

**For discussion  
on 10 July 2017**

**Legislative Council Panel on Housing  
Performance of Environmental Targets and Initiatives in 2017-18**

**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 2017-18.

**Background**

2. To enhance the quality of living for its tenants, HA established its Environmental Policy in 1999 to promote healthy living and a green environment. HA not only complies with relevant legislation and regulations, but also developed a strategic framework and implemented environmental management strategies for the promotion of sustainable development on multiple 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. HA establishes annual environmental targets and initiatives at the beginning of each fiscal year, and reviews its performance quarterly, to effectively manage the overall implementation of its environmental policy. In 2017-18, HA set 41 targets covering 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 initiatives. Details of HA's performance are listed at **Annex 1**. The statistics on the environmental performance of the nine quantifiable targets as compared with respective key performance indicators are at **Annex 2**.

## **Way Forward**

4. HA has set pragmatic and progressive targets regarding the environmental protection works of 2018-19, to gauge the performance for the year. HA will continue its efforts to achieve various environmental, social and economic targets, to facilitate sustainable development of the public housing programmes.
5. Members are invited to note the performance of HA in respect of its environmental targets and initiatives in 2017-18.

**Transport and Housing Bureau**  
**May 2018**

### **The Environmental Performance of the Hong Kong Housing Authority**

The Hong Kong Housing Authority (HA) has set 41 environmental targets for the fiscal year 2017-18 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 initiatives. Among the 41 environmental targets, 40 of them were fully met, while a target on 'recovery of used clothes in existing estates' (item 23) was not fully met. Details of HA's environmental performance in 2017-18 are set out below.

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

##### ***Energy Efficiency***

1. Regarding the building services installation in communal areas of new public rental housing (PRH) and subsidised sale flats (SSF) developments, HA set the designed average electricity consumption to not exceeding 24kWh per m<sup>2</sup> per Annum.
2. HA continued to adopt energy efficient equipment, including using gearless lifts, regenerative power for lift of 8kW or above, light-emitting diode (LED) bulkhead lightings, and adopting environmental lighting controls in communal areas of all domestic blocks.
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 in both PRH and SSF developments, to reduce consumption of flushing water.
5. HA provided Zero Irrigation System or other types of root-zone irrigation system in all new building projects, to reduce consumption of irrigation water.

## ***Greening***

6. For all newly completed planting works, HA met the target of planting a minimum of one tree per 15 public housing flats and conducted annual tree survey. All new public housing developments achieved at least 20% green coverage, and sites exceeding two hectares achieved 30% green coverage.
7. All the newly formed slopes were provided with green treatment.
8. HA arranged Action Seedling programmes in all new PRH estates to engage local residents and community for early plant raising.
9. HA introduced communal planting areas or community farms during the design stage of all new PRH projects with site area larger than two hectares, to encourage PRH residents to participate in gardening and planting works in their own estates for recreation and education purposes.

## ***Waste Management***

10. HA continued to use various 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, and recycled marine mud, etc.
11. Regarding timber doors in new public housing developments of HA, apart from using softwood from only sustainable forest sources, at least 50% of all timber used was from sustainable forest sources, to meet the requirement of the *Building Environmental Assessment Method Plus (New Building)* on sustainable forest products.
12. HA required contractors to use timber from sustainable sources, and that no virgin forest products shall be used for temporary works during construction.

## ***Control of Hazardous Materials***

13. HA continued to abate existing asbestos-containing materials in its construction sites, and implement proper asbestos removal works in demolition.

## ***Enhancement of Environmental Awareness and Participation in Environmental Protection Initiatives***

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, machinery and construction methods under all new building, demolition, piling and civil engineering contracts.

### **(B) Environmental Initiatives in Existing Housing Estates**

#### ***Energy Efficiency***

15. HA conducted carbon audit in 14 PRH blocks of typical block types for monitoring carbon emission and benchmarking purposes.

#### ***Greening***

16. To promote a green environment and raise tenants' environmental awareness and participation in greening, HA collaborated with Estate Management Advisory Committees (EMACs) to organise community garden activities in 10 PRH estates, greening activities in 20 PRH estates and 10 tree planting days.
17. To improve the quality of landscape and upgrade the existing landscape facilities, HA completed Landscape Improvement Programme in 20 PRH estates.
18. HA improved the appearance of 10 slopes at six PRH estates by providing hydroseeding, stone pitching and toe planters.

#### ***Waste Management***

19. To promote waste separation at source and environmental management initiatives, HA implemented the Source Separation of Domestic Waste Programme and set up collection counters in all PRH estates, to collect domestic recyclables through an incentive scheme.
20. HA recovered about 29 204 tonnes of waste paper from PRH estates for recycling, which was more than the annual target of 28 000 tonnes.

21. HA recovered about 1 541 tonnes of aluminium cans from PRH estates for recycling, which was more than the annual target of 1 300 tonnes.
22. HA recovered about 2 042 tonnes of plastic bottles from PRH estates for recycling, which was more than the annual target of 1 750 tonnes.
23. HA recovered about 892 tonnes of used clothes from PRH estates for recycling, representing 99% of the annual target of 900 tonnes. The shortfall may be due to tenants' change of habit and HA's keen promotion of re-using old clothes in its estates.
24. HA promoted waste reduction through various publicity campaigns and activities, and lowered the domestic waste production of tenants to an average of 0.56 kg per person per day, which was within the 0.70 kg target.
25. HA arranged for non-governmental organisation to carry out publicity activities in various PRH estates to promote the recycling of glass bottles.
26. HA promoted the Rechargeable Battery Recycling Programme in all PRH estates.

### ***Control of Hazardous Materials***

27. HA implemented the asbestos abatement programme in PRH estates, which included promulgating the location of Asbestos Containing Materials (ACM), explaining the proper handling of the ACM, and publicising such information; enhancing regular monitoring system on ACM, formulating the asbestos removal programme, etc.

### ***Enhancement of Environmental Awareness and Participation in Environmental Protection Initiatives***

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 among PRH tenants to assess and review their environmental awareness.
30. HA continued to organise activities to promote environmental protection, to enhance awareness on environmental protection in the community.
31. Through various publicity channels such as EMAC newsletters and Housing Channel, HA promoted tenants' awareness and proactive participation in

waste separation at source, waste reduction and environmental management initiatives in all PRH estates.

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

#### ***Energy Efficiency***

32. HA offices consumed a total of 34 156 095 kWh of electricity, meeting the target of not more than 36 140 000 kWh.

#### ***Water Conservation***

33. HA Headquarters consumed 11 042 m<sup>3</sup> of water, meeting the target of not more than 13 300 m<sup>3</sup>.

#### ***Greening***

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

#### ***Waste Management***

35. HA consumed 134 331 reams of paper, meeting the target of not more than 136 300 reams.

36. HA collected 92.2 kg of waste paper per staff in its offices, which is beyond the target.

37. For printing publicity materials, HA continued to use only environment-friendly paper.

#### ***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 Initiatives***

39. HA continued to strengthen training and publicity on environmental protection, including incorporating the HA Environmental Corporate Video into the induction course for all new staff.
40. HA organised 18 seminars and two environmental campaigns, to enhance environmental awareness and knowledge among staff members.
41. HA organised three displays of environmental issues at HA Headquarters to promote environmental message to its staff.

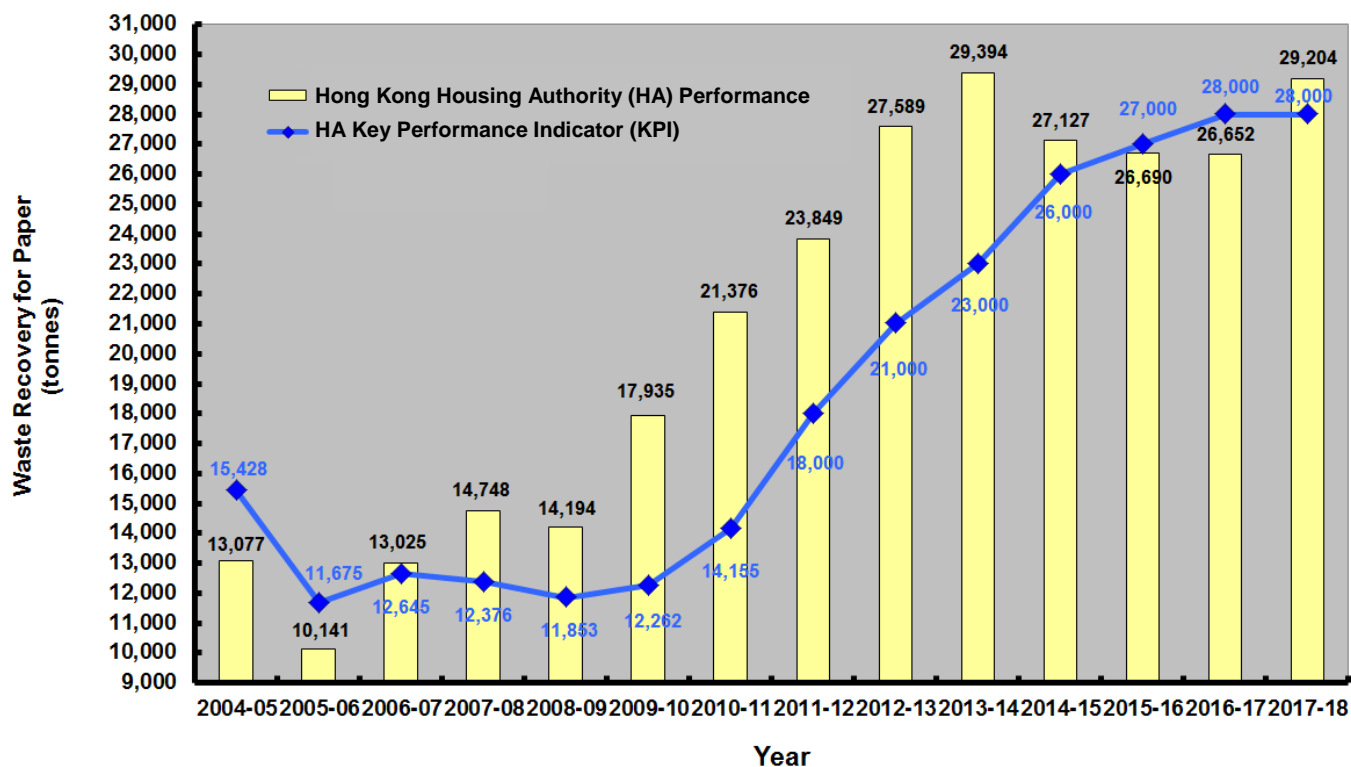
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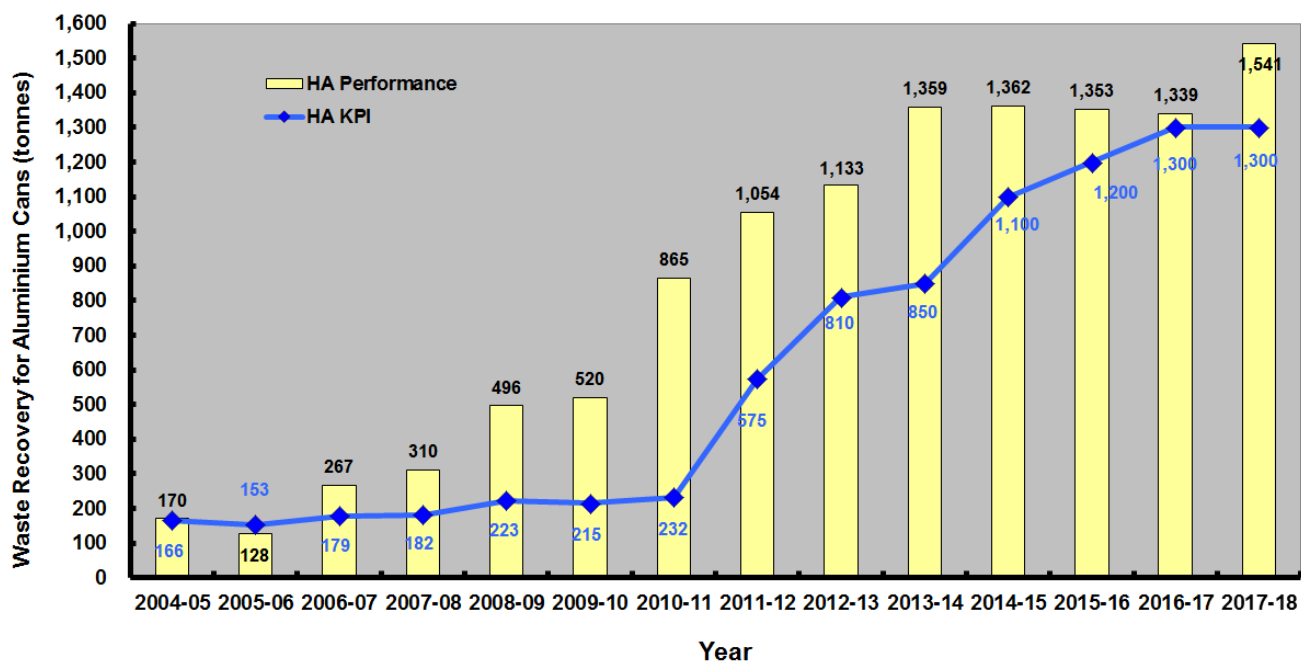
**Summary on the Statistics about the Environmental Performance for  
the Nine Quantifiable Targets**

**A) Public Rental Housing Estates**

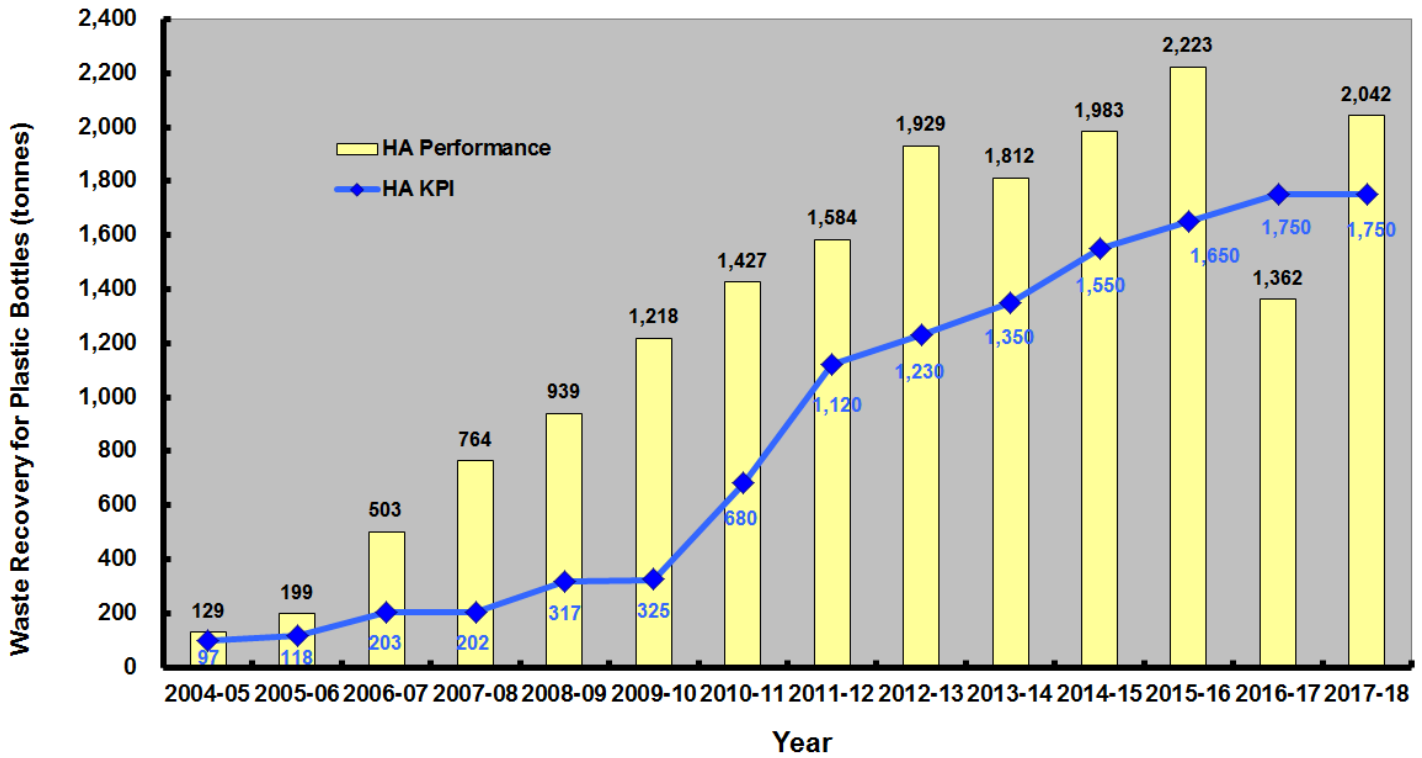
**(1) Domestic Waste Recovery for Paper**



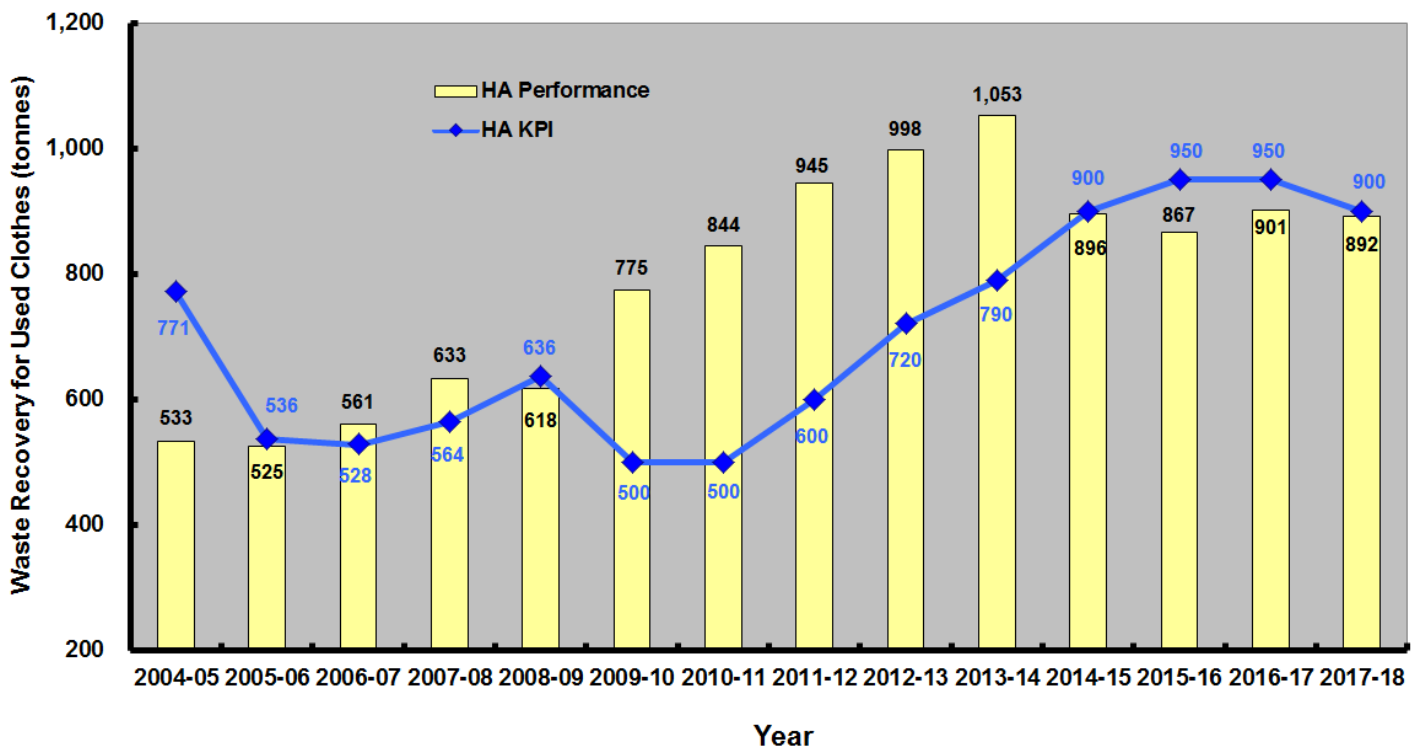
**(2) Domestic Waste Recovery for Aluminium Cans**



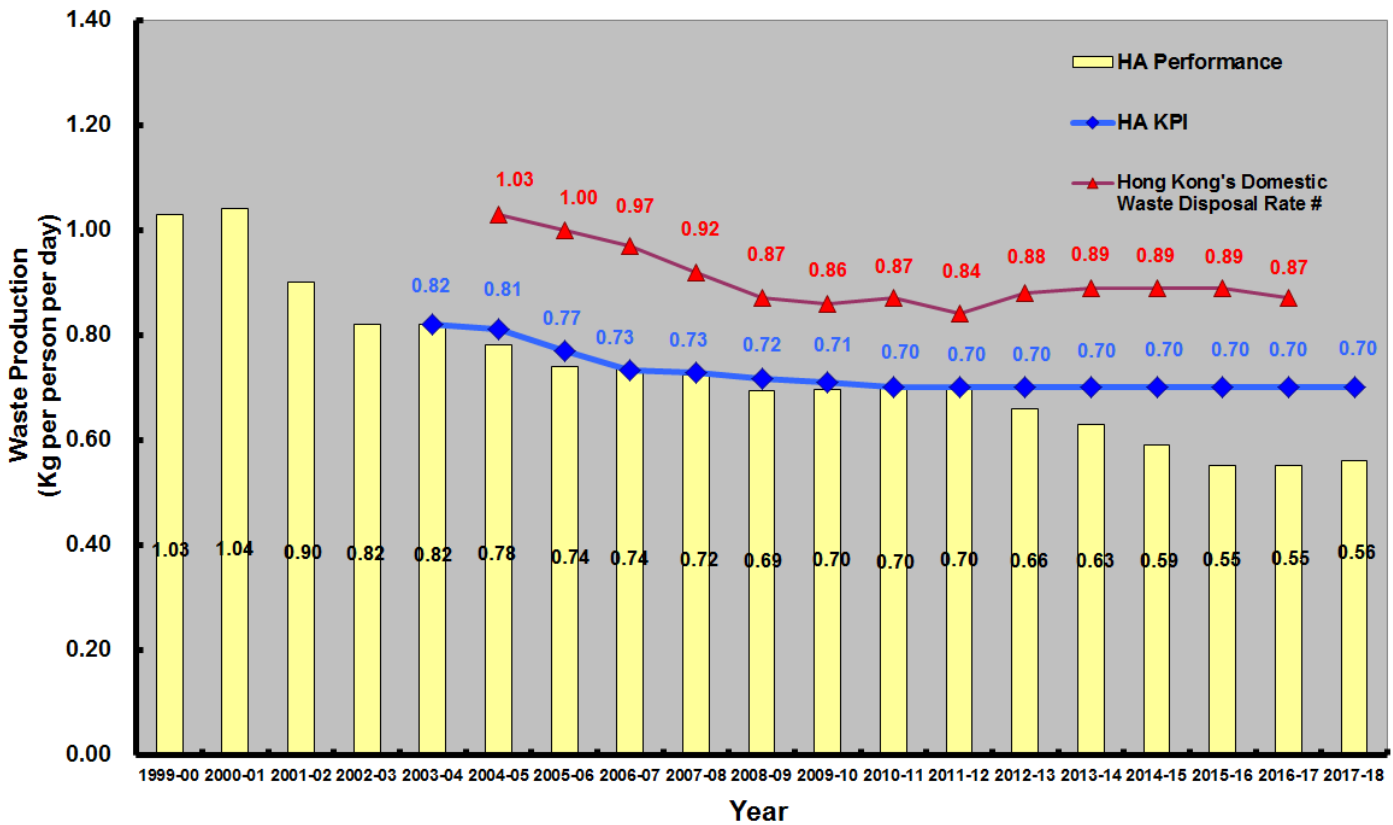
### (3) Domestic Waste Recovery for Plastic Bottles



### (4) Domestic Waste Recovery for Used Clothes



### (5) Average Domestic Waste Production

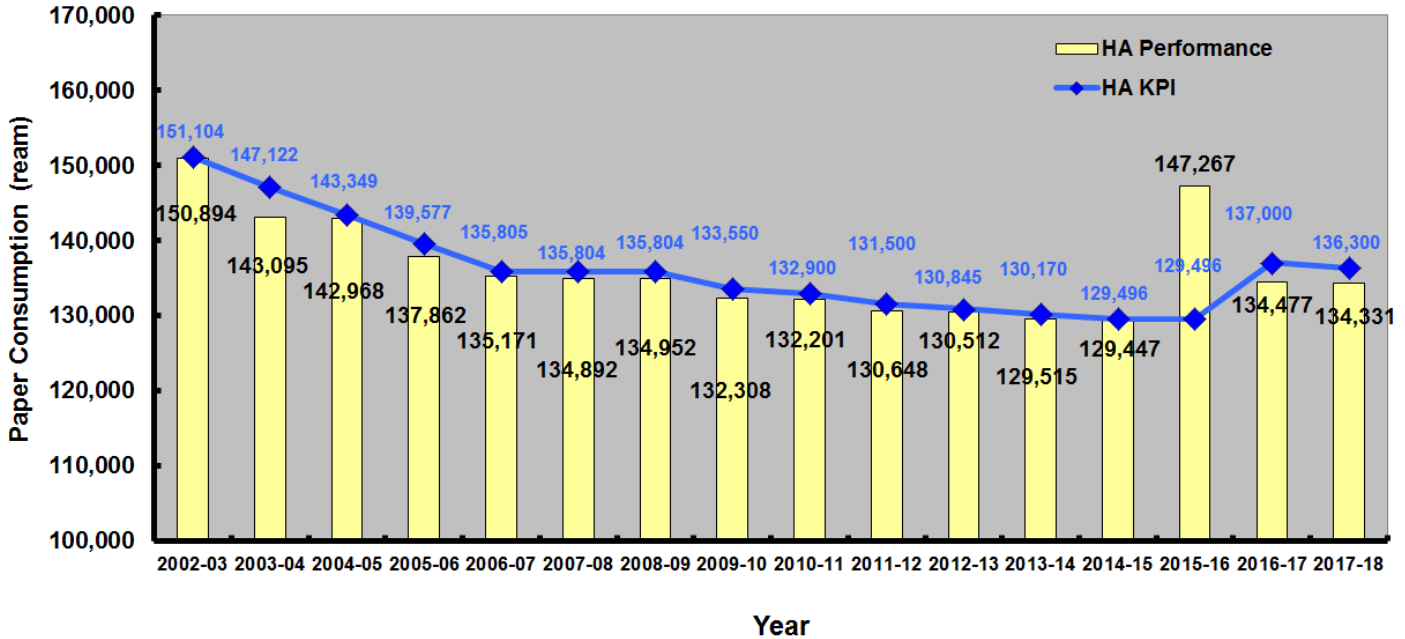


# Source: Environmental Protection Department (2017). *Monitoring of Solid Waste in Hong Kong – Waste Statistics for 2016*.

Note: According to the classification adopted by the Environmental Protection Department, domestic waste refers to household waste, waste generated from daily activities in institutional premises (e.g. schools, government offices) and refuse collected from public cleansing services. The domestic waste production recorded by HA only covered the domestic waste generated in its estates, and waste collected in the common area of shopping centres.

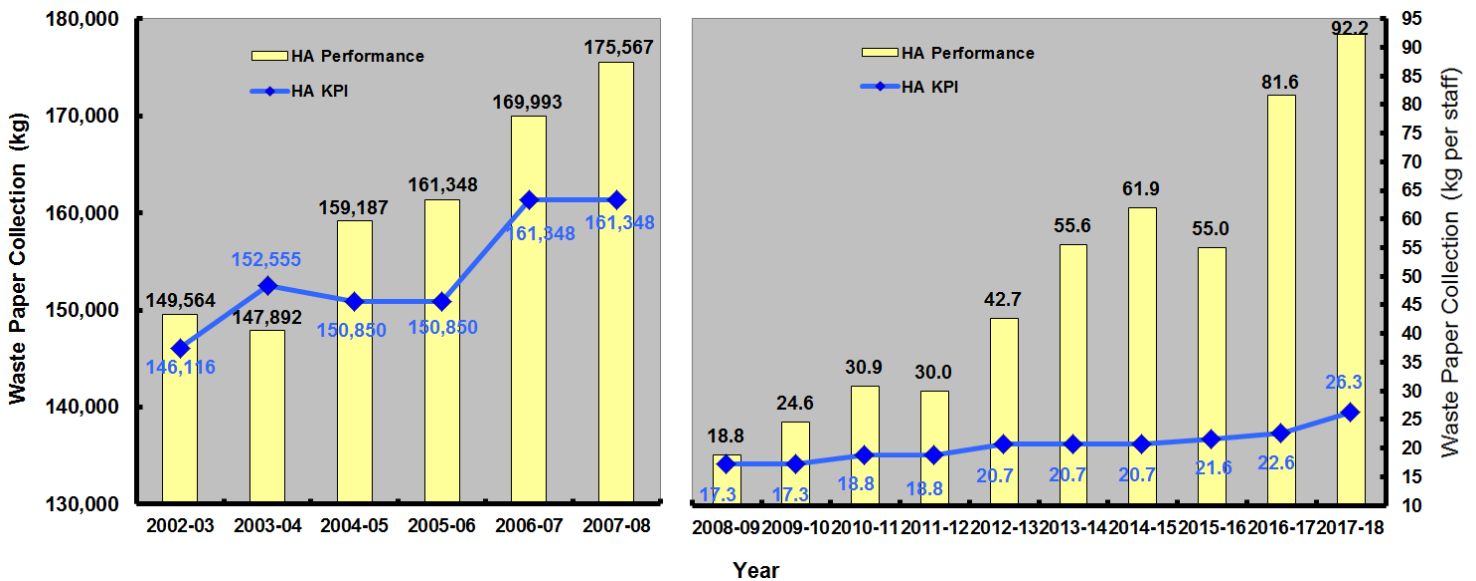
## B) HA Offices

### (6) Paper Consumption in all HA Offices



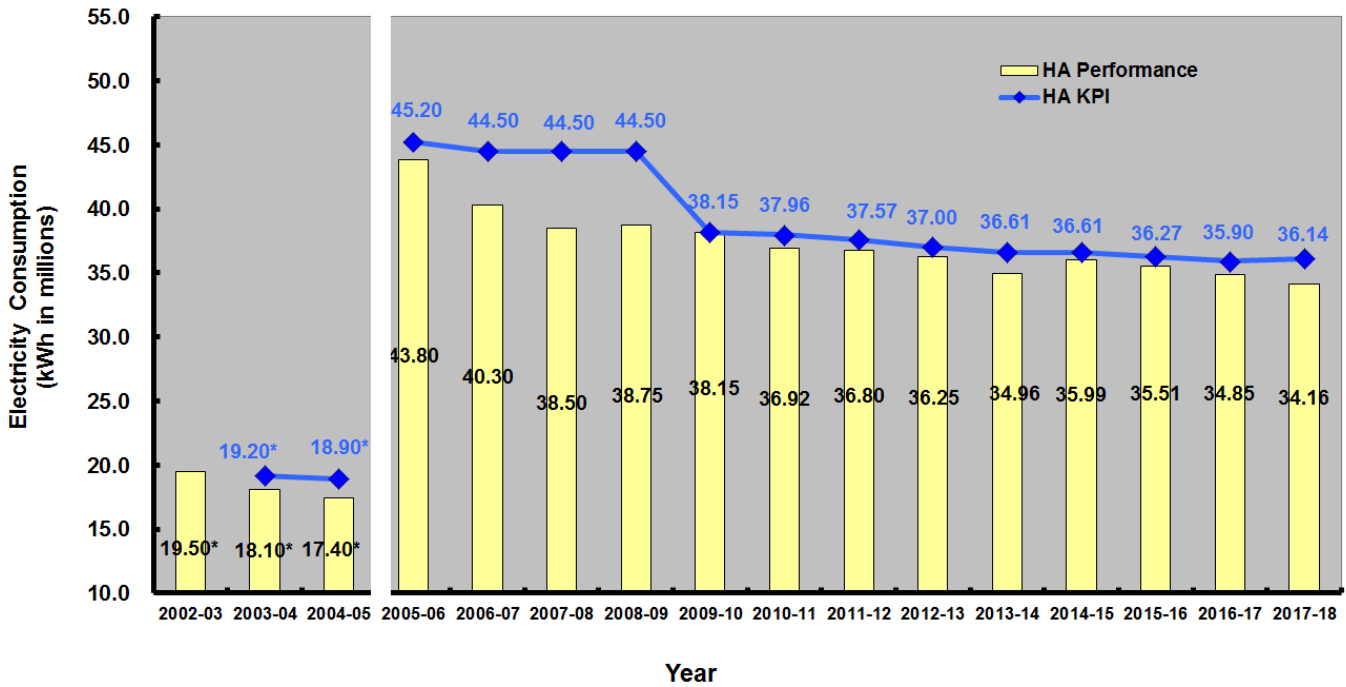
Note: Considering HA's increase in manpower and business activities in recent years, the Finance Committee of HA endorsed in 2016 the revision of the target for 2016-17, in order to take manpower expansion into account.

### (7) Waste Paper Collection in all HA Offices



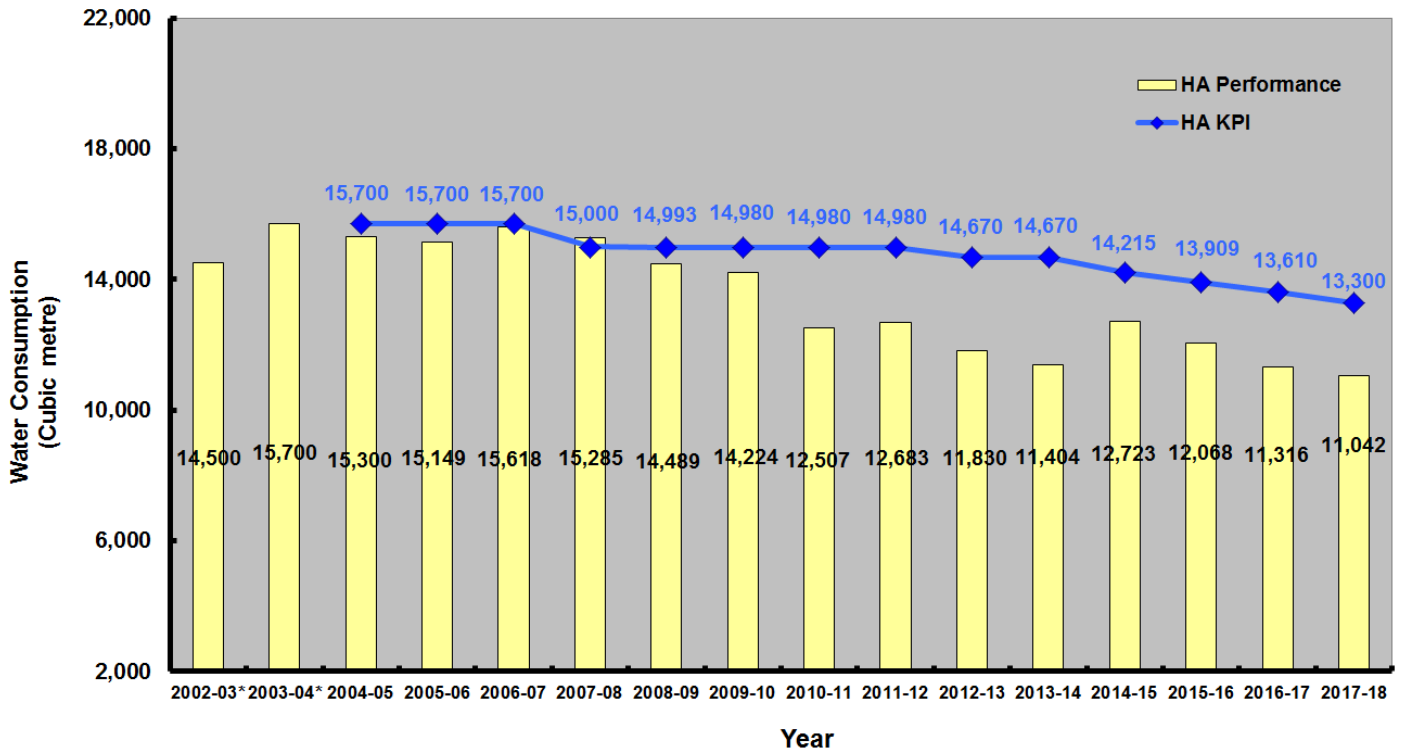
Note: Since 2008-09, waste paper collection has been calculated by weight per staff instead of overall weight.

### (8) Annual Electricity Consumption in all HA Offices



\* HA offices outside HA Headquarters (HAHQ) were not included in the HA KPI and HA performance. The corresponding KPI has been set up since 2003-04.

### (9) Water Consumption in HA Headquarters<sup>#</sup>



\* No official target was set for water consumption in 2002-03 and 2003-04.

# Including HAHQ Blocks 1 to 4.

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