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Panel on Food Safety and Environmental Hygiene

Background brief prepared by the Legislative Council Secretariat for the meeting on 8 January 2019

Measures for preventing and controlling biting midges

Purpose

This paper provides background information on the measures taken by the Administration for preventing and controlling biting midges, and summarizes major concerns of members of the Panel on Food Safety and Environmental Hygiene ("the Panel") on the subject.

Background

Problem of biting midges

2. Biting midges are tiny and dark-coloured dipterous flies belonging to the family *Ceratopogonidae* which is a diverse family of insects with more than 6 000 species, some of which are blood sucking. There has been increasing public concern about biting midges in Hong Kong in recent years. According to information provided by the Administration in December 2017, infestation of biting midges is seasonal and localized. The peak season for biting midges activities usually occurs in hot and humid summer, and the bites of biting midges can cause discomfort and irritation. Biting midges, however, have rarely been implicated as the primary vectors of pathogen transmission to or between humans.

3. Areas with dense vegetation are prone to infestation of biting midges. Environmental measures targeted at these areas could reduce the breeding of biting midges and effectively contain their infestation. According to the Administration, the routine anti-mosquito and environmental management measures carried out by the Food and Environmental Hygiene Department

("FEHD") in public places, such as removal of fallen leaves, decaying materials, silt in sand traps and surface channels, can reduce potential breeding places and help control infestation of biting midges. Whenever necessary, fogging operations to alleviate nuisance caused by biting midges and environmental measures to eliminate their breeding places would be carried out in areas with infestation of biting midges.

Members' concerns

4. The Panel received the Administration's briefing on the prevention and control work carried out against insect pests including biting midges in December 2017. Members' major views and concerns on the subject are summarized below.

Monitoring the infestation of biting midges

5. Members expressed concern about the infestation of biting midges in some public places and the irritation caused by biting midges to members of the public. An enquiry was raised on whether FEHD had conducted any studies on the problem of biting midges infestation in Hong Kong. Some members asked the Administration to consider formulating relevant indicators for assessing the infestation or activity of biting midges, and alerting relevant departments to take preventive measures in response to index changes.

6. The Administration advised that the World Health Organization ("WHO") had not published guidelines for systematic surveillance of biting midges. According to the Administration's understanding, the Mainland, Taiwan, Singapore, Malaysia as well as some countries in America and Europe had not formulated any index for the surveillance of biting midges. That said, FEHD had invited from the Mainland a renowned expert in studying biting midges to visit Hong Kong in June 2016 for conducting studies and providing guidance on how to monitor the infestation of biting midges. It was discovered that biting midges found in Hong Kong were not vectors of mosquito-borne diseases such as dengue fever, Japanese encephalitis and Zika virus infection. FEHD had taken heed of the expert's advice as well as experiences of other countries/areas in monitoring the infestation of biting midges. Given that environmental measures targeted at areas with dense vegetation could reduce breeding of biting midges and effectively contain their infestation, the Administration considered that it might not be necessary to introduce a specific indicator reflecting the extensiveness of biting midges throughout the territory for the time being.

7. The Administration further advised that FEHD had commenced a one-year territory-wide survey in mid-July 2017 to investigate the distribution and species diversity of the blood sucking midges, with a view to confirming the presence of any disease-carrying biting midges and collecting reference information for devising more effective measures to control biting midges. According to the Administration, sites with potential breeding grounds and with previous complaint records would be investigated, and a total of 72 surveys had been conducted between mid-July and mid-November 2017 (including collections by human baits, nets and light traps at night time). A total of 329 samples of biting midges were also collected which included six different blood sucking species. As at December 2017, no disease carrying species had been found so far.

Prevention and control of biting midges

8. An enquiry was raised on whether FEHD would make reference to the experience of other places and formulate new measures for prevention and control of biting midges. Some members pointed out that many residents who were affected by the infestation problem of biting midges, in particular parents, were worried that their children, while playing at parks, would be bitten by midges. Members urged FEHD to advise the Leisure and Cultural Services Department ("LCSD") on the right approach for maintenance of vegetation so as to reduce the breeding places for midges, and to work with LCSD to step up control measures against biting midges at venues under the latter's management.

9. The Administration advised that FEHD had been keeping records on the number of complaints received by government departments about nuisances caused by midges in areas under their management, with a view to formulating strategies and measures to control midges. Apart from collaborating with LCSD to carry out anti-mosquito work at the district level, FEHD also provided training to LCSD staff on mosquito prevention and control work, including knowledge for controlling biting midges.

10. The Administration further advised that FEHD would keep in view the biting midges situation in public places through routine inspections and handling of complaints, and would provide technical assistance to relevant government departments in the prevention and control of biting midges.

Recent developments

11. According to information provided by the Administration in November 2018, for more effective inter-departmental co-ordination, the Anti-Mosquito Steering Committee, chaired by the Under Secretary for Food and Health, was renamed as the Pest Control Steering Committee ("PCSC"). Issues on pest control (including mosquito, rodent and biting midge control) would be discussed by PCSC.

12. The Administration will brief members on the outcome of the one-year territory-wide survey on biting midges commenced from mid-July 2017 as well as the Government's efforts in controlling biting midges at the Panel meeting on 8 January 2019.

Relevant papers

13. A list of relevant papers on the Legislative Council website is in **Appendix**.

**Relevant papers on
Measures for preventing and controlling biting midges**

Committee	Date of meeting	Paper
Legislative Council	8.6.2016	<u>Written question raised by Hon CHAN Han-pan on "Problem of biting midges"</u>
	8.6.2016	<u>Written question raised by Hon CHAN Hak-kan on "Prevention and control of biting midges"</u>
Panel on Food Safety and Environmental Hygiene	10.1.2017 (Item IV)	<u>Agenda</u> <u>Minutes</u>
	12.12.2017 (Item V)	<u>Agenda</u> <u>Minutes</u> Administration's response to motion passed at the meeting in relation to the control of mosquitoes and biting midges (LC Paper No. <u>CB(2)233/18-19(01)</u>)