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15 June 2012

Miss Becky Yu
Chief Council Secretary (1)1
Legislative Council Secretariat
Council Business Division 1
Legislative Council Complex,
1 Legislative Council Road, Central, Hong Kong

(By Email and by fax : 3529 2837)

Dear Ms Yu,

Subcommittee on Genetically Modified Organisms (Control of Release) (Exemption) Notice

List of follow-up actions arising from the discussion at the meeting on 29 May 2012

Further to the meeting of the Subcommittee on Genetically Modified Organisms (Control of Release) (Exemption) Notice held on 29 May 2012, we write to provide further information on the issues raised at that meeting.

Administration's Response to the Written Submissions

Our responses to the written submissions are given at **Annex**.

Financial Assistance to the Voluntary "One-to-One" Papaya Exchange Programme

The Government's agricultural policy is to advocate diversified farming practices including the promotion of both conventional and new farming methods. The Government provides basic infrastructure, technical support and credit facilities necessary for the development of modern, efficient, safe and environmentally acceptable farming. As regards the voluntary "one-to-one" papaya exchange programme launched by some non-governmental organisations such as environmental and organic farming groups for promoting the planting of non-genetically modified (non-GM) papaya, they may seek funding support from relevant statutory funds such as the Sustainable Development Fund and the Environment and Conservation Fund to implement the exchange programme. If needed, the Agriculture, Fisheries and Conservation Department (AFCD) would continue to provide assistance on GM test and other relevant technical support.

Consequences of Repealing the Exemption Notice

Unless the relevant conditions under the Genetically Modified Organisms (Control of Release) Ordinance (the Ordinance) are complied with, a person who knowingly cause a GM papaya to be released into the environment or maintain the life of a GM papaya will be liable to a fine at level 6 (i.e. HK$100,000) and to imprisonment for one year. Separately, unless prior approval has been obtained from AFCD, or a person who knowingly import a GM papaya that is intended for release into the environment will be liable to a fine at level 6 (i.e. HK$100,000) and to imprisonment for one year.

According to AFCD's survey, it was found that papaya growing is very popular in the local environment, especially in the backyards of village houses, farmlands and orchards. The total number of papaya trees in the territory is estimated to be around 350,000, of which some 60-70% might be GM. In light of the prevalence of GM papaya growing in the local environment, the Secretary for the Environment, in response to the request of the Bills Committee on Genetically Modified Organisms (Control of Release) Bill (the Bill) reiterated the Government's intention to exempt GM papaya from the control of the Ordinance during the resumption of the second reading debate of the Bill. In fact, it would be difficult for a public member to distinguish

whether a papaya is genetically modified simply by its appearance. If the subject Exemption Notice is repealed, anyone who would like to continue to grow papaya would need to carry out chemical test to ascertain whether the papaya being grown is GM or not. If the test confirms that the concerned papaya is a GM variety, he is required under the Ordinance to submit an application for approval of release of the GMO into the environment to the AFCD together with a risk assessment report and the prescribed fee of HK$14,250. Otherwise, he would have to remove the concerned papaya tree in order to avoid being caught under the Ordinance. The repeal of the Exemption Notice will cause intense nuisance to the public.

Besides, the public may submit application under the Ordinance for approval of certain GMOs (including GM papaya) for release into the environment. A GMO approval application has to be accompanied by a report on a risk assessment carried out, or caused to be carried out, by the applicant on the possible adverse biosafety effect of the GMO, and the prescribed fee payable on the application (i.e. HK$14,250 referred above). As the AFCD has conducted a risk assessment on the potential biosafety effect of GM papaya on the local biodiversity, it is expected that the results of the risk assessment on GM papaya submitted by the applicant (if any) would largely be similar to that of the AFCD's. In other words, if a public member submits an application for approval of the concerned GM papaya to the AFCD, depending on individual case, it is expected that it would be difficult for the AFCD to reject the application. The repeal of the exemption notice would only cause nuisance to the public or render them liable to prosecution but it could not deter the public to grow GM papaya legitimately.

As GM papaya would not cause potential adverse effect on local biodiversity as concluded in the risk assessment, we do not agree to the repeal of the Exemption Notice.

Yours sincerely,

(Miss Sian LI)
for Director of Environmental Protection

Annex

Summary on Views from Deputations' Written Submissions and Administration's Responses

The following deputations made written submissions to the EA Panel Secretariat –

1. Queen Elizabeth School Old Students' Association Secondary School
2. The Federation of Vegetable Marketing Co-operative Societies, Ltd.
3. The Conservancy Association
4. Dr. Kenneth LEUNG Mei Yee, School of Biological Sciences, The University of Hong Kong
5. Ms. Tania Willis
6. Transition South Lantau
7. Green Lantau Association
8. Ms. Jacqueline HO
9. Green Power
10. Mr. CHENG Siu-kei
11. Genetically Modified Organisms (Control of Release) Expert Group
12. Professor Samuel SUN, The Chinese University of Hong Kong
13. Green Peace
14. The Green Patch
15. Professor Mei SUN, School of Biological Sciences, The University of Hong Kong
16. 支持香港無基改種植聯盟
17. 農本多肥
18. Yuen Long Organic Farm House Association
19. Produce Green Foundation
20. Professor HONG Ting-hin (National Taiwan University)
21. Mr. LO Ming-kwong (New Choi Yuen Village Villager)
22. Hong Kong Sustainable Agriculture Association
23. 集體購買隊
24. 食物加工隊及反基改種植聯會代表
25. Ms. TSUI Yi-ting (Third Year Student, Faculty of Social Science, The Polytechnics University of Hong Kong)
26. 土作坊
27. 豐之谷有機農莊

Summary of their written submissions and the Administration's responses are as follows –

No.	**Comment**	**Response**
	Queen Elizabeth School Old Students' Association Secondary School (LC Paper No.: CB(1) 1999/11-12(01))	
1.	The prevalence of genetically modified (GM) papaya trees in the territory (about 60% in total) should not be an excuse for exemption. Instead, the Government should strictly follow the requirements as set out in the Convention on Biological Diversity.	The prevalence of GM papaya in local environment is the major factor that prompted the Government to conduct risk assessment to evaluate the possible adverse biosafety effect of genetically modified organisms (GMOs). The main consideration for which the Government proposes the exemption is whether the potential risk to the local biodiversity posed by GM papaya and the possible adverse biosafety effect that may result from the exemption is acceptable or manageable. The Expert Group had discussed the risk assessment reports on the GM papaya in detail and agreed with the conclusion that the potential risk to the local biodiversity posed by GM papaya is very low. On the other hand, during the discussion of the Bills Committee on Genetically Modified Organisms (Control of Release) Bill (the Bills Committee), a Member recommended that GM papaya shall be exempted as soon as possible so as to avoid affecting members of the public who are growing papaya as a hobby. These factors have been taken into account in the consideration for granting the exemption to GM papaya.
2.	The exemption of GM papaya will set a very bad precedent. It implies that more and more GMOs (for example soy beans, rice	Please see to the response to the comment on the exemption of GM papaya under item (1) above. On the other hand, the granting of exemption or approval to the environmental release of different GMOs will be considered

No.	**Comment**	**Response**
	and tomatoes) will be exempted under the Ordinance in the future if their number is overwhelming that makes enforcement difficult.	on a case by case basis and the result of the risk assessment.
3.	The complexity and expensive cost of GM papaya test should not be the reason for exemption since we have developed a testing method costing only costs $6, thus reducing the cost and time for testing.	We understand that the mentioned method makes use of household products (including detergent and table salt) of lower price instead of the more expensive high-grade chemical reagents, so as to reduce the testing cost. However, the impurities in household products may affect the accuracy and reliability of the test result. In addition, under section 34 of the Genetically Modified Organisms (Control of Release) Ordinance (the Ordinance), only the certificate of analysis issued by an accredited laboratory may be tendered in evidence in any proceedings under this Ordinance.
	The Federation of Vegetable Marketing Co-operative Societies Ltd (LC Paper No.: CB(1) 1999/11-12(02))	
4.	The exemption proposal will avoid causing intense and unnecessary nuisance to the farmers who are growing papayas, and remove from them the additional financial burden of testing or eradication of papaya trees.	Noted.
5.	Not against the 'one-to-one papaya exchange programme'.	The Government's agricultural policy is to advocate diversified farming practices including the promotion of both conventional

No.	**Comment**	**Response**
		and new farming methods. The Government provides basic infrastructure, technical support and credit facilities necessary for the development of modern, efficient, safe and environmentally acceptable farming. As regards the voluntary "one-to-one" papaya exchange programme launched by some NGOs such as environmental and organic farming groups for promoting the planting of non-genetically modified papaya, they may seek funding support from relevant statutory funds such as Sustainable Development Fund and Environment and Conservation Fund to implement the exchange programme. If needed, the Agriculture, Fisheries and Conservation Department (AFCD) would continue to provide assistance on GM test and other relevant technical support.
6.	The Committee should pass the exemption proposal considering the real situation faced by the majority of the local farmers (the GM papayas are good in quality, productive and resistant to virus).	Noted.
	The Conservancy Association (LC Paper No.: CB(1) 1999/11-12(03))	
7.	Since there is no strict mechanism on local risk assessment, the exemption proposed for all varieties of GM papayas violates the objective of the Cartagena Protocol on	The risk assessment was conducted in accordance with the requirements of the Protocol and the Ordinance and has made reference to various scientific publications and the risk assessment reports of other countries.

No.	**Comment**	**Response**
	Biosafety (the Protocol) of minimising the potential adverse effect on human and environment by modern biotechnology.	
8.	The impacts to local environment, for example, impacts to other wildlife like butterflies and birds and micro-organisms like soil microbes, were not fully assessed in the risk assessment on GM papaya.	The risk assessment was conducted in accordance with the requirements of the Cartagena Protocol on Biosafety (the Protocol) and the Ordinance and made reference to various scientific publications. The potential risks associated with GM papaya were assessed, including gene flow to wild relatives of papaya, potential to become a weed, production of harmful substances, horizontal gene transfer and impact on soil microbial diversity. It was concluded that GM papaya is unlikely to pose any adverse biosafety effect to the biological diversity of the local environment. The Expert Group had discussed the risk assessment reports on the GM papaya in detail and agreed with the conclusion that the potential risk to the local biodiversity posed by GM papaya is very low.
9.	The risk assessment did not take into account the effect on the sustainable use of agricultural genetic resources.	In accordance with the Protocol's principle for the protection of biodiversity, as papaya is an introduced exotic species, it does not constitute the local biodiversity.
10.	Doubtful on the biosafety of new GM varieties of papaya.	The risk assessment conducted by AFCD concluded that GM papaya is unlikely to cause potential risk to the local biodiversity, mainly because papaya is an exotic species and has no other compatible native plant species for cross-breeding. In addition, as

No.	**Comment**	**Response**
		GM papaya is produced through genetic engineering using the same transformation system, all varieties of GM papaya that were developed or are developing would share the same basic genetic makeup. Therefore, the risk assessment is applicable to all existing or developing GM papaya varieties. Nevertheless, considering that some people are concerned about GM papaya to be produced with new techniques in the future, we have adopted a cautious approach, by imposing appropriate regulation on the import for local cultivation of GM papayas of varieties which have not been approved for commercial production, as well as monitoring the latest progress and development of GM papayas.
11.	The protection of agricultural biodiversity is the objective of the Ordinance.	Please see the response under item (9) above.
12.	The Government should restrict the exemption to those GM varieties which are approved for commercial production or are certified for safe production. The GM varieties to be exempted should be listed out in the schedule of the exemption notice.	The Administration has proposed to limit the exemption from the application of section 7 (regulating the import of GMOs intended for release into environment) of the Ordinance to the two commercialized varieties of GM papaya, which are already specified in the Schedules to the Exemption Notice If only specific varieties of GM papaya are exempted from section 5 of the Ordinance, a person who is knowingly growing unexempted varieties of GM papaya would be prosecuted. Even if the person is not aware that the papaya being grown is not an

No.	**Comment**	**Response**
		exempted varieties, the Authority would still have to carry out investigation, and that the concerned papaya trees must be removed, or the person would be prosecuted. Anyone who would like to make sure that the planting of the GM papaya is in compliance with the relevant regulations, he may need to conduct chemical test and DNA sequencing (each test costs a few thousand dollars) to ascertain whether the concerned papaya tree is the exempted variety. If not, the grower has to report to the Authority and remove the concerned GM papaya. Besides, anyone who would like to grow unexempted varieties of GM papaya would need to submit an application, the relevant risk assessment report and the prescribed fee of HK$14,250 to apply for approval under the Ordinance.
13.	The exemption notice and the above-said schedule should be reviewed regularly.	AFCD has prepared a GM papaya monitoring plan to monitor the latest progress and development of GM papaya, and will carry out a review of the exemption in three years' time for reporting to the Expert Group.
14.	To put more resources into public education.	To arouse public awareness of the new regulatory framework on GMOs, AFCD has carried out the publicity and public education programmes. We will continue the publicity and education programmes to enhance general public's awareness about the GMOs' regulations.
15.	To put more resources into the eradication of gene contamination in the territory.	The Administration would endeavour to the implementation of the Ordinance for the protection of the local biodiversity.

No.	**Comment**	**Response**
	Dr. Kenneth LEUNG Mei-LEE, School of Biological Sciences, The University of Hong Kong (LC Paper No.: CB(1) 1999/11-12(04))	
16.	Given that species barrier can effectively prevent any gene transfer between GM papaya and other plants in Hong Kong, it is highly unlikely for gene flow from GM papaya to other native plants to occur.	AFCD does not observed any spreading of modified genes in Hong Kong during field studies and ecological surveys.
17.	As existing varieties of GM papaya have been shown to be no different to non-GM papaya biologically other than the expression of the conferred trait (e.g. PRSV resistance) and are deemed safe, new varieties of GM papaya are not expected to have dissimilar biological and safety properties.	Noted.
18.	GM papaya has been so widely grown in many tropical countries in large quantity, no adverse impacts of GM papaya on the natural environment has been reported.	Noted. AFCD also does not observe any ecological impact due to GM papaya during field studies and ecological surveys.
19.	From the risk management point of view, the proposed exemption of GM papaya would unlikely result in any significantly	Noted.

No.	**Comment**	**Response**
	unacceptable risk to the biological diversity of Hong Kong.	
	Ms. Tania Willis (LC Paper No.: CB(1) 1999/11-12(05))	
20.	Cross pollination will contaminate all indigenous & wild papaya species across Hong Kong if GM papaya is exempted.	Hong Kong has no indigenous or wild papaya species, and thus no indigenous or wild papaya species will be susceptible to the contamination by GM papayas.
21.	Unknown effects on our health that comes from eating GM food.	The Ordinance seeks to implement the Protocol in Hong Kong, thus the Ordinance concerns with conservation and sustainable use of biological diversity. The issues of GM food safety are outside the ambit of the Ordinance. Food safety issues are handled by other relevant government departments and other legislations.
22.	Lose of natural pollinators (e.g. bees) as a result of genetic engineering in agriculture and GM plants.	Please see the response under item (8) above.
23.	Suggested that GM agriculture is a dangerous & a counterproductive idea.	Noted.
24.	Recommended to halt the introduction of any new GM strains.	Please see the response under item (12) above.
	Transition South Lantau (LC Paper No.: CB(1) 1999/11-12(06))	
25.	Suggested the Government should destroy all	The Ordinance seeks to implement the Protocol in Hong Kong, thus the Ordinance

No.	**Comment**	**Response**
	GM-contaminated papayas in Hong Kong and provide free organic seedling to papaya growers in order to make Hong Kong as a totally GM-free zone.	concerns with conservation and sustainable use of biological diversity. The Ordinance does not aim to eradicate GM papayas. On the other hand, The Government's agricultural policy is to advocate diversified farming practices including the promotion of both conventional and new farming methods. The Government provides basic infrastructure, technical support and credit facilities necessary for the development of modern, efficient, safe and environmentally acceptable farming. As regards the voluntary "one-to-one" papaya exchange programme launched by some NGOs such as environmental and organic farming groups for promoting the planting of non-genetically modified papaya, they may seek funding support from relevant statutory funds such as Sustainable Development Fund and Environment and Conservation Fund to implement the exchange programme. If needed, AFCD would continue to provide assistance on GM test and other relevant technical support. AFCD also suggests farmers to purchase non-GM papaya seeds through the coordination of some farmers' associations.
	Green Lantau Association (LC Paper No.: CB(1) 1999/11-12(07))	
26.	Expressed reservations on the exemption proposal as the precautionary principle may have been undermined.	The risk assessment conducted by AFCD concluded that GM papaya is unlikely to cause any biosafety adverse effect to the biodiversity in local environment. On the other hand, considering that some people are concerned about GM papaya to be produced with new techniques in the future, we would impose appropriate regulation on the import

No.	**Comment**	**Response**
		for local cultivation of GM papayas of varieties which have not been approved for commercial production, as well as monitoring the latest progress and development of GM papayas.
27.	The exemption proposal contained the message that GM papayas and other GM food are safe and acceptable. / Exemption proposal is kind of supporting the propagation of GM foods.	The Ordinance aims to protect the local biological diversity from possible adverse impacts arising from GMOs intended for release into the environment. The Administration's exemption is proposed under section 46 of the Ordinance and under the consideration that the effect on biodiversity posed by GM papaya is acceptable. As regards the issue of GM food safety, please refer to the response under item (21) above.
28.	The Administration 's response to the Panel of Environmental Affairs regarding overseas practice does not describe the extent to which GM papayas are cultivated or the scale of impacts that this may have caused in the countries such as Mainland China, Taiwan, Philippines, Vietnam, Indonesia and Malaysia.	GM papaya is cultivated mainly in subtropical and tropical countries, including Australia, Brazil, Indonesia, Jamaica, Mainland China, Taiwan, Malaysia, Mexico, Philippines, Tanzania, US and Vietnam. For example, the majority of papayas grown in Hawaii are GM papaya. In Mainland China, GM papaya is mainly grown in Guangdong, Guangxi and Hainan. The scale of papaya cultivation in Hong Kong is relatively small.
29.	Thailand has been striving to adhere to the principle of banning the importation of GM papaya and other seeds so as to protect local seed stock and farmers.	Please see the response under item (26) above.

No.	**Comment**	**Response**
30.	With reference to Thai newspaper, protection of local papaya crops from GM influences may not be impossible.	Please see the response under item (9) above.
31.	Given Hong Kong being a small place with many but small papaya garden, it would be easy to keep track of GM papayas and encourage the replacement with local species.	Please see the responses under items (5) and (20) above.
32.	Promotion of voluntary GM labelling regime instead of introducing a mandatory is an abdication of responsibility that infringes on the Hong Kong's consumers right to know what they buy and eat.	The Ordinance seeks to implement the Protocol in Hong Kong, thus the Ordinance concerns with conservation and sustainable use of biological diversity. The issue of GM food labelling is outside the ambit of the Ordinance.
	Ms. Jacqueline HO (LC Paper No.: CB(1) 1999/11-12(08))	
33.	In order to protect the local environment and public health, the Government should place control on all GM crops.	The Administration's exemption is proposed under section 46 of the Ordinance and under the consideration that the effect on biodiversity posed by GM papaya is acceptable. On the other hand, the Ordinance seeks to implement the Protocol in Hong Kong, thus the Ordinance concerns with conservation and sustainable use of biological diversity. The issue of GM food safety is outside the ambit of the Ordinance.

No.	**Comment**	**Response**
34.	The GM-free papayas will be contaminated by GM papayas so that our next generation cannot enjoy the GM-free papayas.	Please see the response under item (21) above.
	Green Power (LC Paper No.: CB(1) 1999/11-12(09))	
35.	Recommended the Government should continue to monitor the latest progress and development of GM papaya, and carry out a review of the exemption of GM papaya in at least three years' time in light of the latest risk assessment information of GM technology and biosafety of GMOs.	Please see the response under item (13) above.
36.	Recommended the Government should strengthen the monitoring over the import and local planting of GMOs.	Please see the response under item (13) above.
37.	Urged the Government to support the 'papaya exchange programme' launched by the organic farmers groups.	Please see the response under item (5) above.
38.	Urged the Government to step up the publicity on GMOs and biodiversity conservation.	Please see the response under item (14) above.

No.	**Comment**	**Response**
	Mr. CHENG Siu-kei (LC paper No.: CB(1) 1999/11-12(10))	
39.	The experts, governments and industries worldwide have not been able to conclude the effects of GM crops on the biodiversity and environment. Question the Government's justification for proposing the exemption.	Please see the response under item (7) above.
40.	The Government barely consulted the local farmers in relation to the exemption proposal of GM papayas.	The Administration has consulted local farmers in organic farming or traditional farming on the proposed exemption. Their views have been taken into account in the revised exemption proposal.
41.	The exemption of all varieties of GM papayas will cause unnecessary risks to the local cultivation activities and local environment.	Please see the response under item (8) above. On the other hand, as GM papayas have been cultivated in Hong Kong for many years, the exemption would not result in the increase in the biosafety risk.
42.	The Government should actively provide information on GM crops to the public and set up a platform for public and experts to discuss the effects of GM food on biodiversity and food safety.	All relevant information of the Ordinance and GMOs has been uploaded onto the online GMOs Register for public access. The Administration has also provided a hotline for public enquiry. Please see the response to the issue of GM food safety under item (21).
43.	The Government should have a scheme to regularly review the sustainable	The Administration has been supporting the development of local sustainable agriculture, including organic farming. In fact, AFCD

No.	**Comment**	**Response**
	development of agriculture.	had been assisting farmers in the development of organic farming since 2000, including support service on organic farming, introduction of techniques and assistance in marketing of organic produce. AFCD also introduces specialty crops, such as cherry tomato, white bitter gourd, cucumber, sweet pepper, strawberry, watermelon and rock melon, for local organic farmers. The Government's agricultural policy advocates diverse agriculture and promotes both traditional and innovative farming practice.
	Genetically Modified Organisms (Control of Release) Expert Group (LC Paper No.: CB(1) 1999/11-12(11))	
44.	The assessment and conclusions of reports that the risk to the biological diversity of the local environment posed by GM papayas and live recombinant veterinary vaccines is acceptable were endorsed by the Expert Group. The Expert Group supported the recommendations to exempt GM papayas and live recombinant veterinary vaccines.	Noted.
45.	Recommended that AFCD should continue to monitor the latest progress and development of GM papayas and live recombinant veterinary	Please see the response to the comment on GM papayas under item (13). On the other hand, AFCD will also monitor the latest progress and development of live recombinant veterinary vaccines, and carry out a review of the exemption in three years' time for

No.	**Comment**	**Response**
	vaccines. AFCD should also carry out a review of the exemption in three years' time and report the findings of the review to the Expert Group.	reporting to the Expert Group.
46.	Recommended that AFCD and other relevant bodies should step up publicity on GM crops and organic farming to both the general public and the stakeholders.	Please see the response under item (14) above.
	Professor Samuel SUN, the Chinese University of Hong Kong (LC Paper No.: CB(1) 1999/11-12(12))	
47.	This existing papaya protection technology (i.e. genetic modification) has had a long history of some 20 years from its development with products on international market for over 15 years. It is a simple, effective, and safe technology to protect the production of papaya.	Noted.
	Green Peace (LC Paper No.: CB(1) 2017/11-12(01))	
48.	The risk assessment conducted by the Government made reference to the foreign scientific literature only without carrying out any research or studies on local environment.	Please see the response under item (7) above.

No.	**Comment**	**Response**
49.	Currently, there is no risk assessment for many varieties of GM papayas that are at experimental stage.	According to our understanding, local laboratories are not conducting any studies on GM papayas. On the other hand, considering that some people are concerned about GM papaya to be produced with new techniques in the future, we have adopted a cautious approach, by imposing appropriate regulation on the import for local cultivation of GM papayas of varieties which have not been approved for commercial production, as well as monitoring the latest progress and development of GM papayas.
50.	The Government should implement compulsory GM food labelling.	Please see the response under item (32) above.
51.	The Government should eradicate all exiting GM papaya trees and to promote Hong Kong as a GM papaya-free planting zone.	Please see the response under item (25) above.
52.	The Ordinance provides that it is an offence only if a person knowingly cultivates a GM crop. Since general public cannot distinguish GM papayas by naked eyes, a person who unknowingly plants a GM papaya tree will not be prosecuted. Therefore, the concerns that people will be mistakenly caught under	We cannot presume that all papaya growers in Hong Kong grow GM papayas unknowingly. The law enforcement agencies have to carry out investigation on suspected cases of contravention of the provisions of Ordinance.

No.	**Comment**	**Response**
	the Ordinance and that there will be nuisance to the public are not justified.	
53.	The Government should promote public's understanding of the importance and true implication of the Ordinance, especially on that the person who unknowingly plants a GM plant does not commit an offence.	Please see the response under item (14) above.
54.	The Government should strictly control the import and cultivation of GMOs.	Please see the response under items (1) and (12) above.
	The Green Patch (LC Paper No.: CB(1) 2017/11-12(02))	
55.	The greatest concern to organic papaya growers in Hong Kong will be loss of organic status and markets if GM papaya contamination takes place.	GM papaya and non-GM have co-existed in local environment for many years. Other than carrying out GM papaya test, organic farmers could also adopt cross-pollination preventing measures to avoid the contamination of planted organic papayas.
56.	GM papaya testing could be provided to farmers and gardeners either free of charge or at nominal cost, so that they can rogue GM papaya contamination.	Please see the response under item (5) above.
57.	Recommended that the Government shall offer further education in	Please see the response under item (43) above.

No.	**Comment**	**Response**
	traditional and alternatives methods of papaya ringspot virus (PRSV) management.	
	Professor Mei SUN, School of Biological Sciences, The University of Hong Kong (LC Paper No.: CB(1) 2017/11-12(03))	
58.	As no native species of Caricaceae exists locally, there is no risk of gene glow from GM papaya to the native flora of Hong Kong. Thus cross contamination of the native flora by GM papaya should not be an issue of concern.	Noted.
59.	A study reported 1% transgenes found in the seeds of conventional papaya when the trees were planted next to GM papaya, but no transgenes were found in seeds from an orchard that was 400 meters downwind.	Noted.
60.	The virus-resistant GM papaya does not require toxic pesticides and actually produces crops that are more environmentally friendly. It also makes agricultural production more efficient in terms of the resources used.	Noted.

No.	**Comment**	**Response**
61.	The benefits of GM papaya outweigh the potential harmful effects, which are unlikely to be significant on Hong Kong's environment.	Noted.
	支持香港無基改種植聯盟	
62.	The Government's proposal to exempt all varieties of GM papayas is very dangerous as it means giving up the control. / With such fast development of technology, the Government argument that the development system of GM papaya will be the same in the future deducted from nowadays' most-used development system, is not reasonable.	Please see the response under item (10) above.
63.	The risk assessment conducted by the Government made reference to the foreign scientific publications only is not scientific.	Please see the response under item (8) above.
64.	All GM papaya studies currently undertaking include not only those for PRSV resistance, but also those with double resistance (resistance to	Please see the response under item (10) above.

No.	**Comment**	**Response**
	both PRSV and papaya leaf distortion mosaic virus), resistance to phytophtora, tolerance to herbicide, tolerance to aluminium-rich soil, resistance to mites, delayed ripening, production of vaccine against tuberculosis and production of vaccine against cystercercosis. These studies use different genetic transformation system.	
65.	Except certain varieties that resist to PRSV are approved for commercial production, other varieties are not approved for production and most of them have not been assessed against their toxicity, food safety and biosafety. The Government should not make a conclusion that these are of extremely low biosafety effects to local biodiversity.	Please see the response under item (10) above.
66.	Although papayas are not native to China, they have been grown in southern China for hundreds of years and different local	Please see the response under item (9) above.

No.	**Comment**	**Response**
	varieties that can adapt to local environment have been evolved. The exemption will result in the contamination by GM pollen to these diversified local species, severely affecting the sustainable use of agricultural genetic resources.	
67.	The Government confined the risk assessment on the contamination by GM pollens to other plants. The potential adverse effects on other species were briefly described in the report.	Please see the response under item (8) above.
68.	The Government claimed that 30-40% of the local GM papayas surveyed are Hawaii papayas and Huanong-1 papayas which have been approved for commercial production while 40-50% of them are a variety approved for open field trail in Taiwan but not approved for commercial production. The remaining 10% is unidentified varieties which should be hybrids of GM papayas.	The types of GM papayas known to be grown in Hong Kong include the commercialized US variety (with the unique identifier code CUH-CP551-8) and the Chinese variety (with the transformation event code Huanong 1) (accounting for 30-40% of the total share) and a variety approved for field trial in Taiwan (with the transformation event code 19-0-1, accounting for 40-50%). There are also hybrids between these GM papayas and non-GM papayas.

No.	**Comment**	**Response**
69.	The Ordinance prohibits a person from "knowingly" cultivating a GM crop. A person who plants the seeds after consuming the papaya, is not acting "knowingly" and so that does not commit an offence. The enforcement by the Government will not cause nuisance to the public.	Please see the response under item (52) above.
70.	The Government claimed that it is impractical to enforce against the cultivation of GM papayas in view of the extremely low biosafety effects of GM papayas.	Please see the response under item (1) above.
71.	Some of the Ordinances, such as the one requiring the switching off of idling vehicles, the one about the establishment of smoking-free zones and the one prohibiting water dripping from air-conditioner also cause unnecessary nuisance to the general public. Other departments did not propose all-round exemption because of the difficulty in the enforcement.	Please see the response under item (1) above.

No.	**Comment**	**Response**
72.	In Taiwan, there was once a case of GM papaya found in the market, the local Government considered it a severe loophole in the risk management of GM products. On the contrary, the Hong Kong Government appears to be careless.	Please see the response under item (1) above. On the other hand, the Ordinance does not prohibit the import of GM papayas into Hong Kong for direct consumption as food.
73.	Hong Kong becomes an uncontrolled city that both legitimate and illegitimate GM papayas can be grown in Hong Kong. / It is doubtful whether the Government is able to monitor the development of GM papayas.	We have imposed appropriate regulation on the import for local cultivation of GM papayas of varieties which have not been approved for commercial production, as well as monitoring the latest progress and development of GM papayas. AFCD has prepared a GM papaya monitoring plan to monitor the latest progress and development of GM papaya, and carry out a review of the exemption in three years' time for reporting to the Expert Group.
74.	If the proposed exemption commences, Hong Kong may become the only place that exempts all varieties of GM papayas.	Please see the response under item (12) above.
75.	The exemption for all varieties of GM papaya violates the objectives of the Protocol.	Please see the response under item (26) above.
76.	The Government's paper mentioned Canada's Seeds	Canada's Seeds Regulations regulates all plants with novel traits. The Canada

No.	**Comment**	**Response**
	Regulations that Canada has arrangement similar to Hong Kong's GM papaya exemption proposal. However, after checking with the Regulations, it does not include GM crops.	Directive provides guidance for the implementation of various parts of the Regulations. The Directive 94-08 provides guidance regarding the requirements for the risk assessment of environmental release (including the above exemption). The Directive is applicable for all plants with novel traits, including genetically modified plants.
77.	Owing to the possible contamination by GM pollen, most of the organic farmers have abandoned the production of organic papayas.	Please see the response under item (25) above.
78.	The Government should promote the growing organic farming business in respond to the needs of farming sector and the society.	Please see the response under item (43) above.
79.	If exempted, it is anticipated that the cultivation of GM-free papayas will be difficult owing to the contamination by GM pollen. Once the public realized the majority of local papayas are genetically modified, the local papayas could not be sold at higher prices.	Please see the response under item (25) above.

No.	**Comment**	**Response**
80.	The current exemption proposal aroused public awareness of GM papayas. The Government and other organisations should make use of this opportunity and eradicate GM papaya trees in the territory by one-to-one papaya exchange, so as to enhance consumer's confidence on local papayas, to increase the quality of local farm products and to develop local farm product brands.	Please see the response under item (37) above.
81.	Germany's legislation requires that the cultivating distance between GM corn and traditional corn is set at 150 meters while the distance between GM corn and organic corn is at 300 meters. Also, the cultivation of GM corn should be at least 800 -1000 meters away from the nature reserve. Besides, the growers who are growing GM crops are responsible for reporting to their neighbours about the GM cultivation and compensating the loss if accidentally contaminated other people's crops.	Most papaya growers in Hong Kong are general public who are growing papaya as a hobby and grow the fruits for their own consumption and sell modest surpluses in local markets. The situation in Hong Kong is very different from the large scale commercial production in overseas countries. Nevertheless, organic farming is outside the ambit of the Ordinance.

No.	**Comment**	**Response**
82.	Some local organisations launched a 'one-to-one papaya exchange programme at the end of last year, which was supported by villagers and farmers in four villages. About 70% of villagers and farmers joined the programme within a few months.	Please see the response under item (5) above.
83.	Recently, some organic farms suggest an adoption scheme of papaya trees selling the annual produce of one papaya tree at the price of $600 -1500 to the general public. Assuming that 350,000 papaya trees in Hong Kong could be sold at the said price, the revenue will be around $ 0.21 – 0.525 billion a year. This will be a considerable amount of production value.	Please see the response under item (5) above.
84.	There is no mechanism regulating GM food or compulsory GM food labelling system in Hong Kong. In the absence of these mechanism or system, the Government should not exempt all varieties of GM papayas.	Please see the response under item (32) above.

No.	**Comment**	**Response**
85.	The Government should take the lead to carry out the 'one-to-one papaya exchange programme' to eradicate all the papaya trees in the territory.	Please see the response under item (25) above.
86.	The Government should withdraw the exemption proposal and promote local GM-free papayas to local consumers.	The Government's agricultural policy advocates diverse agriculture, promotes both traditional and innovative farming practice, and provides basic infrastructure, technical support and credit facilities necessary for the development of modern, efficient, safe and environmentally acceptable farming. The exemption is proposed to avoid causing intense and unnecessary nuisance to the general public who are growing papaya as a hobby, and after strict risk assessment. We consider that the revised exemption proposal is an acceptable and balanced approach to address the need of the public to continue planting papaya as hobby whilst safeguarding local biological diversity from potential biosafety effects of GM papaya if any.
87.	If exemption is inevitable, the Government should only exempt those GM varieties which are approved for commercial production or are certified for safe production.	Please see the response under item (12) above.
88.	The exemption and the schedule should be reviewed (say in two years' time).	Please see the response under item (13) above.

No.	**Comment**	**Response**
89.	The Government should step up the education and publicity of the Ordinance and advise the public not to use seeds of unknown sources for cultivation to avoid risks to local biodiversity.	Please see the response under item (14) above.
	農本多肥	
90.	The exemption will promote cultivation and natural propagation of GM papayas.	A quite large proportion of GM papayas have been widely grown by the general public before the commencement of the Ordinance. GM papaya and non-GM have co-existed in local environment for many years. It is estimated that about 60% of papaya tress are GM in nature, most probably due to people's preference for varieties with better performance.
91.	The exemption will lower the availability of non-GM papayas for the consumption or purchase by general public.	Please see the response under item (21) above.
92.	The exemption will deprive the choice of animals, insects and micro-organisms which rely papaya as food.	Please see the response under item (8) above.
93.	The Government should adopt the precautionary approach in the control of GM. Preventing the transfer, handling and use	Noted.

No.	**Comment**	**Response**
	of GMOs from damaging environment and human health is an international consensus.	
94.	The biosafety risk assessment conducted by the Government made reference to the foreign scientific publications only without carrying out any research or studies on local environment. Also the assessment did not take into account the biosafety risk of GM papayas to other species.	Please see the response under item (7) above.
95.	Pollens of GM plants will contaminate other plants, causing extinction of local plant species and imposing adverse effects on agricultural diversity.	Please see the response under item (8) above.
96.	The Ordinance provides that it is an offence only if a person knowingly cultivates a GM crop. A person who carelessly plants a GM plant will not be prosecuted. Therefore, the concern that the enforcement will cause nuisance to the public is not justified.	Please see the response under item (52) above.

No.	**Comment**	**Response**
97.	Worried that more GMOs would be exempted in the future.	Please see the response under item (1) above.
98.	The Government should undertake the 'one-to-one papaya exchange programme'.	Please see the response under item (25) above.
	Yuen Long Organic Farm House Association	
99.	The Government introduces GM papayas which will contaminate organic papayas.	Please see the response under item (55) above.
	Produce Green Foundation	
100.	The Government should conduct risk assessment for individual varieties of GM papayas. The exemption of all varieties would have adverse effects on local biodiversity.	Please see the response under item (10) above.
101.	The Government should explain to the farmers that a person who does not knowingly grow a GM papaya does not have to pay the expensive testing fee when being prosecuted.	Please see the response under item (52) above.
102.	The Government should take the lead to carry out the 'one-to-one papaya exchange programme'.	Please see the response under item (25) above.

No.	**Comment**	**Response**
	Professor HONG Ting-hin	
103.	Cultivation of GM papayas should not be allowed as GM food or crops cannot be completely safe on food safety and ecology.	Please see the response to the comment on the risk assessment under item (7) and the comment on the food safety under item (21) above.
104.	If the Government did not regulate the cultivation of GM crops, it would result in the prevalence of GM crops in the territory.	The exemption is applicable solely for GM papayas. The environmental release of other species of GM crops requires prior approval from the Administration.
105.	Taiwan University is developing non-GM papayas that can resist PRSV. These papayas may be available to Hong Kong farmers for consumption or cultivation in the future.	Noted.
	Mr. LO Ming-kwong (New Choi Yuen Village Villager)	
106.	The exemption would result in the uncontrollable increase in the number of GM papayas. Non-GM papayas would be marginalized. Organic farmers would have to spend large amount of resources to prove their non-GM papayas in order to get the certification.	Please see the response under item (25) above.
107.	The Government's GM papaya exemption	Please see the response under item (5) above.

No.	**Comment**	**Response**
	proposal is contradictory to the policy of promoting organic farming.	
	Hong Kong Sustainable Agriculture Association	
108.	The Government should eradicate all contaminated papaya trees in the territory and provide non-contaminated papaya seedlings to the public as compensation.	Please see the response under item (25) above.
109.	The exemption proposal indulges the commercial producers of GM papayas to make profit.	Please see the response under item (81) above.
110.	The Government should promote organic farming.	Please see the response under item (43) above.
111.	If the Government insists on the exemption proposal, GM papayas will be everywhere in Hong Kong.	Please see the response under item (90) above.
112.	The Government should help local papaya growers upgrade the varieties of papaya, to ensure no GM papaya will not growing in Hong Kong and replace with non-hybrid varieties of papaya, restarting the diverse development of papaya varieties in Hong Kong.	The Ordinance seeks to implement the Protocol in Hong Kong, thus the Ordinance concerns with conservation and sustainable use of biological diversity. The Ordinance does not aim to eradicate GM papayas.

No.	**Comment**	**Response**
	集體購買隊	
113.	Once GM papayas are exempted, the consumers will doubt organic products and have less confidence on purchasing organic products.	Please see the response under item (25) above.
114.	The GM papayas may affect soil microbes and insects.	Please see the response under item (8) above.
115.	GM papayas may affect consumers and general public's health.	Please see the response under item (21) above.
	食物加工隊及反基改種植聯會代表	
116.	Worried that the processed food products will be contaminated by GM papayas and hence the sale of organic food products would be affected.	The comment is related to commercial activity and is outside the ambit of the Ordinance.
117.	The use of meat tenderizer produced by GM papayas may affect human health.	Please see the response under item (21) above.
	Ms. TSUI Yi-ting (Third Year Student, Faculty of Social Science, The Polytechnics University of Hong Kong)	
118.	Worried that GM food will affect human health.	Please see the response under item (21) above.
119.	The public was not consulted on the GM papaya exemption proposal.	Please see the response under item (21) above.

No.	**Comment**	**Response**
120.	Suggested the Government to provide a transitional period during which the Government cooperates with the public to eradicate GM papaya trees. The Government should strictly enforce the Ordinance after the transitional period.	As the potential risk to the biological diversity of the local environment posed by GM papaya is very low, the Administration does not have any justification or plan to phase out all GM papayas grown in Hong Kong.
121.	The Government should promote public awareness (especially local farmers) on the Ordinance and its effect, and persuade the public not to use seeds of unknown sources for planting to avoid risks to local biodiversity.	Please see the response under item (14) above.
	土作坊	
122.	The Government's proposal to exempt GM papaya in order to avoid prosecuting growers who grow GM papayas for self-consumption, is like putting the cart before the horse.	Please see the response under item (1) above.
123.	The GM-free papayas will be contaminated by GM papayas. The Government should provide the public with non-GM papaya seeds so that the public has	Please see the response under item (25) above.

No.	**Comment**	**Response**
	the right to choose between GM and non-GM papayas.	
124.	It is contradictory that AFCD promotes organic farming on one hand while exempts GM papayas on the other hand.	Organic farming is outside the ambit of the Ordinance. Please see the response to comment on the Administration agricultural policy under item (5) above.
125.	The Government should provide or by cooperating with contractors sell non-GM papaya seeds in order to allow the public to grow non-GM papayas as they want with confidence.	Please see the response under item (25) above.
126.	The Government should contact local and regional experts who are opposing GMOs.	Please see the response under item (7) above.
	豐之谷有機農莊	
127.	The risk assessment conducted by the Government made reference to the foreign scientific publications only without carrying out any research or studies on local environment or setting up monitoring system, shirking the responsibility for regulation. In addition, low risk does not mean without risk and so	Please see the response under items (7) and (10) above.

No.	**Comment**	**Response**
	that cannot be taken lightly.	
128.	Foreign countries with flourishing agricultural industry examine varieties of GM papayas individually before granting approval in order to avoid genetic contamination. Actually, they will not consider the application only from the aspect of supporting biodiversity, but also the safety to the natural environment and other living organisms on the Earth, including animals, plants, human-being and even micro-organisms.	Please see the response under items (1) and (8) above.
129.	The exemption of GM papayas ignored the food safety of consumers.	Please see the response under item (21) above.
130.	Once exempted, the consumers will be confused about the papayas of unknown identities.	Please see the response under item (21) above.
131.	The living of organic farmers will be affected because of genetic contamination and the loss of certification.	Please see the response under item (25) above.

No.	**Comment**	**Response**
132.	The Government should limit the exemption to those GM varieties approved for commercial production (i.e. the Hawaii GM papaya and Chinese Huanong No.1), and establish a monitoring and approval system which should be reviewed regularly.	Please see the response under item (12) above.
133.	The Government should take the lead of the 'one-to-one' papaya exchange programme to phase out GM papaya trees and to ease the concern of consumers, and to promote sustainable development of agriculture in Hong Kong.	Please see the response under item (25) above.