

**CONTROLLING OFFICER'S REPLY**

**EEB(F)153**

**(Question Serial No. 3494)**

Head: (49) Food and Environmental Hygiene Department

Subhead (No. & title): (-) Not specified

Programme: (1) Food Safety and Public Health

Controlling Officer: Director of Food and Environmental Hygiene (Ms Irene YOUNG)

Director of Bureau: Secretary for Environment and Ecology

Question:

It is mentioned under the Policy Measures of the Policy Address that a multi-pronged approach will be adopted in rodent control, including strengthening overnight operation, applying new technologies and tools, and formulating a new rodent infestation index. In this connection, please advise this Committee of:

- (a) the numbers of dead rodents collected and live rodents caught (with a breakdown by location of capture, e.g. markets, streets, etc);
- (b) the expenditure involved in nighttime rodent control and the adoption of new technologies and tools in the past 3 years as well as their effectiveness;
- (c) the progress of the formulation of the "Composite Rodent Infestation Rate";
- (d) the expenditure and manpower (including in-house staff and staff of outsourced service contractors) involved in tackling and controlling rodent infestation in the past 3 years;
- (e) the average cost to eliminate a single rodent in the past year;
- (f) the results achieved in meeting the KPI for rodent control work?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 65)

Reply:

- (a) The numbers of dead rodents collected and live rodents caught by the Food and Environmental Hygiene Department in the past 3 years, with a breakdown by location, are provided at **Annex 1**.
- (b) Since July 2022, the Department has set up overnight rodent control teams under the District Environmental Hygiene Offices over the territory to enhance the effectiveness in capturing rodents. The expenditure for overnight rodent control teams in the past 2 financial years is provided at **Annex 2**.

The overnight rodent control teams caught about 9 500 and 24 200 live rodents in 2022 and 2023 respectively, accounting for about 20% and 40% of the total number of live rodents caught in the same years respectively.

The new rodent control technologies and tools tried out by the Department in the past 3 years, their effectiveness and the expenditure involved are provided at **Annex 3**.

- (c) From 2024 onwards, the Department has fully adopted thermal imaging cameras with artificial intelligence technology for conducting the Rodent Activity Survey (RAS) as a replacement for the Rodent Infestation Survey (RIS). The RAS will be conducted in all districts across the territory once every 6 months. The Department will take into account a basket of factors, including rodent-related complaint figures which have been confirmed upon investigation, number of live and dead rodents caught, inspection results, the views from local communities, etc., to identify locations with potential rodent problems in each district as the sampling frame. For each survey, based on factors such as geographical distribution and complaint figures, approximately 100 locations will be selected from the sampling frame via stratified sampling for installation of thermal imaging cameras for capturing thermal images in order to effectively deploy resources and ensure the representativeness of the sampled locations. Artificial intelligence will be used in the survey to help analyse the images and identify the presence of rodents. A Rodent Absence Rate (RAR) will be enumerated for the district based on the analysis results.

The RAS for the first half of 2024 has already commenced, and the RARs for the 5 districts covered in the first phase, including Central and Western, Wan Chai, Eastern, Mong Kok and Sham Shui Po Districts, have been published. The surveys for the remaining 14 districts are commencing in phases, and the findings will be progressively published and uploaded onto the website of the Department for public information.

- (d) The manpower and expenditure involved in pest control work, including rodent and mosquito prevention and control, of the Department are as follows:

Year	Civil service staffing		Total number of staff employed by pest control service contractors
	Planning and implementation of pest control work in the districts	Vector surveillance, technical support and advisory work	
2021	745	109	2 232
2022	745	109	2 199
2023	745	109	2 352

Year	Overall expenditure on pest control services <sup>Note</sup> (\$ million)	Government staff costs for pest control work (\$ million)	Expenditure on pest control service contracts (\$ million)
2021-22	762	275	413
2022-23	786	286	457
2023-24 (Revised estimate)	808	291	439
2024-25 (Estimate)	875	297	503

Note: The overall expenditure on pest control services includes the expenditure on government staff, service contracts and other day-to-day operating expenses.

- (e) In 2023-24, the overall revised estimated expenditure of the Department on pest control in public places and facilities under its purview was \$808 million. The expenditure covered not only rodent prevention and control but also the prevention and control work of mosquitoes and other arthropod pests with public health importance. Besides, the Department's work on rodent prevention and control is not limited to "rodent disinfestation" only. Such work also includes measures to prevent rodent breeding (such as filling of rodent holes, installation of rodent guards, removal of rubbish and junk, etc.), daily inspections, law enforcement, technical support for different departments/organisations, publicity and education, as well as follow-ups to complaints. Therefore, it is difficult to calculate the average cost of catching or collecting a rodent.
- (f) In 2023, the Department conducted strategic anti-rodent operations at a total of 108 priority rodent blackspots in all districts and eliminated around 60% of the priority rodent blackspots (70 in total), achieving the key performance indicator of reducing the number of priority rodent blackspots at least by half as set in the 2022 Policy Address. In 2024, the Department will continue to conduct anti-rodent operations targeting 97 priority rodent blackspots, including the remaining 38 blackspots and 59 newly identified blackspots, with a view to achieving the target of reducing the number of blackspots by 60% by the end of 2024 as set in the 2023 Policy Address.

**Number of dead rodents collected and number of live rodents caught  
by the Department (with a breakdown by location)**

Location	Year					
	2021		2022		2023	
	Dead rodents collected	Live rodents caught	Dead rodents collected	Live rodents caught	Dead rodents collected	Live rodents caught
Public place (including street and rear lane)	N.A <sup>Note</sup>		N.A <sup>Note</sup>		27 428	49 922
Public market	N.A <sup>Note</sup>		N.A <sup>Note</sup>		6 951	13 275
Hawker bazaar	N.A <sup>Note</sup>		N.A <sup>Note</sup>		117	147
Total	33 336	33 846	31 810	45 422	34 496	63 344

Note: The Department does not keep the relevant information.

**2022-23**

<b>Team/Post</b>	<b>Number of teams</b>	<b>Number of staff</b>	<b>Actual expenditure (\$ million)</b>
Overnight rodent control team	19	57	10
Rodent inspection officer	N.A.	11	4
Total	19	68	14

**2023-24**

<b>Team/Post</b>	<b>Number of teams</b>	<b>Number of staff</b>	<b>Revised estimated expenditure (\$ million)</b>
Overnight rodent control team	68 <sup>Note</sup>	204 <sup>Note</sup>	26
Rodent inspection officer	N.A.	19	9
Total	68 <sup>Note</sup>	223 <sup>Note</sup>	35

Note: The Department has progressively increased the number of overnight rodent control teams to 31 (93 staff in total) since August 2023. Besides, the Department temporarily deployed additional 37 teams (111 staff in total) from mid-December 2023 to February 2024 to support the Year-end Clean-up Campaign.

**New technologies and tools for rodent control,  
their effectiveness and the expenditure involved**

Rodent control technology and tool	Effectiveness	Expenditure		
		2021-22	2022-23	2023-24
<b>Thermal imaging camera surveillance system</b>	The Department conducted trials on thermal imaging cameras with artificial intelligence analytical function in 2020 and found it effective in facilitating objective assessment of rodent infestation situation. The equipment has been widely employed in the strategic anti-rodent operations. Moreover, the Department has fully adopted thermal imaging cameras for conducting the RAS as a replacement for the RIS from 2024 onwards to enhance rodent surveillance in districts and deploy more effective anti-rodent operations in blackspots.	About \$2.39 million	About \$3.89 million	About \$5.77 million
<b>Placing poisonous baits in a T-shaped bait box</b>	The bait box was tested between October and November 2020. Test results showed that the T-shaped bait box was more effective than ordinary rectangular bait boxes in attracting rodents to enter and consume the baits. The equipment has been widely employed.	N.A. <sup>Note</sup>	About \$580,000	About \$140,000
<b>Alcohol rodent trapping device</b>	The Department has conducted trials progressively on alcohol rodent trapping devices in public markets and refuse collection points since October 2022. The results are positive. The equipment	N.A. <sup>Note</sup>	About \$380,000	About \$5.78 million

Rodent control technology and tool	Effectiveness	Expenditure		
		2021-22	2022-23	2023-24
	will be used in suitable places as necessary.			
<b>Glue trap</b>	The Department has tried out the application of glue traps in public markets with more serious rodent infestation as an additional measure for rodent disinfestation since November 2022. Positive results have been achieved, and the rodent infestation problem in public markets has been alleviated effectively. The equipment will be used in suitable indoor venues, such as public markets and refuse collection points, as necessary.	N.A. <sup>Note</sup>	About \$630,000	About \$2 million

Note: The Department did not procure such equipment in that year.

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