

Executive Summary

- Our Environmental Performance
- Our Social Performance
- Our Economic Performance



The 2013/14 Sustainability Report, ***Our Commitment to Sustainability – From Past to Future***, is the ninth sustainability report issued by the Hong Kong Housing Authority (HA). The Report features HA's major sustainability commitments and performance in the areas of economic, environmental and social aspects from 1 April 2013 to 31 March 2014. It is prepared in accordance with the internationally recognised Global Reporting Initiative G4 Guidelines Core option.

This Executive Summary aims to provide you with an overview of our sustainability performance and achievements in 2013/14.

Our Environmental Performance

We set 40 environmental targets for 2013/14 and all these targets were fully met. Our environmental performance for this year is outlined below:

Initiatives in Planning and Construction of New Housing Estates

Certification

- After obtaining ISO 50001 certification in residential building design in 2012, we require building (new works) and piling contractors to be ISO 50001 certified from 2014 onwards.
- Our development projects of Ex-Yuen Long, Ex-Au Tau and Tung Chung Area 56 achieved “Provisional Platinum” rating under BEAM Plus version 1.2; whereas development projects of Domain and Kai Ching Estate were awarded “Platinum” rating under BEAM version 4/04. Development projects of Kai Ching Estate and Ex-Yuen Long Estate also received the highest (three-star) level under the Chinese Green Building Evaluation Label.



Kai Ching Estate

Carbon and Energy Management

- We applied the Carbon Emission Estimation method for all 13 design projects.
- Riding on the success of implementing the grid-connected PV systems in Lam Tin Estate Phase 7 and 8, Eastern Harbour Crossing Site Phase 5 and Kai Tak Site 1A, we completed the installation of the grid-connected PV system at Kai Tak Site 1B in 2013/14.
- In addition to conducting a study for testing LED bulkhead prototypes in Tsz Ching Estate, we are implementing a large-scale trial of LED bulkheads with refined design in Kai Tak Site 1A.



Solar panels at Kai Tak Site 1B

Green Construction

- Volumetric precast bathrooms and kitchens, precast beams, roof parapets, manholes, cable draw pits and drainage channels were adopted in various projects where applicable. Construction of precast segmental roof water tanks is on trial before mass application.



Precast manholes used in Shui Chuen O Phase 1

Greening

- We continued to introduce areas for community planting and organise Action Seedling programme to promote community participation in greening of our new public rental housing (PRH).
- We carried out a study of using food waste and garden waste to produce suitable gardening compost in the construction site of Hung Shui Kiu Area 13 Phase 3, and have incorporated facilities to turn garden waste into compost in the design of the community planter areas in Kwai Shing Circuit and Tuen Mun Area 54 Site 2.



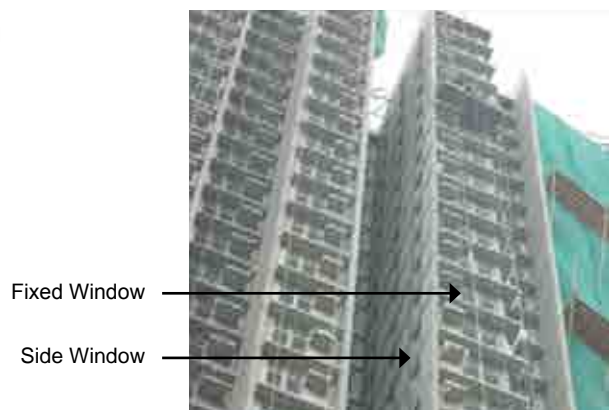
Action Seedling Programme in Tai Pak Tin Street

Air Quality and Noise Control

- We have completed the installation of bio-filtration units using spent mushroom compost in Cheung Sha Wan Estate, and are now assessing its performance in reducing vehicular pollutants from the carpark and public road.
- We have adopted innovative noise mitigation approaches in addition to conventional measures. For example, we have designed a site specific flat, with fixed windows facing traffic noise source and openable side windows for ventilation, in Cheung Sha Wan Estate. We have also installed innovative acoustic balconies in Wing Cheong Estate.



Bio-filtration units in Cheung Sha Wan Estate



Site specific modular flats in Cheung Sha Wan Estate

Water Conservation

- We have reviewed and simplified the design for Rainwater Harvesting System (RWHS) to reduce its carbon footprint. We also completed the installation of RWHS for Kai Tak Site 1B and Tsueng Kwan O Area 65B.
- We have further introduced an integrated water sensitive urban design, whereby rainwater collected at high elevation would be treated and held in storage tanks for use, for our new developments at Shui Chuen O and Au Tau.

Initiatives in Existing Housing Estates

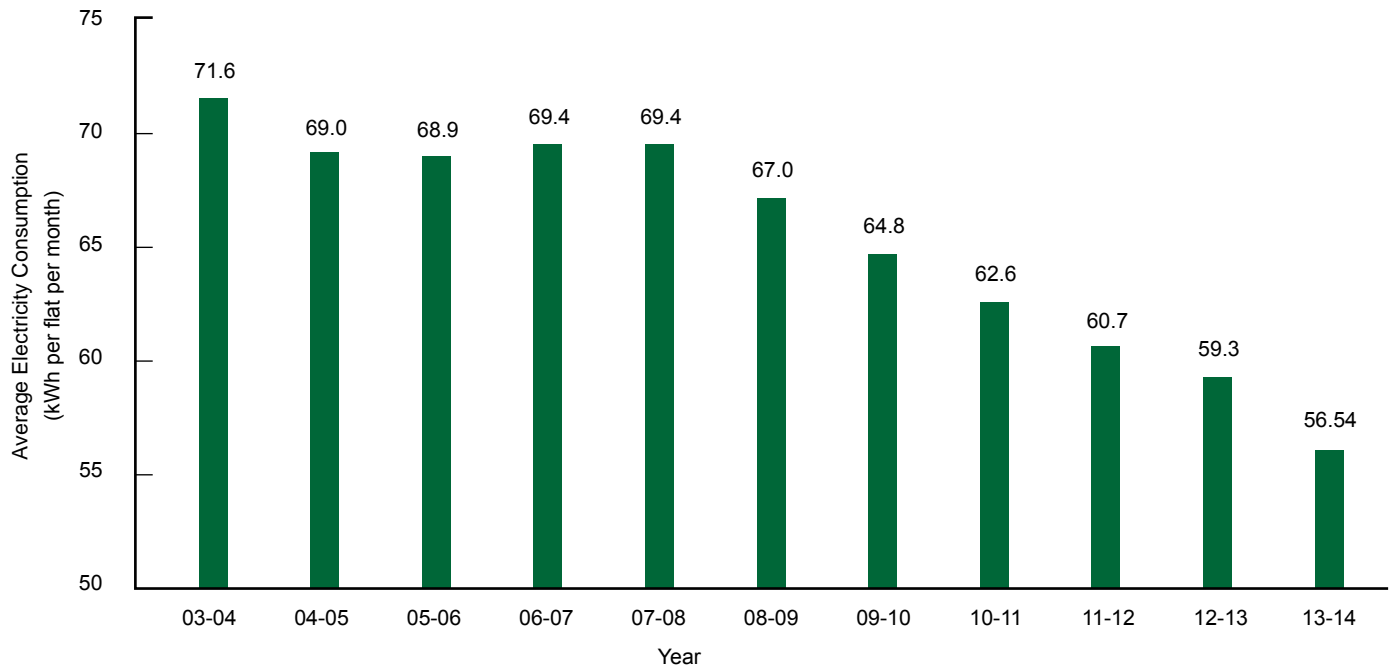
Certification

- In July 2013, all our PRH estates obtained certifications in accordance with ISO 14001 Environmental Management System standard.
- In June 2013, Kwai Shing West Estate was awarded an ISO 50001 certification. It was the first residential estate and the first PRH estate in Hong Kong to receive such recognition.
- We have enrolled six estates in the Hong Kong Quality Assurance Agency Sustainable Building Index scheme, and obtained the Verified Mark.

Energy and Carbon Management

- The electricity consumption in the public areas of PRH blocks in 2013/14 was 56.54 kWh per flat per month, which was 4.61% lower than the level recorded in 2012/13.

Electricity Consumption in Public Area of Estates



- Starting from 2012/13, we launched a 42-month programme of replacing light fitting equipped with electromagnetic ballast by energy-saving electronic ballast in all our estates. As of March 2014, we had completed the replacement work for some 540 blocks.

Greening and Tree Management

- We established thematic gardens at Lee On Estate and Shun On Estate, and completed the landscape upgrading works in 18 estates in 2013/14.
- Adopting the tree database in our Geographic Information System (GIS), we continued to carry out annual tree risk assessment and inspections for identifying trees that need prompt remedial actions.



Thematic garden at Lee On Estate



Annual tree risk assessment

Waste Management

- We are extending the glass bottle recycling scheme, with the target to cover almost all estates by end 2014.
- We launched a scheme to collect and replant disposed potted citrus plants after Lunar New Year. The scheme was well received by all public housing estates, with more than 5 000 pots of citrus plants collected.



Collection of citrus plants from public housing estates

Organising Green Activities

- We collaborated with the local Estate Management Advisory Committees (EMACs) to organise tree planting days in 10 estates and greening activities for residents in 20 estates.
- We collaborated with the green groups to organise a series of estate-wide environmental campaigns and in-depth educational activities (e.g. fun fairs, workshops and site visits) under the Green Delight in Estates programme.



Second-hand goods exchange activity

Initiatives in Office at Work

- Our Corporate Services Division was awarded the ISO 14001 certification in December 2013 for the provision of property management functions at HA Headquarters.
- In 2013/14, our electricity consumption was 34 957 181 kWh, which was decreased by 9.3% as compared to our baseline consumption figure in 2007/08.
- We joined hands with a charity organisation to hold two Environmental Collection and Recycling Campaigns. We collected over 3.2 tonnes of reusable items, including electrical appliances and clothes for donation.



Environmental Collection and Recycling Campaign held at Lung Cheung Office Block in Wong Tai Sin

Our Social Performance

We set 24 social targets for 2013/14 and all these targets were fully met. Our social performance during the year is highlighted below:

Initiatives in Planning and Construction of New Housing Estates

Safety

- The accident rate was 7.3 per 1 000 workers for new works contracts and 4.1 per 1 000 for maintenance works contracts in 2013. Both were well below the average Hong Kong construction industry accident rate of 40.8 per 1 000 workers.

Accident Rate Compared to Local Construction Industry



- We have conducted regular safety training sessions, forums, seminars, and issued periodic publications to better communicate with our stakeholders regarding safety measures.

Community Engagement

- We conducted a range of community engagement events and activities to present new development proposals and engage the public to enhance the planning and design of new estates.



Community engagement workshop for PRH Development at Lai Chi Kok Road-Tonkin Street Phases 1 & 2

Initiatives in Existing Housing Estates

Safety

- We partnered with the Fire Services Department to organise Estate Fire Safety Campaign 2013.
- To boost safety awareness associated with using lift and escalator, particularly targeting the elderly and young children, we launched the Lift and Escalator Safety Campaign in early 2014.



Estate Fire Safety Campaign 2013

Care for the People

- We continued the retrofitting programme to improve barrier-free access facilities in HA properties.
- With the completion of Stage 1 Lift Addition Programme, enhancement has been made on pedestrian accessibility in 29 PRH estates, with the installation of 70 lifts, 6 escalators and 18 footbridges.

Estate Maintenance, Management and Services

- Our Total Maintenance Scheme was applied in 39 estates in 2013/14 to offer comprehensive care services for our buildings.
- In order to ensure good maintenance of older estates, we continue to implement Comprehensive Structural Investigation Programme and completed investigation works in four estates in 2013/14.

Engaging the Community

- Partnering with non-governmental organisations, EMACs held around 400 community building functions to promote neighbourliness in PRH estates.
- The annual “Volunteer for Seniors Day 2014” was held in January 2014. The number of volunteers participated in the event hit a record high of 2 800.



Volunteer for Seniors Day 2014

Initiatives in Office at Work

Safety and Healthy Work Environment

- We organised 200 training courses and seminars on occupational safety and health in 2013, participated by around 9 700 staff members in total.
- We ran a variety of interest groups under the HA Staff Club, like classes on martial art.



Martial art class

Staff Development and Engagement

- We implemented a new series of programmes to share the success stories of the exemplary work teams on the intranet to reinforce our core values and encourage staff to strive for excellence.
- We arranged our staff training and development activities in various format including classroom sessions, site visits, study tours and attachment programmes. In 2013/14, our staff members received an average of 24.5 training hours per year.



Training course on personal effectiveness development

Communication

- The year 2013 marked the 60th anniversary of the development of public rental housing in Hong Kong. Following the launching ceremony in April 2013, a series of promotional events, exhibitions and estate-based activities were organised to foster public understanding of our public housing development.
- A public exhibition “60 Years of Public Housing Development in Hong Kong” was held at the Hong Kong Heritage Discovery Centre in Tsim Sha Tsui from late September 2013 to early March 2014.



Public exhibition themed “60 Years of Public Housing Development in Hong Kong”

Our Economic Performance

We set 4 economic performance targets for 2013/14 and all these targets were fully met. Our economic performance in this year is highlighted below:

Initiatives in Planning and Construction of New Housing Estates

Planning and Design

- In 2013/14, we constructed 14 100 new PRH flats.
- We have adopted various Information Technologies (IT) technologies to optimise our management of design and construction works. These IT tools include Building Information Modelling (BIM), GIS, Radio Frequency Identification and the Housing Construction Management Enterprise System.



The latest 5-D BIM model has been applied to Sha Tin Area 52 Phase 1 Project

Optimising Resources Use

- According to the latest market trend and tender price movements, the construction cost of our superstructure of PRH was on average about 48% lower than that of the average standard of private sector residential buildings.
- During the year, we completed Tak Long Estate, our first project developed using Integrated Procurement Approach, which is based on a three-envelope tendering system comprising separate price, technical and innovation submissions.

Initiatives in Existing Housing Estates

Optimising Use of Resources

- As at the end of March 2014, the average waiting time was 3.0 years for general applicants and 1.6 years for elderly one-person applicants.
- As at the end of March 2014, around 12 100 families were benefiting from our Rent Assistance Scheme.
- An exercise of the Territory-wide Overcrowding Relief Transfer Scheme was carried out in September 2013. A total of 942 families benefited from the opportunity of moving into more spacious flats, which reduced the number of “overcrowded” households to 3 121 by the end of March 2014, representing 0.43% of all PRH households.
- In early 2014, following the Government’s decision to partially lift the development moratorium at Pok Fu Lam South, the use of five new government sites to facilitate the redevelopment of Wah Fu Estate is under detailed assessments.

Operation with Cost-effectiveness

- When we plan the designated trade mix for our new shopping centres, we have adopted flexible and market-oriented letting strategies to achieve greater diversity for shoppers.



Ching Long Shopping Centre offers a wide variety of shops to meet the daily needs of local residents

Initiatives in Office at Work

- As at 31 March 2014, the HA’s available investment funds stood at HK\$69 794 million, which was increased by HK\$805 million as compared to 31 March 2013.
- During the year, the recurrent expenditure of the HA was HK\$14 922 million, which was HK\$1 495 million higher than 2012/13.
- In early 2014, we have established an information security management system and certified to ISO 27001 standard. We are the first government body in Hong Kong to achieve full-scale certification relating to the protection of our valuable information assets.

Message from the Chairman



Welcome to our ninth Sustainability Report, ***Our Commitment to Sustainability – From Past to Future***. This report presents our concerted efforts, initiatives and achievements on the planning, design, construction, management and maintenance of a sustainable public housing programme to provide affordable accommodation to low-income families in Hong Kong.

The Housing Authority plays an important role in encouraging its tenants, both residential and commercial, as well as business partners to endeavour in environmental protection. To this end, we always make reference to industry and international best practices and frameworks to continuously improve our environmental performance.



Further to obtaining the certification of ISO 14001 on Environmental Management System for the planning, design, project management and contract administration for our construction of public housing in 2009, we extended the certification to planned maintenance and improvement in public housing estates in 2011, and to property management services in all our estates in July 2013.

The ISO 14001 certification is only the beginning. In 2012, we obtained ISO 50001 certification for the design of our public housing, and are working to extend the certification to facility management and improvement works of all our estates by batches, with full certification expected in early 2015. We have also adopted sustainable building index metrics to gauge the performance of different types of housing block. The metrics help us identify areas for improvement and formulate long-term maintenance and improvement programmes.

Apart from green management systems, we actively promote environmental awareness among public housing residents over the years through various educational and promotional programmes, including “Green Delight in Estates”, which combines estate-wide campaigns on specific environmental themes as well as in-depth educational activities, such as talks on low carbon living, green visits and food waste recycling.

Besides environmental protection, we have taken a multi-pronged approach to put in place safety measures and promote a safety culture. As a socially responsible public organisation, the Housing Authority also continuously strives to cultivate a caring neighbourhood and to actively engage its tenants, colleagues and work partners through a variety of communication channels.

Currently, we are working on a challenging public housing production programme. We will continue to introduce novel technologies and practices to our housing construction. We will work smartly, efficiently, and closely with all our stakeholders to rise to the challenge.

I am thankful for, and impressed by, the enthusiasm and hard work of our colleagues, who have worked professionally and with great dedication.

Professor Anthony Cheung Bing-leung, GBS, JP

Chairman,

The Hong Kong Housing Authority

30 December 2014

About This Report

- Report Scope
- Criteria
- What's New
- GRI Content Index



This is the ninth publication of the Sustainability Report issued by the Hong Kong Housing Authority (HA), ***Our Commitment to Sustainability – From Past to Future***, featuring HA's major sustainability commitments and performance in the areas of economic, environmental and social aspects. The Report details HA's governance structure, management approaches, operations, activities and sustainability initiatives. It also summarises HA's performance and future plans in maintaining and providing local public housing programme in a sustainable manner for Hong Kong.

Report Scope

The Report fully describes the achievements and progress in HA's sustainability performance from 1 April 2013 to 31 March 2014 (unless stated otherwise in the report). It also mentions HA's continuous goals in terms of sustainability objectives and targets regarding planning and construction of new housing developments, management and maintenance of existing public rental housing estates and our own office operations.

This Report covers all HA's activities and operations with no specific limitations on the report scope. Data and statistics presented as absolute figures have been normalised into comparable terms as far as practicable.

Criteria

This Report is prepared in accordance with the internationally recognised [Global Reporting Initiative \(GRI\) G4 Guidelines](#) Core option. The GRI Content Index at the end of this chapter illustrates how all the sections in this Report are linked to the relevant GRI indicators.

During the year, we conducted a series of stakeholder engagement programmes for reporting. We engaged with our staff, tenants, contractors and green groups through surveys and interviews to collect their views and feedbacks on our sustainability performance. Based on the stakeholder engagement results, we determined the material aspects and the respective boundaries to be covered in this report.

We welcome stakeholder's comments on our operations, activities, sustainability performance and reporting process. [A feedback form](#) is enclosed in this Report to collect readers' valuable views and comments for our continuous improvement.

To assure the completeness, accuracy, reliability and credibility of our report, we have engaged an independent party to verify the claims and data quoted in the Report. The [Verification Statement](#) with the verifier's opinions and views on the Report is presented in the latter chapter.

What's New

During the reporting period, there was no significant change in the size, structure, scope of work and ownership of the HA. There were no joint ventures or subsidiaries operated by the HA. There is no restatement of information and data provided in our earlier sustainability reports herein.

GRI Content Index

Corresponding GRI indicators denoted in each section are tabulated below.

General Standard Disclosures

General Standard Disclosures	Cross-reference/Comments	External Assurance
Strategy and Analysis		
G4-1 Statement from the most senior decision-maker of the organisation	Message from the Chairman	✓
Organisational Profile		
G4-3 Name of the organisation	About the Housing Authority	✓
G4-4 Primary brands, products and services	About the Housing Authority	✓
G4-5 Location of organisation's headquarters	About the Housing Authority	✓
G4-6 Number of countries where the organisation operates	Hong Kong only	✓
G4-7 Nature of ownership and legal form	Part of the Hong Kong SAR Government	✓
G4-8 Markets served	About the Housing Authority	✓
G4-9 Scale of the organisation	About the Housing Authority	✓
G4-10 Number of Employees	About the Housing Authority	✓
G4-11 Percentage of employees covered by collective bargaining agreements	None. There is no collective bargaining legislation exists in Hong Kong but we have maintained various staff engagement channels.	✓
G4-12 Organisation's supply chain	About the Housing Authority	✓
G4-13 Significant changes during the reporting period regarding size, structure, ownership or organisation's supply chain	During the reporting period, there was no significant change in the scope, boundary and measurement methods from previous reports.	✓
G4-14 Explanation of whether and how the precautionary approach or principle is addressed by the organisation	About the Housing Authority	✓
G4-15 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses	Environmental Performance Social Performance Economic Performance	✓
G4-16 Memberships in associations and/or national/international advocacy organisations	We do not provide such information this year. We will provide this information in our reports in the future.	✓

General Standard Disclosures	Cross-reference/Comments	External Assurance
Identified Material Aspects and Boundary		
G4-17 Entities included in the organisation's consolidated financial statements or equivalent documents	About the Housing Authority	✓
G4-18 Process for defining report content and the aspect boundaries	About This Report About the Housing Authority	✓
G4-19 Material aspects identified in the process for defining report content	About the Housing Authority	✓
G4-20 Aspect boundary within the organisation for each material aspect	About the Housing Authority	✓
G4-21 Aspect boundary outside the organisation for each material aspect	About the Housing Authority	✓
G4-22 Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	Not applicable	✓
G4-23 Significant changes from previous reporting periods in the scope and boundary	About This Report	✓
Stakeholder Engagement		
G4-24 List of stakeholder groups engaged by the organisation	About This Report	✓
G4-25 Basis for identification and selection of stakeholders with whom to engage	About the Housing Authority	✓
G4-26 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	About This Report	✓
G4-27 Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting	About the Housing Authority	✓
Report Profile		
G4-28 Reporting period	About This Report	✓
G4-29 Date of most recent previous report	About This Report	✓
G4-30 Reporting cycle	About This Report	✓
G4-31 Contact point for questions regarding the report or its contents	Feedback	✓
G4-32 GRI Content Index, the 'in accordance' option the organisation has chosen and the reference to the External Assurance Report if any	About This Report	✓
G4-33 Policy and current practice with regard to seeking external assurance for the report	About This Report Verification Statement	✓
Governance		
G4-34 Governance structure of the organisation	About the Housing Authority	✓
Ethics and Integrity		
G4-56 Organisation's values, principles, standards and norms of behaviour	About the Housing Authority	✓

Specific Standard Disclosures

Material Aspects	Disclosures on Management Approach (DMA) and Indicators	Cross-reference/Comments	External Assurance
Economic Performance	DMA	Economic Performance	✓
Economic Performance	G4-EC1 Direct economic value generated and distributed	Economic Performance	✓
Indirect Economic Impacts	DMA	Economic Performance	✓
Indirect Economic Impacts	G4-EC8 Significant indirect economic impacts, including the extent of impacts	Economic Performance	✓
Procurement Practices	DMA	About the Housing Authority	✓
Procurement Practices	G4-EC9 Proportion of spending on local suppliers at significant locations of operation	About the Housing Authority	✓
Materials	DMA	Environmental Performance	✓
Materials	G4-EN1 Materials used by weight or volume	Environmental Performance	✓
Energy	DMA	Environmental Performance	✓
Energy	G4-EN3 Energy consumption within the organisation	Environmental Performance	✓
Energy	G4-EN4 Energy consumption outside of the organisation	We have established a data collection system to gather energy data from our major contractors starting from 2014/15. We will consider to provide more information and data on contractors' performance in our future reports.	✓
Water	DMA	Environmental Performance	✓
Water	G4-EN8 Total water withdrawal by source	The water consumption does not include the water consumption of HA outstations since we do not have such data collection mechanism currently. We will consider to improve the data collection mechanism and report the data in future.	✓
Biodiversity	DMA	Environmental Performance	✓
Biodiversity	G4-EN11 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Projects in progress or commenced in 2013/14 were situated away from areas of high biodiversity value and had no significant impact on the biodiversity.	✓
Emissions	DMA	Economic Performance	✓

Material Aspects	Disclosures on Management Approach and Indicators	Cross-reference/Comments	External Assurance
Emissions	G4-EN15 Direct greenhouse gas (GHG) emission (Scope 1)	Economic Performance	✓
Effluents and Waste	DMA	Economic Performance	✓
Effluents and Waste	G4-EN23 Total weight of waste by type and disposal method	Economic Performance	✓
Environmental - Compliance	DMA	Economic Performance	✓
Environmental - Compliance	G4-EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Economic Performance	✓
Transport	DMA	Economic Performance	✓
Transport	G4-EN30 Significant environmental impacts of transporting products and other goods and materials for the organisation's operations, and transporting members of the workforce	Economic Performance	✓
Labour/ Management Relations	DMA	Social Performance	✓
Labour/ Management Relations	G4-LA4 Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	Following HA's internal circulars, no minimum notice period is required. But staff are informed and consulted regarding significant changes beforehand, and notices are issued as soon as possible.	✓
Occupational Health and Safety	DMA	Social Performance	✓
Occupational Health and Safety	G4-LA6 Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Social Performance	✓
Training and Education	DMA	Social Performance	✓
Training and Education	G4-LA9 Average hours of training per year per employee by gender, and by employee category	Social Performance As there is no distinct requirement regarding receiving training in terms of gender, we do not report the data broken down by gender.	✓

Material Aspects	Disclosures on Management Approach and Indicators	Cross-reference/Comments	External Assurance
Non-discrimination	DMA	Social Performance	✓
Non-discrimination	G4-HR3 Total number of incidents of discrimination and corrective actions taken	No incident of discrimination was reported in 2013/14.	✓
Freedom of Association and Collective Bargaining	DMA	About the Housing Authority	✓
Freedom of Association and Collective Bargaining	G4-HR4 Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	About the Housing Authority	✓
Anti-corruption	DMA	About the Housing Authority	✓
Anti-corruption	G4-SO5 Confirmed incidents of corruption and actions taken	About the Housing Authority	✓
Society - Compliance	DMA	Social Performance	✓
Society - Compliance	G4-SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Social Performance	✓
Product and Service Labelling	DMA	Social Performance	✓
Product and Service Labelling	G4-PR5 Results of surveys measuring customer satisfaction	Social Performance	✓

About the Hong Kong Housing Authority

- Our Vision, Mission and Core Values
- Our Role and Services
- Human Resources
- Material Aspects
- Governance Structure and Management



The Hong Kong Housing Authority (HA) is a statutory body established in April 1973 under the Housing Ordinance (Chapter 283). It supports the Transport and Housing Bureau with the Housing Department (HD) acting as an executive arm. The HA is responsible for the development and implementation of the local public housing programme.

Our Vision, Mission and Core Values

Our Vision

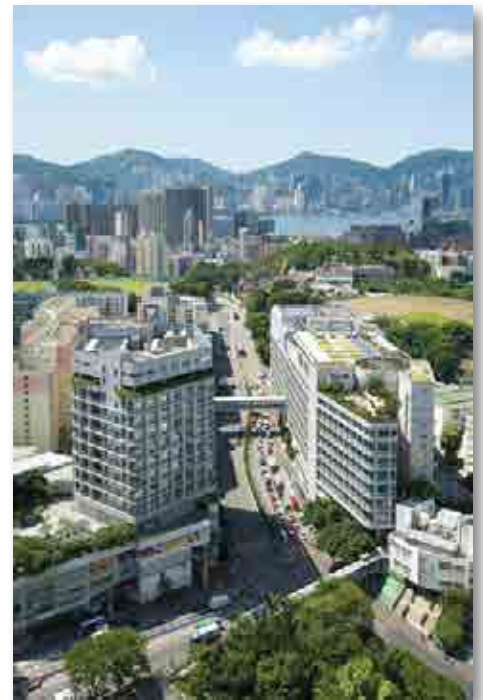
To help low-income families with housing need gain access to affordable housing.

Our Mission

- To provide affordable quality housing, management, maintenance and other housing related services to meet the needs of our customers in a proactive and caring manner;
- To ensure cost-effective and rational use of public resources in service delivery and allocation of housing assistance in an open and equitable manner; and
- To maintain a competent, dedicated and performance-oriented team.

Our Core Values

While providing quality public housing that is safe, affordable, people-oriented and environment-friendly, we also incorporate other sustainability considerations in planning and implementing our housing development and management programme. For instance, we strive to optimise our available resources for public housing production and reduce energy consumption in the communal area of the public housing as well as enhance construction safety to protect the well-being of our business partners and the general public.



The HA Headquarters



Our strategies and priorities on various sustainability aspects are well defined and highlighted below:

Our Strategy for Sustainable Housing

To achieve sustainable development in public housing which balances environment, social and economic needs with a view to attaining healthy living, sustainable construction and enhancement of the total urban environment.

Our Priority in Environmental Sustainability

The HA is committed to properly managing and reducing consumption of resources in our daily operations, especially in relation to waste reduction and energy use. We are also committed to introducing environment-friendly methods to further reduce overall environmental impacts arising from our planning, development, management and maintenance operations.

Our Priority in Social Sustainability

Corporate Social Responsibility has become an integral part of our corporate policy and daily work. The HA prioritised public housing to those who are in need. We are committed to providing a safe, hygienic and affordable living environment to our tenants, making public housing estates a better and comfortable place to live in. We also seek to become a role model in providing a safe and healthy working environment for our business partners who are involved in public housing development and management services. We attempt to enhance social cohesion, foster the well-being of society as a whole, and encourage Corporate Social Responsibility along with the supply chain.

Our Priority in Economic Sustainability

The HA is committed to adopting cost-effective and economically-viable approaches in all aspects of our public housing programme. These can be achieved through a number of measures, including optimisation of the HA's resources, prevention of the abuses of public housing and extension of the useful life of our existing buildings.

To ascertain the building sustainability performance of the existing public rental housing (PRH) estates, HA has enrolled the Hong Kong Quality Assurance Agency Sustainable Building Index (SBI) Scheme since 2012/13. In 2013/14, six pilot estates with 40 public rental housing blocks were selected to participate in SBI Scheme and awarded the SBI Verified Mark. Being the first organisation to obtain the HKQAA SBI Verified Mark, we aim to have 10 estates, containing around 80 housing blocks representing the majority of the HA's standard block designs, to be enrolled in the SBI Scheme by the end of 2014/15.

Our Role and Services

The HA plans, designs, builds, manages and maintains different types of public housing, including rental housing estates, interim housing estates, and transit centres. In addition, the HA owns and operates some flatted factories and ancillary commercial and other non-domestic facilities. The HA also supports the Government's policy in providing subsidised home ownership flats to qualified persons.

The HA plays an advisory role to provide professional advice on various public housing issues to the government, while the HD is the executive arm to realise our public housing programme. We work closely with all other relevant government departments when dealing with local public housing matters.

We actively support community voluntary initiatives to demonstrate our commitment to sustainable development. During the year, we participated in activities held by green groups and other government departments, such as the Hong Kong Flower Show, Eco Expo Asia and Green Carnival.

Housing Stock and Production

As at the end of March 2014, we are providing accommodation to about two million people, who live in nearly 743 700 PRH units in more than 160 PRH estates across Hong Kong.

In 2013/14, we met our target for the year and completed construction of around 14 100 PRH units. A total of seven projects were completed including Tak Long Estate Phases 1 to 3, Wing Cheong Estate, Yee Ming Estate, Kwai Yat House and Kwai Yuet House in Kwai Luen Estate and Shek Foon House in Shek Lei (II) Estate. In response to the urgent needs for PRH in the community, our Public Housing Construction Programme was adjusted to supply around 81 100 flats over the five-year period, starting from 2013/14.



Wing Cheong Estate



Kwai Yat House and Kwai Yuet House in Kwai Luen Estate

Infrastructure

In 2013/14, we awarded 7 foundation contracts and 5 new building contracts.

We always strive for user-friendliness and environment-friendliness in our public housing development. We therefore include associated infrastructure facilities such as footbridges, landscape areas, car parks, public transport interchanges, community facilities, social welfare facilities, educational facilities and commercial facilities as far as practicable when planning, designing and developing our public housing. These facilities are located in, or adjacent to, one or more public housing development in order to provide a socially and environmentally sustainable living environment for our tenants and the community.

Commercial Properties

In 2013/14, we constructed 13 200 square metres gross floor area of retail facilities, and 470 car parking spaces. As at the end of March 2014, our total non-domestic stock includes:

- around 208 000 square metres of commercial and retail space
- around 28 200 car parking spaces
- around 202 100 square metres of factory premises
- around 2 150 100 square metres of community, education and welfare facilities
- around 397 000 square metres of other space, used for miscellaneous purposes

Human Resources

Staff Resources

We regularly review the manpower plan and human resources management policy. Staff resources have been increased for the implementation of the new Home Ownership Scheme and other housing initiatives. As at the end of March 2014, we had 8 853 staff, including 8 162 civil servants and 691 contract staff, representing a slight increase of 3.8% from the previous year.

Total Workforce (as at 31 March 2014)

Total number of staff		8 853
Breakdown by employment type	Civil servants:	8 162
	Contract staff:	691
Breakdown by strength	Directorate Staff:	58
	Professional Staff:	793
	General Staff:	5 170
	Site Staff:	1 679
	Technical Staff:	1 153
Breakdown by employment contract	Full-time:	8 853
	Part-time:	0
Breakdown by gender	Male:	5 582
	Female:	3 271
Breakdown by age	Age 20-29:	577
	Age 30-39:	1 690
	Age 40-49:	2 521
	Age 50-59:	3 967
	Age 60 or above:	98

New Employee Hires and Employee Turnover

	Male	Female
New employee hires^[1]		
Age 20-29:	139	139
Age 30-39:	115	76
Age 40-49:	22	19
Age 50-59:	6	4
Age 60 or above:	0	0
Employee turnover		
Age 20-29:	14	13
Age 30-39:	36	39
Age 40-49:	19	26
Age 50-59:	85	43
Age 60 or above:	161	29

[1] The above figures involve staff (position as at 31.3.2014) with their 1st appointment date falling within the period from 1.4.2013 to 31.3.2014.

Training

Throughout the reporting year, we conducted 911 training courses (including internal and external seminars/workshops/training courses) and a total of 43 251 trainees were involved.

Training Hours Breakdown

	No. of staff	No. of staff attended training	Training hours received (hours)	Training hours per staff (hours)
By Strength				
Directorate Staff	58	58	2 074	35.8
Professional and Technical Staff	1 946	1 944	73 303	37.7
General and Site Staff	6 849	6 715	178 434	26.1
By Gender				
Male	5 582	5 630	165 511	29.7
Female	3 271	3 087	88 299	27.0
Training Regarding Human Rights				
Training on policies and procedures concerning aspects of human rights	8 853	325	1 004	0.1

Retention After Parental Leave

Number of employees completed parental leaves during 2013/14	147
Number of employees leaving the service after parental leave ended	4
Number of employees returning to work after parental leave	143

Injury

Number of staff injury cases ^[2]	31
Staff sick leave granted for staff injury cases ^[3]	1 923 days

[2] The definition of staff injury cases is the reported cases of occupational injuries, under Employee's Compensation Ordinance, resulting in death or incapacity for work over 3 days.

[3] The number includes sick leave days granted in 2013/14 but enjoyed in 2014/15 (up to 30.9.2014).

In 2013/14, we recruited 520 new staff, both to civil service posts and on a contract basis and converted 77 contract staff posts into civil service positions. To retain professionals of high calibre, we adopt regular employment terms and offer continuous contracts to our contract staff to enhance their job security and sense of belonging. Since 2008, we have introduced the Multi-faceted Manpower Strategy to resolve management and staff issues owing to different employment conditions of civil service and contract staff. The strategy enables us to adjust staffing intake to suit our business operations and offer staff benefits including clear promotion and career opportunities and greater job security.

Staff Appointment, Remuneration and Benefits

We abide by requirements stipulated in the Basic Law for our staff appointment. With reference to Article 99 of the Basic Law, new recruits to the Civil Service on or after 1 July 1997 must be permanent local residents. All senior officers in the HD (at D2 rank and above) are permanent Hong Kong residents. They are civil servants and their appointments are governed by the Civil Service Regulations and subject to the approval of the Public Service Commission.

Our staff's remuneration follows either the civil service pay scales or contract pay band depending on the terms of employment and job grades. The remuneration will be adjusted annually according to the respective annual pay adjustment exercises and staff performance. We have adopted a stringent 3-tier performance appraisal system to ensure a fair and comprehensive review on staff's performance. In general, civil servants may have one increment annually in their respective rank scales and the contract staff may also be received a one-off merit payment annually based on their performance.

Our staff members enjoy various fringe benefits with respect to their rank levels and terms of employment. These benefits include medical and dental treatment, housing benefits, annual leaves, retirement benefits, passage and education allowances.

Staff Integrity

We require high standards of staff integrity and conduct in planning and managing the territory-wide public housing programme. We adhere to the Government and departmental guidelines, including those provided by Civil Service Bureau and our departmental staff circulars, which lay down the internal guidelines and requirements for the declaration of private investments, avoidance of conflict of interest, and acceptance of advantages and benefits.

We also abide by internal circulars to deal with attempted bribe, allegations of corruption and Independent Commission Against Corruption's referrals. To ensure staff integrity and enhance awareness, we have arranged briefings on anti-corruption to all new recruits as part of their induction programme and integrity reinforcement seminars for existing staff. In 2013/14, over 1 417 staff attended various anti-corruption courses. We are fully committed to complying with all anti-corruption legislation. There was no conviction case reported during the year.

Human Rights

We respect the rights of our staff. We provide equal opportunities and fair treatment in terms of remuneration, fringe benefits, promotion and compensation to all our staff without discriminating individual's gender, ethnic group, age and disabilities. We comply with all the employment related legislation and child labour and forced labour are prohibited from our operations.

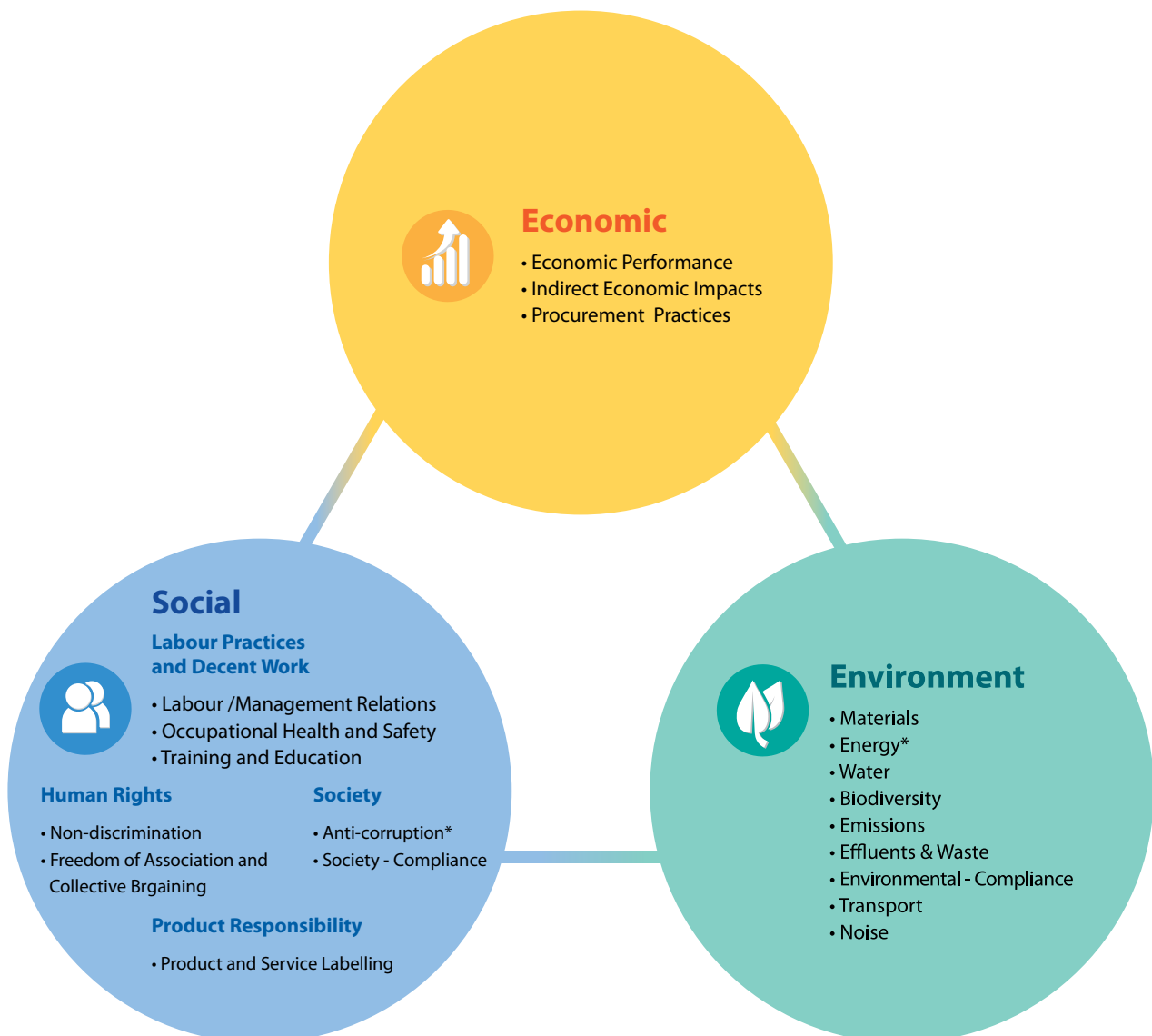
We maintain close relationship and open communication between the management and staff members to foster a dynamic and committed workforce. Our staff members have the freedom to join staff associations and working groups. In 2013/14, there were a total of 33 staff associations or working groups and 5 Departmental Consultative Committees in the HD. Apart from our bi-weekly publication the "Housing Dimensions" and our periodic publication "Development and Construction Division (DCD) Newsletter", we have maintained effective communication channels with staff to exchange views and enhance transparency on departmental initiatives of mutual concern.

Material Aspects

Our activities which mainly involve building construction, estate management and maintenance will have impact on the community in the aspects of environment, health, safety and society. By adopting the systematic “plan-do-check-act” approach, we have introduced a series of initiatives for achieving sustainability in the environmental, social and economic aspects to avoid, eliminate, minimise, manage and control potential risks arising from our daily operations proactively. Our senior management has frequently reviewed public and stakeholders’ concerns through internal management meetings and customer satisfaction surveys to address the ever-changing housing needs.

Based on our daily operation, we have identified a list of relevant stakeholders who may be interested in our sustainability performance. During the year, we have engaged our key stakeholder groups including staff, PRH tenants, contractors and green groups through surveys and interviews to collect their views and feedbacks on our sustainability initiatives and performance. In the light of engagement results, we have identified a list of material aspects and their respective boundaries to be covered in this report. List of our material aspects and the reporting boundaries are shown below:

List of our Material Aspects and the Reporting Boundaries



Note: *The performance of HA's contractors in the material aspects "Anti-corruption" and "Energy" is to be covered in this report.

Governance Structure and Management

Our Governance Structure

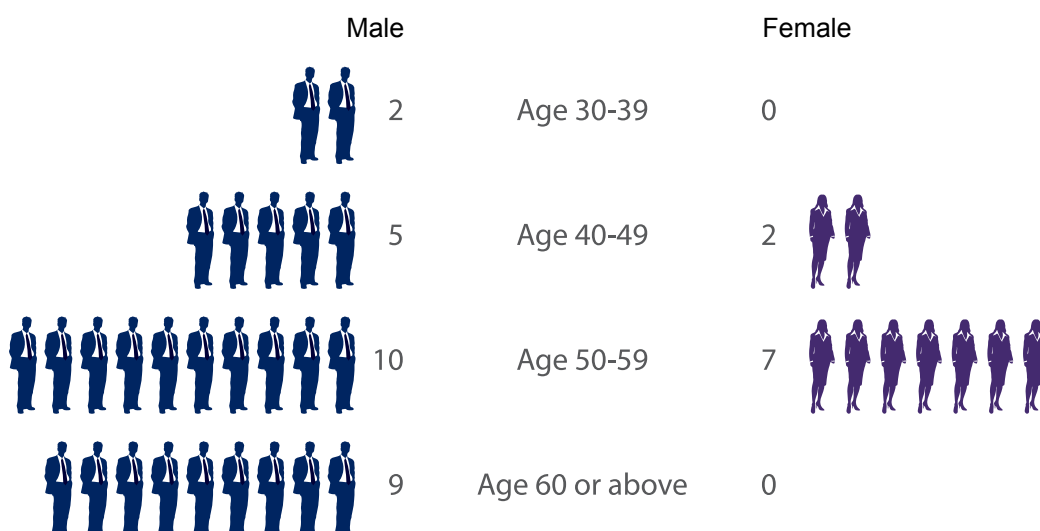
Apart from the Chairman and Vice-chairman, the HA has two official members and 25 non-official members. Appointments are made by the Chief Executive. All non-official members are appointed on an individual basis. The Secretary for Transport and Housing assumes the office of Chairman of the HA, while the Director of Housing assumes that of Vice-chairman.

Breakdown of non-official HA members by age group and gender



Six standing committees have been formed under the HA to formulate, administer and oversee policies in specified areas including building, commercial properties, finance, strategic planning, subsidised housing and tenders. Sub-committees and ad hoc committees will be set up when necessary. Details of our governance structure and the terms of reference of respective committees are provided in our [website](#).

Breakdown of non-official Committees and Sub-committees members by age group and gender



The HD acts as the HA's executive arm to assist in the implementation of public housing related policies. The HD is headed by the Permanent Secretary for Transport and Housing (Housing), who also assumes the office of the Director of Housing. The HD has four operation divisions, namely Strategy, Development & Construction, Estate Management and Corporate Services to support the implementation of HA's policies in housing strategies, overall housing development, construction and estate management. The HD's organisation can be found in our [website](#).

The Housing Department Environmental, Health and Safety Committee (HDEHSC) is responsible for the development and formulation of policy direction on environmental, health, safety (EHS) and sustainability aspects within the HD. It is further supported by the following three sub-committees to address different sustainability issues:

- The HD Environmental Sub-committee – assists the HDEHSC in overseeing the progress and performance of environmental initiatives and action plans in the Department.
- The HD Occupational Safety and Health Sub-committee – assists the HDEHSC in overseeing the occupational safety and health of the employees at their workplace.
- The HD Site Safety Sub-committee – assists the HDEHSC in overseeing site safety management measures for works contracts.

Our Management Approaches

Taking care of a wide range of public housing programme, our management has established and endorsed policies in specific areas to govern our operations and define framework for continuous improvement. Providing a clear direction on our sustainability commitment and approach, these policies, both at departmental level and divisional level have been widely communicated to and fully supported by our staff, services providers, materials suppliers and contractors.

Policies at Departmental Level

Environmental Policy

The Housing Authority is committed to continually improving the environmental standards in the provision of public housing and related services. In achieving this objective, the Housing Authority has adopted the following environmental principles:

- To promote healthy living and a green environment;
- To develop a strategic framework and implement environmental management for the promotion of sustainable development;
- To strictly comply with and fully implement all relevant environmental legislation and regulations;
- To address environmental concerns and incorporate environmental initiatives in planning and design, construction and demolition, marketing and estate management activities;
- To minimise environmental impacts (air, dust, noise, waste and water) to residents and public from the Housing Authority's operations;
- To develop procurement policies to minimise the use of resources and achieve cost effectiveness;
- To promote environmental awareness and participation among staff, residents and contractors through education and publicity programmes; and
- To review and seek continual improvement on the implementation of an environmental management system.

Safety and Health Policy

The Hong Kong Housing Authority (HA) fully recognises safety and health at work as an integral part of our activities. HA is dedicated to provide and maintain a safe and healthy working environment for all of our staff.

HA is committed to maintaining a climate of safety awareness and developing guidelines and a health and safety management system that leads to continuous improvement in occupational safety and health performance. All employees are required to assume responsibility for assuring their own safety by conforming to the policy, observing all statutory requirements and guidelines that are related to their works.

To achieve the objective of safety and health at work, HA has adopted the following principles:

- To provide and maintain working conditions, equipment and work systems for our staff consistent with good practices of occupational safety and health;
- To develop a strategic framework and implement safety management system for the promotion of safety and health at work;
- To ensure compliance with all relevant health and safety legislation as the minimum requirement;
- To take appropriate measures to eliminate safety and health hazards in our operations, and where this is not reasonably practicable, to devise procedures and guidelines to reduce such hazards to an acceptable level;
- To provide staff with training and supervision as required to achieve the objective of creating a safe and health working environment; and
- To pursue continual improvement in occupational safety and health by regularly reviewing our performance.

The policy and the overall safety management system will be regularly monitored and reviewed to ensure that the above objectives are achieved.

To lay down the foundation of our green procurement requirements, we have developed an Environmentally Responsible Procurement Policy to provide guidelines regarding product and service procurement. All staff members are advised to follow the Policy and are encouraged to use green products and services where practicable and economically viable.

Our supply chain mainly consists of construction contractors as well as estate management companies and associated service providers. Most of them are located in Hong Kong. As part of the supply chain management, we work and communicate closely with our contractors and material suppliers to ensure that they fully understand our sustainability requirements. We review and assess their performance and compliance status regularly through a robust and effective monitoring system. We strictly follow the Government Procurement Agreement of the World Trade Organisation and the HA's procurement policies and instructions during our procurement. We provide equal opportunities without prejudice to material suppliers to assure a fair, open, equitable and ethical purchasing process.

Environmentally Responsible Procurement Policy

The Environmentally Responsible Procurement Policy for contractors, suppliers and service providers is as follows:

According to Hong Kong Housing Authority Environmental Policy, HA is committed to minimise the use of resource and achieve cost effectiveness in its operation. This policy is developed to fulfill this commitment by:

- Identifying the significant environmental impacts of materials and services in use;
- Purchasing materials, goods and services to specifications that are compliant with relevant environmental legislation, and include environmental considerations so that, if technically acceptable and economically viable, lower environmental impact goods and services are purchased;
- Assessing the environmental commitment of suppliers, contractors and service suppliers as part of the tender evaluation process, and rewarding the best environmental performers. Paying for environment to demand for higher environmental performance;
- As appropriate to the scale and or nature of the work requiring contractors and service providers to produce project environmental management plans (EMPs) within their bids for work;
- Regularly evaluating evidence supplied by contractors and service providers towards implementation of their environmental management plan as part of our ongoing supervision of works;
- Providing feedback, advice and facilitate training to key suppliers, contractors and service providers on environmental performance and improvement opportunities;
- Ensuring that all HA staff, HA suppliers, contractors and service providers are aware of, and act in accordance with, HA environmental procurement policy and contribute to HA's environmental objectives; and
- Establishing systems, targets and action plans for effective environmental procurement and regular reports on performance.

Policies at Divisional Level

To further enhance existing green practices and continually improve environmental performance, individual divisions/ units have pursued ISO 14001 Environmental Management System (EMS) certification. The DCD obtained ISO 14001 certification in June 2009, while the Estate Management Division (EMD) has achieved the ISO 14001 EMS certification for maintenance and property management for all existing estates in May 2011 and July 2013 respectively. The Corporate Services Division has started to implement the EMS in the provision of property management functions in the HA Headquarters since 1 April 2013 and achieved certification in December 2013. The Independent Checking Unit also achieved ISO 14001 certification in May 2014. With the EMS in place, individual divisions and units can better manage significant environmental aspects in relation to their operations, activities and services in a systematic and holistic manner.

Both the DCD and EMD have adopted the divisional social responsibility policy by benchmarking with ISO 26000 Guidance of Social Responsibility. This policy has been developed with reference to the HA's Vision, Mission and Core Values to provide framework on management of the divisional social issues.

Social Responsibility Policy

We recognise social responsibility as an integral part of our long established caring value. Social responsibility is the way we have done and will continue in our approaches and practices. We affirm our commitment in adopting and practising the following principles of social responsibility:

- Be accountable for our impacts on society and the environment;
- Be transparent in our decisions and activities that impact on society and the environment;
- Be ethical in terms of honesty, equity and integrity;
- Be conscious of and respect the interests of our stakeholders and respond to their expressed concerns;
- Be respectful to the rule of law and international norms of behaviour for environmental or social safeguards; and
- Be respectful and supportive to human rights with particular regard to discrimination, grievance resolution, and rights at work.

To reinforce energy efficiency enhancement in residential building design, the DCD has developed and rolled out an energy management system (EnMS) according to ISO 50001 standard in December 2011, and obtained external certification in June 2012. For the EMD, Kwai Shing West Estate obtained the ISO 50001 EnMS certification in June 2013. With the successful experiences gained at Kwai Shing West Estate, we have committed to extend the certification to cover all existing PRH domestic blocks by April 2015 in two phases.

The energy policies of the DCD and EMD spelling out their energy management commitment are provided below.

DCD Energy Policy

In moving towards our goal of sustainable operations in meeting the customer and community expectations, DCD recognises the importance of energy management in the provision of affordable quality housing. To this end, we affirm our commitment to:

- continual improvement in energy performance;
- ensure the availability of information and necessary resources to achieve objectives and targets; and
- comply with applicable legal requirements and other requirements to which we subscribe that relate to our energy use, consumption and efficiency.

In addition, we support the purchase of energy-efficient products and services, and the design for energy performance improvement.

EMD Energy Policy

EMD is committed to continually improving the energy performance standards in the areas of facility management and improvement works of public rental housing (PRH) domestic blocks. To achieve this objective, the top management of EMD affirms the following commitments:

- To regularly review and seek for continual improvement in energy performance;
- To ensure the availability of information and necessary resources to achieve objectives and targets;
- To comply with applicable legal requirements and other requirements to which we subscribe related to our energy use, consumption and efficiency;
- To provide the framework for setting and reviewing energy objectives and targets; and
- To support the purchase of energy-efficient products, services, and design for energy performance improvement

Environmental Performance

- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in Office at Work



Initiatives in Planning and Construction of New Housing Estates

Environmentally Responsible Planning and Design

Micro-climate Studies

We have 10 years of success for implementing micro-climate studies during site planning and design process for high-rise public housing. Based on a computer simulation with prior calibration of software in accordance with local climatic conditions, including wind environment, natural ventilation, pollutant dispersion, natural daylight and solar heat gain, etc., the micro-climate studies were applied in our planning and design stages of our projects. This year, we continued to carry out micro-climate studies for 50 on-going projects, in addition to Air Ventilation Assessment for 31 on-going projects.

Low Carbon Building Design

To help achieve the Government's target of reducing 50%-60% greenhouse gas emissions (GHG) from 2005 to 2020, our team has put substantial efforts to apply various green building strategies during the design and construction stages to cut down carbon emissions of our housing development projects.

We apply passive design for our housing development projects to provide quality buildings with low carbon footprint and high energy efficiency through optimising the use of daylight and natural ventilation.

Since 2011, we have adopted Carbon Emission Estimation (CEE) which applies a Life Cycle Assessment (LCA) framework to estimate the GHG emissions in terms of carbon dioxide equivalent ($\text{CO}_2\text{-e}$) of a public housing block from cradle to grave. The CEE also enables us to benchmark the emission level among our projects throughout the life cycle stages in order to facilitate comparison and to set achievable goals for improvements. During the year, we applied the CEE method for all 13 projects with domestic blocks at detail design stage.

Construction of Green Buildings

Using Green Materials and Components

The concept of sustainable building incorporates and integrates a range of green strategies during the design, construction and operation, one of which is the use of green materials and components for our projects.

To use more green materials and components, we have specified using the following recycled materials in our contracts:

- pulverized fuel ash (PFA) to partially replace cement in structural concrete with mass concrete pouring, such as transfer plates or beams, for all building contracts;
- recycled rock-fill in earthworks and recycled sub-base materials in roadworks for all building and civil engineering contracts;
- recycled rock retrieved at ground investigation works for landscaping and associated works as far as practicable for new building and civil engineering contracts;
- ground granulated blastfurnace slag (GGBS) to partially replace cement in concrete for manufacturing precast facades in domestic blocks for all building contracts;
- concrete paving blocks with recycled glass cum aggregates at the areas planned for concrete paving blocks for new building and civil engineering contracts;
- marine mud converted by cement stabilisation treatment from site to useful backfilling material for all piling contracts;
- re-usable modular hoarding using bolt-and-nut fixing for suitable projects; and
- synthetic macro-fibre reinforcement in on-grade slabs where applicable.

During the year, we achieved a saving of about 27 000 tonnes of cement by replacing part of the concrete mixes with PFA.

In addition to specifying to use GGBS to replace 35% of cement in concrete for precast facades, we have further specified using GGBS to replace 60% of the cement in mass concrete pouring, such as that for pile caps, in a pilot foundation contract. Furthermore, we are now in progress to study using GGBS in precast semi-slabs, precast beams, precast staircases and precast refuse chutes.

To further promote the use of green construction materials, we specified not to use virgin forest products for temporary works during construction in our contracts, but to use softwood timber from sustainable source for all types of timber doors in public rental housing (PRH) estates. We are preparing specification which requires a minimum of 50% of all timber by volume for doors to be from sustainable sources. The latest draft specification also allows the use of finger joints and composite joints in timber doorsets to reduce the quantity of raw materials used in manufacturing process.



Finger joints in timber doorsets



Composite joints in timber doorsets

We continued to adopt ISO 14001 Environmental Management Systems (EMS) certification as a general requirement for the suppliers of 16 selected major building materials in new works projects, as well as a requirement in maintenance and improvement works contract for selected building materials.

Enhancing Environmental Performance during Construction

Sustainability has been emphasised during construction of our new housing estates. Requirements have been imposed on the contractors for our new building, demolition, piling and civil engineering projects in enhancing their environmental performance during construction. These include:

- Submission and implementation of environmental management plan;
- Banning the use of incandescent light bulbs for temporary lighting on site;
- Use of generators with Quality Powered Mechanical Equipment (QPME);
- Mandatory installation of water recycling facilities;
- Restriction of vehicle speed on site;
- Adopting precast concrete hard paving at all piling and building sites;
- Use of precast concrete component;
- Provision of solar hot water heaters in workers' shower area;
- Provision of food waste composting facility at remote locations with site canteen or catering service;
- Provision of greening on site;
- Using electric vehicle as contract cars at sites within specified round trip distance; and
- Recovery of undamaged timber pallets for locally manufactured pavers for reuse or recycling.



Mandatory installation of water recycling facilities



Use of precast concrete component



Provision of solar hot water heaters in workers' shower area



Provision of food waste composting facility at remote locations with site canteen or catering service



Provision of greening on site



Use electric vehicle as contract cars

We promulgated a specification requiring the reuse or recycling of undamaged timber pallets in April 2013. We are also developing a database on non-inert construction and demolition recyclable materials from construction sites for access by recyclers to facilitate waste recycling.

As an on-going initiative, we have incorporated precast elements, including facades, stairs and semi-slabs in the design of all projects. Volumetric precast bathrooms and kitchens, precast beams, roof parapets, manholes, cable draw pits and drainage channels were adopted in various projects where applicable. Construction of precast segmental roof water tanks is on trial.

By adopting environment-friendly construction practices in our projects, such as precast concrete components, metal formwork and metal hoarding, we have conserved around 13 430 tonnes of timber in 2013/14.



Precast manholes used in Shui Chuen O Phase 1

Hong Kong BEAM Plus and Chinese Green Building Evaluation Label

At all times we strive to find ways to improve environmental performance of our housing development across their life cycle. In this regard, we have adopted some of the renowned green building certification schemes such as BEAM Plus and Chinese Green Building Evaluation Label.

We set our requirements in the contract specifications to ensure that all our new projects are capable of achieving a “Gold” rating under the BEAM Plus scheme. During the year, our development projects of Ex-Yuen Long, Ex-Au Tau and Tung Chung Area 56 exceeded the target and achieved a higher standard of “Provisional Platinum” rating under BEAM Plus version 1.2; and development projects of Domain and Kai Ching Estate were awarded “Platinum” rating under BEAM version 4/04.

Development projects of Kai Ching Estate and Ex-Yuen Long Estate also received the highest (three-star) level of the Chinese Green Building Evaluation Label.



Domain



Kai Ching Estate

Energy Conservation

Managing Energy through ISO 50001 Energy Management System

Using energy efficiently will help us conserve resources and tackle climate change. Since 2011, we have started to implement an Energy Management System (EnMS) for our housing development projects in accordance with the international standard ISO 50001:2011. In June 2012, we obtained ISO 50001 certification, the first organisation in Hong Kong obtaining such certification in residential building design. In 2013/14, we conducted energy estimation under ISO 50001 for 14 projects and will implement it in all domestic blocks at the design stage.

During the year, after full consultations with stakeholders and industry associations, we set a mandatory requirement for contractors to obtain ISO 50001 certification for admission to the Housing Authority (HA) lists of Building (New Works Category) and Piling Contractors on or after 1 January 2014. For contractors who were already admitted to the list before 1 January 2014, they are required to obtain the ISO 50001 certification on or before 31 December 2015.

Achieving Energy Efficiency in Buildings

The HA has been one of the pioneers in adopting the non-statutory Building Energy Codes (BEC) under the voluntary Energy Efficiency Registration Scheme for Buildings (EERSB) to reduce the operational energy of new public housing developments, prior to the full operation of mandatory BEC in September 2012.

During 2013/14, we have received 72 energy certificates under EERSB from Electrical and Mechanical Services Department, demonstrating our efforts to meet energy efficiency requirements in lighting, electricity, air-conditioning, lift and escalator installations.

Use of Renewable Energy

Photovoltaic (PV) system converts the inexhaustible solar energy to electricity with low carbon emission. During the year, we continued our success of incorporating the grid-connected PV system in all new public housing developments under the planning and design stage. Riding on the success of implementing the grid-connected PV system in Lam Tin Estate Phases 7 and 8, Eastern Harbour Crossing Site Phase 5 and Kai Tak Site 1A, we completed similar installation the grid-connected PV system at Kai Tak Site 1B in 2013/14.

While the design of the PV systems caters for at least 1.5% of the communal electricity consumption, we are conducting a study to review the actual effectiveness of the existing installations.



Solar panels at Kai Tak Site 1B

To enhance the community awareness of environmental protection, we have installed one to two solar-powered lights in each of the PRH and HOS developments for educational purpose.

Reducing Energy Consumption of the Lighting Systems

In view of the better luminous efficacy of light emitting diode (LED) lighting, we have been proactively studying LED lighting applications for our new PRH to further reduce energy consumption in our housing blocks. In addition to conducting a study for testing nine brands of LED bulkhead prototypes in Tsz Ching Estate, we are implementing a large-scale trial of LED bulkheads with refined design in Kai Tak Site 1A to evaluate their performance and product reliability.

We have also extended our applications of LED bulkhead lights in the design of selected projects, including Anderson Road Site A and B and Chai Wan Factory Estate. In future, we will consider wider applications of LED bulkheads when the products are proven to be reliable and cost-effective.



Trial installation of LED bulkheads in Kai Tak Site 1A

Reducing Energy Consumption of Lift Installations

Lift systems are the second largest electricity consumers amongst communal facilities of domestic blocks, and their operation has great energy saving potentials. We have stipulated the use of gearless lift machines and regenerative power for lift motors of 18kW or above in the latest specifications for new lift installation. During the year, we completed the installation of lift regenerative power systems for domestic blocks at Kai Tak Site 1B. The performance of the systems is being monitored. We are also exploring opportunities to apply new lift technologies like permanent magnet synchronous lift motor in some projects.

Optimisation of Lighting in Domestic Blocks

Since 2008, we have developed a two-level lighting control system for lift lobbies, corridors and staircases in domestic blocks, whereby light levels are operated by environmental lighting controls using motion sensors and on-demand switches with timer-controls. All of these measures followed our lighting-on-demand principle for saving energy.

During the year, we continued to implement environmental lighting controls at the communal areas of all domestic blocks. To evaluate energy saving performance of the lighting controls, we monitored the energy usage for lighting in communal areas of Tung Tau Estate Phase 9, Un Chau Street Phase 5, Lower Ngau Tau Kok Phase 1 and Shek Kip Mei Phase 2 development projects. The preliminary results indicated that there was about 30% of energy saving with the implementation of environmental lighting controls.



Manual push button of two-level lighting control system

Smart Meter

We have developed a smart meter cum information display system to show the average electricity, gas and water consumptions per flat in an estate. This system is placed at the main entrance lobbies of each domestic block where tenants can obtain energy/resource figures of different blocks within the same estate and use it as a benchmark for improving performance.

Application of Hybrid Mode of Ventilation

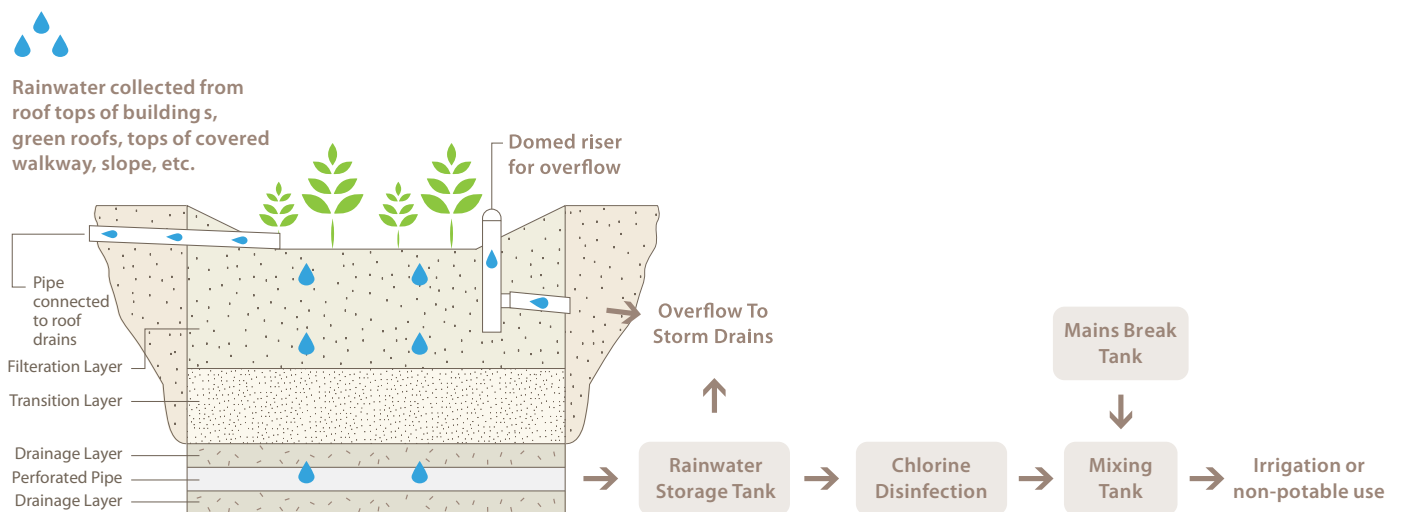
We continued to adopt the hybrid mode of ventilation in Yau Lai Shopping Centre, Choi Tak Shopping Centre and Domain to save energy of air conditioning and mechanical ventilation systems. The performance of this kind of system was evaluated and guidelines for implementation of hybrid mode of ventilation were prepared during the year to facilitate future applications in other suitable projects.

Water Conservation

We have been exploring every possible means to better utilise and conserve water resources.

Since 2010, we have been adopting the Rainwater Harvesting System (RWHS) to supplement fresh water supply for irrigation purposes. During 2013/14, we have reviewed and simplified the design for RWHS to reduce its carbon footprint. The simplified RWHS is now regarded as a standard provision in PRH developments if either carbon neutrality or BEAM Plus requirements on water irrigation can be met. During the year, we completed the installation of RWHS for Kai Tak Site 1B and Tsueng Kwan O area 65B. We have also continued to monitor the water saving to study the performance and effectiveness of the completed RWHS installations.

Building on the rainwater harvesting technique, we have further introduced an integrated water sensitive urban design for our new developments at Shui Chuen O and Au Tau. In these projects, an innovative low-carbon design solution was adopted whereby rainwater collected at high elevations such as building rooftops, green roofs, covered walkway roofs and planted slope would be treated via bioretention and held in storage tanks for reuse.



We have continued to monitor the use of reclaimed water from water-cooled air conditioning system for irrigation at the Domain. We have engaged a local university to study the system performance, which will be completed by 2014/15.

In 2012/13, we promulgated specification to reduce the flushing volume of single flush water closets from 7.5 litres to 6 litres. In 2013/14, we have prepared specifications of 6-litre dual flush water closets for selected projects use.

To further reduce the consumption of potable water, we have promulgated specification to use water efficient shower handset and mixers to the requirements of BEAM Plus and Water Supplies Department's Water Efficient Labelling Scheme for our projects.

Greening the Environment

We have established an overall target of 30% green coverage for all new housing projects, with a minimum of at least 20%. To further strengthen greening initiatives in both PRH and HOS developments, all new housing projects are planned with a tree planting ratio of not less than one tree per 15 flats.

To promote community involvement in greening of our new PRH, we introduced community planting areas in the master landscape layout plans for projects at Ex-Shatin Married Quarters, Tai Pak Tin Street and Sai Chuen Road during the design stage to encourage PRH residents to participate in gardening and planting works within their own estates.

During the year, we have arranged the Action Seedling Programme for the following estates to encourage local residents and the community to participate in early plant raising within the new housing estates.

- Kai Tak Site 1A Phases 1 & 2;
- Kai Tak Site 1B Phases 1, 2 & 3;
- Tuen Mun 18;
- Kwai Shing Circuit;
- Tai Pak Tin Street;
- Tsueng Kwan O Area 65B;
- Tung Tau Cottage Area East; and
- Yau Tong Phase 4.



Launching ceremony of Action Seedling Programme in Kai Tak Sites



Action Seedling Programme in Tai Pak Tin Street



Action Seedling Programme in Tsueng Kwan O Area 65B

To improve greening of our estates, we actively provided green treatment for newly formed slopes in all our development projects, including Tai Pak Tin Street in Kwai Chung and Tung Tau Cottage Area East during the year.

We took the initiative to incorporate green roofs at high-rise blocks during the design of suitable projects, and we completed a study on the environmental benefits of green roof at two selected residential blocks at Tseung Kwan O Area 73B in October 2013. Some of the recommendations from the study will be incorporated into the Green Design Guide in 2014/15.

To integrate waste management with greening activities, we also carried out a study of using food waste and garden waste to produce suitable gardening compost in the construction site of Hung Shui Kiu Area 13 Phase 3, and have incorporated facilities to turn garden waste into compost in the design of the community planter areas in Kwai Shing Circuit and Tuen Mun Area 54 Site 2.



Compost bin to turn garden waste into compost for the community planter area in Kwai Shing Circuit



Green treatment for a newly formed slope in Tai Pak Tin Street in Kwai Chung

Noise Control

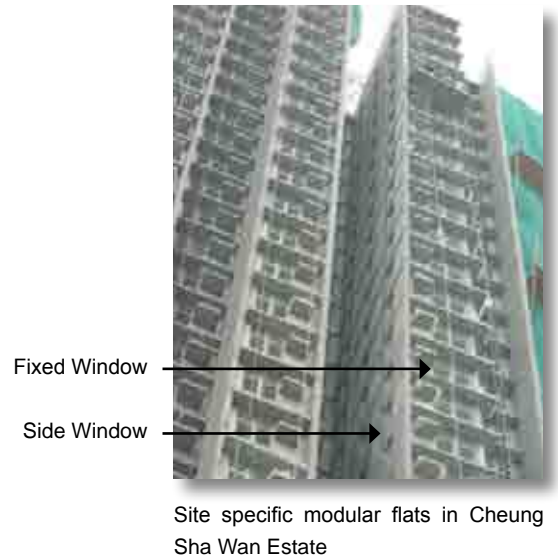
Noise Control During Construction and Demolition

When carrying out construction activities, we require contractors to use Quality Powered Mechanical Equipment for our projects in order to reduce the noise impact to the surrounding. In addition, we encourage contractors to adopt Hydraulic Concrete Crushers (HCC) in demolition works as it generates less noise. The guidelines on the use of HCC have been uploaded onto the Resources Business Partners of our web site.

Control of Road Traffic Noise

In line with our application of passive mitigation measures such as acoustic windows, architectural fins and noise barriers have been carefully applied for various projects design to minimise road traffic noise impacts to our residents.

To address severe noise abatement requirements in some PRH sites, we have adopted innovative approaches in addition to conventional noise mitigation measures. For example, we have devised a site specific flat design, with fixed windows facing traffic noise source and openable side windows for ventilation, in Cheung Sha Wan Estate. We have also installed innovative acoustic balconies in Wing Cheong Estate and acoustic windows in San Po Kong public housing development respectively. Details of our noise mitigation measures can be found in [Case Study 2](#).



Acoustic balcony (left) and acoustic windows (right)

Air Quality Improvement

We have been conducting studies for potential applications of new technologies to improve air quality in the living environment. During the year, we have completed the installation of bio-filtration units using spent mushroom compost in Cheung Sha Wan Estate and are now assessing its performance in reducing vehicular pollutants from the carpark and public road.

In line with the Government's initiative of promoting the use of electric vehicle for improving the air quality, we have made provisions for electric vehicle charging facilities in indoor carpark of all new estates under design.



Bio-filtration units in Cheung Sha Wan Estate

Initiatives in Existing Housing Estate

Environmentally Responsible Management and Maintenance

Environmental Management System for Estate Services

The HA has always been striving for sustainability in green management practices. Since 2010, our team has started to develop and implement the EMS in accordance with the international standard of ISO 14001 in various estates to guide us to control, measure and improve our day-to-day environmental performance in a systematic approach.

In July 2013, we were delighted to announce that all our PRH estates obtained certifications in accordance with ISO 14001 EMS standard.

To implement the ISO 14001 EMS, we have formulated and implemented relevant green management initiatives and operational guidelines for the aspects of routine cleansing, security, planned maintenance and improvement works in estate management, with an aim to develop a green and sustainable estate community for our tenants. The ISO 14001 certificates is a recognition of all HA estates fulfilling an internationally accredited standard. It is also an indispensable joint effort of residents, Estate Management Advisory Committee members (EMAC) and service contractors.

BEAM Plus

We have selected Kwai Shing West Estate as the pilot existing estate to implement BEAM Plus for Existing Buildings version 1.2, with the target to achieve "Provisional Platinum" rating in second quarter of 2014.

Sustainable Building Index

We have enrolled six estates in the Hong Kong Quality Assurance Agency (HKQAA) Sustainable Building Index (SBI) scheme in 2013/14, and subsequently obtained HKQAA SBI Verified Mark.

In the coming year, a total of 10 estates with about 80 buildings covering majority of the block type designs will be selected for enrollment in the SBI Scheme. Our objectives are to gauge the sustainability performance of different block types, and to analyse results for formulating long-term maintenance and improvement strategy of our PRH estates.

Energy Conservation

ISO 50001 Energy Management System

Since early January 2013, the ISO 50001 EnMS has been implemented in Kwai Shing West Estate, in full compliance with the requirements on the surveillance of energy consumption and energy saving measures. In June 2013, Kwai Shing West Estate was awarded an ISO 50001 certification. It was the first residential estate and the first PRH estate in Hong Kong to receive such recognition.

With the successful experiences gained at Kwai Shing West Estate, we have committed to extend the certification to cover all existing PRH domestic blocks by April of 2015 in two phases.

Phase One comprising 621 blocks at 92 PRH estates has commenced implementation since October 2013 with the award of the certification in August 2014, while Phase Two, comprising 539 blocks at 75 PRH estates, will commence the implementation in April 2014, with certification scheduled in April 2015.

Overall Energy Consumption

In 2013/14, our electricity consumption in the public areas of PRH blocks was 56.54 kWh per flat per month. Such consumption figure was 4.61% lower than the level recorded in 2012/13.

Adoption of Energy and Carbon Reduction Measures

Since April 2012, we have rolled out a Light Fitting Replacement Programme to replace existing light fitting equipped with electromagnetic ballast by electronic ballast, to enhance efficiency and effectiveness of energy use in PRH estates. In this programme, we anticipate approximately one million light fittings to be replaced in 960 PRH blocks within a period of 42 months. As of March 2014, we had completed the replacement work for some 540 blocks and that for about 280 blocks is planned in 2014/15.



Installation of electronic ballast bulkhead light fitting in Oi Man Estate



Electronic ballast bulkhead light fitting in Kwai Shing West Estate

We have implemented the Lift Modernisation Programme (LMP) since 1989. The programme includes replacement of the aged lift cars, machinery and control system with a view to improving efficiency, riding comfort and accessibility to every floor of the housing block in older estates with additional lift landings. On the energy saving front, these new lifts are more energy efficient by trimming down energy consumption by over 30% when compared with the old ones.

To study the performance of LMP on carbon reduction, verification for its implementation in Fu Shan Estate in accordance with ISO 14064 international standard was conducted in February 2014. A remarkable reduction of 19.7% in carbon emission was achieved in 2012/13 for the three housing blocks at Fu Shan Estate after the implementation of LMP.

We conducted carbon audit for 14 typical PRH block types for monitoring and benchmarking purposes. The overall carbon emissions of the 14 blocks, when comparing with their baseline figures in 2011/12, ranged from -6.75% to +7.25%. Investigations have been undertaken to explore means to reduce carbon emissions. These may include adopting suitable energy saving measures and well planning of housekeeping programme on maintenance and cleansing activities.

For all our shopping centres, we have joined a community-wide Energy Saving Charter to reduce electricity consumption for air-conditioning by maintaining the average indoor temperature between 24 and 26 degree Celsius in summer.

Air Quality Improvement

To support the Government's policy of promoting wider use of electric vehicles (EVs) in the territory for improving air quality, EV charging facilities have been provided either by the China Light & Power Company Limited or Power Assets Holding Limited in several HA's carparks, namely Choi Tak, Kwai Chung, Shui Pin Wai, Yue Wan, Kai Ching Estates and Yau Lai Shopping Centre.



EV charging facilities in the carpark of Yau Lai Shopping Centre

To further promote the use of EVs, we are offering a maximum of two hours free parking during electricity charging in HA's carparks. In future, we will seek opportunities to provide more charging facilities in carparks of our new public housing developments.

Noise Control

We have taken considerable efforts to ensure that noise generated from domestic premises or public places (neighbourhood noise) would not affect our residents. Since 2005/06, we have not received any noise abatement notices from the Government.

Waste Management

We promoted waste separation at source and green management initiatives by implementing the Source Separation of Domestic Waste Programme in all our estates. During the year, we have collected around 29 390 tonnes of waste paper, 1 810 tonnes of plastic bottles, 1 360 tonnes of aluminium cans and 1 050 tonnes of used clothes for recycling in our estates.

Waste Type	Quantity of Waste Collected for Recycling (tonnes)						
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Paper	14 748	14 194	17 935	21 376	23 849	27 589	29 394
Plastic Bottles	765	939	1 218	1 427	1 584	1 929	1 812
Aluminium Cans	310	496	520	865	1 054	1 133	1 359
Used Clothes	633	618	775	844	945	998	1 053

As at March 2014, all our estates have established collection counters to collect domestic recyclables through incentive scheme.

Since December 2010, a trial scheme on glass bottle recycling has been launched in collaboration with Environmental Protection Department in six PRH estates in East Kowloon Region. The scheme was extended to cover 29 PRH estates in Kowloon East Region in October 2012, and has been under further extension since early 2014, with the target to cover all PRH estates by end 2014, except those at Peng Chau and Cheung Chau.

Trial schemes on food waste recycling have been conducted in PRH estates since December 2011. In 2013/14, the trial scheme covered 14 estates under the “Green Delight in Estates” programme, using off-site food waste recycling (for conversion into fish feed) as well as on-site recycling by micro-organisms. We have also partnered with a green group in setting up a Food Resources Recycling Centre at Lei Muk Shue (II) Estate for trial, with the aim to collect residual food in the estate as food resources for redistributing to people in need. For commercial premises, we encouraged restaurants and supermarkets in the newly built shopping centres and markets to adopt food waste reduction management practices.

To raise environmental awareness of reducing domestic waste among our PRH tenants, we launched a scheme to collect and replant disposed potted New Year citrus plants. The scheme was well received by all public housing estates, with more than 5 000 pots of citrus plants collected.



Collection counter to collect domestic recyclables in Lam Tin Estate



Glass bottle recycling bin



Collection of citrus plants

During the year, we achieved the average domestic waste production of 0.63 kg/person/day from our residents through the implementation of various waste reduction and recovery initiatives in PRH estates.

Greening and Tree Management

Greening and Landscaping

To enhance greening and landscaping in our estates, we have developed community gardens in 10 estates, established two thematic gardens at Lee On Estate and Shun On Estate, and completed the landscape upgrading works in 18 estates in 2013/14.



Thematic gardens at Lee On Estate (left) and Shun On Estate (right)

We also carried out green treatment works for 10 slopes at nine estates by providing planters along slope toe and replacing hard slope surfaces by erosion control mat with hydroseeding and shrubs during the year. In addition, there are 15 green roofs installed at Wo Lok, Fu Shan, Choi Hung, Fuk Loi and Ping Shek Estates, which are well accepted by the residents.

Strengthening Tree Management

Over the years, we have been diligently planting trees in our estates. Our staff members of the Tree Management and Horticulture Sub-section have been working hard to formulate long-term plans and to implement measures for effective execution of tree management and horticulture works in order to enhance and promote greening in the public housing estates.

We estimate that there are over 100 000 trees in our existing estates. In order to properly manage the large number of trees, it is essential to have systematic records in place. Since October 2012, we have been operating a centralised electronic tree database in our Geographic Information System (GIS) to help us manage and update the conditions of our trees. Through using the centralised electronic database, we continued to carry out annual tree risk assessment and inspections for identifying trees that need prompt remedial actions.

We welcome the public to help us maintain proper surveillance on trees. To this end, we have been providing training courses for “Estate Tree Ambassadors” so that they can help us identify problematic trees for immediate follow-up action. As at March 2014, we have recruited some 650 Estate Tree Ambassadors. We have also worked with Development Bureau on tree preservation and management, and on new guidelines and contractual requirements through regular meetings.



Annual tree risk assessment



Training course for Estate Tree Ambassadors

Organising Green Activities

Since 2005, we have been partnering with green groups to launch a long-term community environmental programme, namely the “Green Delight in Estates” (GDE), to carry out estate-wide environmental awareness campaign and in-depth education programme for our residents and tenants.

“Reduction of Municipal Solid Waste” was our theme for GDE Phase 7 in 2013/14 to echo Government’s environmental initiative on waste reduction. During the year, a considerable number of activities had been arranged through this estate-wide activity. These included organising the reducing food waste campaign, food waste recycling and glass bottle recycling programmes, talks, workshops, fun days and site visits.



Second-hand goods exchange activity



Launching ceremony of Phase 7 of the GDE programme



Carnival to deliver waste reduction messages to residents

Our EMAC also plays a vital role in promoting green living environment for our PRH estates. During the year, the EMAC organised a noticeable number of activities, which aimed to increase tenants' awareness and to promote participation in greening of PRH. These activities included tree planting days in 10 estates and greening activities for residents in 20 estates. Apart from the above, all EMACs partnered with non-governmental organisations (NGOs) to organise activities on environmental protection in their estates.



Tree planting day in Lung Hang Estate



Developing community garden in Choi Hung Estate

We further joined hands with the EMACs again in March 2014 to launch the Estate Green Fun Day, in a bid to heighten PRH tenants' awareness of environmental protection and to promote waste reduction and recycling in estates. The message of green living was disseminated through various display panels, environmental videos, game booths and quiz games. The campaign was well received by tenants, children, and elderly in particular.



Estate Green Fun Day in Cheung Hong Estate (left) and Tin Ching Estate (right)

Asbestos Abatement

The Housing Department (HD) has banned the use of asbestos containing building materials since 1984. For the remaining asbestos containing materials in housing estates built before 1984, we have been working with the Environmental Protection Department and Labour Department to carry out a series of safety measures, periodic inspection and monitoring plan as well as special abatement procedures to protect the health of tenants and workers.

During the year, we implemented the asbestos removal works for 5 domestic blocks at So Uk Phase through our estate redevelopment programme. In addition, we carried out asbestos removal works for one factory block at Chai Wan Factory.

We continued to carry out two surveys in a year to monitor the condition of asbestos containing materials in existing PRH estates to ensure that they were in satisfactory conditions. A registered specialist asbestos contractor was also engaged to carry out emergency repair to underground asbestos cement water-mains

Initiatives in Office at Work

Implementation of Environmental Management System

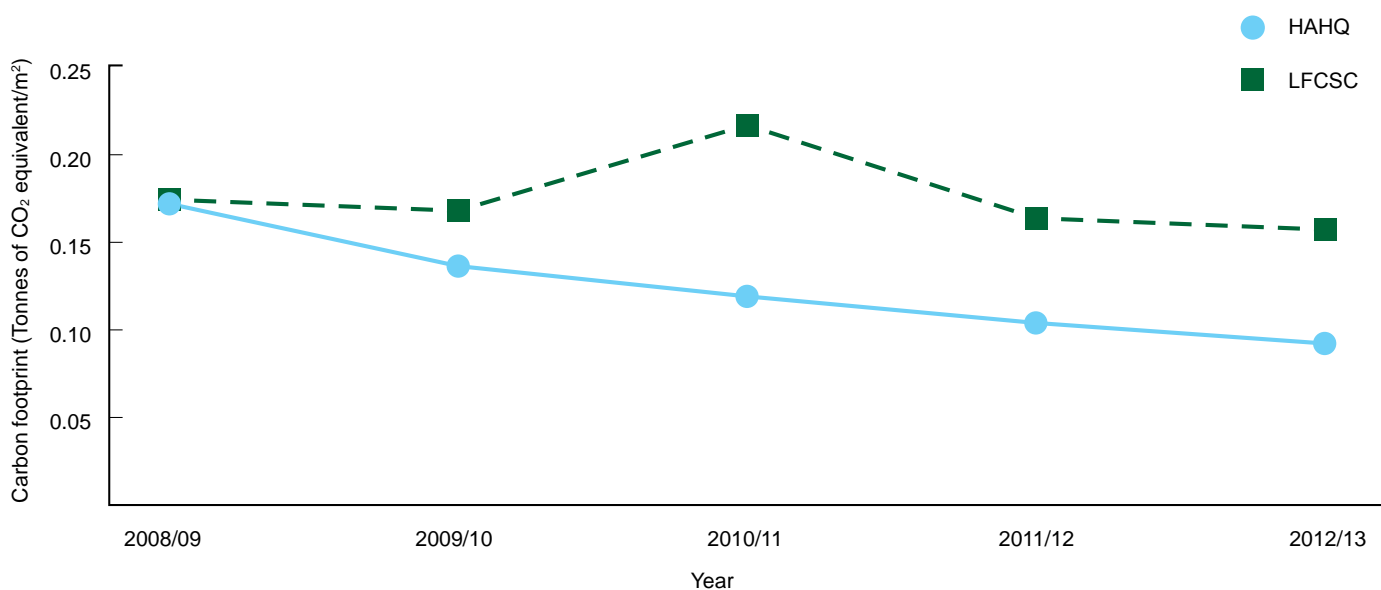
The adoption of an EMS in accordance with the ISO 14001 standard provides us a practical tool for identifying and minimising our environmental impact and improving our environmental performance.

Our Development and Construction Division and Estate Management Division achieved the ISO 14001 certifications in 2009 and 2011 respectively. In addition, our Corporate Services Division was awarded the ISO 14001 certification in December 2013 for the provision of property management functions at the HA Headquarters (HAHQ). Since December 2013, the ISO 14001 EMS has been fully implemented in our Independent Checking Unit, with the target to obtain certification in May 2014.

Carbon Management and Energy Saving

The first carbon audit for Block 3 of HAHQ and Lok Fu Customer Service Centre (LFCSC) was carried out from 1 August 2008 to 31 July 2009. Over the years, we have been undertaking various initiatives targeting to improve our energy performance and reduce our carbon emission, such as timely replacement of defective parts of chiller compressors, adoption of lighting motion sensors, optimisation of daily operation hours and number of air-conditioning equipment, lifts and escalators, etc.

The yearly results of our carbon audits during the period from 2008 to 2013 show a reducing trend of carbon emission which are tabulated below.



Properties	Carbon footprint (Tonnes of CO ₂ equivalent/m ²)				
	1st Year Audit (2008 / 09)	2nd Year Audit (2009 / 10)	3rd Year Audit (2010 / 11)	4th Year Audit (2011 / 12)	5th Year Audit (2012 / 13)
HAHQ	0.170	0.146	0.122	0.110	0.098
LFCSC	0.171	0.168	0.224	0.167	0.161

In 2013/14, our electricity consumption was 34 957 181 kWh, which was decreased by 9.3% as compared to our baseline consumption figure in 2007/08.

Waste Management

We have put continuous effort to reduce paper consumption and implement various waste management initiatives at all HD offices.

During the year, our paper consumption was reduced by 4.0% as compared with the consumption in 2007/08, exceeding our reduction target of 3.5%. All our publicity materials (except sales and marketing publications) are printed with environment-friendly papers.

Our volume of waste paper collection per staff was increased by about 170% as compared with the figure in 2007/08 to 55.6 kg per staff, exceeding our collection target of 20.7 kg per staff.

Besides recycling paper, metal and plastics, we are collecting glass bottles for recycling at our staff canteen. Uncooked leftover food from the staff canteen as well as the leftover food from our annual staff club dinner are collected by a NGO for donation.

To better manage our waste disposal and to minimise the impact of hazardous materials to the environment, we arranged to collect all disposed mercury-containing lamps in HAHQ for special waste treatment during the year.

Water Conservation

Our continuous water consumption monitoring record indicates that water consumption¹ at HAHQ in 2013/14 was 11 404 m³, which was decreased by 25.4% as compared with the figure in 2007/08.

¹ The water consumption does not include the water consumption of HA outstations since we do not have such data collection mechanism currently. We will consider to improve the data collection mechanism and report the data in future.

Environmental Awareness and Green Activities

During the year, we have produced an HA Environmental Corporate Video entitled Public Housing in the Era of Sustainability for publicity, and to provide concise training material for our staff and for public education on the environmental initiatives of HA. Sixty seminars and training courses focusing on subjects of building energy efficiency, environmental monitoring/ measurement, zero carbon building and tree management had been organised for HA staff on regularly basis. Four environmental displays were conducted at HAHQ Green Corner and Lung Cheung Office Block in Wong Tai Sin. We have again organised the HA Staff Environmental Awareness Quiz from August to September 2013, with a set of dedicated web pages for our staff to enter the Quiz anytime during the quiz period.

During the year, we jointly organised with a non-profit making charity organisation, to launch two Environmental Collection and Recycling Campaigns. Our staff members were encouraged to reduce and recycle surplus household items by donating them to those in need. The collection exercise was held at the HAHQ, Lung Cheung Office Block in Wong Tai Sin and the HA Customer Service Centre in Lok Fu. Over 3.2 tonnes of reusable items were collected, including electrical appliances, clothes, shoes, handbags, books, stationeries, toys, kitchen, bedding and sports items, as well as decorations, etc.

To further promote staff awareness of environmental protection, staff members were invited to participate in various external environmental conservation activities such as Hong Kong Tree Planting Day and the Community Chest's Green Day. We have joined Eco Expo Asia 2013 in October 2013 by setting up an exhibition booth to showcase our green performance. We have also participated in the Green Carnival in January 2014 at Kowloon Park by setting up a game booth and display panels to disseminate environmental messages.

Same as previous years, we have joined the annual Hong Kong Flower Show. This year we introduced the landscape design of "Home Sweet Home", reflecting the theme of "Blossoms of Joy", which won the Gold Award for Outstanding Exhibit (Landscape Display) in the Flower Show.



Environmental Collection and Recycling Campaign held at Lung Cheung Office Block in Wong Tai Sin



Hong Kong Tree Planting Day



Eco Expo Asia 2013



HA's landscape design for 2014 Hong Kong Flower Show

Social Performance

- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in Office at Work



We practise corporate social responsibility (CSR) through engaging stakeholders and integrating programmes with social impacts into various phases of our operation, ranging from development of new housing estates, maintenance of existing housing estates, to carrying out office work.

During the reporting year, we achieved full compliance with applicable social legislation. We also participated in a CSR Index launched by the Hong Kong Quality Assurance Agency (HKQAA) for development of new housing estates. We were rated the full score of 5.00 in the annual performance assessment of the Index to reflect our commitment and performance in caring for the community.

Initiatives in Planning and Construction of New Housing Estates

When planning new estates, we incorporate the concept of sustainability in our development process, promoting workplace safety and cohesion within the community.

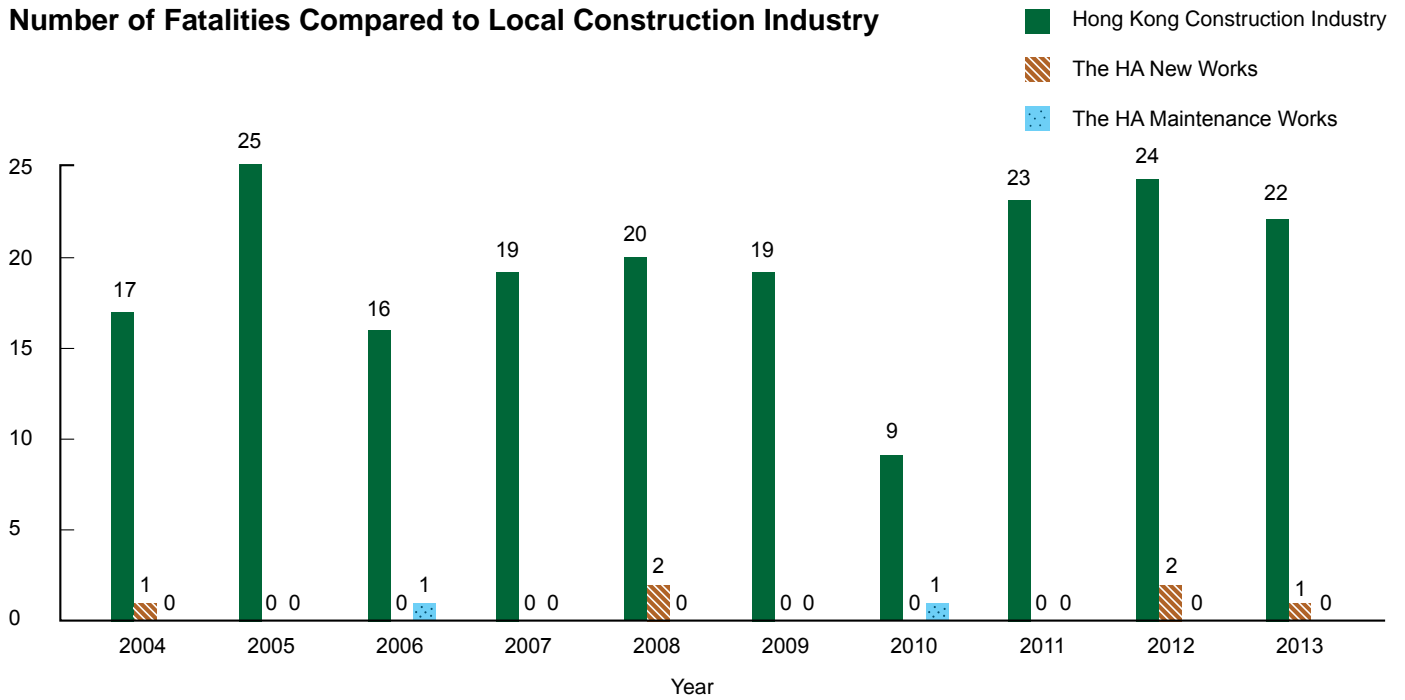
Construction Site Safety

Safety is always one of our key concerns. We continuously promote and carefully monitor safety at all our housing development projects. We have set the safety goal of no more than 12 accidents per 1 000 workers under the Hong Kong Housing Authority (HA)'s Site Safety Strategy 2013.

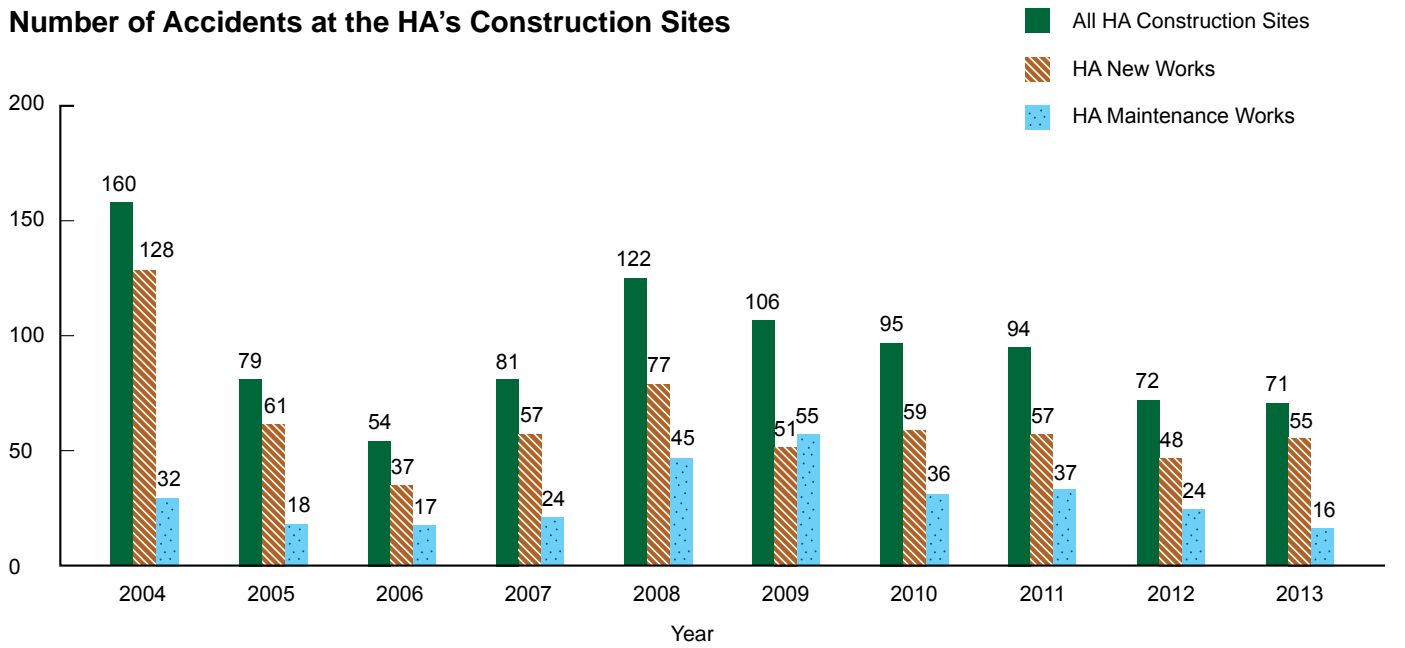
In 2013, we recorded an accident rate of 7.3 per 1 000 workers for all new works contracts and an accident rate of 4.1 per 1 000 workers for all maintenance contracts. They were far below the local industry norms having accident rate of 40.8 per 1 000 workers.

There was one fatal industrial accident happened in Sheung Shui Area 36 West in July 2013, involving an electrical worker working at height. The department's Procurement Review and List Management Board interviewed the contractor in early August 2013 to investigate the cause of the accident. The Board requested the contractor to implement precautionary measures for working at height, strengthen management and supervision of subcontractors and enhance safety awareness of the supervisors, subcontractors and workers. In addition, the department has been working with the industry to promote the use of working platform, and step platform, for working at a height below 2m. Ladder would only be used as the last resort when compelled by special circumstances. A Safety and Health Circular on this matter had been promulgated to the listed contractors for their compliance. After completion of further consultation with external parties, including contractor associations, the enhanced practice would be incorporated as a contractual provision.

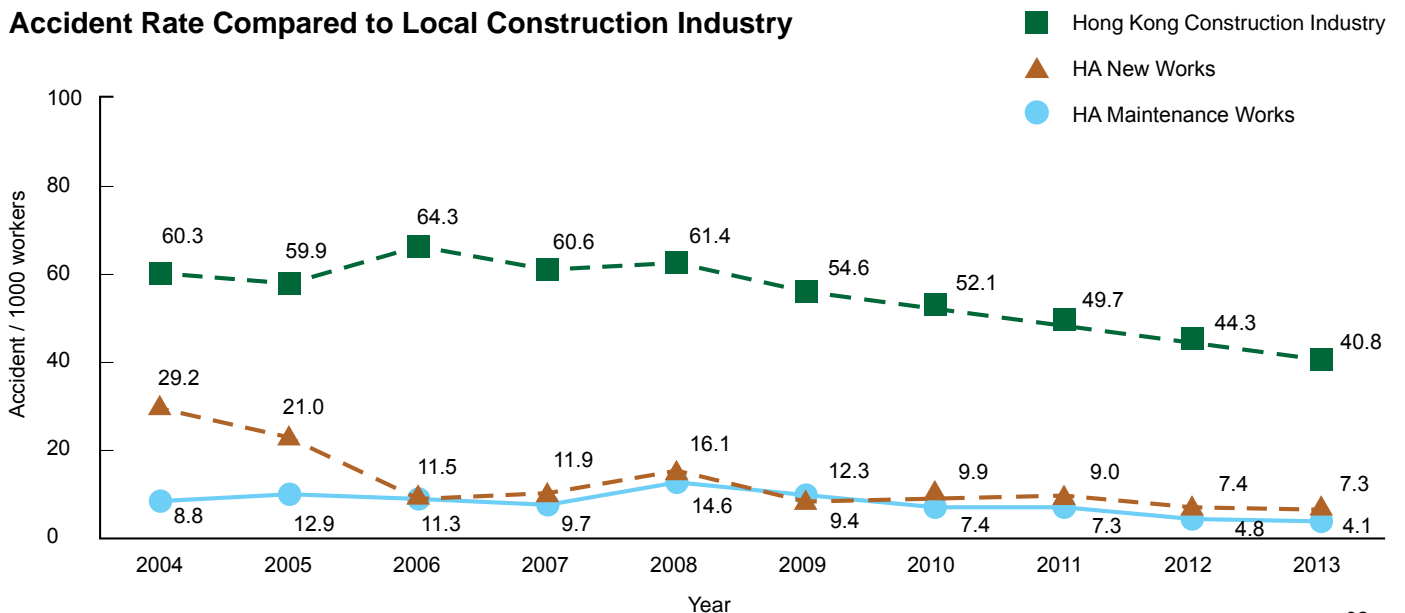
Number of Fatalities Compared to Local Construction Industry



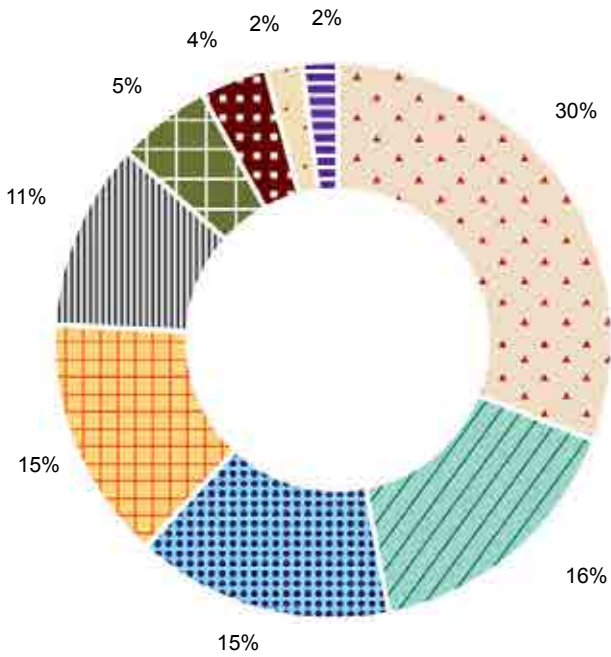
Number of Accidents at the HA's Construction Sites



Accident Rate Compared to Local Construction Industry

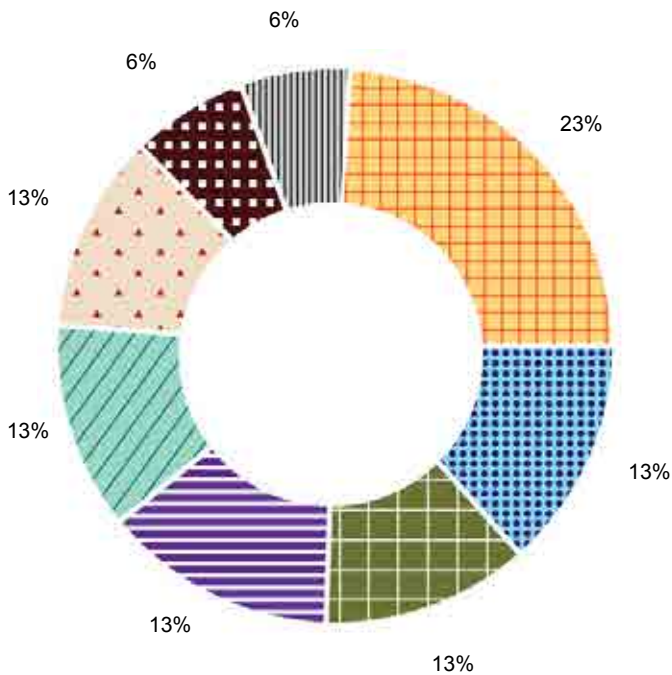


Types of Accident in New Works



	Slip, trip or fall on same level	30%
	Injured whilst lifting or carrying	16%
	Striking against or struck by moving object	15%
	Striking against fixed or stationary object	15%
	Fall of person from height	11%
	Contact with moving machinery or object being machined	5%
	Trapped in or between objects	4%
	Stepping on object	2%
	Injured by hand tool	2%

Types of Accident in Maintenance Works



	Striking against fixed or stationary object	23%
	Striking against or struck by moving object	13%
	Contact with moving machinery or object being machined	13%
	Injured by hand tool	13%
	Injured whilst lifting or carrying	13%
	Slip, trip or fall on same level	13%
	Trapped in or between objects	6%
	Fall of person from height	6%

In order to strengthen occupational health and safety on construction site, we have implemented an enhanced specification for “health check for workers” and new specifications for “safety helmet with chin strap, reflective vest, and maintenance of aged construction plant” in 2013/14. We have also enhanced on-site work practices by requiring contractors to address issues such as protection of workers from heat stroke, overhaul requirements for major construction plant, safe operation of working platforms and large panel formwork, and use of enhanced personal protective equipment.

In order to step up training and coaching for new recruits of the construction industry, we have specified HA's version of Cooperative Training Scheme in 15 building contracts since its implementation in the third quarter of 2012. We also implemented new specification clauses for caring for workers, requiring contractors to assign mentors to workers who are new to the construction industry, and labelled 'P' on their helmets. Workers who are new to a construction site will also be labelled 'N' on their helmets. Contractors are required to provide safety orientation programme to all these new comers.

During the year, we continued to implement the HA Lift and Escalator Nominated Sub-contracts Safety Auditing System (HALENSAS) and HA Lift and Escalator Installation Safety Auditing System (HALEISAS) to strengthen safety performance monitoring of lift works. We also implemented the Surprise Safety Inspection Programme (SSIP) to raise vigilance and further enhance safety management through surprise site visits by independent Safety Inspectors. These systems had been applied as enhancement to our existing quarterly-based HA Safety Auditing System (HASAS).

Meanwhile, we are exploring the feasibility to incorporate the SSIP score index into the scores of Performance Assessment Scoring System (PASS), Piling PASS and Demolition PASS. We are also studying the possibility to link SSIP score with the Integrated Pay for Safety, Environment and Hygiene Scheme, which provides incentives for contractors to improve site performance.

To better communicate with our stakeholders regarding safety measures, we organise regular safety training sessions, forums and seminars as well as issue periodic publications. A Safety Guide Book was published to illustrate good and bad practices in lift addition and lift modernisation works. Our site safety website has been undergoing a major upgrade to ensure its compliance with Web Content Accessibility Guidelines on top of regular content updates. Regular meetings were held to foster our communication and partnership with local labour unions and industry associations to enhance safety awareness and promote good industry practices.

As an effective platform to promote site safety awareness in the associated industry sectors, the Seventh Site Safety Forum for Works Contracts and Property Services Contracts jointly organised by the HA and Occupational Safety and Health Council (OSHC) was successfully held in June 2013. With the theme of "Key to Safety: I Act with a Caring Heart", over 600 participants were introduced with the latest site safety innovations, analyses on simulated cases on site accidents, professional insights and experience on safety practices in construction, property management and cleaning services.



Seventh Site Safety Forum for Works Contracts and Property Services Contracts

In addition, the HA co-organised annual Construction Safety and Health Promotional Campaign together with the OSHC and other associated organisations. At the Construction Safety Forum and Award Presentation held on 8 July 2013, three of HA's contractors were presented with five safety awards to recognise their excellent performance in practising site safety. We also co-organised the Safe Lifting Operations Promotion Campaign 2012-13, Construction Industry Safety Award Scheme 2013 as well as Considerate Contractors Site Award Scheme 2013 with other government departments and related organisations to enhance safety awareness among practitioners in the industry and to recognise their exemplary performances.



Construction Safety and Health Promotional Campaign

In February 2014, we convened the Lift Safety Forum with Construction Industry Council (CIC), Labour Department, OSHC and Electrical and Mechanical Services Department to propagate safety awareness and foster a safety culture in lift works. More than 400 people joined the forum to share their knowledge and experience of lift works safety. All key building works and lift works contractors involved in lift addition and improvement contracts signed a charter signifying their commitment to strive for a safe working environment on site.



Lift Safety Forum 2014

To align with the new requirements released by the CIC in 2013, we have revised the package of Site Safety PASSPORT Training Programmes for works professional, technical grades personnel and resident site staff, and site safety training for contractors' site personnel.

Developing Sustainable Estates

When planning and designing public rental housing (PRH) estates, we put efforts to formulate comprehensive planning and site-specific designs that best suit the site conditions, utilise plot ratio and optimise flat production for domestic blocks in new projects. In view of this, we attach great importance to consulting relevant government departments and engaging the community. Their views can facilitate us in project design to accommodate essential welfare facilities while optimising the development potential. Working with other government departments, we ensure that ancillary facilities are to be provided in a timely manner to meet the needs of the growing community at new estates.

Taking site characters into consideration, our new estates provide common areas to facilitate social interaction, adopt Universal Design principles in designing community facilities and domestic flats, provide Integrated Community Play Areas for all ages and abilities, and offer barrier-free access at block entrances, strategic estate facilities and transportation nodes.

We continued to review our design provision in light of users' feedback, and at the same time balance improvements against cost-effectiveness. During the year, we revised the precast facade and sunken shower design, and incorporated a refined design in our master details in the first quarter of 2014.

Engaging the Community

Over the reporting period, a variety of public engagement programmes such as consultation sessions, workshops and forums had been organised to foster our communication with stakeholders on latest housing projects. Through these engagement events and activities, we not only had the opportunities to present our new development proposals to the public, but also sought for feedback from local communities to help us enhance the design and construction of new estates. Examples of these activities included engagement workshops or forums for PRH Developments at Lai Chi Kok Road-Tonkin Street Phases 1 & 2, Tai Wo Hau Road Phases 1 & 2, Shek Mun Estate Phase 2, Home Ownership Scheme (HOS) Development at Ma On Shan Road North & South, etc.



Community engagement workshop for PRH Development at Lai Chi Kok Road-Tonkin Street Phases 1 & 2



Post completion review workshop

We also continue to implement the Action Seedling Programme this year to engage our residents and the community in early plant raising within the new housing estates.

We continuously carry out tenant satisfaction surveys on newly-built estates with assistance of a third party to collect their comments on the building design and service. A total of 1 773 interviews and surveys were conducted in the reporting period, resulting in an average satisfaction rating of 94.58%. We also held Post Completion Review Workshops, where opinions on new estates were exchanged interactively. Providing valuable reference for our design review process, these findings enable us to pursue continual improvement in new housing development.

Partnership with Contractors

We maintain effective communication with our contractors, and collaborate with them closely to achieve quality and safe delivery of construction works.

We continue to adopt good practices in accordance with international standards. For enhanced construction management, we have continued to implement ISO 9001 Quality Management Systems and ISO 14001 Environmental Management Systems. Having applied ISO 50001 Energy Management System successfully in our Development and Construction Division, we made it mandatory for contractors applying for admission to the HA List of Building (New Works Category) and Piling Contractors on or after 1 January 2014. For contractors who were already admitted to the HA List prior to 1 January 2014, they are required to obtain ISO 50001 certification on or before 31 December 2015. As requested in tendering document, our contractors also need to comply with relevant international standards such as ISO 9001, ISO 14001, and OHSAS 18001 on occupational health and safety management.

We continue to use the PASS to monitor and measure the contractors' performance. The improvement of the average score of the PASS for different contractors in comparison with figures at the end of 2002 is tabulated below.

Type of Contractors	Average PASS Score Improved (Compared with figures at the end of 2002)
Building Works	+4.53%
Electrical	+16.51%
Fire Services and Water Pump	+25.73%
Lifts and Escalators	+12.63%

This year the HA and industry associations jointly organised the 11th 'Quality Public Housing Construction and Maintenance Awards'. The event aimed at commending the outstanding performance of contractors, supervisors, project teams and front-line workers. They were also encouraged to enhance work quality by seeking to apply innovative technologies and creativity in building and maintenance works. More than 150 awards and certificates were awarded at the awards presentation ceremony held on 14 December 2013.



'Quality Public Housing Construction and Maintenance Awards 2013' awards presentation ceremony

Initiatives in Existing Housing Estates

It is important to ensure and maintain sustainable development of existing housing estates. To measure the sustainability performance of our building blocks and assist us in developing long-term strategy for our exiting estates, we have enrolled six pilot estates with 40 PRH blocks in HKQAA Sustainable Building Index (SBI) in the past year. We successfully obtained SBI Verified Mark for all these pilot estates. Totally ten estates consisting of around 80 housing blocks will enrol the scheme by the end of 2014/15.



SBI Verified Mark

Provision of Quality Homes

Halfway through its current five-year cycle (2011-2016), our Total Maintenance Scheme (TMS) was applied in 39 estates during the reporting period to offer comprehensive building care services. TMS is supplemented by the Responsive In-flat Maintenance Service (RIMS), which has implemented in all estates.



TMS



RIMS

In order to ensure “good health” of older estates, we continue to implement Comprehensive Structural Investigation Programme (CSIP) to perform structural assessment and Estate Improvement Programme (EIP) to carry out improvement measures for the facilities of older estates which have passed CSI. During the year, CSI was completed for four aged PRH estates.



Carrying out repair and improvement works at Wah Fu (I) Estate: before repair (left) and after repair (right)

We conduct centralised surveillance laboratory tests for selected building materials and components used in maintenance works. The results will be used to enhance the quality assurance of building maintenance works.

We enhance quality housing and address the concerns of tenants as far as practicable. As an on-going initiative, the HA's Subsidised Housing Committee decided in early 2014 to replace laundry pole holders with laundry racks in rental flats of PRH estates and unsold rental flats of Tenants Purchase Scheme estates free of charge, according to the preferences of individual tenant.



Laundry racks

To enable public housing tenants to receive three new Digital Terrestrial Television (DTT) channels launched by the Radio Television Hong Kong in January 2014, the HA has installed additional DTT reception facilities for over 1 000 domestic blocks in 147 PRH estates, benefiting approximately 90% of existing tenants.

Upholding Safe Environment

We regard fire safety and prevention as the top priority in our estate management work. We address these by providing regular education and drills in PRH estates. Organised by the HA and co-organised by the Fire Services Department, the Estate Fire Safety Campaign 2013 launching ceremony cum Fire Safety Carnival was held in November 2013 at the Domain, Yau Tong, promoting fire safety awareness and practices among residents of public housing estates in an interactive and interesting way. Awards were presented to the Estate Management Advisory Committees (EMACs) which took proactive role in promoting fire safety in their estates.



Estate Fire Safety Campaign 2013

To boost safety awareness associated with using lift and escalator, particularly targeting the elderly and young children, we arranged a number of activities under the Lift and Escalator Safety Campaign in early 2014. These activities included exhibitions, deploying escalator safety ambassadors at escalators with high incident rate, putting up posters and distributing safety pamphlets at nine PRH estates with high accident rate, distributing lift and escalator safety “teaching packs”, conducting training sessions for 26 kindergartens, and broadcasting safety messages on Commercial Radio and Metro Radio.



Lift and Escalator Safety Campaign - Escalator Safety Ambassadors



Lift and escalator safety road shows



Lift and escalator safety posters



Lift and escalator safety pamphlets



Lift and escalator safety “Teaching Pack” (left) and training for kindergartens (right)

During the reporting period, the last phase of our Closed Circuit Television Security System upgrading project was completed, whereby 1 016 blocks in 153 estates have been equipped with colour cameras, digital video recorders and broadband network transmission. For in-flat safety, a new programme was launched during the year to replace the electrical wiring in PRH flats built between 1986 and 1992 to reduce fire risk.

In view of enhancing auditing and risk control for maintenance and improvement (M&I) works in PRH estates, we have implemented the ISO 19011 Auditing Management System and ISO 31000 Risk Management Framework for M&I works, which went through verification by HKQAA in September 2013. We have also updated the Pay for Safety Items and the Housing Authority Safety Auditing System for M&I contracts to continuously improve site safety practices in existing estates.

To enhance occupational health and safety performance in M&I works, we are exploring the feasibility of implementing the OHSAS 18001: 2007 Occupational Health and Safety Management System (OHSMS) for M&I works. A gap assessment was conducted in December 2013, and we shall continue to uplift our OHSMS and adopt the international recognised standard, OHSAS 18001, in coming year for M&I works.

Barrier-free Access

HA has been applying the Universal Design principle to the design of public housing developments since 2002. It is a design principle that addresses the needs of residents of all ages and different physical abilities. In response to the Investigation Report released by Equal Opportunities Commission in June 2010, the HA has embarked on a retrofitting programme since 2010/11 to improve barrier-free access facilities in HA properties and bring them up to the standards stipulated in the *Design Manual: Barrier Free Access 2008* as far as practicable. A steering team was also established to implement the barrier-free access improvement works systematically. The programme was continued in 2013/14.



Barrier-free facilities in Oi Man Estate

During the reporting period, we had completed Stage 1 of our Lift Addition Programme (LAP) and commenced Stage 2 of LAP. With the completion of Stage 1 LAP, enhancement has been made on pedestrian accessibility in 29 PRH estates, with the installation of 70 lifts, 6 escalators and 18 footbridges.

For all existing lifts over 25 years of age, a large scale inspection has been conducted through our Lift Modernisation Programme. We have modernised a total of 103 old lifts in 16 estates under the programme in 2013/14.

Harmonious Communities

To enhance family cohesion, the HA has launched several harmonious families (HF) schemes for PRH tenants to encourage family members from different generations to live together. These HF schemes are:

- *The Harmonious Families Priority Scheme* that provides incentives for younger generations to live together or closer to their elderly parents or relatives for mutual care and support;
- *The Harmonious Families Transfer Scheme* that encourages younger generations and their elderly parents to live in the same or nearby PRH estates;
- *The Harmonious Families Addition Scheme* that enables an elderly tenant to add an adult offspring and his/her family members into the tenancy; and
- *The Harmonious Families Amalgamation Scheme* that allows a tenant to amalgamate his/her tenancy with that of his/her elderly parents or relatives.

Since these schemes came effective, 30 310 households have benefited cumulatively, including 14 230 applications submitted for PRH, 1 650 for transfer, 13 830 for addition and 600 for amalgamation of tenancies.

Apart from HF schemes, there are other transfer schemes providing PRH tenants with additional solutions to cater for their changing needs. For example:

- *The Territory-wide Overcrowding Relief Transfer Scheme* that can transfer families to larger accommodation where the Internal Floor Area (IFA) per person is below 5.5 square metres; and
- *The Living Space Improvement Transfer Scheme* that can transfer families with IFA per person under 7 square metres to larger flats.

Name of scheme	No. of applicants/families benefited from the scheme in 2013/14
Harmonious Families Priority Scheme	1 480
Harmonious Families Transfer Scheme	385
Harmonious Families Addition Scheme	2 780
Harmonious Families Amalgamation Scheme	60
Territory-wide Overcrowding Relief Transfer Scheme	942
Living Space Improvement Transfer Scheme	1 055

We continue to implement the Rent Assistance Scheme (RAS). To further enhance the awareness among PRH tenants, relevant information was disseminated through broadcasting on the Housing Channel / radio, display of posters, as well as distribution of information leaflets and estate newsletters. We also implemented the Government's initiative to pay two months' rent for PRH tenants in August and September 2013 as announced in the 2013-14 Budget as a relief measure for the residents.

Engaging the Community

We have been actively engaging the community to enhance community bonding and address tenants' need. Introduced in 1995, the EMAC Scheme has been an important vehicle to drive close collaboration between the estate management teams and tenants in PRH estates. The scheme has already covered more than 140 estates. The biennial EMACs seminar was held successfully in March 2014, attended by about 700 EMAC representatives from different estates to exchange views on estate management matters.

During the year, we organised a range of community activities which covered a range of themes such as fire safety, public hygiene, in-flat maintenance, epidemic prevention, environmental protection, and healthy ageing. Partnering with non-governmental organisations (NGOs), EMACs held around 400 community building functions to promote neighbourliness in PRH estates, including some 200 single/multi-themed functions to deliver caring and outreaching services for the elderly tenants in 2013/14. Among them, 16 estates have collaborated with the Department of Health to work in partnership with NGOs in launching a community health promotion programme for tenants.



EMACs seminar held in March 2014

The annual "Volunteer for Seniors Day 2014" was held in January 2014. The number of volunteers participated in the event hit a record high of 2 800. A total of 1 200 elderly households in 60 public housing estates were visited by the volunteers, gifted with fortune bags and warm wishes for the Chinese New Year.

During the festival seasons, the HA decorated its shopping centres with various themes and hosted a range of celebratory activities, inviting the public and local communities to enjoy the happy moment together.



Volunteer for Seniors Day 2014



A carnival for promoting harmony between the young and the old in Chak On Estate



Christmas decoration at Kwai Chung Shopping Centre



Valentine's Day decoration in Domain

Partnership with Contractors

We work closely with our contractors to ensure quality estate maintenance and management. We hold meetings, seminars and forums to engage contractors throughout the year. We have implemented Wage Monitoring System in all Lump Sum Contracts and District Term Contracts.

Since October 2013, we have applied a Preferential Tender Award System (PTAS) for our Building Maintenance District Term Contracts, which evaluates contractors' past performance and track record on top of price. The implementation of PTAS will help HA identify high quality contractors, and encourage contractors to improve their performance. We have also implemented regulatory measure of suspending building works contractors from tendering for maintenance works should there be two consecutive failures in safety audit.

To enhance service standards of business partners, we continuously implement, monitor and review the Maintenance Assessment Scoring System (MASS) for building maintenance contracts. In addition, we also commenced the trial run on the new building services MASS for lift, electrical, water supply & fire services and air conditioning installations in 2013.

We organise the Estate Management Services Contractors (EMSC) Awards annually to recognise contractors with outstanding performance in managing our estates. The award ceremony 2013 took place in Domain in February 2014, presenting a total of 26 awards.



EMSC Awards presentation ceremony

In May 2013, we organised a seminar for services contractors of our PRH estates on preventing Avian Influenza (H7N9). In March 2014, the Occupational Safety Forum for Cleansing Service was held for the second consecutive year to promote safety awareness among frontline workers of cleansing service contractors. Guest speakers from OSHC and Labour Department were invited to share safety practices with over 200 industry practitioners. We also organised the Seventh Site Safety Forum for Works Contracts and Property Services Contracts jointly with the OSHC in June 2013 to promote safety awareness.



H7N9 seminar

Initiatives in Office at Work

Our staff is the driving force and plays the most important role to implement HA's sustainable development strategies. Internally, we are committed to providing a safe and healthy work environment for our staff, engaging them on a regular basis, and fostering their development through various training and recognition opportunities. Externally, we share our latest development with stakeholders and the general public through open and interactive communication channels.

Safe and Healthy Work Environment

Taking staff health and safety as our top priority, we organised a total of 200 training courses and seminars on Occupational Safety & Health (OSH) in 2013, participated by around 9 700 staff members in total. The OSH related training covered topics such as prevention of musculoskeletal disorders, safety awareness, safety training on tree management and safety inspection on lift modernisation / lift addition works. The OSH guidelines, health tips and publications issued by the OSHC and the Labour Department have been uploaded onto the dedicated OSH website on the HA intranet for staff's reference.



OSH training course

We conducted annual office safety inspection (OSI) for about 340 offices in May 2013 and undertook follow-up actions to enhance OSH practices at the workplace. Five training classes including refresher courses were organised for OSI assessors to equip them with the knowledge for conducting a new round of annual OSI exercise commenced in March 2014.

In line with the Government's policy, the HA has recently joined the "Talent-Wise Employment Charter and Inclusive Organisation Recognition Scheme" (the Charter Scheme) as both an "Employer Organisation" and a "Supporting Organisation" to promote employment opportunities of persons with disabilities. In addition to employing persons with disabilities, the HA strives to provide assistance to staff with disabilities to facilitate their performance on duty, and enhance employment opportunities of the disabled by procuring products and services from rehabilitated social enterprises and NGOs. We also provide support for the Social Welfare Department's Sunnyway Programme by offering job attachment opportunities to disabled teenagers of 15-18 years old, and encourage our business partners to support the Scheme.

We care for the health and well-being of our staff. One of our initiatives to help staff develop good health was to run a variety of interest groups under the HA Staff Club, like classes on traditional martial art such as "Ba-gua-zhang", "Ba-duan-jin", "Tai-chi Chuan" and "Six Harmonies and Eight Methods".



“Six Harmonies and Eight Methods” class



“Ba-gua-zhang” class



“Tai-chi Chuan” class

We continued our long-term and popular Employee Wellness Programme during the year, offering staff practical health-focused support through seminars on eye care, dental health, coping with mid-life crisis and stress management. Latest health articles and tips have also been uploaded to the Health Portal on a monthly basis. During the year, a fun quiz on health-related issues was arranged for staff, which was received enthusiastically.

Staff Engagement

In order to invite staff’s feedback on issues of their concerns, we have maintained various staff engagement mechanisms such as regular focus group meetings, goodwill visits, counselling / staff interviews, meetings and tea gatherings with staff associations. During the reporting year, we implemented a new series of programmes to share the success stories of the exemplary work teams on the intranet to reinforce our core values and encourage staff to strive for excellence.

Development Opportunities

We arrange our staff training and development activities mainly in form of classroom sessions, site visits, study tours and attachment programmes. In 2013/14, our staff members received an average of 24.5 training hours per year. We have further enriched the content of our HA e-Learning Portal and enhanced its interface to enable better user experience and accessibility.

Our induction training courses for new recruits were recently updated with latest information on HA’s new directions and developments. We organised local and overseas management development and leadership programmes for staff members as well as training to support ongoing and new business initiatives and IT systems. A new Managerial Effectiveness Programme was launched for newly recruited works professionals. We also arranged a series of one-day Care@Work Workshops designed for middle managers. The workshops offer valuable tools and support to help participants develop a caring attitude in their management approach and keep their staff motivated and effective at work.



Training course on personal effectiveness development



Care@Work workshop

We continue our Extra Mile Card Plan, which was first launched in 2008, to provide recognition to staff members who put in extra effort at work and lived out our core values of being “Caring, Customer-focused, Creative and Committed”.

Communication to External Stakeholders

We use a number of communication channels to promote our policies, achievement and other information to external stakeholders. These include online platform of website, Facebook and the Director’s Blog; publications such as posters, brochures, videos, e-newsletter (“Housing Dimensions”) and EMAC Newsletter; press release, briefing and interview with media; as well as site tour arrangement for local and overseas visitors.

Our user-friendly website attracted 5.3 million monthly hits on average in the reporting period. We revamped the website in the past year to ensure its conformity to the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0 Level AA requirements. Our website was granted a Gold Award under the Web Accessibility Recognition Scheme co-organised by the Office of the Government Chief Information Officer and the Equal Opportunities Commission.

During the past year, we had conducted 45 briefings and interviews with media and issued 56 press releases. We also received 1 095 enquiries and 663 referred complaints from media, which were handled in a prompt manner according to our standard procedures.

In view of the great interest shown by many visitors in public housing estates development and management in Hong Kong, we are pleased to have the opportunities to organise briefings and site tours for different visitor groups from local communities and around the world. A total of 77 visits were arranged in 2013/14, 31% for local groups, 30% for Mainland guests, and 39% for overseas visitors.

To provide a vivid illustration of Hong Kong Public Housing Development history to the public, we have set up an Exhibition Centre at our headquarters in Ho Man Tin since 2002. Since its official opening, the Centre has welcomed over 215 700 casual and group visitors to enjoy the displays in the Centre.

The year 2013 marks the 60th anniversary of the development of public rental housing in Hong Kong. Following the launching ceremony in April 2013, a series of promotional events, exhibitions and estate-based activities were organised during the year to foster public understanding of our development and management work on public housing.



Launching Ceremony of the 60th Anniversary of Hong Kong Public Housing Development

A public exhibition “60 Years of Public Housing Development in Hong Kong” was held at the Hong Kong Heritage Discovery Centre in Tsim Sha Tsui from late September 2013 to early March 2014. The exhibition consisted of five zones, covering important milestones in the development of public housing, design evolution, and new estates planning and management. Talks on public housing were conducted while a smaller scale roving exhibition was held across PRH estates and in a number of HA’s shopping centres. A 15-minute video on the anniversary was also produced to highlight our milestones and achievement in the development of public rental housing.



Public exhibition themed with “60 Years of Public Housing Development in Hong Kong”



Cocktail Reception for the 60th Anniversary of Public Housing Development in Hong Kong

To celebrate our 60 years of public housing development in Hong Kong, we held a special cocktail reception at the end of 2013. The event was officiated by the Chief Executive Mr C Y Leung, with guests including serving and former HA Chairmen, Vice-Chairmen and members.

To echo with the anniversary, we also hosted the 18th Conference of the Housing and Urban Public Corporations in Asia, with the theme of In Quest of Sustainability: Public Housing in an Ever-changing Compact City. The Conference aims to promote knowledge sharing on the latest technology and practices in public housing development.



18th Conference of the Housing and Urban Public Corporations in Asia

Economic Performance

- Financial Performance
- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in Office at Work



Economic sustainability is at the core of the Hong Kong Housing Authority (HA)'s day-to-day business operation. We continue to provide quality and affordable housing in response to social needs through striving for operational efficiency and excellence, investing in building and construction innovations, and optimising our management and procurement practices.

Financial Performance

The HA is a financially autonomous entity. We generate our own funding to support the public housing development. Our major sources of income include rental of public housing and commercial properties, sales of surplus Home Ownership Scheme (HOS) flats, and income from funds investment.

The Finance Committee (FC) oversees all aspects of the management of funds of the HA including investment strategies and position. The FC, with the assistance of its Funds Management Sub-committee (FMSC), reviews the HA's investment strategy and position from time to time. The FMSC conducts regular reviews of the HA's investment strategy, and advises on the selection of funds managers and monitors their performance. Ongoing monitoring of day-to-day operations is conducted by the Housing Department (HD).

To manage our finance in a prudent manner, we conduct monthly review of the financial position and performance of the HA, and the financial management practice is reviewed as and when necessary. We also review regularly our financial planning and budgeting process.

Details of the 2013/14 financial statements are provided in the HA's Annual Report 2013/14. Summary of our financial performance is highlighted below:

Consolidated Income Statement in 2013/14

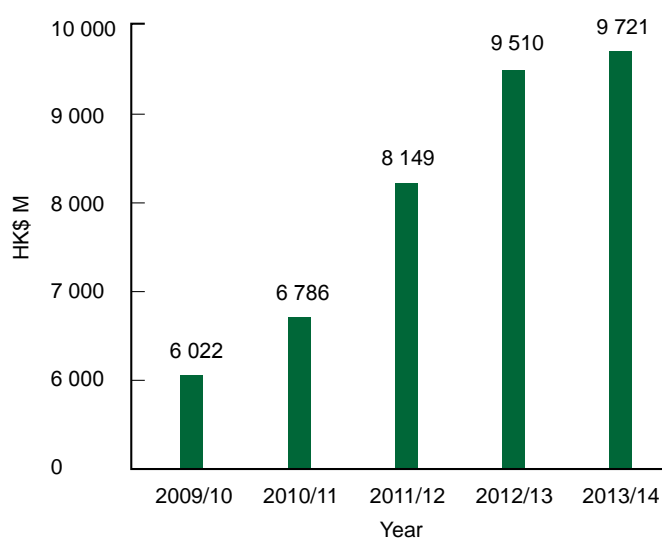
Item Description	HK\$M
Consolidated Operating Account Surplus	2 807
Funds Management Account Surplus	3 547
Agency Account Surplus	19
Surplus for the Year	6 373

Consolidated Operating Account in 2013/14

Item Description	HK\$M
Rental Housing Operations Deficit	(179)
Commercial Operations Surplus	914
Home Ownership Assistance Operations Surplus	2 152
Consolidated Operating Surplus before Non-operating Items	2 887
Net Expenditure on Non-operating Items	(80)
Surplus Including Non-operating Items for This Year	2 807

Capital Expenditure for the Fiscal Years 2009/10 – 2013/14

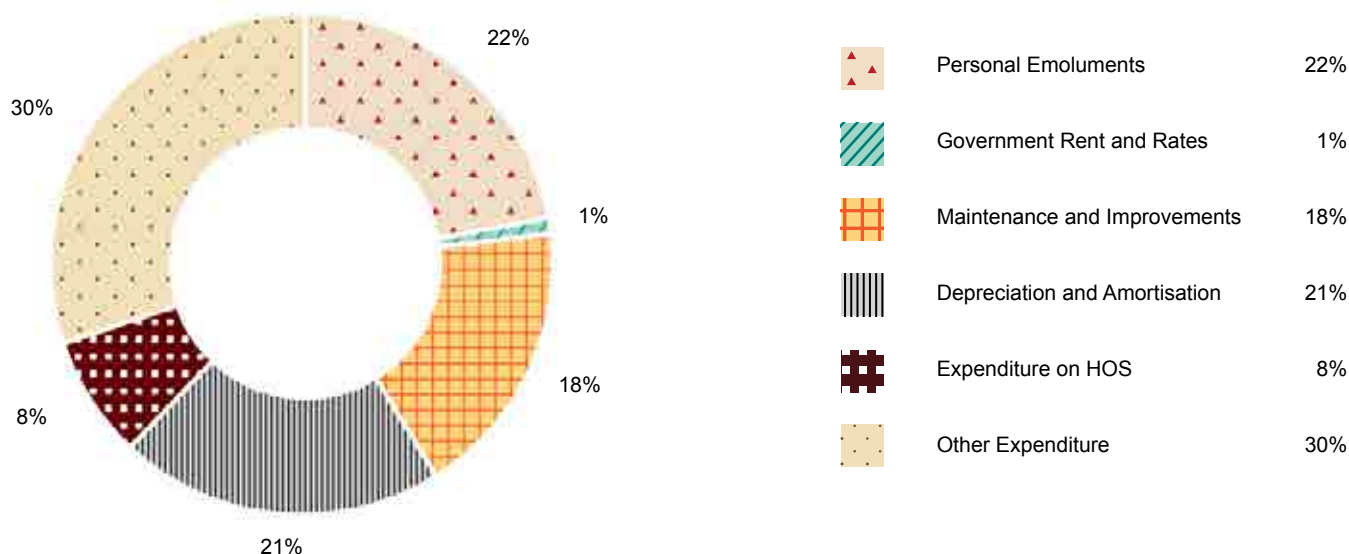
Items	HK\$ M				
	2009/10	2010/11	2011/12	2012/13	2013/14
Construction	5 511	6 138	7 291	8 639	8 911
Improvement Works	384	471	666	682	657
Computer Systems	127	177	192	189	153
Total Capital Expenditure	6 022	6 786	8 149	9 510	9 721

Total Capital Expenditure

As at 31 March 2014, the HA's available investment funds stood at HK\$69 794 million, which was increased by HK\$805 million as compared to 31 March 2013.

During the year, the recurrent expenditure of the HA was HK\$14 922 million, which was HK\$1 495 million higher than 2012/13.

Analysis of Recurrent Expenditure 2013/14



Initiatives in Planning and Construction of New Housing Estates

Provision of Public Rental Housing

In 2013/14, HA continued to fulfil its mission of providing low-cost public rental housing (PRH) for those who cannot afford private rental accommodation. In terms of developing new housing, we met our target and completed construction of around 14 100 new PRH flats in seven projects, namely Tak Long Estate Phases 1 to 3, Wing Cheong Estate, Yee Ming Estate, Kwai Yat House and Kwai Yuet House in Kwai Luen Estate, as well as Shek Foon House in Shek Lei (II) Estate.

The Chief Executive has announced in his 2014 Policy Address that the Government targets to supply 470 000 new housing units for Hong Kong within the next 10 years (i.e. 2013/14 to 2022/23), of which 60% would be public housing, both PRH and subsidised sale flats (primarily HOS flats). To meet the target, the aim is to provide an average of 20 000 PRH units and 8 000 HOS flats per year.

To achieve this target, HA has established a rolling five-year Public Housing Construction Programme with the objective to produce about 81 100 PRH flats from 2013/14 to 2017/18 inclusively. The Government has successfully identified sufficient land to produce 179 000 PRH flats for the 10-year period from 2012/13 to 2021/22. Liaison work with various bureaux and departments concerned will continue to identify additional land that will help meeting the new housing supply target.

Meanwhile, we continued to adopt comprehensive planning and site-specific design for all domestic blocks in new projects in order to best respond to site conditions, utilise plot ratio and maximise flat production, with an aim to providing the essential facilities while optimising the development potential.



Shek Foon House in Shek Lei (II) Estate



Yee Ming Estate

Managing the Home Ownership Scheme

Provision of HOS flats is one of the major initiatives of the HA's housing programme to help the low- and middle-income families acquire home ownership.

According to the 2014 Policy Address announced by the Chief Executive, the target supply of HOS flats would be increased to an annual average of about 8 000. The first batch of about 2 200 new HOS flats are expected to be completed in 2016/17, and the pre-sale is scheduled in end 2014.

In late March 2013, the HA invited applications for the Sale of Surplus HOS Flats Phase 7 and a total of 14 198 applications were received. A ballot and flat selection were completed, and the agreements for sale and purchase for all 832 flats has been signed by early September 2013.

The HA has also run an interim scheme to extend the HOS Secondary Market, with an annual quota of 5 000, to eligible White Form applicants, who are allowed to purchase the HOS flats with premium not yet paid on the HOS Secondary Market. By end March 2014, among the first batch of 2 500 successful applicants, 2 109 applied for the Certificate of Eligibility to Purchase (CEP) with a validity period of 6 months; and 1 044 applications for Letter of Nomination (LN) were approved. In respect of the second batch of 2 500 successful applicants, 1 874 applied for CEP and among them, 438 applications for LN were approved.

Optimising Use of Resources

Management and Procurement System

The HA endeavours to maintain open, transparent and cost-effective procurement practices. According to the latest market trend and tender price movements, the construction cost of our superstructure of PRH was on average about 48% lower than that of the average standard of private sector residential buildings. In addition, we have developed a suite of standard general conditions and special conditions of contract which targeted to be incorporated in capital works contracts to be put out to tender in the second quarter of 2014.

We have enhanced tender assessment by conducting pre-qualification of tenderers and employing a two-envelope tendering system to the building and piling contracts which have been classified as "complex".

To seek continuous improvement for our housing development projects, we in particular encourage design and construction innovation in our procurement practices through the use of the Integrated Procurement Approach (IPA), which is based on a three-envelope tendering system comprising separate price, technical and innovation submissions. During the year, we successfully completed Tak Long Estate, our first project developed using IPA. Besides, IPA has other advantages, including:

- enabling design and construction expertise to be integrated in earlier stage of projects;
- improving productivity and quality; and
- promoting holistic and environment-friendly designs.

Our second IPA project, Anderson Road Site A and Site B Phases 1 & 2, is currently in progress.

We have also reviewed the price-to-technical ratio in the scoring system for property services agents to ensure value-for-money and to fine-tune various score-weighting mechanisms for tender assessment.



Tak Long Estate

Enhance Efficiency of Building Design and Construction with Information Technology

The HA has adopted various information technologies (IT) to optimise our management of design and construction works. These IT tools include Building Information Modelling (BIM), the Geographic Information System (GIS), the Housing Construction Management Enterprise System (HOMES), and Radio Frequency Identification (RFID).

Building Information Modelling

The BIM is an effective tool to enable better visualisation and planning through the generation of 3-dimensional (3-D) data with high levels of accuracy. Since 2012, we have developed the latest 5-D BIM model, and it has been applied to the Sha Tin Area 52 Phase 1 Project, which allows us to conduct more accurate and effective cost estimates and assessments.

To enhance the consistency of BIM modelling and facilitate information exchange among different disciplines, we have compiled a Standard Approach of Modelling for structural concrete works for trial in a selected project.

We have also developed a comprehensive BIM Project Execution Guide and delivered BIM training courses to 1 300 staff of different ranks and disciplines to promote wider application of BIM.



Sha Tin Area 52 Phase 1 project

Geographic Information System

The use of GIS facilitates search and enquiry for a range of spatial and textual data needed for conducting feasibility studies and identifying potential building sites. Since January 2013, we have launched the use of GIS, which consists of three main parts: Web-based GIS, Tree Management and 3D Analysis functions. Two batches of enhancements in functionality have been made in 2013.

We have integrated the use of GIS together with BIM for civil works studies. It has been implemented in several projects, including Tai Po Area 9, Shek Kip Mei Phase 6, Lai Chi Kok Road – Tonkin Street and Queen's Hill. Furthermore, we continued to use GIS in the management of centralised drawing records and for identifying location in maintenance works orders.



The use of BIM and GIS in geotechnical study

Housing Construction Management Enterprise System

We have operated and enhanced HOMES - an online collaboration and knowledge management platform for enhancing the efficiency in managing construction projects. During the reporting year, HOMES was further upgraded with the addition of new features including the HOMES Mobile Site Inspection System and Construction Mobile Inspection System, which uses the latest mobile technology to streamline the existing piling works inspection process.



The use of HOMES

Radio Frequency Identification

RFID uses a chip and a sensor to record and embed manufacture information to enable us tracking the workflow and logistics of four core building components, namely timber doors, metal gate sets, aluminium windows, and precast concrete facades. We have also carried out successful pilot projects in which RFID has been applied to monitor the disposal of inert construction and demolition material to avoid illegal dumping. We also conducted trial application of RFID on major building services equipment, including water pump, switchboard, generator and lift.

To facilitate better adoption of RFID, we have enhanced the HOMES to receive the RFID data from individual projects.

Enhancing Building Standards, Quality and Productivity

In 2013/14, we have successfully maintained all completed projects within 10% slippage.

The Independent Checking Unit (ICU), which is directly under the Office of the Permanent Secretary for Transport and Housing (Housing), continues to provide third-party checking of the building and structural plans submitted for the HA's new development projects. The ICU is also committed to improving its services provided for both the HA and the public; as well as enhancing its environmental performance through ISO 9001 and ISO 14001 certifications in mid-2014.

To further improve our overall operational efficiency, we have successfully implemented e-transfer of structural, building and geotechnical documents as well as supervision plans submissions to ICU in the financial year. We are also developing an Electronic Submission and Processing System in the ICU.

In 2013/14, we have processed 721 building submissions and 1 360 structural submissions. We have also processed 2 383 submissions for Alteration and Addition Works, 27 253 submissions under Minor Works Control System within the statutory or pledge period. To facilitate risk management of new developments, as well as alteration and addition works, we have continued to issue Quarterly Site Monitoring Reports for new construction projects, alteration, and addition works.

To improve building quality and enhance productivity in construction, we always look for opportunities to improve the building standards. We have:

- monitored the progress of construction-related research & development activities; and
- collected feedback from stakeholders through regular meetings, forums and seminars to improve building standards and productivity in construction.

Since March 2012, we have been implementing the product certification to mandate certification of building products for upstream quality control. Initially covering seven types of building products, it has been expanded to cover three other types of materials, with one more item targeted for product certification in 2014/15 as follows:

- fire resistant timber doors
- panel wall partitions
- packed cement for architectural use
- tile adhesives
- ceramic tiles
- repair mortar
- aluminium windows
- uPVC drainage pipes and fittings
- close-coupled water closet suites
- mesh reinforcement
- multi-layer acrylic paint (target for certification in 2014/15)

Initiatives in Existing Housing Estates

Facilitate Swift Access to Affordable Housing

The HA's target is to maintain the average waiting time (AWT)¹ for general applicants (i.e. family and elderly one-person applicants) at around 3 years. Despite the possibility of occasional departure from the target due to the growing PRH demand, we will strive to maintain the target. As at the end of March 2014, the AWT for general applicants was 3.0 years. Among them, the AWT for elderly one-person applicants was 1.6 years.

In 2013/14, a total of 23 307 flats were allocated to general applicants (i.e. family and elderly one-person applicants) and non-elderly one-person applicants under the Quota and Points System.

Rent Adjustment and Assistance Policies

Under the existing PRH rent adjustment mechanisms, PRH rent is adjusted either upwards or downwards in accordance with the changes in PRH tenants' overall household income. The HA shall review the PRH rent every two years. The last review was completed in mid-2012 and the next rent review will be completed in mid-2014.

As at the end of March 2014, PRH rents per flat ranged from HK\$287 to HK\$3 877 per month. The average monthly rent was about \$1 540. PRH rents include rates, management fees and maintenance costs.

To help tenants undergoing temporary financial hardship, our Rent Assistance Scheme (RAS) offers a rent reduction of 25% or 50% for eligible tenants, depending on tenants' individual circumstances. As at the end of March 2014, around 12 100 families benefited from RAS.

To keep PRH tenants well aware of RAS, we have adopted various promotional channels including broadcast on the Housing Channel, the HA / Housing Department Website, radio, posters, newsletters and leaflets. Publicity on RAS was also stepped up in the estate newsletters issued in May and November 2013.

¹ Waiting time refers to the time taken between registration for PRH and first flat offer, excluding any frozen period during the application period (e.g. when the applicant has not yet fulfilled the residence requirement; the applicant has requested to put his/her application on hold pending arrival of family members for family reunion; the applicant is imprisoned, etc). The AWT for general applicants refers to the average of the waiting time of those general applicants who were housed to PRH in the past 12 months.

Optimising Use of Resources

We adopted various measures to optimise occupancy of PRH flats on a timely basis in order to address the changing social and residential circumstances.

Curbing Tenancy Abuse

To strengthen tenancy management and to ensure the precious housing resources are allocated only to those with the genuine needs, the HA has established stringent policies to prevent tenancy abuse.

In 2013/14 we have carefully vetted income and asset declarations of some 201 100 tenancies submitted under the Housing Subsidy Policy, the Policy on Safeguarding Rational Allocation of Public Housing Resources and other tenancy management policies, to ascertain the amount of subsidy that each tenant should receive. To further step up the measures, we set up a special team with 30 experienced staff under the Public Housing Resources Management Sub-section (PHRM). This Special Team conducted intensive checking on additional 5 000 income/assets declarations and 3 000 occupancy-related cases.

Besides, frontline staff also visited some 536 000 flats in the current biennial inspection cycle. It was 2.7% ahead of the pro-rata target of 70.83% for March 2014. PHRM also proactively carried out rigorous investigation into some 8 900 occupancy-related cases drawn from the suspected abuse cases referred by frontline management staff and the public, as well as from random selections.

The core education message of cherishing public housing resources was promoted through a wide diversity of publicity channels and outreach activities. In 2013/14, a series of publicity programmes on cherishing public housing resources was launched through estate newsletters, posters, promotion video, and banners; mini-programmes on television and bus television; advertisements on the press, train, bus; internet, HA/HD Website, Housing Channel, broadcast on radio, Estate Management Advisory Committee (EMAC) partnering functions and roving exhibitions in selected estates.

Furthermore, we proactively reached out to EMACs to promote public awareness on cherishing public housing resources. We also distributed “Tenancy Abuse Report Aerogrammes” to every PRH household, making it easier for tenants to report the malpractice.

Territory-wide Overcrowding Relief Transfer Scheme and Living Space Improvement Scheme

“Overcrowded” households refer to those whose PRH households occupying below 5.5 square metres of internal floor area per person.

An exercise of the Territory-wide Overcrowding Relief Transfer Scheme was carried out in September 2013. A total of 942 families benefited from the opportunity of moving into more spacious flats and had their living environment improved in the year. As a result, the number of “overcrowded” households dropped to 3 121 by the end of March 2014, representing merely 0.43% of all PRH households.

Moreover, an exercise under the Living Space Improvement Transfer Scheme was conducted. A total of 1 055 families were relocated to larger flats during the year. This Scheme aims to offer relief to those households that occupy an internal floor area per person of less than 7 square metres.

Operation with Cost-effectiveness

Good maintenance of the PRH estates is the prime consideration in providing quality services to our residents. The Total Maintenance Scheme (TMS) provided comprehensive maintenance services. During the year, TMS was applied to 39 estates, with special focus on building safety built into the scheme following new building control initiatives introduced by the Government.

Our Responsive In-flat Maintenance Service offers resources to front-line staff to respond promptly to maintenance requests. It has been expanded to cover 210 estates and courts by end of the reporting period, including all PRH flats, Tenants Purchase Scheme estates and five new estates.

We conducted the Comprehensive Structural Investigation Programme (CSIP) and Estate Improvement Programme (EIP) during the year. CSI checks older estates to ascertain the structural safety of the buildings and assess the cost-effectiveness for repair, whereas EIP is applied to the older estates to improve their conditions and facilities. In 2013/14, CSI for four aged PRH estates was successfully completed. Repair and improvement works were carried out under EIP as scheduled, including adding lifts as well as improvement of leisure facilities.

We accomplished the Stage 1 Lift Addition Programme, which have added 70 lifts since 2008. In early 2013, we initiated Stage 2 of the Programme, which involved adding lifts to connect elevated platforms in external areas, as well as alongside existing footbridges in PRH estates. In addition, our Lift Modernisation Programme has continued to check all existing lifts over 25 years of service for maintenance.

To offer barrier-free access across all PRH estates in Hong Kong, we have accomplished most of the improvement works under our comprehensive barrier-free access improvement programme by the end of 2013/14, including upgrading lifts, improving walkways, adding handrails and tactile warning strips for better accessibility.



Barrier-free access improvement works in Siu Sai Wan Estate

In 2013/14, we continued with the final phase of upgrading our estate-wide Closed Circuit Television (CCTV) Security System with colour cameras, digital video recorders and broadband network transmission. We have also installed additional numbers of CCTV cameras at strategic locations for security as well as surveillance of site testing and building works.

Redevelopment and Adaptive Re-Use

Apart from liaising closely with government departments concerned to identify suitable new housing sites, the HA has been examining the redevelopment potential of existing aged PRH estates with a view to optimising plot ratio for better utilisation of our valuable land resources and additional public housing production.

According to the HA's "Refined Policy on Redevelopment of Aged Public Rental Housing Estates" (the "Refined Policy") currently in force, and in considering redevelopment of existing aged estates, the HA will take into account the structural safety of existing blocks, cost effectiveness in repair works, build-back potential, as well as availability of suitable and adequate rehousing resources. Pak Tin Estate is the only estate announced for redevelopment since launching of the "Refined Policy" in 2011.

In late 2013, we have completed a review of the redevelopment potential of 22 aged PRH estates, which will provide a starting point for detailed studies of selected aged estates in future. Based on the findings, there is no particular need for redevelopment at this time from the structural safety or economic repair perspective. However, as they continue to age and maintenance costs are anticipated to rise, HA will plan for the redevelopment of these estates progressively, taking into account demand from waiting list applicants, as well as manpower and other constraints, in a prudent manner.

In early 2014, following the Government's decision to partially lift the development moratorium at Pok Fu Lam South, the use of five new government sites to facilitate the redevelopment of Wah Fu Estate is under detailed assessments.

Preparation works for converting Chai Wan Flatted Factory to PRH through adaptive re-use were underway. Commencement of building contract is scheduled in mid-2014.



Chai Wan Flatted Factory - Before Conversion



Chai Wan Flatted Factory - After Conversion (Computer Rendering)

Optimising Resources of Commercial Properties

The HA maintains a wide network of retail premises and community facilities to support the day-to-day needs of our PRH residents. When developing retail facilities, our priority remains to cater for the daily needs of local residents. When we plan the designated trade mix for our new shopping centres, we have adopted flexible and market-oriented letting strategies to achieve greater diversity for shoppers.

For example, when we arranged leasing for the Ching Long Shopping Centre, we tracked current market trends and attracted a number of popular brands and product types to meet the daily necessities of our residents. The market-oriented letting strategies also enabled us to achieve satisfactory rental revenue and to lease out long-vacant retail premises in some estates. This was found to be a successful strategy to help us optimise the use of our retail facilities in a more competitive manner.



Ching Long Shopping Centre offers a wide variety of shops to meet the daily needs of local residents

Throughout the year, we have implemented a number of measures to provide an easy and enjoyable shopping experience at the HA shopping centres. For instance, we have made the atriums of our shopping centre available to a wide range of product promoters. Also, strategic installation of Automated Teller Machine was arranged in shopping centres to offer greater convenience to visitors.



Product promoters in Kwai Chung Shopping Centre



Installation of ATM in Domain

To facilitate evaluation of our commercial operations, we have set various key performance indicators (KPIs) to monitor performance of our commercial portfolio. As at the end of March 2014, the vacancy rate, rent arrears rate, and operating expenditure to income ratio (as listed below), were well within the KPI targets set for 2013/14.

Achievements as related to KPIs as at 31.3.2014	Percentage
Vacancy Rate for Retail Premises (Shops)	1.6%
Rent Arrears Rate	1.5%
Operating Expenditure to Income Ratio	54.7%

Under the HA's five-year rolling programme, we have prioritised the major asset improvement works undertaken to enhance the attractiveness and business potential of our commercial properties.

In 2013/14, we completed upgrading works on retail facilities in Wah Fu (I) and (II) Estates, and introduced two additional eateries to provide more dining options to the local residents. Improvement works on retail and car park facilities in On Kay and Lung Poon Courts, as well as Ping Shek and Kwai Shing West Estates also made good progress.



Upgrading works in Wah Fu (I) Estate

Noting the popularity of cooked food stalls at Nam Shan, Shek Kip Mei and Fu Shan Estates, we have allowed additional outdoor sitting areas for these stalls in 2013/14. This greatly increased seating capacity and alleviated congestion inside the stalls.



Cooked food stalls in Shek Kip Mei

We have completed the market reordering process in Kwai Shing West Estate and Lai Yiu Estate, which involved grouping together some vacant shop stalls in these two estates, for leasing to restaurants. Moreover, we carried out renovation work for the cooked food stall in Fu Shan Estate to improve the business environment.



Before



After

Market reordering in Kwai Shing West Estate

In our mega-mall Domain, a consultant has been appointed to provide strategic management services and advice for sustaining its business growth and to work out plans for enhancing its leasing profile. We have revamped the Small Retail Zone by relocating the kiosks and grouping some of the vacant kiosks to create a larger retail space. The revamped area has helped expand the shopping mix and enhance the ambience.



Revamping work in Domain

To support the new green transport development in Hong Kong, we installed new electric vehicle charging facilities in the Yue Wan Estate Carpark. Similar charging facilities were also provided in new public housing developments completed in the year.

Through enhanced leasing strategies, we have successfully sourced takers for long vacant retail premises in less popular locations, e.g. Cheung Shan Estate.

Over the year, we have launched a full range of festive and seasonal marketing programmes of different scales in our shopping centres. Altogether, we have organised some 90 promotional events including mini-performances, carnivals, stage and variety shows, game and snacks booths, and gift redemption, etc, which are both entertaining and business stimulating.



New electric vehicle charging facility in Yue Wan Estate Carpark



Promotional event in Tin Yan Shopping Centre



Festive and seasonal marketing programme in Domain

In the Domain, we held about 70 promotional events and publicity activities. They were well received by shoppers, tenants and residents, which together contributed to a steady growth in footfall and business turnover. We have also tailor-made seasonal decorations, publicity and festive promotional activities to sustain the popularity and attractiveness of Domain.

To enhance community building, a total of 1 430 hours of community events/activities were held in collaboration with some 60 non-government organisations / Government departments in all our shopping centres.

Initiatives in Office at Work

Management and Procurement System

To uphold the HA's management best practices, we continued to implement various ISO management systems in 2013/14 and have acquired certifications or verifications including ISO 9001 certification on quality management (since 1993), ISO 14001 certification on environmental management (since 2010), ISO 50001 certification on energy management (since 2012), ISO 31000 on risk management (since 2010), ISO 26000 on corporate social responsibility (since 2010) and ISO 19011 auditing management (since 2013). We require our contractors to be ISO 9001, ISO 14001 and OHSAS 18001 certified. Starting from January 2014, we have also required our building and piling contractors to be certified to the ISO 50001 Energy Management System.

We have continued to maintain and review the adequacy of HA lists of contractors, sub-contractors and services providers. Starting from the second quarter of 2013, the HA has required every works contractor applying for admission to, or retention on, the HA Lists of Works Contractors to submit a statutory declaration that, among others, the company was not insolvent or had not been wound up or dissolved. We conducted writ search for the lowest three tenderers or the top three scorers of works contracts during shortlisting and tender assessment to ensure financial capability of tenderers. We have also reviewed the performance reporting and the review mechanism for non-HA list contractors and service providers.

To strengthen our procurement practice, we have been reviewing and updating the "Guide to Registration of Works Contractors and Property Management Services Management Services Providers" regularly. From time to time, we have conducted briefing sessions and experience sharing sessions to promote awareness of HA's procurement principles and systems.

We have required our contractors to prohibit their employees, agents and sub-contractors from offering, soliciting or accepting any advantage when conducting business in connection with our contracts. In addition, we have arranged anti-corruption briefings for HA's contractors and service providers to enhance awareness and ensure their integrity. We also include the ethical requirements about the related regulations in our contracts that our contractors should observe. During the reporting period, there was no incident of corruption reported.

Enhance Efficiency with Information Technology

It is important to ensure information security in our operation. In early 2014, we have established an information security management system and certified to ISO 27001 standard. The certification is an important recognition of the HA's efforts to use IT within a safe and secure environment. We are the first government body in Hong Kong to achieve full-scale certification relating to the protection of our valuable information assets.

The HA has also utilised various advanced IT solutions to help improve operational efficiency, service quality and customer experience in the public housing estates:

- We have completed the design of the new HOS system to support the sale of new HOS flats, and system development will be completed in 2014.
- A new system of the Mandatory Inspection Management System was put into use in 2013/14. This system uses a document scanning and e-workflow engine that enables the ICU to manage the mandatory inspection of buildings more efficiently, which is estimated to reach 250 000 cases per year.
- We have adopted GIS across different divisions in development planning and in the management of centralised drawing records and for identifying location in maintenance works orders.
- In August 2013, we successfully rolled out a new Customer Services Management System to all the HA's PRH estate offices in order to improve the quality of service, consistency of information and transparency of our customer service operations at PRH estate offices.
- Our "Green IT" campaign has also made good progress in reducing energy and paper consumption throughout our offices and data centre, including replacing new energy efficient computer equipment and powering off all unused IT equipment in offices.
- We were in the process of developing an electronic form with automatic workflow in the Enterprise Resource Planning system in order to enhance the user-interface for computer acquisition.
- A consultancy study has been commissioned to review the latest technology and market to identify the most appropriate enterprise-wide mobile architecture for HA.
- An "electronic tender booklet" system was used in 12 building contracts and seven foundation contracts on a trial basis.
- The Local Area Network in remote offices was upgraded to enhance network communication of these offices.



ISO 27001 certificate

Case Study 1: Improving Environmental Performance in Public Housing Estates through ISO 14001

- Background
- The ISO 14001 Standard
- Preparatory Work
- Pilot Scheme for Implementation
- Full Certification for PRH Estates
- Future Plan



Background

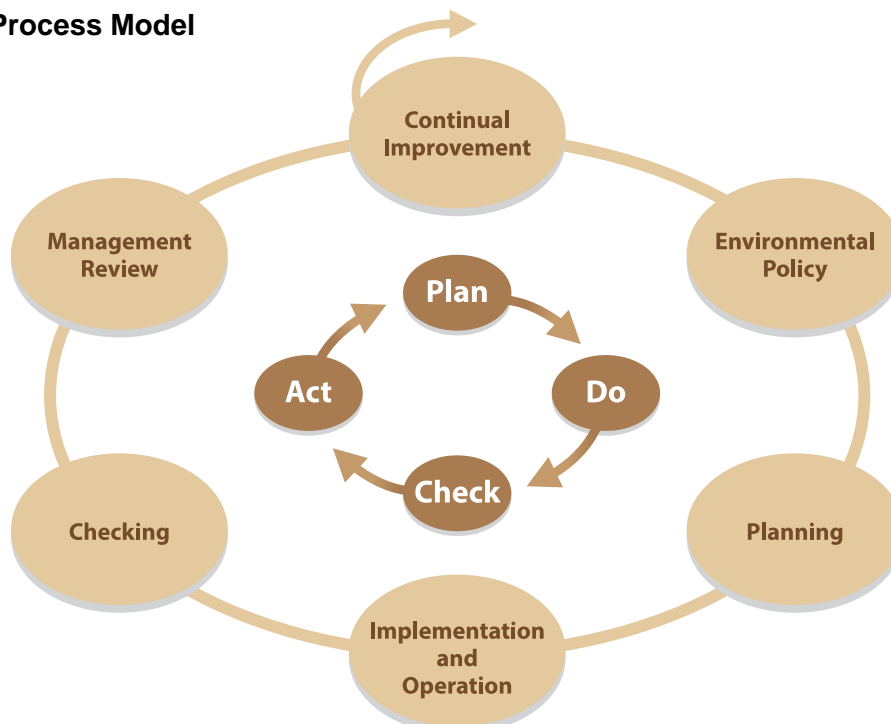
The Hong Kong Housing Authority (HA) has always been striving for enhancement in environmental performance. Since 1998, the Housing Department (HD) has set up the HD Environmental, Health and Safety Committee to steer the development and implementation of Environmental Management System (EMS). The Quality and Environmental Management System Working Group was subsequently established to coordinate the implementation of EMS within the Estate Management Division (EMD).

ISO 14001 is a well recognised international standard that can enhance the existing HD EMS through adopting a systematic and structured approach to identify environmental objectives and targets, as well as to evaluate environmental performance. In view of this, the EMD endorsed a work plan to obtain certification of ISO 14001 in planned maintenance and improvement, as well as provision of property management services in all public housing estates in 2010.

The ISO 14001 Standard

ISO 14001 standard adopts the Plan-Do-Check-Act approach, which provides a framework to continuously improve our organisation's environmental performance. The process model is illustrated in the diagram below:

ISO14001:2004 Process Model



In a nutshell, the EMD aims to implement ISO 14001 EMS in all estates in order to improve environmental performance by reduction of energy and water consumption, promotion of green living and environmental safety, mitigation of nuisances generated by water, air, noise and domestic waste caused by various maintenance and management activities in the estates.

Preparatory Work

To facilitate implementation, and also as a training requirement of the ISO 14001 standard, briefings and workshops were provided to property management staff as well as the cleansing and security services contractors before the implementation of the EMS. With the aid of audio-visual equipment, frontline staff could access to the training materials, operation guidelines, and other relevant documents at the ISO 14001 web-pages.



Awareness Briefing Class



Training Workshop for Internal Auditors

Pilot Scheme for Implementation

Audit conducted by certification body was successfully completed in May 2011 with the scope of planned maintenance for all public rental housing (PRH) estates and property management for three pilot estates, namely Oi Man, Sun Tin Wai and Lai On.

It was encouraging to note the co-operation and support of our frontline staff and service contractors in the implementation of EMS. We had jointly succeeded to put in place a number of good environmental practices in the estates. These initiatives include -

- reducing the number of public lightings and adjusting the timer control to match with the sunlight duration, which recorded as much as 15% reduction in electricity expenses;
- obtaining organic fertilizer from the Environmental Protection Department;
- reducing domestic waste collected from tenants;
- increasing collections of recyclables; and
- the use of fountain water for floor washing in open space.

Full Certification for PRH Estates

In view of the success of the ISO 14001 EMS certification for the three pilot estates in 2011, the scheme was extended to cover property management of the remaining 155 PRH estates in three phases. With concerted effort of both the frontline and headquarters staff, all PRH estates were certified to ISO 14001 in July 2013 in recognition of our good practices and enhancements on environmental management.



Certificate Presented to Mr. D W Pescod, the Former Permanent Secretary for Transport and Housing (Housing) at the Ceremony in August 2013



ISO 14001 Certificate for EMD

Future Plan

ISO 14001 EMS certification is an on-going process. Apart from all the existing PRH estates, the certification programme will be extended to new estates once 80% to 90% of the occupancy has been reached. To raise the environmental awareness of our stakeholders, the HA will continue to publicise and promote the environmental initiatives and encourage their support in green living. By joining hands and working together with our stakeholders, we can create a green and sustainable living environment.

Case Study 2 – Noise Mitigation through Innovative Designs and Measures

- Conventional Approaches to Mitigate Noise Level
- Our Innovative Approaches to Mitigate Noise Level
- Looking Ahead



Noise is a common source of nuisance in every large city around the world. As one of the major metropolitan cities, Hong Kong is characterised by its dense population and living environment. Many residential buildings in Hong Kong are unavoidably developed close to carriageways and exposed to excessive traffic noise. It is estimated that over one million people in Hong Kong are affected by traffic noise.

Conventional Approaches to Mitigate Noise Level

In general, there are three generic types of conventional noise mitigation measures to tackle traffic noise impact. These include: (1) mitigation measures at source, (2) mitigation measures at path of propagation, and (3) mitigation measures at receivers. Examples are shown as follows:

Type of Noise Mitigation	Noise Mitigation Measure
Mitigation measures at source	<ul style="list-style-type: none"> • Low noise road surfacing; • Noise enclosure;
Mitigation measures at path of propagation	<ul style="list-style-type: none"> • Noise barrier; • Non-noise sensitive building as a noise barrier;
Mitigation measures at receivers	<ul style="list-style-type: none"> • Building setback; and • Block configuration and disposition.



Low noise road surfacing to reduce noise at source



Noise barrier to reduce noise at propagation path



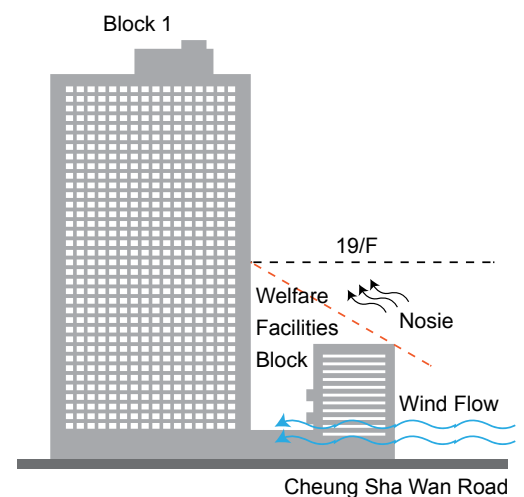
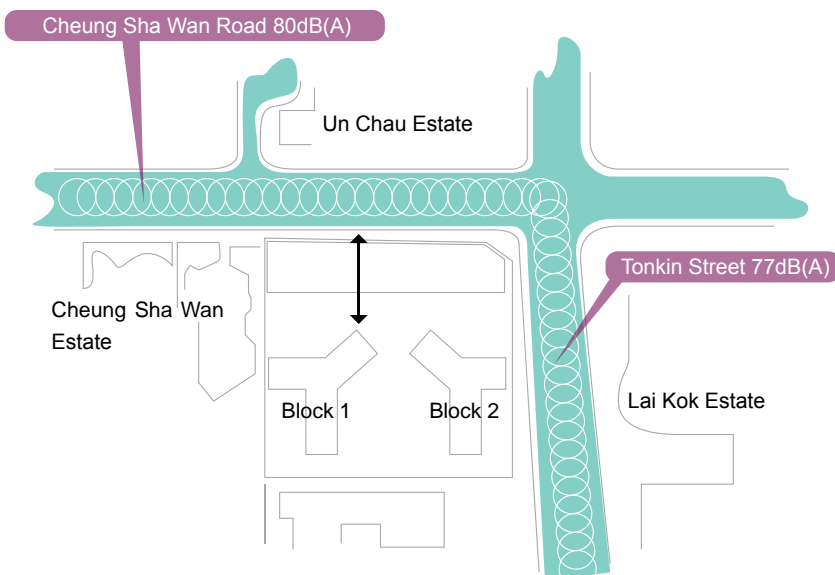
Building setback to reduce noise at receiver end

Our Innovative Approaches to Mitigate Noise Level

To protect public housing residents from noise nuisance, the Housing Authority (HA) strives to identify every opportunity to reduce noise impact by applying a host of noise abatement measures. The following three projects illustrate how we adopted the innovative approaches to minimise noise impacts for our residents.

Site Specific Modular Flats - Cheung Sha Wan Estate

Cheung Sha Wan Estate is located adjacent to two main roads, Cheung Sha Wan Road and Tonkin Street, where the noise level reaches 80 dB(A) and 77 dB(A) respectively. Conventional noise mitigation measures including setback from Cheung Sha Wan Road, arranging welfare facilities block as a non-noise sensitive building against the road and using architectural fins have been considered in the first place to attenuate the noise level. Even with these measures in place, the noise level for flats above 19/F still exceeded the road traffic noise standard in Hong Kong Planning Standards and Guidelines at 70 dB(A).



Cheung Sha Wan Estate located adjacent to two main roads with high noise levels

Welfare facilities block as a non-noise sensitive building to mitigate noise impact on the lower floors of the residential block

In view of the residual noise exceedance, we carefully looked into site specific flat layout to further mitigate the noise impact. In the site specific flat design, fixed windows are positioned at protruded rooms facing major traffic noise source while openable side windows for ventilation are installed at location with lower noise levels. These protruded rooms could also serve as barrier to abate the noise impact on the adjacent recessed rooms. By adopting this innovative design of site specific modular flats, we successfully further reduced noise level of 2-3 dB(A). Together with other conventional measures, a total noise reduction of 10 dB(A) was achieved.



Fixed window facing major noise source and side window for ventilation

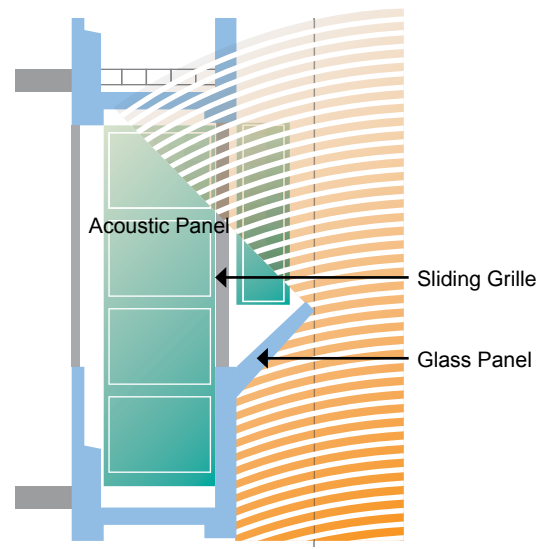
Acoustic Balconies - Wing Cheong Estate

Located at 30 metres away from the West Kowloon Corridor with severe road noise, Wing Cheong Estate development has first been explored with architectural fins and other conventional noise mitigation measures including low noise road surfacing, building set back and block orientation. However, with these measures in place, the noise level still exceeded 6 dB(A) compared to the noise standards.

To further alleviate the noise problem, project team came up with an innovative design of an arc-screen in front of the window. To verify its effectiveness, we constructed a full scale mock-up in Dongguan and carried out in-situ noise measurements using prototype installation. We tested various scenarios of different arc-screen set-ups and materials to prove the effectiveness of the design. Through consultations with other stakeholders, the arc-screen was further refined to a design of acoustic balcony with due consideration of its use and maintenance. Incorporating inclined glass panels at the parapet as noise barrier and noise absorption panels at the sidewalls and ceiling, the innovative acoustic balcony could achieve a noise attenuation up to about 6 dB(A).



Full scale mock-up at Dongguan



Refined design layout of the acoustic balcony

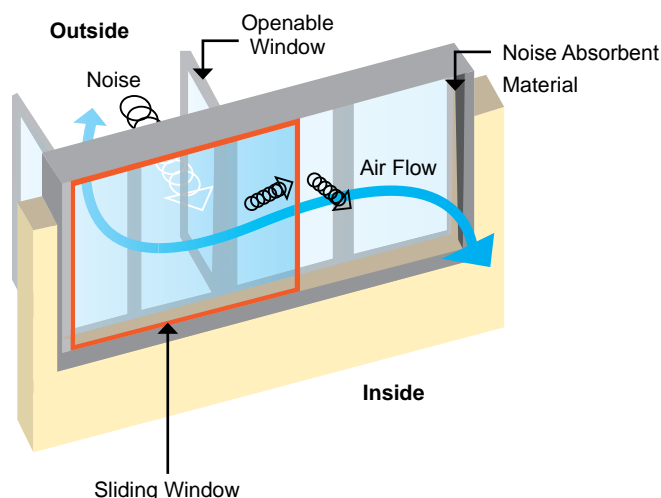


Acoustic balcony



Acoustic Windows - San Po Kong Public Housing Development

San Po Kong Public Housing Development site is located within 10 metres from the heavily trafficked Prince Edward Road East with noise level at 85 dB(A). Practicable conventional mitigation measures could only provide a noise reduction of 7 dB(A) and the project team faced a challenge to work out some innovative measures to further attenuate 8 dB(A) in order to enable the project to be viable. In collaboration with other experts and academics, we looked into the design of acoustic window which functions as a modified double-glazed window with offset openings to allow natural ventilation. Subsequent to conducting laboratory tests on this window design concept which gave very promising results, full scale mock-up flats installed with prototype acoustic window was set up on site for in-situ acoustic measurements. Upon testing for different flat and window scenarios, it was established that the acoustic window could achieve noise attenuation up to 8 dB(A). This innovative window design was adopted in the San Po Kong project and other public housing developments with similar severe traffic noise problem.



Acoustic windows to mitigate noise and allow natural ventilation



Acoustic windows



In-situ testing at San Po Kong site

Looking Ahead

In view of the specific spatial environment in Hong Kong, we endeavour to explore innovative noise mitigation designs and measures to alleviate traffic noise impact at affected premises, in particular to those suffering from severe noise impact that cannot be adequately attenuated by conventional noise mitigation measures. These innovative measures have been proven effective to address the traffic noise issue in our public housing development without sacrificing the view of the housing blocks nor diminishing their efficiency of flat production. We strive to provide sustainable living environment for our public housing residents, and will continue to introduce and adopt innovative noise mitigation initiatives in our public housing development to offer a better living environment for them.

List of Awards and Community Recognitions

- Construction and Maintenance
- Environmental and Social
- Facility Management
- Corporate



Throughout the years, we have entrusted ourselves in the improvements of sustainability performance in the areas of planning, construction, management and maintenance of local public housing. Our works have been well recognised by the numbers of awards and honours received for our dedication and contributions toward various sustainability aspects. The major achievements in 2013/14 are listed below.

Construction and Maintenance

Recognition(s) / Award(s) / Winning Project(s) :
Autodesk HK BIM Awards 2013

Organiser(s) :
Autodesk



Recognition(s) / Award(s) / Winning Project(s) :
**Hong Kong Quality Assurance Agency
Sustainable Building Index**

Verified Mark – Kwai Shing East Estate, Kwai Shing West Estate, Sau Mau Ping South Estate, Sheung Lok Estate, Sun Chui Estate and Tin Chak Estate

Organiser(s) :
Hong Kong Quality Assurance Agency



Environmental and Social

Recognition(s) / Award(s) / Winning Project(s) :

FuturArc Green Leadership Award 2013

Winner – Yau Lai Estate Phase 5

Citation – Yau Tong Estate Redevelopment Phase 4 (Domain)



Organiser(s) :

Building and Construction Interchange Asia

Recognition(s) / Award(s) / Winning Project(s) :

Hong Kong Institution of Engineers, Environmental Division, Environmental Paper Award

First Runner-up – Green Treatment of Marine Mud

Organiser(s) :

Hong Kong Institution of Engineers



Recognition(s) / Award(s) / Winning Project(s) :

Hong Kong Awards for Environmental Excellence

Class of Excellence in Wastewi\$e Label

The Top 5 Organisations Achieving Cumulatively the Most Number of Goals in Wastewi\$e Label

Organiser(s) :

Environmental Campaign Committee



Recognition(s) / Award(s) / Winning Project(s) :

Hong Kong Green Awards 2013

Grand Award (Corporate Green Governance Award)

Platinum Award (Green Purchasewi\$e Award)

Platinum Award (Green Management Award)

Management Systems Award (Corporate Green Governance Award)

Organiser(s) :

Green Council



Recognition(s) / Award(s) / Winning Project(s) :
Hong Kong Flower Show 2014

Gold Award for Outstanding Exhibit (Landscape Display)

Organiser(s) :

Leisure and Cultural Services Department



Recognition(s) / Award(s) / Winning Project(s) :
HKQAA-HSBC CSR Advocate Mark

Achieved full score of 5.00 –

Development and Construction Division

Organiser(s) :

Hong Kong Quality Assurance Agency, and
Hongkong and Shanghai Banking Corporation Limited



Recognition(s) / Award(s) / Winning Project(s) :
Caring Organisation 2013/14

5 Plus Consecutive Years Caring Organisation Logo –
Housing Department

List of Barrier-free Companies / Organisations

Organiser(s) :

Hong Kong Council of Social Service



Facility Management

Recognition(s) / Award(s) / Winning Project(s) :
Excellence in Facility Management Award (EFMA) 2013

Excellence in Facility Management Award (Retail) – Domain

Excellence in Facility Management Award

(Public Rental Housing) – Lam Tin Estate and Ping Shek Estate

Certificate of Merit (Public Rental Housing) – Tin Ching Estate

Organiser(s) :

Hong Kong Institute of Facility Management



Corporate

Recognition(s) / Award(s) / Winning Project(s) :

2013 International Annual Report Competition (ARC) Awards

Bronze Award (Non-profit Organisation: Housing) –
The HA Annual Report 2011/12

Organiser(s) :

MerComm, Inc.



Recognition(s) / Award(s) / Winning Project(s) :

2013 Astrid Awards

Silver Award (Not-for-profit Organisations) –
The HA Annual Report 2011/12

Organiser(s) :

MerComm, Inc.



Recognition(s) / Award(s) / Winning Project(s) :

Galaxy Awards 2013/2014

Gold Award (Video & DVDs: Corporate Identity) –
“60 Years of Public Housing Development in Hong Kong”

Honours Award (Video and DVDs: Stakeholder
Communications)

Organiser(s) :

MerComm, Inc.



Recognition(s) / Award(s) / Winning Project(s) :

Capability Maturity Model Integration for Acquisition

Maturity Level 3 Version 1.3

Organiser(s) :

Software Engineering Institute, Carnegie Mellon University,
USA.



Recognition(s) / Award(s) / Winning Project(s) :

Top 10 .hk Website Competition 2013

Special Mention

Organiser(s) :

Hong Kong Internet Registration Corporation Limited



Recognition(s) / Award(s) / Winning Project(s) :

Web for All Gold Award

Organiser(s) :

Office of the Government Chief Information Officer and
Equal Opportunities Commission



Recognition(s) / Award(s) / Winning Project(s) :

Civil Service Outstanding Service Award Scheme 2013

Inter-departmental Partnership Award Silver Prize – The project of improving accessibility of government premises: the HD collaborated with the Labour and Welfare Bureau, the Architectural Services Department, the Highways Department and the Transport Department for improving accessibility of government premises.

General Public Service Team Award – Bronze Prize (Nam Shan Carpark Conversion)

Internal Service Team Award – Meritorious Award (Customer Service Management System)

Organiser(s) :

Civil Service Bureau



Previous Targets



During 2013/14, we have set 68 sustainability targets in relation to environmental, social and economic aspects. All are fully met. Details and progress of these targets are provided below.

Environmental Awareness Raising Targets	Progress
Review and monitor environmental awareness in public rental housing (PRH) by partnering with green groups and our Statistics Section to conduct survey on PRH residents.	Fully Met
Monitor environmental awareness and enhance general awareness of the Hong Kong Housing Authority (HA) staff by reviewing and implementing training and publicity strategies.	Fully Met
Collaborate with green groups to conduct environmental awareness programmes in PRH.	Fully Met
Enhance environmental performance of contractors on site.	Fully Met
Promote the PRH tenants' awareness and participation related to waste separation at source, waste reduction and green management initiatives.	Fully Met
Enhance staff environmental awareness and knowledge by organising seminars, displaying environmental issues at the HA Headquarters' (HAHQ) Green Corner and organising campaign.	Fully Met
Enhance community awareness on environmental protection by organising programmes to promote environmental protection messages.	Fully Met

Energy Efficiency Targets	Progress
Reduce electricity consumption of landlord services installation in new domestic blocks by adopting Energy Codes and obtaining energy certificates for completed projects.	Fully Met
Explore and study the application of green design for building services equipment by completing the PV Panel system at Kai Tak Site 1B, monitoring the performance of the PV Panel system at Kai Tak Sites 1A and 1B, installing solar-powered lights in new estates for educational purpose and conducting carbon emission estimation and energy estimation for projects with domestic blocks at detailed design stage.	Fully Met
Explore and study the application of more energy efficient equipment by completing the lift system with regenerative power at Kai Tak Site 1B, monitoring the performance of the lift system with regenerative power at Kai Tak Sites 1A and 1B, monitoring the performance of the prototype Light Emitting Diode (LED) bulkheads installed at an existing estate and the LED bulkheads installed at Kai Tak Site 1A. Monitor the environmental lighting controls using motion-sensors and push buttons at the communal areas of domestic blocks at five pilot projects and implement those environmental lighting controls at the communal areas of all domestic blocks.	Fully Met
Reduce electricity consumption in the existing PRH blocks by studying and evaluating the replacement of existing light fittings equipped with electromagnetic ballast by more energy efficient lighting source and/or electronic ballast.	Fully Met
Conduct carbon audit in 14 typical PRH block types for monitoring and benchmarking purpose.	Fully Met
Reduce energy consumption of the HA office premises by performing various energy saving initiatives.	Fully Met

Greening and Landscaping Targets	Progress
Provide green treatment (e.g. hydro-seeding and tree planting) to newly formed slopes.	Fully Met
Add new vegetation and promote greening in new housing estates to meet the minimum target of one tree per 15 PRH flats. Conduct tree surveys to ensure that this is met. Achieve an overall target of 30% green coverage, and at least 20% as a minimum.	Fully Met
Promote local residents and the community to participate in early plant raising for new housing estates.	Fully Met
Promote community involvement in greening of the new PRH estates by introducing communal planting areas/community farms in master landscape layout plans at design stage.	Fully Met
Re-landscape and upgrade existing landscape facilities in selected PRH estates by improving soft landscaping through Landscape Improvement Programme and setting up thematic gardens in the selected PRH estates.	Fully Met
Promote green environment in PRH estates with Estate Management Advisory Committee's support through the provision of greening activities in estates.	Fully Met
Improve the slope appearance in the existing PRH estates by providing green treatment to hard surfaced slopes and improving existing vegetated slopes. Also, chunam surfaces will be improved through hydro-seeding, stone pitching and toe planters.	Fully Met
Promote staff involvement in greening activities by arranging staff to participate in Tree-planting Day.	Fully Met

Material Usage and Hazardous Materials Management Targets	Progress
Further abate the remaining asbestos-containing materials in the existing HA managed properties by implementing asbestos abatement programme through estate redevelopment programme and asbestos removal works.	Fully Met
Use softwood timber from sustainable sources for all types of timber door cores in PRH estates.	Fully Met
Use timber from sustainable sources for temporary works during construction.	Fully Met
Enhance the use of "green" materials and components.	Fully Met
Maintain the remaining asbestos containing materials in satisfactory condition in existing PRH estates.	Fully Met
Use environment-friendly paper for printing of all publicity materials (except sales and marketing publications).	Fully Met
Control of hazardous materials to minimise harm to environment by collecting all disposed mercury-containing lamps in the HAHQ for special waste treatment.	Fully Met

Waste Management Targets	Progress
Promote recovery of domestic waste for paper by arranging publicity activities in PRH estates.	Fully Met
Promote recovery of domestic waste for aluminium cans by arranging publicity activities in PRH estates.	Fully Met
Promote recovery of domestic waste for plastic bottles by arranging publicity activities in PRH estates.	Fully Met
Promote recovery of domestic waste for used clothes by arranging publicity activities in PRH estates.	Fully Met
Reduce domestic waste by promoting waste reduction through various publicity campaigns such as Estate Management Advisory Committees newsletters and activities, and other joint activities with green groups.	Fully Met
Promote waste separation at source and green management initiatives in PRH estates by implementing Source Separation of Domestic Waste Programme in all estates, and setting up collection point in PRH estates for collecting domestic recyclable from tenants.	Fully Met
Reduce A3 and A4 paper consumption in the HA offices by performing various initiatives to reduce paper consumption.	Fully Met
Collect waste paper in the HA offices and implement various initiatives to encourage paper recycling.	Fully Met

Water Conservation Targets	Progress
Reduce flushing water consumption by developing specifications for pilot implementation.	Fully Met
Reduce irrigation water consumption by providing rain water harvesting system (RWHS) in new public housing developments.	Fully Met
Study the performance of the RWHS by reviewing the effectiveness and expenditure on the maintenance and electricity use of the RWHS system for all commercial centres as well as PRH estates where the system was installed.	Fully Met
Reduce water consumption at the HAHQ by recording and monitoring water consumption.	Fully Met

Social Targets	Progress
Continue the implementation of the Marking Scheme for Estate Management Enforcement in all the PRH estates and non-domestic premises.	Fully Met
Conduct various initiatives for the HA staff, for example, activities organised by the HA Staff Club.	Fully Met
Active communications with staff and obtain feedback to enhance operational effectiveness.	Fully Met
Continue to actively work with relevant stakeholders to promote better understanding of the HA's policies and initiatives through different publicity channels.	Fully Met

Safety Targets	Progress
Incorporate a safety pledge with commitment to site safety through listing requirements of service providers.	Fully Met
Continue to closely monitor the contractors' performance through mechanisms such as Performance Assessment Scoring System (PASS), Building Services PASS, Piling PASS, Demolition PASS, Maintenance Assessment Scoring System (MASS), Lift MASS, Housing Authority Safety Auditing System (HASAS), HASAS (Maintenance & Improvement), Surprise Safety Inspection Programme and Housing Authority Lift and Escalator Nominated Sub-contracts Safety Auditing System.	Fully Met
Continue to tighten monitoring of contractors with high accident rates.	Fully Met
Strengthen safety training on site management for contractors and supervisory staff.	Fully Met
Review the practicality of incorporating surprise safety inspection programme into PASS score.	Fully Met
Explore enhancements in contract controls for site safety.	Fully Met
Enhance the 'Integrated Pay for Safety, Environment and Hygiene' scheme by incorporating surprise safety inspection programme score.	Fully Met
Tighten control measures for high-risk operations on site.	Fully Met
Continue to hold regular seminars on best safety practices with the participation of contractors and project teams.	Fully Met
Continue to partner with industry stakeholders in territory-wide safety campaigns and publicity.	Fully Met
Improve safety of office operations with potential health and safety risks.	Fully Met
Continue to provide safety training for our staff.	Fully Met
Strengthen physical and management measures for major construction plant.	Fully Met
Enhance personal protective equipment for contractors' site personnel and our works staff.	Fully Met
Develop the Occupational Injury & Disease Surveillance System for capturing accident and incident data on site.	Fully Met
Develop mobile applications to streamline management of safety, quality and productivity on site.	Fully Met
Continue to update the Site Safety Website with site safety information and multi-media materials.	Fully Met
Continue to issue best practice circulars to contractors, service providers and frontline staff.	Fully Met
Enhance surprise check to lift works contractors for lift modernisation and addition works.	Fully Met
Implement Preferential Tender Award System for District Term Contracts.	Fully Met

Previous Targets

Economic Performance Targets	Progress
Implement the rent adjustment mechanism.	Fully Met
Continue to minimise vacancy in PRH estates.	Fully Met
Conduct tenancy control and education campaigns with an aim to reduce abuse of housing resources.	Fully Met
Continue to assess older estates and enhance their preventive maintenance.	Fully Met

Targets and Outlook



We endeavour to meet our quantitative flat production target and enhance the sustainability of the local public housing. By setting challenging yet realistic annual targets on environmental, social and economic aspects, we strive to improve and gauge our sustainability performance and direct it towards sustainability excellence. In 2014/15, we have set 65 targets which are detailed as follows:

Environmental Awareness Raising Targets

Review and monitor environmental awareness of residents in public rental housing (PRH) by partnering with green groups and our Statistics Section to conduct survey on PRH residents.

Monitor environmental awareness and enhance general awareness of the Hong Kong Housing Authority (HA) staff by reviewing and implementing training and publicity strategies.

Collaborate with green groups to conduct environmental awareness programmes in PRH.

Enhance environmental performance of contractors on site.

Promote the PRH tenants' awareness and participation related to waste separation at source, waste reduction and green management initiatives.

Enhance staff environmental awareness and knowledge by organising seminars, displaying environmental issues at the HA Headquarters' (HAHQ) Green Corner and organising campaign.

Enhance community awareness on environmental protection by organising programmes to promote environmental protection messages.

Energy Efficiency Targets

Reduce electricity consumption of landlord services installation in new domestic blocks by adopting Energy Codes and obtaining energy certificates for completed blocks.

Explore and study the application of green design for building services equipment by monitoring the performance of the PV Panel system at Kai Tak Sites 1A and 1B, installing solar-powered lights in new estates for educational purpose and conducting carbon emission estimation and energy estimation for projects with domestic blocks at detailed design stage.

Explore and study the application of more energy efficient equipment by monitoring the performance of the lift system with regenerative power at Kai Tak Sites 1A and 1B, monitoring the performance of the trial installation of Light Emitting Diode (LED) bulkheads at Kai Tak Site 1A, and pursuing certification of LED bulkhead lightings under the newly launched “LED lighting product certification scheme” for mass application in HA’s domestic blocks. Implement the environmental lighting controls using motion-sensors and push buttons at the communal areas of domestic blocks and implement gearless lift and regenerative power for lift of 18kW or above in all new projects under design.

Reduce electricity consumption in the existing PRH blocks by studying and evaluating the replacement of existing light fittings equipped with electromagnetic ballast by more energy efficient lighting source and/or electronic ballast.

Conduct carbon audit in 14 typical PRH block types for monitoring and benchmarking purpose.

Reduce energy consumption of the HA office premises by performing various energy saving initiatives.

Greening and Landscaping Targets

Provide green treatment (e.g. hydro-seeding and tree planting) to newly formed slopes.

Add new vegetation and promote greening in new housing estates to meet the minimum target of one tree per 15 PRH flats. Conduct annual tree surveys to ensure all new housing estates meet the target. Achieve an overall target of 30% green coverage, and at least 20% as a minimum.

Promote local residents and the community to participate in early plant raising for new housing estates.

Promote community involvement in greening of the new PRH estates by introducing communal planting areas/ community farms in master landscape layout plans at design stage.

Re-landscape and upgrade existing landscape facilities in selected PRH estates by improving soft landscaping through Landscape Improvement Programme.

Promote green environment in PRH estates with Estate Management Advisory Committee’s support and to increase tenants’ awareness and promote community participation in greening of PRH through the provision of greening activities in the estates.

Improve the slope appearance in the existing PRH estates by providing green treatment to hard surfaced slopes and improving existing vegetated slopes. Also, chunam surfaces will be improved through hydro-seeding, stone pitching and toe planters.

Promote staff involvement in greening activities by arranging staff to participate in Tree-planting Day.

Material Usage and Hazardous Materials Management Targets

Further abate the remaining asbestos-containing materials in the existing HA managed properties by implementing asbestos abatement programme through estate redevelopment programme and asbestos removal works.

Use softwood timber from sustainable sources for all types of timber door cores in PRH estates.

Use timber from sustainable sources for temporary works during construction.

Enhance the use of “green” materials and components.

Maintain the remaining asbestos containing materials in satisfactory condition in existing PRH estates by conducting condition surveys and engaging registered asbestos contractor for emergency repair.

Use environment-friendly paper for printing of all publicity materials.

Control of hazardous materials to minimise harm to environment by collecting all disposed mercury-containing lamps in the HAHQ for special waste treatment.

Waste Management Targets

Promote recovery of domestic waste for paper by arranging publicity activities in PRH estates.

Promote recovery of domestic waste for aluminium cans by arranging publicity activities in PRH estates.

Promote recovery of domestic waste for plastic bottles by arranging publicity activities in PRH estates.

Promote recovery of domestic waste for used clothes by allowing charity organisations to collect used clothing and to promote used clothes recovery in PRH estates.

Reduce domestic waste by promoting waste reduction through various publicity campaigns such as Estate Management Advisory Committees newsletters and activities, and other joint activities with green groups.

Promote waste separation at source and green management initiatives in PRH estates by implementing Source Separation of Domestic Waste Programme in all estates, and setting up collection point in PRH estates for collecting domestic recyclable from tenants.

Reduce A3 and A4 paper consumption in the HA offices by performing various initiatives to reduce paper consumption.

Collect waste paper in the HA offices and implement various initiatives to encourage paper recycling.

Water Conservation Targets

Reduce flushing water consumption by using 6-litre single or dual flush water-closet suite.

Reduce irrigation water consumption by providing rain water harvesting system (RWHS) in new public housing developments.

Study the performance of the RWHS by reviewing the effectiveness and expenditure on the maintenance and electricity use of the RWHS system for all commercial centres as well as PRH estates where the system was installed.

Reduce water consumption at the HAHQ by recording and monitoring water consumption.

Social Targets

Continue the implementation of the Marking Scheme for Estate Management Enforcement in all PRH estates and non-domestic premises.

Conduct various initiatives for the HA staff, for example, activities organised by the HA Staff Club.

Active communications with staff and obtain feedback to enhance operational effectiveness.

Continue to actively work with relevant stakeholders to promote better understanding of the HA's policies and initiatives through different publicity channels.

Safety Targets

Continue to closely monitor the contractors' performance through mechanisms such as Performance Assessment Scoring System (PASS), Building Services PASS, Piling PASS, Demolition PASS, Maintenance Assessment Scoring System (MASS), lift MASS, Housing Authority Safety Auditing System (HASAS), HASAS (Maintenance & Improvement), Surprise Safety Inspection Programme, Housing Authority Lift and Escalator Nominated Sub-contracts Safety Auditing System, and Housing Authority Lift and Escalator Installation Safety Auditing System.

Continue to tighten monitoring of contractors with high accident rates.

Continue to strengthen safety training on site management for contractors and supervisory staff.

Incorporate SSIP score into PASS, Piling Pass and Demolition Pass score.

Explore enhancements in contract controls for site safety, e.g. compliance with the Code of Practice for the Loading of Vehicles, restricting the use of ladders for working at height.

Link SSIP scores with the 'Integrated Pay for Safety, Environment and Hygiene Scheme'.

Continue to tighten control measures for high-risk operations on site.

Continue to hold regular seminars and forums on best safety practices with the participation of contractors and project teams.

Continue to partner with industry stakeholders in territory-wide safety campaigns and publicity.

Continue to enhance personal protective equipment for contractors' site personnel and our works staff.

Continue to develop the Occupational Injury & Disease Surveillance System for capturing accident and incident data on site.

Continue to develop mobile applications to streamline management of safety, quality and productivity on site.

Continue to update the Site Safety Website with site safety information and multi-media materials.

Establish a surprise safety inspection system for building maintenance works and continue surprise check for lift term maintenance and lift modernisation works.

Continue to issue Safety & Health Circulars to contractors, service providers and frontline staff.

Improve safety of office operations with potential health and safety risks.

Continue to provide safety training for our staff.

Economic Performance Targets

Implement the rent adjustment mechanism.

Continue to minimise vacancy in PRH estates.

Conduct tenancy control and education campaigns with an aim to reduce abuse of housing resources.

Continue to assess the older estates and enhance their preventive maintenance.



Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) has been commissioned by the Hong Kong Housing Authority (hereinafter called “HA”) to conduct an independent verification of its Sustainability Report 2013/14 (herein referred to as “the Report”). The Report stated HA’s sustainability performance and efforts towards sustainable development for the period from 1 April 2013 to 31 March 2014.

The aim of this verification was to provide assurance on the completeness and accuracy of the information stated in the Report. The Report’s coverage of the standard disclosures defined in the Global Reporting Initiative (GRI) G4 Guidelines was also assessed to confirm if the Core option was achieved.

Methodology

The process used in this verification was based on current best practices. The Report was reviewed against the following criteria:

- The principles of completeness, accuracy, neutrality, comparability and responsiveness; and
- The Global Reporting Initiative (GRI) G4 Guidelines

The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected representative sample of data and information consolidated in the Report. Raw data and supporting evidence of the selected samples were thoroughly examined.

Conclusion

The information presented in the Report provided a structural, balanced and consistent representation of the performance of HA in the context of sustainable development. The verification team confirmed that the Report was prepared based on factual statements and that the data contained within the Report are accurate. It is a fair and honest representation of the initiatives, the targets, progress and performance of HA’s sustainable development achievements.

Overall speaking, the Report provides an adequate and fair account of HA’s sustainability performance on material aspects and demonstrates satisfactory disclosure of the Core option of the GRI’s G4 Guidelines.

Signed on behalf of Hong Kong Quality Assurance Agency

A handwritten signature in black ink, appearing to read 'Jorine Tam', written in a cursive style.

Jorine Tam
Assistant Director, Strategic Business
December 2014



Our Performance and 2013/14 Sustainability Report

The Sustainability Report 2013/14 stating our sustainability principles and summarising our performance during the fiscal year of 2013/14 is available on the Housing Authority (HA) website.

We treasure your feedback to help us continuously improve our performance, services and reporting process. We sincerely hope that you will provide your views as well as comments on this report, our sustainability initiatives, and our performance by emailing the Feedback Form (emu@housingauthority.gov.hk), or by post to:

Senior Manager/Environment
Environmental Management Unit
Hong Kong Housing Authority Headquarters
33 Fat Kwong Street, Ho Man Tin,
Kowloon, Hong Kong

Feedback Form

Thank you for reading our Sustainability Report 2013/14 entitled *Our Commitment to Sustainability – From Past to Future*. Please take a moment to give us your valuable feedback and return to us via email or post before 30 September 2015.

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. What is your overall view of the Report? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Good | Good | Adequate | Poor | Very Poor |
| 2. Do you find the Report information useful? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Good | Good | Adequate | Poor | Very Poor |
| 3. Do you find the Report easy to understand? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Good | Good | Adequate | Poor | Very Poor |
| 4. Do you think the presentation of the Report is clear? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Good | Good | Adequate | Poor | Very Poor |

***Note:**

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| 1. About This Report | 2. About the Hong Kong Housing Authority |
| 3. Environmental Performance | 4. Social Performance |
| 5. Economic Performance | 6. Case Studies |
| 7. List of Awards and Community Recognitions | 8. Previous Targets/Targets and Outlook |
| 9. Verification Statement | |

5. Which aspect of the Report do you find most useful? 1 2 3 4 5 6 7 8 9
Please specify

6. Which aspect of the Report do you find least useful? 1 2 3 4 5 6 7 8 9
Please specify

7. Which aspect(s) of the Report would you like to have more information on? Please specify 1 2 3 4 5 6 7 8 9

8. What improvement(s) would you recommend for our next Report? 1 2 3 4 5 6 7 8 9
Please specify

9. What group(s) do you belong to? (You can tick more than one box.)

- | | | |
|--|--|---|
| <input type="checkbox"/> Owner/Tenant in HA Flat | <input type="checkbox"/> Green Group | <input type="checkbox"/> Education/Academic |
| <input type="checkbox"/> Government Department | <input type="checkbox"/> Other Public Organisation | <input type="checkbox"/> Professional |
| <input type="checkbox"/> Other, please specify _____ | | |

Name: _____ Contact Number: _____

E-mail Address: _____ Mailing Address: _____

Correspondence:

By Post: Senior Manager/Environment
Environmental Management Unit
Hong Kong Housing Authority Headquarters
33 Fat Kwong Street, Ho Man Tin
Kowloon, Hong Kong

E-mail: emu@housingauthority.gov.hk