tenants to follow in the event of a fire and providing information on the building's fire safety systems.

## Fire Marshal Training (Tenant & Building Staff)

Hongkong Land was the first property company in Hong Kong to train the staff of tenants as Fire Marshals – key personnel trained to a higher level of expertise in fire prevention, basic fire-fighting equipment and evacuation procedures. Fire Marshals training is provided to tenants on a yearly basis prior to our annual fire drills. The tenants acquire knowledge on fire prevention, fire marshal duties and the use of portable fire fighting equipment. The training also includes the escape and evacuation procedures contained in our Fire Orders manual. We believe involvement with our tenants in training can strategically prevent fire occurrence in the tenants' premises and ensure safe evacuation in the unlikely event of a fire.

Fire Drills are conducted with tenants on an annual basis to reinforce awareness of the Fire Emergency Plan and practise the evacuation procedure. The Hong Kong Fire Services Department is also invited to join the drills as a professional observer, sharing with us their fire prevention measures and demonstrating the correct use of fire extinguishers.



## Fight Fire with Firefighters

In addition to the Fire Safety training provided to all of our Building Staff, we also send staff to spend time with the Hong Kong Government's Fire Services Department, where they witness at first hand how the experts respond to emergencies in real time. The Fire Services Department also sends its professionals to deliver training to Hongkong Land staff as part of our in-house training programmes.





## Building Sustainable Communities

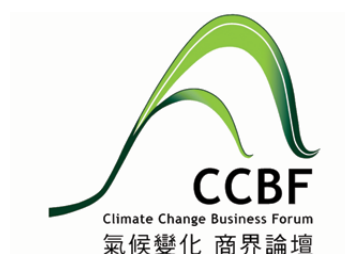
Our buildings are more than architectural structures fulfilling their function to provide controlled environments for work, relaxation and commerce. They are integral parts of their local communities and must interact with their neighbourhoods dynamically. With such a visible and influential portfolio of properties in Central, we have a duty to lead by example, too, and we take that commitment very seriously.

### The Climate Change Business Forum (CCBF)

Reflecting the growing concern of responsible businesses over climate change and the environment, Hongkong Land is a Gold member of the Climate Change Business Forum (CCBF), an organisation of leading Hong Kong businesses dedicated to exchanging ideas on energy-saving or sustainable business practices and encouraging other businesses to commit to 'green' principles.

Part of our contribution to the CCBF has been to make available our extensive experience of retrofitting older buildings to aid research on developing viable solutions for reducing the carbon footprint of Hong Kong's 40,000 existing buildings.

This is reflected in important recent publications issued through the CCBF such as "The Hong Kong Guide to Emissions Control – Capitalising the Business Opportunity"



and "Every Building a Power House – A research paper on Building Energy Saving Technologies".

Apart from the work we carry out at government level and with our business partners, we believe it is equally vital for Hongkong Land to interact with our fellow citizens on a face-to-face basis, and to share experiences and aspirations for the long-term benefit of all.

## CS4 Schools

One such initiative is the CS4 Schools (Corporate Sustainability for Schools) programme launched in October 2009 by the Hong Kong Business Environment Council and actively supported by Hongkong Land.

CS4 Schools places companies such as Hongkong Land in front of the next generation of business leaders and allows us to showcase how we have adopted sustainability into our business model and work practices. We visit schools, sending our professionals to make sustainability something tangible and actual for the students, and we invite schools to visit us to see for themselves if we are as good as our word when it comes to putting what we talk about into practice. The programme reaches some 50,000 students and teachers in Hong Kong annually and has already created a positive and very helpful dialogue between established businesses and the hearts and minds of those who, before too long, will find themselves responsible for the environment and communities they will inherit from us.

We support varied charitable sponsorships and participations, too, and encourage an open dialogue between our company and the broader community.

## CORPORATE SUSTAINABILITY CS4SCHOOLS



## CENTRAL Rat Race



The CENTRAL Rat Race is an annual charity relay event organised and run by Hongkong Land to raise funds for MINDSET, a registered charitable organisation dedicated to raising awareness of mental health issues and to helping those suffering or recovering from mental health problems in Hong Kong and mainland China.

The Rat Race, in which Central's businesses are encouraged to send teams to negotiate a kind of obstacle course through CENTRAL, has raised over HK\$12 million since the inaugural event in 2006, with the 2010 Rat Race raising a record HK\$2.43 million.

Mindset's other main annual fundraising event, the Walk Up Jardine House, is also held on Hongkong Land property – a service we are only too happy to provide.

