

**For Discussion
on 29 June 2016**

Legislative Council Panel on Housing

Performance of Environmental Targets and Initiatives in 2015-16

Purpose

This paper aims to brief Members on the performance of the Hong Kong Housing Authority (HA) in respect of its environmental targets and initiatives in 2015-16.

Background

2. In 1999, HA established its Environmental Policy to promote healthy living and a green environment, so as to enhance the quality of living for its tenants. On one hand, HA complies with relevant legislations and regulations, while on the other hand, HA has developed a framework and implemented environmental management strategies for the promotion of sustainable development on various fronts, including planning and construction of new public housing estates, operation of existing estates and HA's own offices at work. With a view to addressing concerns over environmental protection and minimising impacts on the environment, HA has incorporated environmental initiatives throughout its planning and design, construction and demolition, marketing and estate management activities, and developed relevant green procurement policies.

Progress

3. To effectively manage the overall implementation of the Environmental Policy, HA establishes environmental targets and initiatives each year at the beginning of the fiscal year and reviews its performance quarterly. In 2015-16, HA has set 41 targets covering six environmental aspects, which include energy efficiency, water conservation, greening, waste management, control of hazardous materials as well as enhancement of environmental awareness and participation in environmental protection. Details of HA's performance are listed at **Annex 1**. The statistics on the environmental performance of nine quantifiable targets as compared with respective key performance indicators are summarised at **Annex 2**.

Way Forward

4. HA has set challenging and yet pragmatic targets to gauge the performance for 2016-17. HA will continue the efforts to achieve various environmental, social and economic targets to ensure the sustainable development of the public housing programme in Hong Kong
5. Members are invited to note the performance of HA in respect of its environmental targets and initiatives in 2015-16.

**Transport and Housing Bureau
June 2016**

The Environmental Performance of the Hong Kong Housing Authority

The Hong Kong Housing Authority (HA) has set 41 environmental targets for the fiscal year 2015-16 to promote sustainable development on various fronts, including planning and construction of new housing estates, the operation of existing estates and HA's own offices at work. These targets covered six aspects, including energy efficiency, water conservation, greening, waste management, control of hazardous materials, as well as enhancement of environmental awareness and participation in environmental protection. Among the 41 environmental targets, 38 of them were fully met, while targets on 'promoting recycling of domestic waste paper' (see item 22), 'recovery of used clothes in existing estates' (see item 25), and 'reducing the paper consumption in HA offices' (see item 35) were not fully met. Details of HA's environmental performance are set out below.

(A) Environmental Initiatives in Planning and Construction of New Housing Estates

Energy Efficiency

1. HA adopted Energy Codes and obtained energy certificates for all newly completed public rental housing (PRH) and subsidised sale flat (SSF) developments.
2. HA explored and studied the use of more energy efficient equipment, including gearless lift with regenerative power, light-emitting diode (LED) bulkhead and environmental lighting controls in communal areas of domestic blocks; HA also established the product certification scheme of LED bulkhead.
3. HA adopted green design for building services equipment in both PRH and SSF developments, including solar-powered lights; and conducted carbon emission estimation and energy estimation.

Water Conservation

4. HA used six-litre single or dual flush water-closet suite to reduce consumption of flushing water.
5. HA provided low maintenance rain water harvesting system or other types of root-zone irrigation system in new PRH developments to reduce water consumption arising from irrigation.

Greening

6. For all newly completed planting works, HA met the target of planting a minimum of one tree per 15 public housing flats. All new public housing developments achieved an overall target of 30% green coverage, and a minimum of 20% green coverage at the planning, design and implementation stage.
7. All the newly formed slopes were provided with green treatment.
8. HA engaged local residents and community to participate in the Action Seedling programme for early plant raising in all new housing estates.
9. HA introduced communal planting areas in three new PRH estates during the design stage with the view to encouraging community involvement in greening of new PRH estates.

Waste Management

10. HA enhanced the use of green materials and components, including pulverised fuel ash, ground granulated blast furnace slag, recycled rock fill, recycled subbase materials, recycled rock cores, recycled glass cum aggregates, as well as recycled marine mud, etc.
11. HA promulgated specification of timber door cores for new PRH and SSF developments, requiring the use of softwood timber from sustainable source.
12. HA promulgated specification requiring contractors to use timber from sustainable source and no virgin forest products should be used for temporary works during construction.

Control of Hazardous Materials

13. HA implemented asbestos abatement programme under the estate redevelopment programme and conducted asbestos removal works in one public housing site to abate the remaining asbestos-containing materials.

Enhancement of Environmental Awareness and Participation in Environmental Protection

14. To enhance the environmental performance of contractors on site, HA

required contractors to submit and implement environmental management plans, and use environment-friendly equipment and construction methods under all new building, demolition, piling and civil engineering contracts.

(B) Environmental Initiatives in Existing Housing Estates

Energy Efficiency

15. HA completed the replacement of electromagnetic ballast in existing light fittings with electronic ballast in 140 existing PRH blocks by 30 September 2015.
16. HA conducted carbon audit in 14 PRH blocks of typical block types for monitoring carbon emission and benchmarking purposes.

Water Conservation

17. HA studied the performance of the new rain water harvesting systems installed in commercial centres and PRH estates.

Greening

18. To promote a green environment and raise tenants' environmental awareness and participation in greening, HA collaborated with Estate Management Advisory Committees to organise tree planting days in 10 PRH estates, develop community gardens in 10 PRH estates and organise greening activities in 20 PRH estates.
19. HA re-landscaped and upgraded the existing landscape facilities, through the Landscape Improvement Programme in 20 PRH estates.
20. HA improved the appearance of 10 slopes at nine PRH estates by providing hydroseeding, stone pitching and toe planters.

Waste Management

21. To promote waste separation at source and environmental management initiatives, HA implemented the Source Separation of Domestic Waste Programme in all PRH estates and set up collection counters to collect domestic recyclables through an incentive scheme.
22. HA recovered about 26 690 tonnes of waste paper from PRH estates

for recycling, representing 98.85% of the 2015-16 target and falling short of the annual target slightly by 310 tonnes. The drop in recycling of waste paper was probably due to the change of residents' habit on reading printed newspaper.

23. HA recovered about 1 353 tonnes of aluminium cans from PRH estates for recycling.
24. HA recovered about 2 223 tonnes of plastic bottles from PRH estates for recycling.
25. HA recovered about 867 tonnes of used clothes from PRH estates for recycling, representing 91.26% of the 2015-16 target. The drop in recycling of used clothes might be due to HA's keen promotion in waste reduction and up-cycling within the estates, or the fact that tenants were making better use of their clothes, resulting in the reduction of used clothes available for recycling.
26. HA implemented various waste reduction and recycling initiatives in PRH estates, and achieved the target of reducing tenants' domestic waste production to 0.55 kg/person/day on average.

Control of Hazardous Materials

27. To maintain the remaining asbestos containing materials in existing PRH estates in satisfactory condition, HA conducted two condition surveys per year and engaged a registered asbestos contractor for emergency repair works on underground asbestos cement water-mains for all PRH estates.

Enhancement of Environmental Awareness and Participation in Environmental Protection

28. HA conducted the Green Delight in Estates programme in all PRH estates in collaboration with green groups to enhance environmental awareness and promote environmental education.
29. HA conducted survey with PRH tenants to review and assess their environmental awareness.
30. HA continued to organise programmes to promote environmental protection and to strengthen awareness on environmental awareness in the community.

31. HA, through various publicity channels, promoted tenants' awareness and proactive participation in waste separation at source, waste reduction and environmental management initiatives.

(C) Environmental Initiatives in HA's Own Offices at Work

Energy Efficiency

32. HA offices consumed a total of 35 511 288 kWh of electricity, representing a decrease of about 3.1% when compared with the total electricity usage in 2013-14.

Water Conservation

33. HA Headquarters consumed 12 068 m³ of water, representing a decrease of 21.0% when compared with the water consumption baseline in 2007-08.

Greening

34. HA arranged staff to participate in Tree Planting Day to promote staff involvement in greening activities.

Waste Management

35. HA consumed 147 267 reams of paper, representing an increase of 9.2% when compared with the consumption baseline in 2007-08. The surge in paper consumption was likely attributed to the corresponding increase in the number of HA's staff as well as the scope of business.
36. HA collected 55 kg of waste paper per staff in its offices, which is higher than the target of 21.6 kg per staff.
37. HA has been using environment-friendly paper as a prerequisite requirement in the printing of all publicity materials.

Control of Hazardous Materials

38. HA controlled hazardous materials to minimise harm to environment by collecting all disposed mercury-containing lamps in HA Headquarters for special waste treatment.

Enhancement of Environmental Awareness and Participation in Environmental Protection

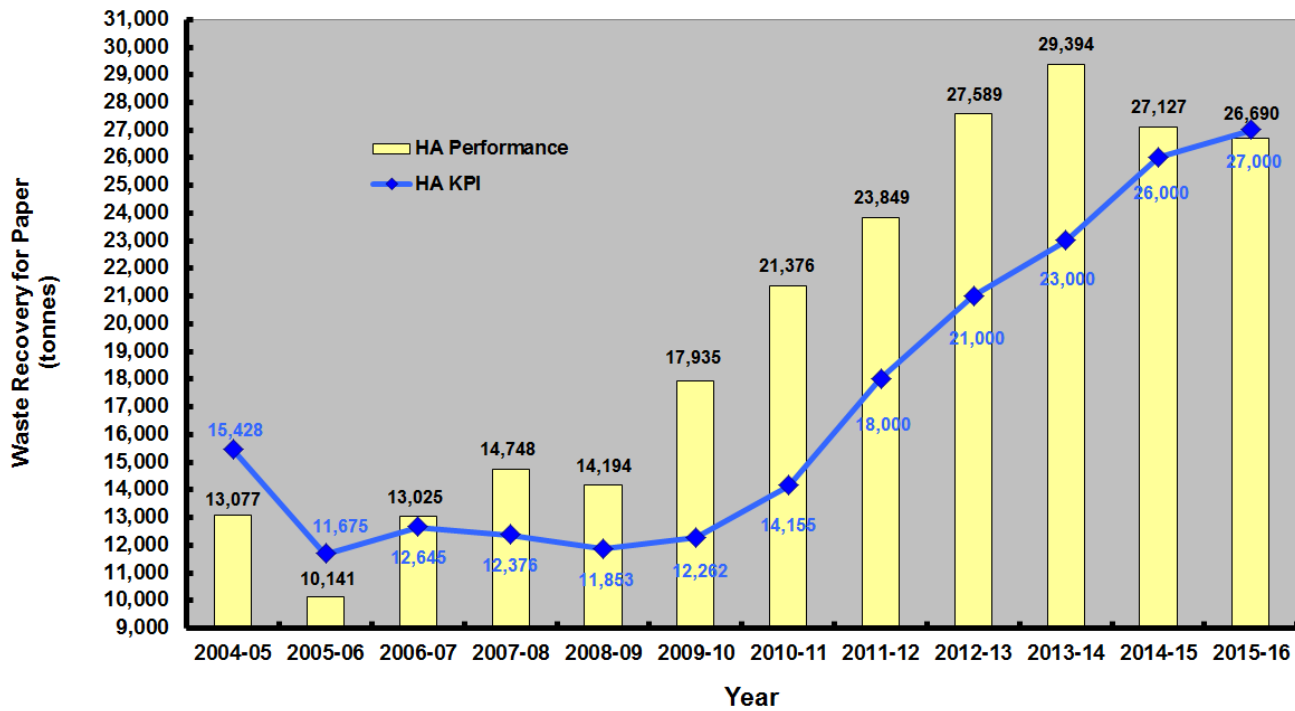
39. As a follow-up to the staff survey on environmental awareness, HA strengthened training and publicity on environmental protection, including incorporating the HA Environmental Corporate Video into the induction course for all new staff.
40. HA continued to organise seminars and environmental campaigns to enhance environmental awareness and knowledge among staff members.
41. HA organised displays of environmental issues at HA Headquarters to promote environmental message to HA staff.

-END-

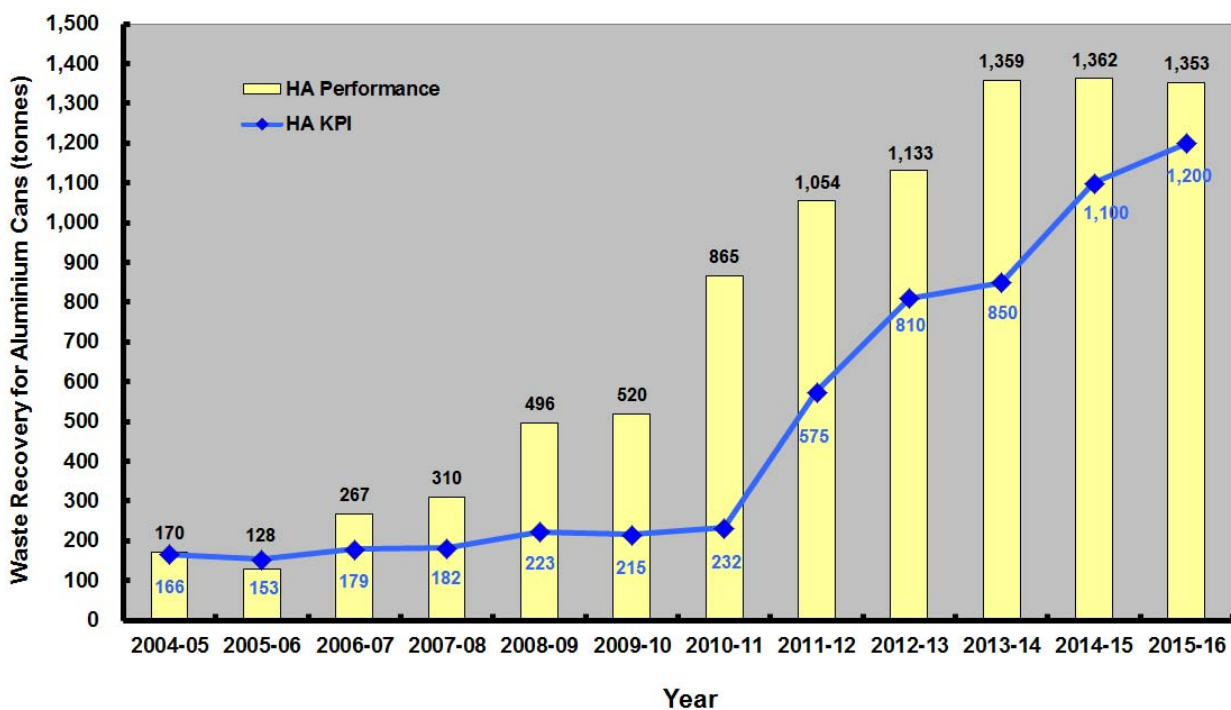
**Summary on the Statistics about the Environmental Performance for
Nine Quantifiable Targets**

A) Public Rental Housing Estates

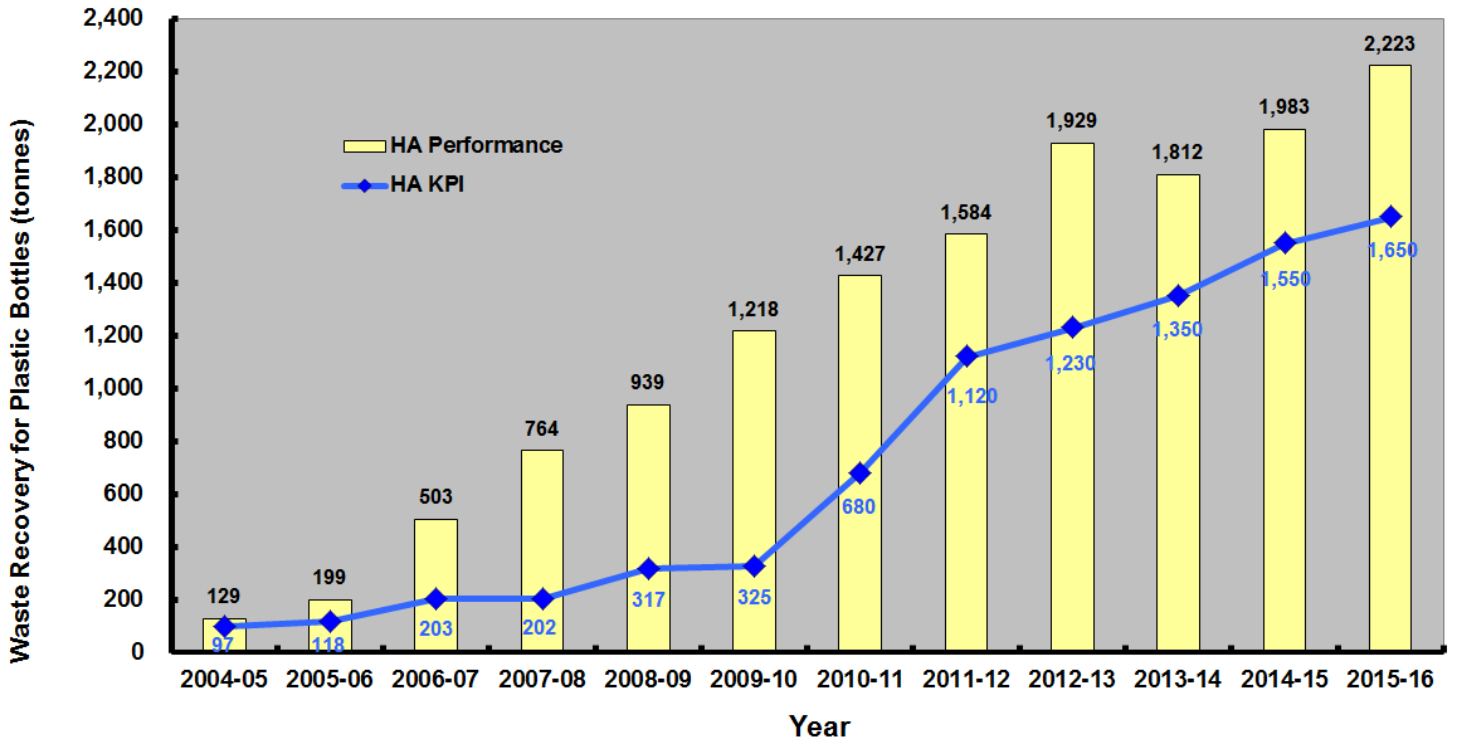
(1) Domestic Waste Recovery for Paper



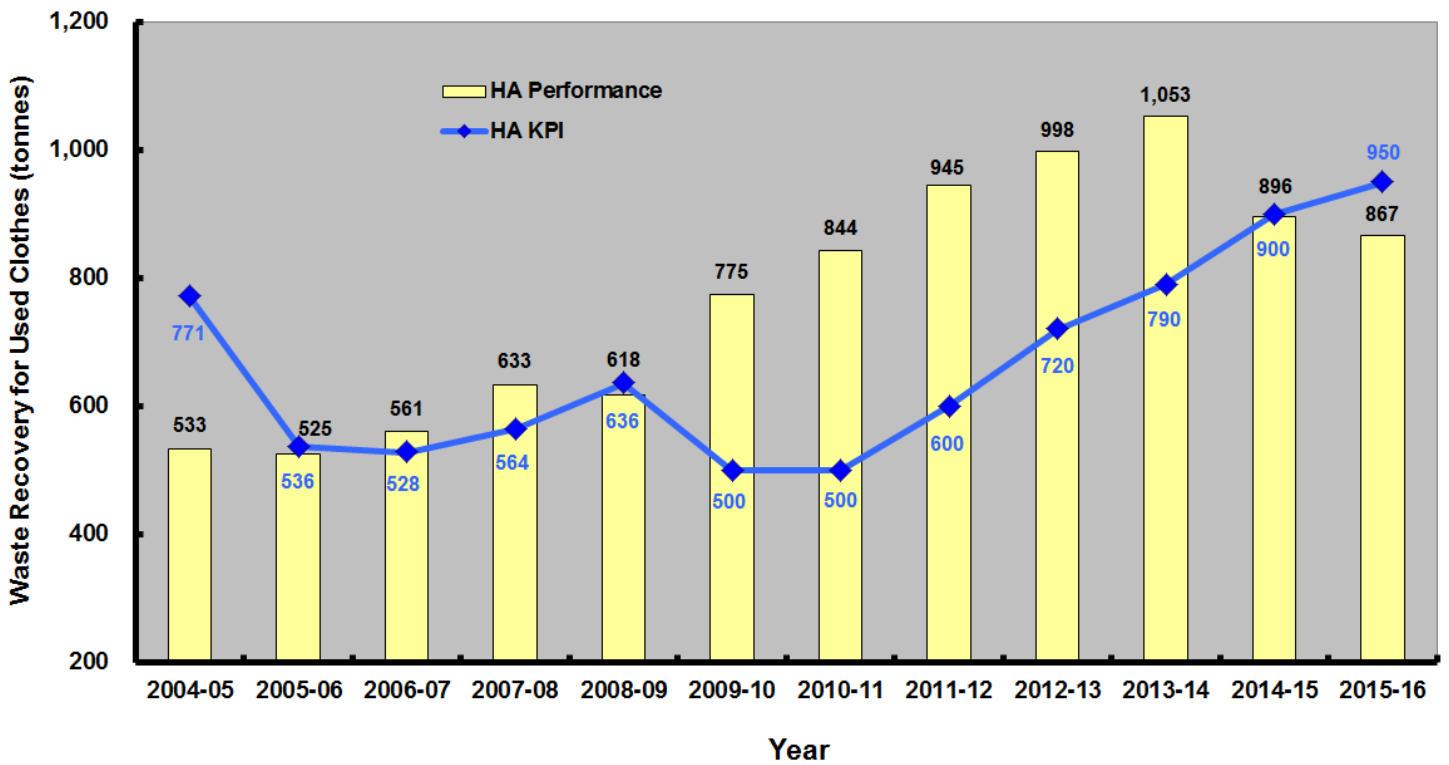
(2) Domestic Waste Recovery for Aluminium Cans



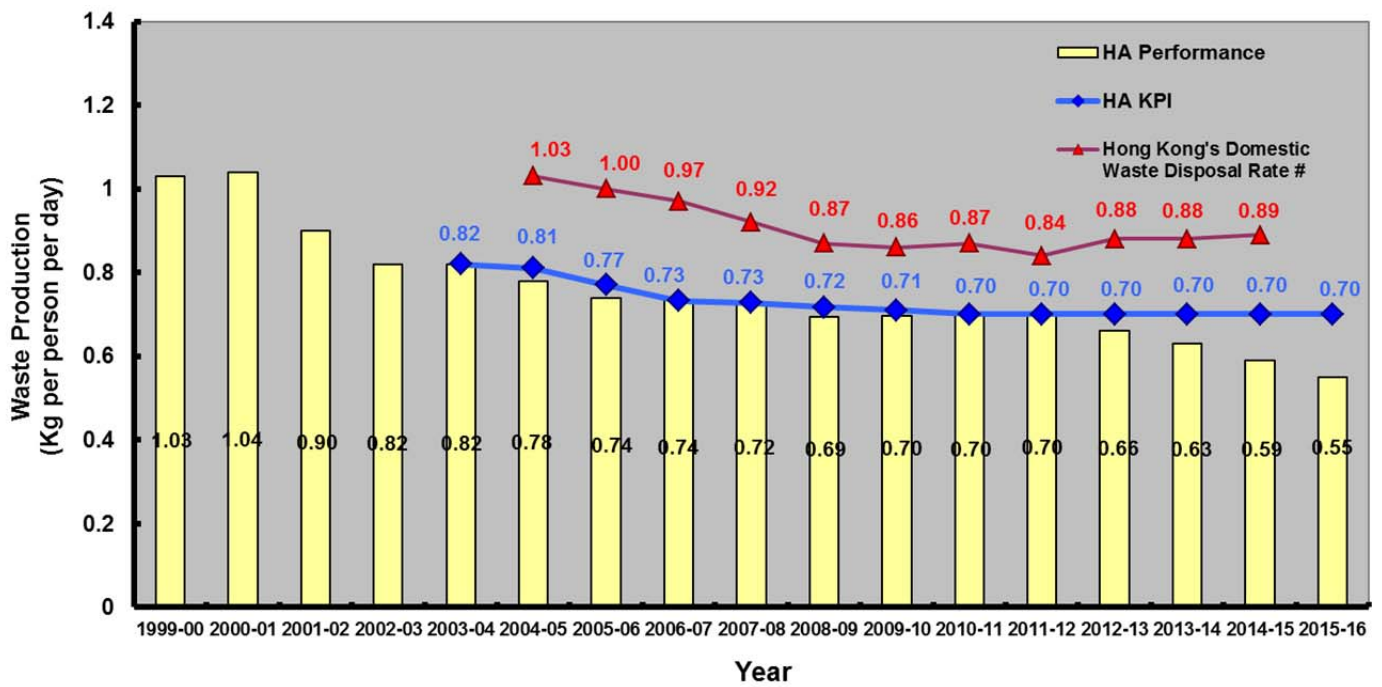
(3) Domestic Waste Recovery for Plastic Bottles



(4) Domestic Waste Recovery for Used Clothes



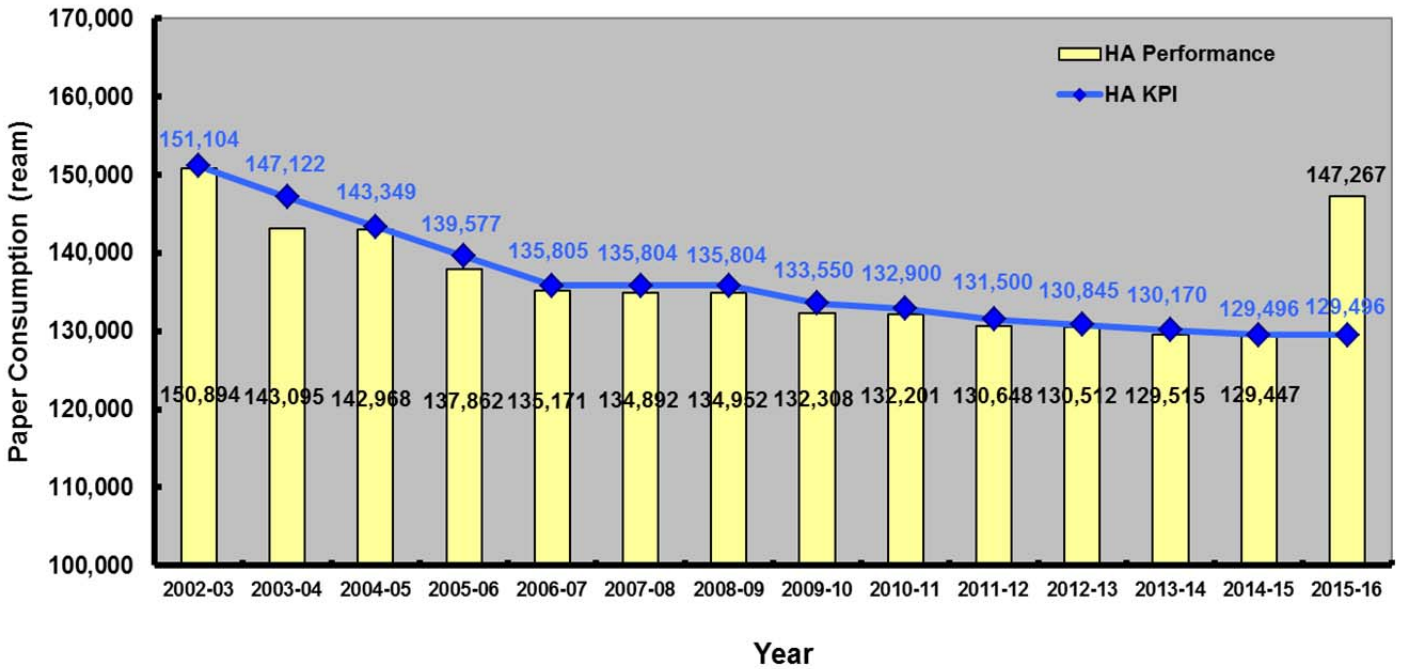
(5) Average Domestic Waste Production



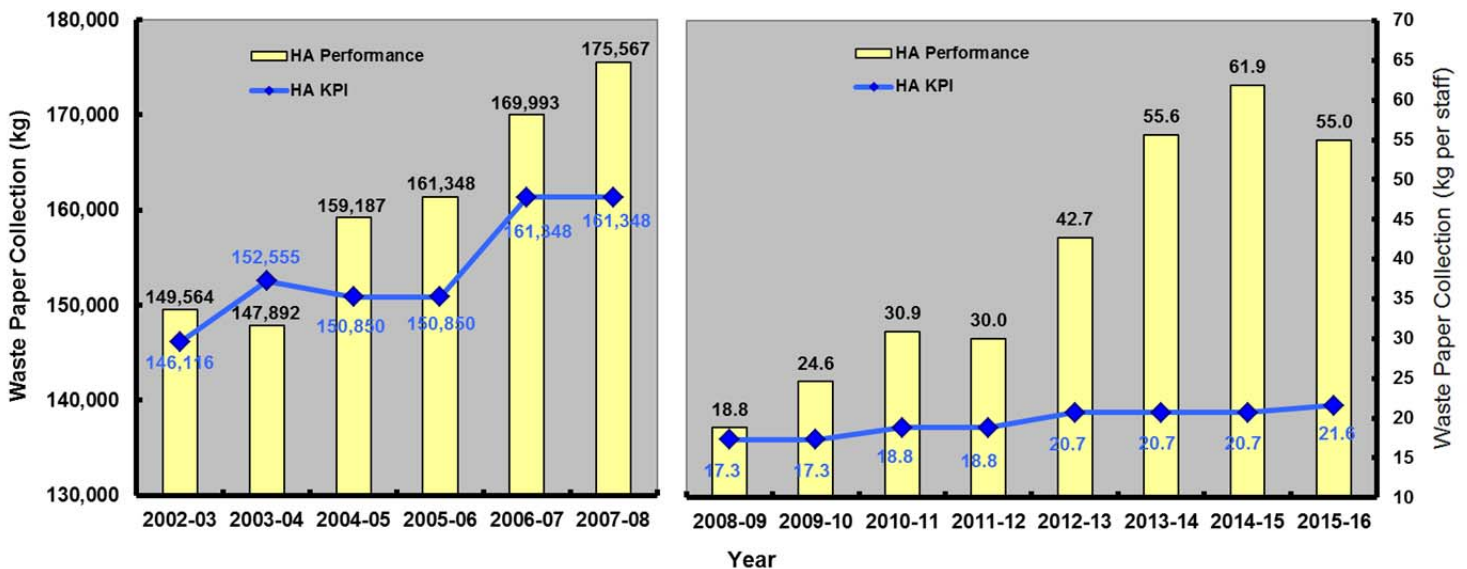
Source: Environmental Protection Department (2015). *Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2014*.

B) HA Offices

(6) Paper Consumption in all HA Offices

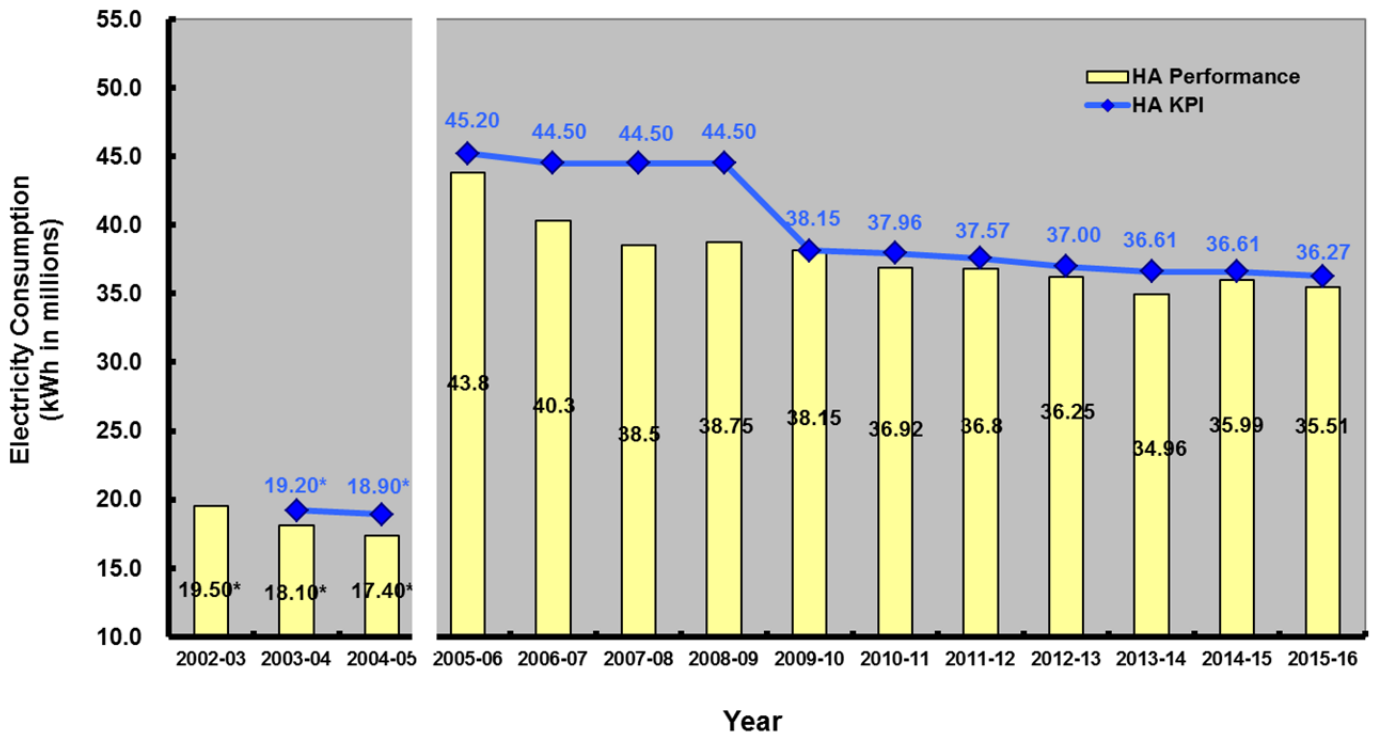


(7) Waste Paper Collection in all HA Offices



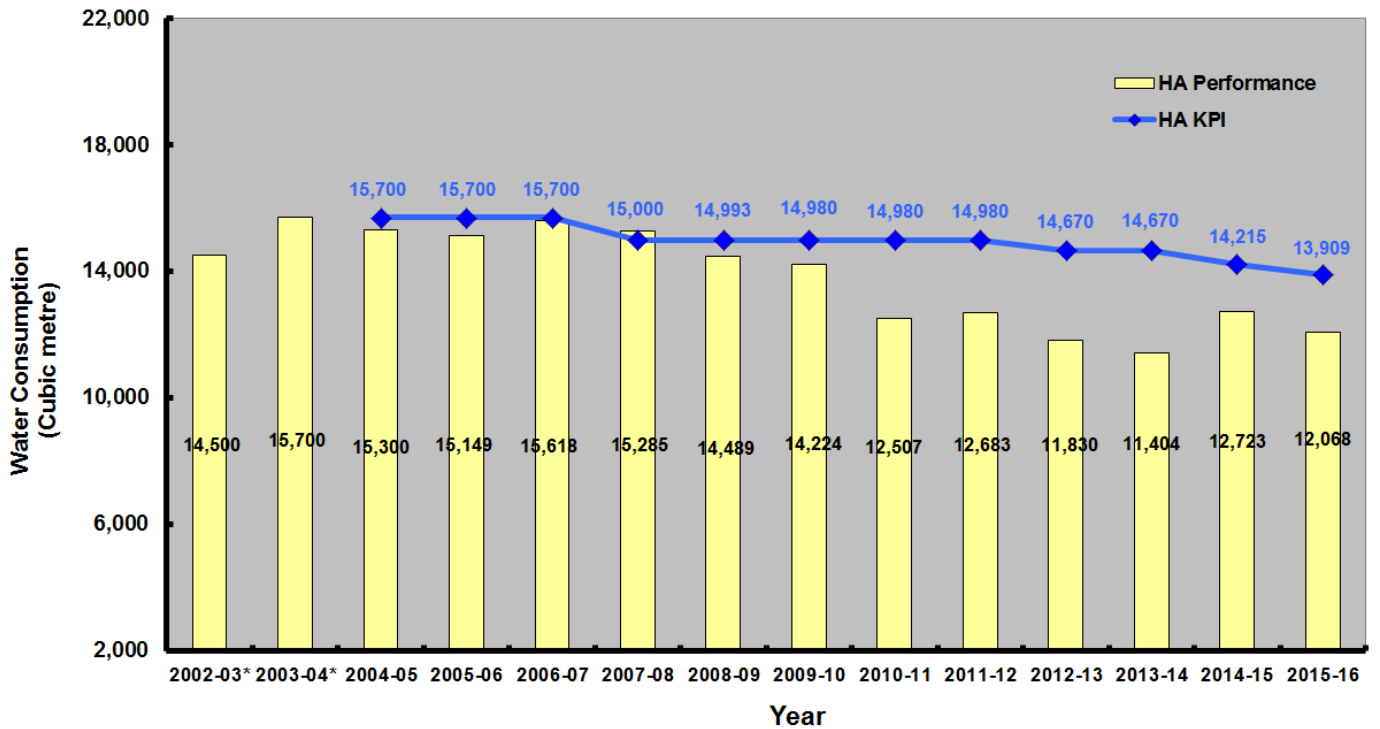
Note: Since 2008/09, waste paper collection is calculated by weight per staff instead of the overall weight

(8) Annual Electricity Consumption in all HA Offices



*The HA KPI & HA performance have not included the HA Offices outside HAHQ. The corresponding KPI has been set up since 2003/04.

(9) Water Consumption in HA Headquarters



* No official target was set for water consumption in 2002/03 and 2003/04

-END-