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**Meeting of Panel on Food Safety and Environmental Hygiene
on 14 December 2004**

Background Brief prepared by Legislative Council Secretariat

Control of mosquito breeding problem

Purpose

This paper summarises the discussions by the Panel on Food Safety and Environmental Hygiene on measures to control the mosquito breeding problem.

Background

2. Some species of mosquitoes are capable of transmitting diseases, such as dengue fever, Japanese Encephalitis (JE), malaria and yellow fever, and they posed threat to human health.

3. Dengue fever is a severe viral illness transmitted by the bite of infective mosquitoes. The particular kind of mosquito, i.e. *Aedes albopictus*, which is a vector of dengue fever, is prevalent in Hong Kong. Since 1994, dengue fever has been made a statutorily notifiable disease in Hong Kong. According to the Administration, between 1994 and mid 2004, the number of notifications ranged from three to 49 cases a year, and most of them were imported cases. The first local dengue fever case was confirmed on 21 September 2002, and the number of local cases rose to 20 as at 17 October 2002. So far, there has not been any fatal case.

4. Since 2000, the Food and Environmental Hygiene Department (FEHD) has put in place a dengue vector surveillance programme to monitor the distribution of *Aedes albopictus* at selected locations, to evaluate the effectiveness of mosquito prevention and to provide surveillance information for making timely adjustments to the mosquito control strategies and measures. Starting from October 2001, the Administration briefed the Panel on Food Safety and Environmental Hygiene every year on its annual anti-mosquito campaigns.

5. JE is a notifiable disease in Hong Kong. The vector of JE disease is the *Culex* mosquito which can be found in various places in the territory. Since 1992, there have been a total of 11 sporadic cases reported in Hong Kong, comprising one local case in 1996, one imported case in 1997, one imported case in 2001, two imported cases in 2002, one local case in 2003 and five local cases in 2004 (up to 18 November 2004).

6. The Panel held meetings with the Administration on 5 October 2001, 2 and 22 October 2002, 25 February 2003, 24 June 2003, 3 March 2004, 29 June 2004 and 13 July 2004 to discuss the effectiveness of the Administration's anti-mosquito campaigns.

Discussions by the Panel on Food Safety and Environmental Hygiene

Dengue fever and enhanced vector surveillance programme

7. As there was wide public concern about control of dengue fever following the first local case in September 2002, the Panel discussed with the Administration the anti-mosquito efforts at its meetings on 2 and 22 October 2002. At these meetings, members urged the Administration to step up efforts in eliminating the breeding sites of *Aedes albopictus*, particularly at construction sites, slopes and vacant government land. Members also urged the Administration to strengthen public education on prevention of dengue fever, and to discuss with other countries infected with dengue fever effective measures to control the disease.

8. The Administration advised that active measures had been taken to eliminate mosquito breeding grounds in construction sites, public housing estates and schools. FEHD and the Lands Department also conducted joint operations to clear grass on vacant government land. To improve the coordination amongst departments and to formulate mosquito control strategy in Hong Kong, an Anti-mosquito Steering Committee, chaired by the Permanent Secretary for Health, Welfare and Food and comprising 11 bureaux and departments, was set up in October 2002.

9. At the Panel meeting on 25 February 2003, the Panel was briefed on the Administration's enhanced vector surveillance programme put in place since January 2003. The programme included a more systematic and comprehensive ovitrap survey at 38 locations covering all 18 districts, and a pilot ovitrap study to gauge indoor mosquito breeding situations. To enable members of the public to learn about the situation of mosquito problems at different areas and at different times of the year, FEHD would make public the 38 Area Ovitrap Indices (AOI) and a Monthly Ovitrap Index on a monthly basis with effect from end February 2003.

10. The Administration reported the findings of ovitrap surveys to the Panel on 24 June 2003. While the indices in May 2003 were generally lower than those in previous years, 15 surveyed areas were found to have AOIs over 20%, of which four were over 30%. The Administration had activated the cross-departmental response mechanism to contain the rise in vectorial extensiveness and conducted special operations in these areas. Moreover, measures were taken to inspect and remove potential mosquito breeding sites throughout the territory. The Administration also stepped up its publicity programmes to increase public awareness of the need to control mosquito breeding, and encourage community participation in anti-mosquito activities. Members urged the Administration to deploy sufficient staff for the anti-mosquito work, particularly at mosquito blackspots.

11. At the Panel meetings on 3 March and 29 June 2004, the Administration briefed the Panel on the anti-mosquito campaign and dengue fever surveillance programme in 2004. As the ovitrap indices in May 2004 (31.6%) had exceeded the average of the past four years (26.8%), the Anti-Mosquito Steering Committee endorsed a three-pronged strategy in order to contain the risk of dengue fever to the community. The three-pronged strategy included intensified preventive and enforcement actions, strengthened surveillance scheme and publicity programmes.

12. On preventive measures, FEHD would activate the district inter-departmental anti-mosquito response mechanism once the AOI reached 20%, instead of 30% in the past. On surveillance mechanism, a Port Ovitrap Index was launched in 2004 to better monitor the mosquito infestation situations in port areas. On publicity, a new announcement in the public interest on mosquito preventive measures would be produced immediately following torrential or prolonged rains. The Anti-mosquito Steering Committee also decided to establish District Anti-mosquito Task Force under the Home Affairs Department in all 18 districts and establish an "Anti-mosquito Support Scheme" with an initial fund of \$10 million for year 2004-05 to support the 18 District Task Forces in launching their anti-mosquito programme.

13. While Panel members generally welcomed Government's proposed measures in combating mosquito problems, they stressed that prompt action should be taken to eliminate potential mosquito breeding places, especially in the following areas -

- (a) vacant government land;
- (b) hillsides and illegal cultivation sites;
- (c) private farmland and septic tanks of village houses;
- (d) rear lanes and private streets; and
- (e) construction sites.

JE vector surveillance

14. There were reported cases of JE in Guangdong and Hong Kong in 2003 and 2004. At the Panel meetings on 24 June 2003 and 29 June 2004, some members asked about the risk of JE outbreaks in Hong Kong and the measures to control the breeding of *Culex* mosquitoes, vector of JE. The Administration advised that the existing ovitraps would not be effective in monitoring the distribution of *Culex* mosquitoes, and other surveillance methods had to be used. The Administration also advised that the Agriculture, Fisheries and Conservation Department (AFCD) conducted regular inspections to pig farms to monitor their hygiene conditions including mosquito problems. If infestation problems were found at pig farms and the owners failed to take actions to rectify the situation, AFCD staff would inform FEHD to take prosecution actions.

15. A Panel member suggested that to prevent JE outbreaks in Hong Kong, the Administration should closely monitor the situation of local pig farms and impose a mandatory requirement on farm owners that they must vaccinate the pigs against the disease. Another member suggested that AFCD should strengthen publicity to remind pig farm operators to take necessary measures to prevent JE outbreaks.

Enforcement difficulties

16. The Panel has expressed concern about the difficulties faced by the relevant departments in carrying out anti-mosquito operations on private land or premises. The Administration has advised that under section 27 of the Public Health and Municipal Services Ordinance (Cap 132), if evidence of mosquito breeding was found in any premises, the occupier of such premises is guilty of an offence and subject to a maximum fine of \$25,000. However, the owners' consent is required for entering private properties, and FEHD does not have powers to require the management companies to place ovitraps in common areas of a private building, or to take immediate actions to eliminate mosquito breeding grounds in private premises. There was also difficulty in identifying the owners of private farmlands for clearing mosquito breeding sites on such land. To facilitate the anti-mosquito operations, the Administration was considering amending the Ordinance to enable authorised staff to enter private properties to clear up mosquito breeding sites. Members have expressed support for the proposed legislative amendments.

Recent development

17. The Administration has proposed to introduce the Public Health and Municipal Services (Amendment) Bill into the Legislative Council in the 2004-05, in order to deal with the problem of mosquito breeding more effectively. The Administration will brief members on the legislative proposal at the Panel meeting on 14 December 2004.

Questions raised by Members at Council meetings on related issues

18. In the 2002-03 and 2003-04 sessions, questions were raised by Members on issues concerning anti-mosquito work and the prevention of dengue fever and JE outbreaks. A list of these questions is given in the **Appendix**.

Relevant papers

19. A list of relevant papers and documents is in the **Appendix** for members' easy reference. The papers and documents are available on the Council's website at <http://www.legco.gov.hk/english/index.htm>.

Council Business Division 2
Legislative Council Secretariat
8 December 2004

Appendix

Relevant Papers/Documents

<u>Meeting</u>	<u>Meeting Date</u>	<u>Papers/Motion Passed/Council Question</u>
Legislative Council	16 October 2002	Written question on “Dengue fever outbreak” raised by Hon NG Leung-sing
		Written question on “AFCD’s efforts in controlling termites and mosquito” raised by Hon Eric LI Ka-cheung
	14 May 2003	Oral question on “Prevention of dengue fever outbreak” raised by Hon LAU Kong-wah
	5 November 2003	Oral question on “Dengue fever” raised by Hon WONG Yung-kan
	7 July 2004	Written question on “Diseases spread by mosquitoes” raised by Hon David CHU Yu-lin
Panel on Food Safety and Environmental Hygiene	5 October 2001	Administration’s paper – Paper No. CB(2) 2347/00-01(04) Minutes of meeting LC Paper No. CB(2) 425/01-02
	2 October 2002	Administration’s paper – Paper No. CB(2) 2855/01-02(01) Minutes of meeting LC Paper No. CB(2) 251/02-03
	22 October 2002 <i>(Joint meeting with the Panel on Health Services)</i>	Administration’s paper – Paper No. CB(2) 133/02-03(01) Minutes of meeting LC Paper No. CB(2) 393/02-03

	25 February 2003	Administration's paper – Paper No. CB(2) 1261/02-03(04) Minutes of meeting LC Paper No. CB(2) 1513/02-03
	24 June 2003	Administration's paper – Paper No. CB(2) 2559/02-03(03) Minutes of meeting LC Paper No. CB(2) 3016/02-03
	3 March 2004	Administration's paper – Paper No. CB(2) 1382/03-04(03) Minutes of meeting LC Paper No. CB(2) 2069/03-04
	29 June 2004	Administration's paper – Paper No. CB(2) 2930/03-04(03) Minutes of meeting LC Paper No. CB(2) 3270/03-04
	13 July 2004	Administration's paper – Paper No. CB(2) 3073/03-04(01) Minutes of meeting LC Paper No. CB(2)3271/03-04