

CONTROLLING OFFICER'S REPLY

EEB(F)147

(Question Serial No. 0100)

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:

With regard to the prevention and control of rodents, please advise this Committee of:

1. the expenditure and manpower involved in the pest control services provided by the staff of the Food and Environmental Hygiene Department and its outsourced workers in each of the past 3 years;
2. the number of rat holes filled, the number of poison treatments of rodent infestation, the number of rodent trappings, the number of dead rodents collected and the number of live rodents caught, the number of rodent infestation complaints received, the number of rodent control surveys conducted and the Rodent Infestation Rate recorded, in each of the past 3 years, with a breakdown by District Council district;
3. the manpower and total expenditure involved in rodent control work, including civil service staffing and staff cost, as well as outsourced service contractors' manpower and the total value of outsourced service contracts in the past 3 years and in the coming year;
4. the expenditure involved and the effectiveness of each rodent control method in each of the past 3 years;
5. whether the Department will adjust the rodent control strategy, including the use of new rodent baits and further introduction of rodent trapping devices with new technologies. If yes, the details; if no, the reason(s); and
6. the number of rodents trapped in each month since the implementation of the pilot scheme on the use of alcohol rodent trapping device in Tai Shing Street Market in Wong Tai Sin in October 2022. Has the Department assessed the effectiveness of the said trapping device? Will the use of such device be extended to all districts in the territory? If yes, what are the details? If no, what is/are the reason(s)?

Asked by: Hon YANG Wing-kit (LegCo internal reference no.: 20)

Reply:

1 and 3. The manpower and expenditure involved in pest control work, including rodent and mosquito prevention and control, of the Food and Environmental Hygiene Department are as follows:

| Year | Civil service staffing for pest control work | Total number of staff employed by pest control service contractors |
|-------------|---|---|
| 2020 | 740 | 2 178 |
| 2021 | 745 | 2 232 |
| 2022 | 745 | 2 199 |
| 2023 | 745 | 2 175 |

| Year | Overall expenditure on pest control services^{Note 1} (\$ million) | Government staff costs for pest control work (\$ million) | Total value of pest control service contracts^{Note 2} (\$ million) |
|-------------------------------|---|--|--|
| 2020-21 | 726 | 273 | 1,161 |
| 2021-22 | 762 | 275 | 1,442 |
| 2022-23 (Revised estimate) | 796 | 284 | 1,483 |
| 2023-24 (Estimate) | 797 | 284 | 1,492 |

Note 1: The overall expenditure on pest control services include government staff expenditure, the expenditure on service contracts in the year and other day-to-day operating expenses in this regard.

Note 2: The total value of service contracts refers to the amount for the whole 3-year service contract period.

2. The number of poison treatments of rodent infestation conducted in building blocks, the number of rodent trappings used, the number of dead rodents collected, the number of live rodents caught, the number of rat holes filled, the number of rodent control surveys conducted and the number of rodent infestation complaints received by the Department as well as the Rodent Infestation Rate (RIR) in the past 3 years, with a breakdown by District Council district, are provided at **Annex 1**. The Department is exploring ways to improve the existing methodology of rodent surveillance and conducting trials on the use of thermal imaging cameras with artificial intelligence function for detecting rodent activities at individual survey locations. The aim is to assess the feasibility of formulating a more representative new RIR to progressively replace the existing RIR, so as to better reflect the rodent

infestation situation of the survey locations and facilitate the planning of anti-rodent operations at blackspots.

- 4 and 5. The statistics on rodent control in the past 3 years are provided at **Annex 1**. The Department does not keep a separate breakdown of the expenditure involved in each rodent control method. The new methods and technologies tried out by the Department for rodent control in the past 3 financial years (2020-21 to 2022-23), their effectiveness and the expenditure involved are provided at **Annex 2**.
6. Since October 2022, the Department has piloted in phases the use of alcohol rodent trapping device in Tai Shing Street Market in Wong Tai Sin as an additional rodent trapping tool. The number of rodents caught in each month of the pilot period is tabulated as follows:

| Month | Number of live rodents caught |
|------------------------------|--------------------------------------|
| October 2022 ^{Note} | 6 |
| November 2022 | 56 |
| December 2022 | 25 |
| January 2023 | 21 |
| February 2023 | 16 |

Note: The number of alcohol rodent trapping device has been increased from 10 to 25 since 28 October 2022.

The Department has also started piloting the use of alcohol rodent trapping device in Ngau Tau Kok Market Cooked Food Centre and 10 refuse collection points in Central and Western District, Kowloon City and Tsuen Wan since October 2022. In light of the positive initial results, the Department will consider the use of alcohol rodent trapping device in other suitable places under its management.

Annex 1

| District | 2020 | | | | | | | |
|---------------------|--|----------------------------|----------------------------------|-------------------------------|----------------------------|----------------------------------|--|--|
| | Number of poison treatments of rodent infestation in building blocks | Number of rodent trappings | Number of dead rodents collected | Number of live rodents caught | Number of rat holes filled | Number of rodent control surveys | Number of rodent infestation complaints received | Rodent Infestation Rate |
| Central and Western | 4 752 | 5 058 | 2 006 | 1 626 | 193 | 25 | 826 | 2.2% |
| Eastern | 19 813 | 2 895 | 2 245 | 1 313 | 171 | 40 | 872 | 7.4% |
| Southern | 3 641 | 1 118 | 647 | 492 | 65 | 28 | 172 | 3.0% |
| Wan Chai | 13 184 | 4 085 | 1 302 | 2 081 | 816 | 38 | 881 | 1.8% |
| Kowloon City | 4 608 | 13 393 | 2 753 | 2 054 | 343 | 35 | 929 | 4.4% |
| Kwun Tong | 6 016 | 4 107 | 3 848 | 4 357 | 325 | 45 | 517 | 4.5% |
| Wong Tai Sin | 832 | 2 234 | 1 305 | 1 507 | 134 | 30 | 245 | 1.2% |
| Sham Shui Po | 270 | 4 850 | 3 254 | 4 173 | 2 654 | 40 | 844 | 2.4% |
| Yau Tsim Mong | 2 685 | 11 586 | 6 383 | 4 538 | 4 729 | 50 | 1 088 | 7.4% (Yau Tsim) 3.0% (Mong Kok) |
| Sha Tin | 5 060 | 9 679 | 1 118 | 737 | 956 | 32 | 506 | 6.0% |
| Tai Po | 13 260 | 419 | 771 | 589 | 503 | 40 | 384 | 6.4% |
| North | 1 701 | 470 | 1 102 | 580 | 100 | 35 | 394 | 2.5% |
| Kwai Tsing | 1 296 | 3 086 | 469 | 753 | 295 | 47 | 384 | 3.2% |
| Tsuen Wan | 2 981 | 5 212 | 1 034 | 1 837 | 324 | 42 | 383 | 5.6% |
| Tuen Mun | 5 274 | 2 023 | 548 | 321 | 85 | 43 | 380 | 2.0% |
| Yuen Long | 5 314 | 7 263 | 1 520 | 1 449 | 18 | 45 | 928 | 3.0% |
| Sai Kung | 8 672 | 1 737 | 521 | 226 | 254 | 35 | 400 | 1.5% |
| Islands | 742 | 2 615 | 1 162 | 239 | 382 | 28 | 198 | 1.4% |
| Whole territory | 100 101 | 81 830 | 31 988 | 28 872 | 12 347 | 678* | 10 331 | 3.6% |

* Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 292 in number) are not included in the breakdown.

| District | 2021 | | | | | | | |
|---------------------|--|----------------------------|----------------------------------|-------------------------------|----------------------------|----------------------------------|--|--|
| | Number of poison treatments of rodent infestation in building blocks | Number of rodent trappings | Number of dead rodents collected | Number of live rodents caught | Number of rat holes filled | Number of rodent control surveys | Number of rodent infestation complaints received | Rodent Infestation Rate |
| Central and Western | 4 800 | 5 115 | 2 040 | 1 679 | 110 | 27 | 822 | 2.2% |
| Eastern | 17 921 | 7 229 | 2 053 | 2 259 | 116 | 48 | 810 | 4.2% |
| Southern | 3 343 | 1 206 | 706 | 537 | 243 | 50 | 206 | 2.1% |
| Wan Chai | 13 056 | 4 045 | 1 532 | 2 920 | 642 | 15 | 986 | 5.5% |
| Kowloon City | 5 469 | 9 540 | 2 474 | 2 102 | 90 | 33 | 1 064 | 3.8% |
| Kwun Tong | 6 264 | 4 490 | 2 740 | 3 528 | 116 | 47 | 349 | 0.0% |
| Wong Tai Sin | 1 964 | 3 435 | 1 424 | 2 137 | 173 | 33 | 365 | 4.9% |
| Sham Shui Po | 414 | 6 449 | 3 763 | 6 198 | 5 943 | 33 | 846 | 5.2% |
| Yau Tsim Mong | 4 080 | 12 571 | 6 732 | 4 690 | 7 553 | 45 | 1 215 | 8.7% (Yau Tsim) 3.4% (Mong Kok) |
| Sha Tin | 5 291 | 8 786 | 1 237 | 799 | 1 036 | 47 | 473 | 1.5% |
| Tai Po | 14 794 | 771 | 1 126 | 713 | 126 | 41 | 409 | 3.6% |
| North | 1 705 | 864 | 1 307 | 760 | 5 | 47 | 356 | 2.2% |
| Kwai Tsing | 1 692 | 3 048 | 466 | 747 | 374 | 47 | 520 | 2.5% |
| Tsuen Wan | 3 014 | 5 112 | 958 | 1 864 | 449 | 41 | 403 | 4.6% |
| Tuen Mun | 6 011 | 2 146 | 881 | 755 | 96 | 47 | 508 | 2.2% |
| Yuen Long | 6 679 | 6 900 | 1 634 | 1 377 | 328 | 47 | 860 | 2.3% |
| Sai Kung | 12 402 | 1 868 | 874 | 539 | 54 | 47 | 688 | 3.7% |
| Islands | 786 | 2 589 | 1 389 | 242 | 386 | 47 | 222 | 0.5% |
| Whole territory | 109 685 | 86 164 | 33 336 | 33 846 | 17 840 | 742# | 11 102 | 3.1% |

Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 344 in number) are not included in the breakdown.

| District | 2022 | | | | | | | |
|---------------------|--|----------------------------|----------------------------------|-------------------------------|----------------------------|----------------------------------|--|--|
| | Number of poison treatments of rodent infestation in building blocks | Number of rodent trappings | Number of dead rodents collected | Number of live rodents caught | Number of rat holes filled | Number of rodent control surveys | Number of rodent infestation complaints received | Rodent Infestation Rate |
| Central and Western | 4 956 | 5 001 | 1 885 | 1 873 | 194 | 50 | 655 | 3.0% |
| Eastern | 14 152 | 3 467 | 1 363 | 2 982 | 47 | 50 | 682 | 2.4% |
| Southern | 3 843 | 1 240 | 465 | 936 | 472 | 50 | 134 | 2.4% |
| Wan Chai | 12 864 | 4 066 | 1 402 | 2 915 | 478 | 18 | 829 | 2.7% |
| Kowloon City | 6 505 | 4 983 | 1 915 | 2 271 | 172 | 52 | 823 | 5.1% |
| Kwun Tong | 7 028 | 4 673 | 2 037 | 3 779 | 123 | 52 | 346 | 3.2% |
| Wong Tai Sin | 2 904 | 4 092 | 1 298 | 2 481 | 329 | 44 | 243 | 6.6% |
| Sham Shui Po | 708 | 6 660 | 4 132 | 5 842 | 8 400 | 62 | 1 014 | 3.0% |
| Yau Tsim Mong | 5 445 | 13 496 | 6 639 | 6 862 | 6 858 | 62 | 1 741 | 5.5% (Yau Tsim) 3.4% (Mong Kok) |
| Sha Tin | 5 294 | 2 325 | 1 298 | 1 253 | 1 108 | 36 | 499 | 2.9% |
| Tai Po | 14 352 | 1 272 | 1 692 | 957 | 448 | 18 | 384 | 0.9% |
| North | 3 140 | 4 755 | 1 041 | 2 281 | 9 | 38 | 310 | 3.8% |
| Kwai Tsing | 1 296 | 3 106 | 692 | 1 007 | 377 | 38 | 632 | 4.1% |
| Tsuen Wan | 2 880 | 5 225 | 906 | 2 903 | 459 | 30 | 423 | 2.6% |
| Tuen Mun | 7 651 | 2 350 | 1 747 | 2 681 | 155 | 52 | 496 | 3.1% |
| Yuen Long | 7 339 | 6 955 | 1 550 | 2 723 | 285 | 38 | 887 | 3.6% |
| Sai Kung | 11 952 | 1 914 | 746 | 794 | 111 | 38 | 474 | 1.5% |
| Islands | 774 | 2 568 | 1 002 | 882 | 393 | 18 | 191 | 2.9% |
| Whole territory | 113 083 | 78 148 | 31 810 | 45 422 | 20 418 | 746 [^] | 10 763 | 3.3% |

[^] Only surveys conducted under the Rodent Infestation Survey and the Rat-flea Survey are listed. Other rodent surveys (1 354 in number) are not included in the breakdown.

**Rodent control methods/technologies of
the Food and Environmental Hygiene Department and the expenditure incurred**

| Rodent control method/technology | Effectiveness | Expenditure | | |
|---|---|----------------------|---------------------------|---------------------------|
| | | 2020-21 | 2021-22 | 2022-23 |
| New design snap trap | The new design snap trap was tested in 5 districts and 6 markets between January and June 2020. Test results showed that it was effective in catching rodents. The Department has introduced the use of the new design snap trap in its regular anti-rodent work. | About \$3,000 | No breakdown is available | No breakdown is available |
| Thermal imaging camera surveillance system | 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 is widely employed currently. | About \$3.96 million | About \$2.39 million | About \$3.89 million |
| Placing poisonous baits in a T-shaped bait box | The bait box was tested between October and November 2020. Test results showed that the T-shaped | About \$20,000 | - | About \$580,000 |

| Rodent control method/technology | Effectiveness | Expenditure | | |
|---------------------------------------|---|-------------|---------|-----------------|
| | | 2020-21 | 2021-22 | 2022-23 |
| | bait box was more effective than ordinary rectangular bait boxes in attracting rodents to enter and consume the baits. The equipment is widely employed currently. | | | |
| Alcohol rodent trapping device | The Department has conducted trials progressively on alcohol rodent trapping devices in public markets and refuse collection points since October 2022. The initial results are positive. The Department will consider the introduction of alcohol rodent trapping devices in other suitable places under its management. | - | - | About \$380,000 |
| Glue trap | 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. The initial results are positive. Further trials of the equipment are | - | - | About \$630,000 |

| Rodent control method/technology | Effectiveness | Expenditure | | |
|---|--------------------------------|--------------------|----------------|----------------|
| | | 2020-21 | 2021-22 | 2022-23 |
| | being conducted in 11 markets. | | | |

- End -