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### Replies to supplementary written and oral questions raised by Finance Committee Members in examining the Estimates of Expenditure 2020-21

Director of Bureau : Secretary for the Environment

Session No. : 7

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**CONTROLLING OFFICER'S REPLY**

**S-ENB001**

**(Question Serial No. S023)**

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation  
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

It is stated in part (c) of Reply Serial No. ENB010 that the number of wild pigs captured, administered with contraceptive vaccine, surgically sterilised and relocated to remote countryside is 261, 54, 38 and 202 respectively in 2019-20. Would the Government please give further reply on the following:

- (a) Among the 261 wild pigs captured, how many have been euthanised eventually?
- (b) Regarding the 202 wild pigs relocated to remote countryside, do they include all those which have been administered with contraceptive vaccine and surgically sterilised?
- (c) Are there any wild pigs administered with contraceptive vaccine and surgically sterilised being released back to the vicinity of the locations where they have been captured (that is, not the remote countryside)? If yes, what is the number?

Asked by: Hon CHU Hoi-dick

Reply:

- (a) Among the 261 wild pigs captured by the Agriculture, Fisheries and Conservation Department when handling nuisance cases or carrying out rescue operations from April 2019 to February 2020, 11 of them were examined and assessed by Veterinary Officers as seriously injured and difficult to recover, and thus had to be euthanised.
- (b) and (c) Among the 202 wild pigs relocated to remote countryside, 77 of them were administered with contraceptive vaccine or surgically sterilised. In addition, 15 wild pigs were returned to the location where they were captured after being administered with contraceptive vaccine or surgically sterilised.

- End -

**CONTROLLING OFFICER'S REPLY**

**S-ENB002**

**(Question Serial No. S024)**

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation  
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

- (a) When were the green turtles last seen by the Agriculture, Fisheries and Conservation Department (AFCD) at Sham Wan on Lamma Island?
- (b) Has AFCD assessed how likely the green turtles would not return to Sham Wan on Lamma Island when they have ceased to return to lay eggs for some years?

Asked by: Hon CHU Hoi-dick

Reply:

- (a) Green turtle was last found by Agriculture, Fisheries and Conservation Department in the waters of Lamma Island in June 2019.
- (b) According to the literature, it takes 20 to 30 years or even longer for a green turtle to mature. The turtles born at the sandy beach at Sham Wan since it was gazetted as a Restricted Area in 1999 may not yet have matured, they may return to Sham Wan on Lamma Island for nesting only when they reach maturity. Green turtles may return to their nesting sites once every several years.

- End -

**CONTROLLING OFFICER'S REPLY**

**S-ENB003**

**(Question Serial No. S026)**

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation  
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

According to the reply of the Government, the number of prosecutions against bringing bicycle into country parks or special areas without authorisation decreased from 340 to 212 between 2015 and 2019. Would the Government please give further reply on the following:

- (a) According to the Government's observation and analysis, is the decrease in the number of prosecutions related to the construction of additional bike trails within country parks in recent years?
- (b) Does the Agriculture, Fisheries and Conservation Department have any plan to further open carriageways within country parks for bicycle use to facilitate the public? If yes, please set out the proposed sites and timetable in detail.

Asked by: Hon CHU Hoi-dick

Reply:

- (a) In recent years, the Agriculture, Fisheries and Conservation Department (AFCD) has constructed and designated mountain bike trails in country parks. Apart from actively promoting the facilities, AFCD has also strengthened publicity and education efforts to disseminate the message to members of the public that it is an offence to carry out cycling activities in country parks in areas outside the designated mountain bike trails and offenders may be prosecuted. Over the past 5 years, there was a decrease in the number of prosecutions instituted by AFCD against bringing a bicycle into country parks or special areas without permission. Since the number of prosecution cases may be subject to many factors, it is difficult to identify the specific reasons for the decrease in the number of prosecution cases.

- (b) The roads in country parks are mainly designed to facilitate the maintenance of facilities and emergency rescue by government departments and public utilities organisations, thus they may not be suitable for share use amongst vehicles, bicycles and hikers. When considering whether to open certain roads in country park areas for bicycle use, AFCD must strike a careful balance among different users' needs, potential conflicts and safety issue. AFCD will review the feasibility of opening suitable roads in country parks for bicycle use from time to time.

- End -

**CONTROLLING OFFICER'S REPLY**

**S-ENB004**

**(Question Serial No. S025)**

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Maisie CHENG)

Director of Bureau: Secretary for the Environment

Question:

The Government replied that “the Environmental Protection Department (EPD) calculates the total quantity of livestock waste generated by farms based on the livestock rearing capacities of various livestock farms provided by the Agriculture, Fisheries and Conservation Department, and then ...based on the quantity of livestock waste collected regularly from the farms for disposal by EPD’s contractors, and the assessment on the operational performance of the waste disposal facilities at the various farms”. Please further reply to the following:

1) Among the 58 500 tonnes of livestock waste that were “disposed of by environmentally-acceptable means” in the whole year, how many tonnes were “collected regularly from the farms for disposal by contractors”, and how many tonnes were disposed of by “the waste disposal facilities at the various farms”?

2) How many times did EPD’s contractors collect livestock waste from the farms in 2019? How much waste was collected each time?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 25)

Reply:

1) In 2019, among the 58 500 tonnes of livestock waste that were “disposed of by environmentally-acceptable means”, some 25 000 tonnes were collected regularly from the farms for disposal by contractors of the Environmental Protection Department (EPD), while some 33 500 tonnes were disposed of by the waste disposal facilities at the various farms.

2) In 2019, a total of some 4 900 trips were made by collection vehicles of the EPD’s contractors to collect livestock waste from the farms, and the waste collected in each trip was approximately 5 tonnes.

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**CONTROLLING OFFICER'S REPLY**

**S-ENB005**

**(Question Serial No. SV005)**

Head: (44) Environmental Protection Department

Subhead (No. & title): (000) Operational Expenses

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Maisie CHENG)

Director of Bureau: Secretary for the Environment

Question:

The Administration stated that monitoring stations had been set up at several locations for monitoring the water quality of Victoria Harbour and controlling near-shore pollution. In this connection, will the Administration provide the information on these monitoring stations, including but not limited to the locations of the monitoring stations, data collected and indicators used for comparison with the aforesaid data?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: -)

Reply:

The Environmental Protection Department (EPD) has nearshore monitoring stations set up at 7 sheltered locations in Victoria Harbour, including New Yau Ma Tei Typhoon Shelter, Causeway Bay Typhoon Shelter, To Kwa Wan Typhoon Shelter, Kwun Tong Typhoon Shelter, Rambler Channel Typhoon Shelter, Sam Ka Tsuen Typhoon Shelter and the Government Dockyard, to monitor the water quality regularly. In 2019, the respective ranges of depth-averaged values for the key water quality parameters measured at these monitoring stations are: dissolved oxygen (3.7 to 4.6 mg/L), total inorganic nitrogen (0.18 to 0.57 mg/L) and unionised ammonia nitrogen (0.003 to 0.008 mg/L); for reference, their corresponding Water Quality Objectives (WQOs) applicable to the Victoria Harbour Water Control Zone are 4.0, 0.4 and 0.021 mg/L respectively. It is necessary to point out that since the sheltered locations have breakwaters installed and are semi-enclosed water bodies, the water circulation between the shelters and outside waters is limited to some extent. The nearshore water quality often fluctuates due to the influence of urban surface water runoffs. As such, the situation of sheltered waters differs from that of open waters. Therefore, it is inappropriate to make direct comparison of the water quality of these nearshore shelters with the overall WQOs for Victoria Harbour.

Moreover, the EPD has also set up monitoring stations along the coast of Tsuen Wan to monitor the nearshore water quality in the vicinity of the outlets of stormwater box culverts. In 2019, the depth-averaged levels of dissolved oxygen, total inorganic nitrogen and

unionised ammonia recorded at these monitoring stations ranged from 5.3 to 5.4 mg/L, 0.45 to 0.50 mg/L and 0.004 to 0.006 mg/L respectively <sup>Note [1]</sup>.

As for the nearshore waters other than typhoon shelters or enclosed water bodies, the consultancy team responsible for conducting the study on “Further Enhancing Quality of Coastal Waters of Victoria Harbour” carried out short-term non-routine water quality surveys along the coast of Tsim Sha Tsui, Hung Hom, Yau Tong and Wan Chai during 2016 and 2017. The results showed that the depth-averaged levels of dissolved oxygen and total inorganic nitrogen in these nearshore waters ranged from 6.2 to 6.5 mg/L and 0.24 to 0.36 mg/L respectively <sup>Note [1]</sup>.

Note [1]: The nearshore water quality surveys are conducted for the purpose of investigating the localised impact of land-sourced pollutants on the nearshore water quality. While the results serve as reference for formulating water quality improvement measures and evaluating their effectiveness, the data cannot be compared directly with the WQOs intended for the entire Water Control Zone.

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**CONTROLLING OFFICER'S REPLY**

**S-ENB006**

**(Question Serial No. S008)**

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Maisie CHENG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the pilot scheme for electric ferries and the pilot scheme for electric public light buses (e-PLBs), the Government stated in its reply that the former aims to “test the technical viability of adopting electric ferries in Hong Kong” while the latter is to “test their operations under local environment and compare the operations and performances of different products under local environment”.

1. As the technology for electric ferries is already very mature nowadays and suppliers can provide products and services according to the Government's requirements, why must the Government conduct the pilot scheme? What are the details of the technical viability that the current pilot scheme aims to test? What are the anticipated results?
2. For e-PLBs and the associated charging facilities, their relevant technologies are also mature. What results does the Government anticipate that the pilot scheme can produce?
3. In view of the mature development of electric ferry and e-PLB technologies at present, the modus operandi and business models are in fact more important for the development of electric ferries and e-PLBs. How will the Government assist operators in exploring relevant business models on their own as soon as possible?
4. What are the members of the Inter-departmental Working Group established by the Government in 2018 for the promotion of electric ferries? Please give the details by department, their posts and work.
5. The Government stated in its reply that it had engaged/would engage consultants to take forward the 2 pilot schemes. What are the expenditures on these consultancy contracts? What are the details of the consultancy studies? What is the difference between the work of the consultants and the work of the Inter-departmental Working Group established by the Government?

6. As the Government stated in its reply that taking into account the lead time for the pilot scheme for e-PLBs to develop and manufacture e-PLBs and the associated charging facilities, the pilot scheme will commence in around mid-2023. Has the Government reviewed the existing procedures to see if there is any room for removing barriers so as to let the trade lead the pilot scheme to expedite the promotion of e-PLBs?

Asked by: Hon WU Chi-wai (LegCo internal reference no.: 8)

Reply:

Pilot scheme for electric ferries

At present, the application of electric ferries is not yet universal. Most of the electric passenger ferries mainly operate in the Nordic region such as Norway, Sweden, etc. Therefore, we need to assess the technical viability of adopting electric ferries in Hong Kong through a pilot scheme, and explore whether conventional ferries can be replaced by new energy ferries in the long run.

The Government proposes to launch a pilot scheme for electric ferries in in-harbour ferry routes. Currently, there are altogether 4 franchised or licensed ferry operators running 7 passenger ferry routes in Victoria Harbour. We initially propose that the pilot scheme will subsidise each ferry operator for the construction of an electric ferry and associated charging facilities to serve a dedicated in-harbour ferry route. This arrangement enables the ferry operators to acquire experience in operating electric ferries and the Government to understand the performance of electric ferries under different operating conditions.

The Government established an Inter-departmental Working Group in 2018 to work out the details of the pilot scheme and oversee its implementation. The Inter-departmental Working Group comprises representatives of the Environmental Protection Department, the Transport and Housing Bureau, the Transport Department, the Architectural Services Department, the Civil Engineering and Development Department, the Electrical and Mechanical Services Department, the Marine Department, and the Tourism Commission. Given the limited global application of electric passenger ferries, we will engage an independent consultant to advise on the design of electric ferries and assist the ferry operators in preparing open tenders for the construction of electric ferries and the associated charging facilities. The tender for engaging an independent consultant is still under preparation. The consultancy fee will depend on the results of the tender exercise.

Taking into account the lead time for the construction of the electric ferries and the associated charging facilities, we anticipate that the trial operation will start in 2022-23 for a period of 24 months. During the trial, the ferry operators will collect data to assess the performance of the electric ferries in terms of operation and environmental effectiveness.

Electric public light buses (e-PLBs) and the associated charging facilities

The Government has put in place the \$300 million Pilot Green Transport Fund (PGTF) since March 2011 to encourage the transport sector to try out green innovative transport technologies. As at the end of February 2020, the PGTF has tested 3 electric light buses (e-LBs) and the interim or final trial reports were completed. According to the trial results, the e-LBs in the current local market, after a full charge which takes 4 hours, have a driving

range lower than the daily mileage of a typical public light bus (PLB) and are yet to cope with the requirements of the local PLB trade in respect of driving range and charging time.

To promote the development of e-PLBs and encourage manufacturers to manufacture e-PLBs that suit the local environment, the Government has proposed to earmark \$80 million to launch a pilot scheme for e-PLBs and subsidise about 40 e-PLBs running on various routes for a trial for 12 months. We expect to trial e-PLBs and charging facilities from different suppliers, so as to test their operations under local environment and compare their performances.

Initially, green PLBs will be the major participants in the pilot scheme as they are running on relatively short routes, requiring a relatively lower driving range and charging power, and more suitable for trial. As they are running on fixed routes, the daily operation of e-PLBs can be supported by installing charging facilities at the PLB termini, public transport interchanges or other designated places where they operate.

The Government engaged a consultant in March 2019 to study and take forward the pilot scheme, including developing the basic specifications and requirements for e-PLBs and the associated charging facilities that suit Hong Kong's operating environment, identifying suitable PLB routes for trial under the pilot scheme and consulting the PLB trade about their intention of joining the pilot scheme and using e-PLBs. The study will be completed in the first half of 2020. Routes for the trial will be determined subject to the recommendations of the study report and the views of the trade.

In May 2019, the Government established a Task Force on the pilot scheme for e-PLBs to oversee the implementation and monitoring of the pilot scheme and give advice on formulation of the details of the pilot scheme and the results of the study. The Task Force comprises representatives of various relevant government departments, as well as academics and experts. Moreover, the Government will separately commission a consultant to oversee the implementation of the trial, collect operational data from PLB operators and charging service providers so as to assess the performance of e-PLBs in terms of operation and environmental effectiveness, and submit reports.

Taking into account the lead time for manufacturers to develop and manufacture e-PLBs and the associated charging facilities, we anticipate that the pilot scheme can commence in around mid-2023. On the other hand, we have noticed that a local PLB manufacturer has been developing e-PLBs that support quick charging. The trial may start earlier if that manufacturer could launch products fulfilling the specifications suggested by the Government.

The Government will continue to maintain communication with the trade and various stakeholders proactively to ensure smooth implementation of the pilot scheme.

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