

立法會
Legislative Council

LC Paper No. CB(2)1461/13-14(06)

Ref : CB2/PL/FE

Panel on Food Safety and Environmental Hygiene

**Background brief prepared by the Legislative Council Secretariat
for the meeting on 13 May 2014**

Mosquito and bed bug control work

Purpose

This paper highlights the views and concerns of the Legislative Council Members on the mosquito and bed bug control work.

Background

Mosquito control

2. Apart from causing nuisance to human being, some species of mosquitoes may pose threat to public health as vectors of diseases, such as dengue fever, Japanese encephalitis and chikungunya fever. The Food and Environmental Hygiene Department ("FEHD") organizes anti-mosquito campaigns annually on a territory-wide basis to heighten public awareness of the potential risk of mosquito-borne diseases, encourage community participation and promote cooperation among government departments concerned in anti-mosquito work.

3. FEHD has put in place an enhanced dengue vector surveillance programme since 2003 to monitor the distribution of *Aedes albopictus* at selected areas, evaluate the effectiveness of mosquito prevention and control work carried out by various parties, and provide surveillance information to the public and for making timely adjustments to the mosquito control strategies and

measures. Under the surveillance programme, two different indices, namely, Area Ovitrap Index ("AOI") and Monthly Ovitrap Index ("MOI") are recorded. AOI indicates the extensiveness of the distribution of Aedine mosquitoes in the surveyed area while MOI is the average of all AOIs of the same month, which reflects the distribution and activity of *Aedes albopictus* in the territory. As at April 2013, a total of 44 areas and six port areas are covered under the surveillance programme.

4. Since April 2011, an ovitrap index rapid alert system targeting the management offices of residential premises, social welfare facilities, schools and construction sites that fall within the 44 areas of surveillance has been introduced to ensure that anti-mosquito measures are taken promptly when AOI of a particular area reaches the alert level of 20%. Whenever AOI reaches 20%, subscribers to the system whose premises are situated within the surveillance area concerned will be individually notified by the relevant departments upon the publication of AOI.

5. According to the Administration, MOIs recorded in 2012 were in general lower than those in previous years and the fluctuations in MOIs were also in general similar to the pattern in previous years. A total of 11 areas had been recorded with AOIs reaching or exceeding the alert level of 20%, comparing to 14 areas in 2011. In addition to ovitrap surveys conducted in different districts, FEHD also carries out dengue vector surveillance in major port areas. In 2012, the ovitrap indices of all groups of port areas were below 20% and the fluctuations in Port Monthly Ovitrap Indices ("PMOIs") showed a similar pattern as in previous years. AOIs for 44 locations in 19 districts and PMOIs in 2012 are in **Appendices I and II**.

Bed bug problem

6. Bed bugs usually hide in cracks, tufts, coils of springs and hollow posts of mattresses and bedsteads, as well as the upholstery of chairs and sofas. They are more commonly found in private places indoor. According to the Administration, based on the information available from the Centres for Disease Control and Prevention in the United States, there is at present no known evidence which shows that bed bugs spread diseases. In response to an oral question raised by Dr Hon CHIANG Lai-wan at the Council meeting of 30 October 2013, the Administration provided information on the number of complaints and requests for assistance received by FEHD and the Housing Department from 2009 to August 2013 (**Appendices III and IV**).

Members' views and concerns

7. The subject of mosquito control was discussed at the Panel meeting on 14 June 2011. Questions relating to bed bug control were raised at the Council meetings in the past two years. Members' views and concerns are summarized in the ensuing paragraphs.

8. When discussing the progress of the Administration's work in mosquito prevention and its new control measures launched in 2011, concern was raised about the mosquito problem in the districts where cemeteries were located, such as Chai Wan West, Happy Valley and Pokfulam, etc. As advised by the Administration, the mosquito problem was not particularly significant in cemeteries and columbaria. High mosquito breeding also occurred at other locations such as construction sites, countryside with stagnant water, etc.

9. In response to members' concern about the media reports concerning the monitoring of mosquito control work and the measures taken by the Administration to prevent incidents of interference of ovitraps, the Administration advised that around 700 in-house staff and 1 200 contractor staff were responsible for anti-mosquito work in FEHD. FEHD in-house staff were supervised by officers of higher ranks, while contractors were required to submit regular operations plans and reports. Regular and surprise inspections were conducted to ensure that contractors followed the anti-mosquito work plan. As regards the precautionary measures for the tampering of ovitraps, ovitrap covers and wind bridges had been put to ovitraps to lower the intentional and unintentional interference.

10. In response to a written question raised at the Council meeting of 5 December 2012 about the bed bug control, the Administration advised that upon receipt of complaints/enquiries about the problem of bed bugs, FEHD would send its staff to conduct on-site inspections and provide the relevant parties with technical advice on the measures to control bed bugs and health education information. FEHD had uploaded information on the control of bed bugs onto its website and published leaflets to help the public better understand the bed bug problem.

11. At the Council meeting of 30 October 2013, an oral question was raised about the problem of bed bugs. The Administration advised that since there was at present no known evidence which showed that bed bugs were disease vectors, FEHD had not put in place an independent monitoring mechanism to oversee this issue. However, FEHD had been closely monitoring the relevant situation and keeping record of the complaints and requests for assistance

received. In cases where public places were found heavily infested, FEHD would conduct the bed bug control work. As bedbugs were usually found in private places, FEHD could only play the role as coordinator to help the members of the public solve the problems.

Latest Development

12. The Administration will brief the Panel on FEHD's efforts in the prevention and control of mosquitoes and beg bugs in May 2014.

Relevant papers

13. A list of the relevant papers and questions raised at the Council meetings is in **Appendix V**.

Council Business Division 2
Legislative Council Secretariat
7 May 2014

Ovitrapp Indices for 44 locations in 19 districts – 2012

	Locations	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Hong Kong Island & Outside Islands	Chai Wan West	0.0%	0.0%	0.0%	1.8%	10.7%	17.5%	8.8%	3.5%	5.3%	1.8%	0.0%	0.0%
	Shau Kei Wan and Sai Wan Ho	0.0%	0.0%	0.0%	0.0%	11.9%	21.2%	16.7%	6.8%	1.8%	0.0%	0.0%	0.0%
	North Point	0.0%	0.0%	0.0%	0.0%	3.7%	5.5%	1.8%	3.7%	0.0%	0.0%	0.0%	0.0%
	Wan Chai North	0.0%	0.0%	0.0%	0.0%	1.9%	3.8%	3.8%	9.8%	5.9%	1.9%	1.9%	0.0%
	Happy Valley	0.0%	0.0%	0.0%	0.0%	3.6%	8.8%	7.0%	1.8%	0.0%	1.8%	0.0%	0.0%
	Central, Sheung Wan and Sai Ying Pun	0.0%	0.0%	2.0%	7.4%	3.7%	15.1%	1.9%	5.6%	5.7%	5.6%	0.0%	0.0%
	Sai Wan	0.0%	0.0%	0.0%	5.7%	7.5%	13.2%	1.9%	7.5%	9.4%	3.8%	0.0%	0.0%
	Aberdeen and Ap Lei Chau	0.0%	0.0%	0.0%	3.8%	13.5%	15.1%	2.0%	16.7%	9.4%	0.0%	0.0%	0.0%
	Pokfulam	0.0%	0.0%	0.0%	7.3%	21.8%	10.9%	3.9%	7.3%	5.5%	3.6%	1.9%	2.0%
	Deep Water Bay and Repulse Bay	0.0%	0.0%	0.0%	0.0%	16.4%	7.3%	1.8%	3.6%	1.9%	1.9%	1.9%	0.0%
	Cheung Chau	0.0%	0.0%	0.0%	0.0%	5.7%	5.6%	5.6%	2.8%	5.7%	0.0%	0.0%	0.0%
	Tung Chung	0.0%	0.0%	0.0%	8.3%	19.4%	26.5%	16.7%	14.3%	22.2%	5.7%	2.8%	5.6%
Kowloon	Tsim Sha Tsui	0.0%	0.0%	0.0%	8.6%	8.8%	6.9%	3.4%	0.0%	1.9%	5.3%	0.0%	0.0%
	Mong Kok	0.0%	0.0%	0.0%	0.0%	7.0%	5.2%	5.3%	10.9%	5.4%	7.1%	1.8%	0.0%
	Lai Chi Kok	0.0%	0.0%	0.0%	1.8%	5.6%	12.7%	1.8%	1.9%	0.0%	0.0%	0.0%	0.0%
	Sham Shui Po East	0.0%	0.0%	1.9%	7.4%	13.0%	7.4%	1.9%	3.7%	0.0%	0.0%	0.0%	0.0%
	Cheung Sha Wan	0.0%	0.0%	0.0%	1.8%	5.5%	10.9%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%
	Kowloon City North	0.0%	0.0%	0.0%	5.7%	32.7%	29.4%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%
	Hung Hom	0.0%	0.0%	0.0%	1.9%	5.9%	7.3%	3.8%	1.9%	1.9%	0.0%	0.0%	0.0%
	Ho Man Tin	0.0%	0.0%	0.0%	1.9%	10.9%	15.1%	10.9%	7.4%	5.7%	5.5%	1.8%	0.0%
	Wong Tai Sin Central	0.0%	0.0%	0.0%	0.0%	25.4%	18.0%	6.3%	8.1%	3.2%	0.0%	0.0%	0.0%

	Locations	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Diamond Hill	0.0%	0.0%	0.0%	0.0%	16.7%	14.5%	9.1%	3.6%	5.7%	1.9%	0.0%	1.8%
	Kwun Tong Central	0.0%	0.0%	1.8%	14.5%	13.2%	14.5%	2.0%	26.4%	1.9%	0.0%	0.0%	1.8%
	Lam Tin	0.0%	0.0%	3.6%	10.9%	16.4%	10.9%	5.7%	11.3%	7.5%	3.6%	0.0%	0.0%
New Territory East	Tseung Kwan O	0.0%	0.0%	1.7%	13.8%	15.0%	20.7%	1.7%	12.1%	1.7%	3.3%	1.7%	1.7%
	Sai Kung Town	0.0%	0.0%	0.0%	6.0%	12.0%	2.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%
	Ma On Shan	0.0%	0.0%	0.0%	3.6%	8.6%	13.8%	12.1%	1.7%	3.4%	1.7%	0.0%	0.0%
	Lek Yuen	0.0%	0.0%	0.0%	0.0%	12.7%	21.8%	7.4%	13.7%	7.7%	1.9%	0.0%	0.0%
	Tai Wai	0.0%	0.0%	0.0%	1.8%	10.7%	10.9%	10.9%	10.7%	5.4%	5.4%	7.3%	0.0%
	Tai Po	0.0%	0.0%	0.0%	0.0%	9.1%	16.7%	13.0%	3.8%	5.7%	1.8%	1.9%	0.0%
	Fanling	0.0%	0.0%	0.0%	0.0%	9.1%	11.3%	11.1%	11.3%	5.5%	5.7%	1.9%	1.8%
	Sheung Shui	0.0%	0.0%	0.0%	0.0%	5.5%	1.8%	9.3%	3.6%	1.8%	5.5%	0.0%	0.0%
New Territory West	Tin Shui Wai	0.0%	0.0%	0.0%	14.8%	12.3%	17.5%	0.0%	8.9%	3.6%	1.8%	0.0%	0.0%
	Yuen Kong	0.0%	0.0%	0.0%	24.0%	24.0%	8.0%	0.0%	8.3%	4.0%	4.0%	0.0%	0.0%
	Yuen Long Town	0.0%	0.0%	0.0%	9.1%	12.7%	10.9%	9.3%	12.7%	3.8%	1.8%	0.0%	0.0%
	Tuen Mun (S)	0.0%	0.0%	0.0%	0.0%	17.0%	22.6%	9.4%	7.8%	7.5%	3.8%	2.0%	0.0%
	Tuen Mun (N)	0.0%	0.0%	0.0%	5.1%	11.9%	10.2%	10.3%	8.6%	3.4%	5.4%	0.0%	0.0%
	So Kwun Wat	0.0%	0.0%	0.0%	0.0%	14.5%	5.5%	9.3%	5.5%	1.8%	0.0%	0.0%	0.0%
	Tsuen Wan Town	0.0%	0.0%	5.0%	5.0%	10.0%	6.7%	8.3%	10.2%	5.0%	0.0%	0.0%	1.7%
	Ma Wan	0.0%	0.0%	0.0%	0.0%	12.0%	12.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%
	Sheung Kwai Chung	0.0%	0.0%	0.0%	17.3%	17.3%	2.0%	0.0%	3.7%	2.0%	0.0%	0.0%	0.0%
	Kwai Chung	0.0%	0.0%	0.0%	5.5%	14.8%	3.6%	0.0%	1.9%	1.8%	1.9%	0.0%	0.0%
	Lai King	0.0%	0.0%	0.0%	5.5%	18.2%	9.1%	11.1%	9.1%	9.1%	7.4%	7.3%	0.0%
	Tsing Yi	0.0%	0.0%	0.0%	1.8%	23.2%	10.5%	1.9%	10.7%	7.0%	1.8%	0.0%	0.0%
Monthly Ovitrap Index		0.0%	0.0%	0.4%	4.4%	12.4%	11.8%	5.7%	7.2%	4.2%	2.3%	0.8%	0.3%

Appendix II

Results of Ovitrap Surveillance in Port Areas in 2012

Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hong Kong International Airport	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%
Cross Boundary Check Points on Land	0.0%	0.0%	0.0%	0.6%	7.6%	7.1%	1.2%	4.8%	2.4%	1.8%	0.0%	0.0%
Private Cargoes Working Areas	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	1.3%	5.1%	1.3%	1.3%	0.0%	0.0%
Cross Boundary Ferry Terminals	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%	2.5%	0.0%	0.0%	0.0%
Container Terminals	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%
Public Cargoes Working Areas	0.0%	0.0%	0.0%	0.0%	0.8%	7.6%	5.6%	5.1%	2.7%	0.0%	0.0%	0.0%
Port Monthly Ovitrap Index	0.0%	0.0%	0.0%	0.1%	0.7%	0.7%	0.4%	0.6%	0.3%	0.1%	0.0%	0.1%

Appendix III

Number of complaints and requests for assistance related to bedbugs received by the Food and Environmental Hygiene Department (2009 to Aug 2013)

District Council district	Number of complaints and requests for assistance related to bedbugs received by the Food and Environmental Hygiene Department				
	2009	2010	2011	2012	2013 (as at Aug)
Kowloon City	0	4	0	0	4
Tai Po	2	0	0	1	0
Central & Western	0	0	0	0	2
Yuen Long	0	0	0	0	0
Tuen Mun	1	0	1(1)	3(1)	0
North	0	0	1	1	0
Sai Kung	0	1	3	2	0
Sha Tin	2	1	0	3	0
Eastern	1	2	0	2	2
Southern	2	0	0	0	2(1)
Tsuen Wan	0	3	0	0	0
Islands	0	0	0	0	1(1)
Sham Shui Po	0	2	12(1)	12(2)	18(3)
Wong Tai Sin	2(2)	2(1)	4(3)	2(2)	6(4)
Kwai Tsing	0	0	3(3)	4(2)	0
Yau Tsim Mong	2	6	5	13(2)	10
Kwun Tong	0	0	0	4(1)	7(4)
Wan Chai	0	1	0	0	1
Total:	12(2)	22(1)	29(8)	47(10)	53(13)

Note: () refers to the number of cases involving public housing estate

Appendix IV

Number of complaints and requests for assistance related to bedbugs received by the Housing Department (2009 to Aug 2013)

District Council district	The number of complaints and requests for assistance related to bedbugs received by the Housing Department									
	2009		2010		2011		2012		2013 (as at Aug)	
	Complaint	Request for Assistance	Complaint	Request for Assistance	Complaint	Request for Assistance	Complaint	Request for Assistance	Complaint	Request for Assistance
Kowloon City	0	0	0	0	0	0	0	4	1	2
Tai Po	0	0	0	0	0	0	0	0	0	1
Central & Western	0	0	0	0	0	0	0	1	0	0
Yuen Long	0	0	0	0	0	0	0	1	0	1
Tuen Mun	0	0	0	0	0	0	0	0	0	3
North	0	0	0	0	0	0	0	0	0	1
Sai Kung	0	0	0	0	0	0	0	0	0	1
Sha Tin	0	0	0	0	0	0	0	0	1	1
Eastern	0	0	0	1	0	2	0	3	0	1
Southern	0	0	0	0	0	1	0	1	0	2
Tsuen Wan	0	1	0	1	0	1	0	4	0	2
Islands	0	0	0	0	0	0	0	1	0	3
Sham Shui Po	0	0	0	0	0	13	5	40	18	265
Wong Tai Sin	7	0	1	1	0	1	0	7	4	34
Kwai Tsing	0	0	0	1	2	2	0	6	3	11
Yau Tsim Mong	0	0	0	0	0	0	0	46	5	26
Kwun Tong	0	0	0	0	4	0	18	7	3	17
Wan Chai	0	0	0	0	0	0	0	0	0	0
Total:	7	1	1	4	6	20	23	121	35	371

Note: The discrepancy between the number of requests for assistance and complaints, and the number of corresponding bedbug control operations conducted in public places, is mainly due to the fact that the complaints / requests for assistance involve individual flats while the Housing Department focuses on handling the public places of the building.

Relevant papers on mosquito and bed bug control work

Meeting	Date of meeting	Paper
Panel on Food Safety and Environmental Hygiene	8.5.2012 (Item VII)	Agenda Minutes CB(2)1870/11-12(09) CB(2)1870/10-11(10)
Legislative Council	5.12.2012	Written question raised by Prof Hon Joseph LEE Kok-long on "Control on Bedbugs"
Panel on Food Safety and Environmental Hygiene	28.5.2013 (Item I)	CB(2)1078/12-13(01)
Legislative Council	30.10.2013	Oral question raised by Dr Hon CHIANG Lai-wan on "Anit-mosquito, Pest Control and Bedbug Control Operations"