

**For discussion on
28 November 2011**

Legislative Council Panel on Environmental Affairs

**Proposed Exemption under
the Genetically Modified Organisms (Control of Release) Ordinance
(Cap. 607)**

INTRODUCTION

This note informs members of the proposed exemption of genetically modified (GM) papaya and genetically modified organism (GMO) contained in a veterinary vaccine from the application of sections 5 and 7 of the Genetically Modified Organisms (Control of Release) Ordinance, Cap. 607 (the Ordinance).

BACKGROUND

2. The objectives of the Ordinance are to give effect to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, and to control the release into the environment, and the import and export, of GMOs. It aims to protect the local biological diversity from possible adverse impacts arising from the transboundary movement of GMOs intended for release into the environment, for example, during commercial planting of crops or trial planting in the fields for scientific researches. The Ordinance commenced on 1 March 2011. Under the Ordinance, release of a GMO or import of a GMO that is intended for release into the environment requires prior approval from the Director of Agriculture, Fisheries and Conservation (the Director).

3. Section 46 of the Ordinance empowers the Secretary for the Environment (the Secretary) to exempt any GMO from the application of sections 5 and 7 of the Ordinance, if the Secretary is satisfied that the possible adverse biosafety effect that may result from the exemption is acceptable or manageable. Section 5 provides that a person must not knowingly cause a GMO to be released into the environment or

maintain the life of a GMO that is in a state of being released into the environment. Section 7 of the Ordinance provides that a person must not knowingly import a GMO that is intended for release into the environment.

LEGISLATIVE PROPOSAL

Exemption of Genetically Modified Papaya

4. To keep track of the prevalence of GMOs in the territory, the Agriculture, Fisheries and Conservation Department (AFCD) has been conducting surveys for the presence of GMOs in various imported and locally grown crop produce since 2008. The survey results revealed that most of the crop produce examined were non-transgenic. However, about 30% of imported papaya fruits obtained from the local markets and about 50% of the home-grown/locally produced papaya were found to be genetically modified. Papaya growing is indeed very popular in the local environment, especially in the backyards of village houses, farmlands and orchards, and we believe that most of these papayas are GM papayas. However, under the Ordinance, growing or maintenance of GM papaya in the field is considered as release of GMO into the environment and requires prior approval from the Director.

5. Due to the prevalence of GM papaya growing in the local environment, AFCD conducted a risk assessment to assess the possible adverse effect of GM papaya on the conservation and sustainable use of biological diversity in the local environment. Based on the risk assessment, AFCD concluded that GM papaya is unlikely to pose any adverse biosafety effect on the biological diversity of the local environment, mainly because papaya is an exotic species, and that it does not have any close relatives in Hong Kong, making it unlikely for the release of GM papaya to the environment to affect the local biodiversity. In other words, the possible adverse biosafety effect that may result from granting exemption to GM papaya under the Ordinance is acceptable.

6. During the discussion of the Bills Committee on Genetically Modified Organisms (Control of Release) Bill (the Bills Committee),

Members noted the Administration's intention to exempt GM papaya from the application of the Ordinance, having regard to the reasons set out above. Furthermore, during the resumption of the second reading debate of the Bill, the Secretary also reiterated the Government's intention to exempt GM papaya from the control of the Ordinance, particularly in the light of the prevalence of GM papaya in Hong Kong, so as not to cause nuisances to residents who grow papayas in the territory.

Exemption of GMO Contained in Live Recombinant Veterinary Vaccine

7. Veterinary vaccines containing one or more GMOs (i.e. live recombinant veterinary vaccines) are commonly used for veterinary purposes. A variety of such vaccines has been developed and is commercially available in the international market. Live recombinant veterinary vaccines could be imported into Hong Kong for vaccination of pet animals against diseases such as rabies. They could also be used on farm animals, such as poultry or horse, to prevent outbreak of diseases, like avian flu and equine influenza.

8. As vaccination with live micro-organisms may lead to the shedding of the administered micro-organisms into the environment, the administration of live recombinant veterinary vaccine may be considered as release of GMO into the environment. Administration or import with the purpose of administration of such veterinary vaccines thus requires prior approval from the Director under all circumstances, including in emergency situations such as an outbreak of a pandemic disease where there would be a genuine need of urgent application of live recombinant veterinary vaccines.

9. In view of the rapid development in the production of live recombinant veterinary vaccines and the potential application of such vaccines in Hong Kong, AFCD conducted a risk assessment to assess the possible adverse biosafety effect of live recombinant veterinary vaccines on the local natural environment. Based on the risk assessment, AFCD concluded that the possible adverse effect to the biological diversity of the natural environment posed by live

recombinant veterinary vaccines is acceptable, mainly because either the recombinant micro-organisms of such vaccines are non-pathogenic in nature or the possibility for the recombinant micro-organisms to spread to the environment is very low. In other words, the possible adverse biosafety effect that may result from granting exemption to the live recombinant veterinary vaccines under the Ordinance is acceptable.

10. Furthermore, it is considered necessary to cater for the need of application of live recombinant veterinary vaccines in emergency situations such as an outbreak of a pandemic disease. The application of such vaccines in case of emergency could be hindered by the lengthy approval process as stipulated in the Ordinance. Hence, we also propose to grant exemption to live recombinant veterinary vaccines from the application of sections 5 and 7 of the Ordinance.

11. To give effect to the proposed exemptions, the Secretary will make an Exemption Notice pursuant to section 46 of the Ordinance, to exempt GM papaya and any GMO that is contained in a veterinary vaccine from the application of sections 5 and 7 of the Ordinance. The Exemption Notice will be a piece of subsidiary legislation.

CONSULTATION

12. The Expert Group, which has been set up under the Ordinance to advise the Director on the administration of the Ordinance (including the granting of exemptions), was consulted on the legislative proposal in July 2011 and supported the above-mentioned exemption on GM papaya and live recombinant veterinary vaccines.

13. Furthermore, having regard to the Expert Group's advice, AFCD would continue to monitor the latest progress and development of GM papaya and live recombinant veterinary vaccines, and carry out a review of the exemption of GM papaya and live recombinant veterinary vaccines in three years' time. AFCD would also step up publicity on GM crops and organic farming to both the general public and the stakeholders.

WAY FORWARD

14. We plan to table the subsidiary legislation at the Legislative Council for negative vetting in December 2011.

ADVICE SOUGHT

15. Members are invited to note the legislative proposal.

Environmental Protection Department
November 2011