# For discussion on 28 June 2021

#### Legislative Council Panel on Environmental Affairs

#### **Progress of Implementation of Management Plan for Wild Pigs**

#### PURPOSE

This paper briefs Members on the progress of the implementation of enhanced management measures for wild pigs and seek Members' views.

#### BACKGROUND

2. The Government has been closely monitoring the nuisance caused by wild animals to members of the public. In light of the increase in nuisance caused by wild pigs in urban areas in the past few years, the Agriculture, Fisheries and Conservation Department (AFCD) consulted this Panel about enhanced management measures for wild pigs on 28 January 2019. Taking into account Members' views, the AFCD has been adopting a multipronged approach of managing wild pigs to alleviate the nuisance problem caused to members of the public. Measures under the management plan include the management of wild pig populations, reduction of food attraction to wild pigs, public education on stop feeding wild animals as well as the promotion of public knowledge about wild pigs, etc. The AFCD has also established the Wild Pig Management Advisory Group (Advisory Group) comprising wildlife conservation experts from Hong Kong, Mainland and overseas in 2019 to advise on the management work of wild pigs. The progress of various wild pig management measures is elaborated in the ensuing paragraphs.

# PROGRESS OF IMPLEMENTATION OF MANAGEMENT MEASURES FOR WILD PIGS

#### I. Management of populations of wild pigs

#### Capture and Contraception/Relocation Programme (CCRP)

3. Since the end of 2017, the AFCD has started exploring the use of the CCRP to address nuisance problem caused by wild pigs in urban areas. Under the CCRP, the AFCD will relocate the nuisance-causing wild pigs to remote countryside areas far away from residential areas to provide immediate relief to members of the public from the nuisance. To control the number of wild pigs causing nuisance, the AFCD will vaccinate or sterilise wild pigs caught when conditions permit. The AFCD has regularised the CCRP in phases since 2019-20. As of March 2021, over 800 wild pigs have been caught; about 190 and 160 of them have received contraceptive vaccine and surgical sterilisation respectively. The AFCD has also relocated over 610 wild pigs to remote countryside areas far away from residential areas<sup>1</sup>. In general, relocation can provide immediate relief to members of the public from the nuisance. Figures related to the CCRP are set out in Table 1 of To evaluate the effectiveness of the relocation operations, the Annex 1. AFCD will continue to monitor the activities of those wild pigs after their relocation, including whether individual wild pigs may return to urban areas after relocation.

4. The use of vaccine as a contraceptive treatment and the performance of sterilisation surgery in the field for wild pigs initiated by the AFCD are the To assess the effectiveness of the first of their kinds in the world. contraceptive vaccine, the AFCD has conducted analysis on serum samples of wild pigs administered with the contraceptive vaccine. Results of the analysis indicate that 91% of those wild pigs did not get pregnant again after As the effect of contraception on the control of wild pig vaccinations. nuisance is on a medium to long term basis, the AFCD will continue to collect samples to monitor the long-term effectiveness of the vaccine. Moreover, the AFCD has started to conduct sterilisation surgery on wild pigs in the field on a trial basis since 2018. Although the effect of sterilisation surgery is permanent, the process is complicated and requires a long preparation time. Site constraints (e.g. restricted space and difficult terrain) might also make it

<sup>&</sup>lt;sup>1</sup> The number of wild pigs administered with contraceptive vaccine or surgically sterilised may overlap with that of the wild pigs relocated to remote countryside, as wild pigs might be relocated after they have been administered with the vaccine or after the surgery.

difficult to perform such surgery, and hence it cannot completely replace the contraceptive vaccine treatment. The AFCD will continue to perform sterilisation surgery on wild pigs caught where appropriate.

## Handling of High-risk Individuals of Wild Pigs

5. As some wild pigs might pose imminent risks to public safety, under the consideration of safety concerns, the AFCD has established a guideline to evaluate the risk posed by individual wild pigs in urban or public areas after consulting the Advisory Group in late 2019. At present, if evaluations confirm individual wild pigs would pose risk to public safety or cause serious consequences, such as those which have attacked people, chased after people without provocation, snatched food or belongings from people, or persistently showed dangerous or threatening behaviour after relocation, the AFCD will capture and euthanise such wild pigs by established procedures in order to safeguard public safety.

6. Other than those wild pigs listed above, some wild pigs are accustomed to wandering in busy urban or public area, especially those returning to urban areas repeatedly after relocation to remote countryside. Since these wild pigs are already accustomed to wandering and foraging among settlement, they might pose potential risks to the safety of members of the public or road users. To strengthen the protection of public safety, and to reduce the risk and nuisance caused by wild pigs wandering at urban area or foraging at residential areas habitually, the AFCD is in the process of evaluating whether it is necessary to revise the above-mentioned guideline, to list these wild pigs in the category for euthanasia. After completing the evaluation, the AFCD will report the findings to the Advisory Group and solicit their opinions.

## Monitoring of Populations and Movement of Wild Pigs

7. According to the AFCD's operation experience, there are no significant changes in the major areas where wild pigs are found in recent years. They are mainly found in the New Territories and Hong Kong Island, particularly in the Southern District, the Central and Western District, the Sai Kung District and the Tai Po District. In order to gather more information

for refining the future management strategy, the AFCD launched a preliminary study on the number of wild pigs in the territory in 2019, which used infrared camera traps and statistical modelling to estimate the number of wild pigs in the countryside. The preliminary estimation showed that there were about 1 800 to 3 300 wild pigs in the countryside in Hong Kong. The AFCD has extended the scope of the study to cover more sites and different seasons in 2020 so as to collect further data about wild pigs. The study is expected to be completed by the end of this year. The AFCD will then discuss with the Advisory Group on the strategy to further control the population of wild pigs.

#### **II. Reducing Food Attraction And Strengthening Enforcement**

8. Studies reveal that reproductive rate of wild pig is highly dependent on food availability. The AFCD's investigation also reveals that the increase in the nuisance cases caused by wild pigs in recent years is largely due to intentional feeding and improper disposal of outdoor garbage. In this regard, other than relocation and contraception or sterilisation of wild pigs habitually looking for food in residential areas, the AFCD has been working closely with relevant government departments to eliminate the pull factors at black spots by removing food residues, strengthening the promotion of no-feeding of wild pigs at black spots, and improving the design of refuse collection facilities, etc.

9. The AFCD has also commissioned a consultancy study with the Food and Environmental Hygiene Department and the Environmental Protection Department to improve the design of rubbish bins and litter containers with a view to reducing nuisance of wild animals scavenging these facilities. The consultant has designed new rubbish bins and litter containers which are resistant to the nuisance of wild animals such as wild pigs and monkeys. These designs increase the difficulty for wild animals to forage from those facilities (e.g. preventing them from tipping over the bins). The pictures of the three designs are shown in <u>Annex 2</u>. The new-designed rubbish bins and litter containers were tested at over 70 sites which are frequently disturbed by wild animals.

10. With a view to assessing the effectiveness of the three newly designed rubbish bins and litter containers, the consultant has conducted a survey on some of the users (mainly litter collection contractors and members of the public) by questionnaire. The survey result showed that close to 80% of the users surveyed considered the new designs effective in reducing nuisance caused by wild animals. Field inspections by the AFCD staff and the changes in the number of complaint cases also confirmed the The consultancy study was completed in March this year. improvement. Other than trial field sites, there are over 50 newly designed Roller Fences deployed at about 30 locations. Currently, all locations with newly designed rubbish bins are black spots with relatively serious wild pig nuisance and a larger number of complaints. They are mainly in the Southern District, the Central and Western District, the Sai Kung District and the Tai Po District. Relevant departments will continue to deploy the newly designed rubbish bins and litter containers at appropriate locations basing on actual needs.

11. Besides, the AFCD staff patrol regularly at locations where feeding of wild animals is prohibited. They will take prosecution actions against anyone who feeds wild animals illegally if there is sufficient evidence. The AFCD will, from time to time, review the patrol and enforcement arrangements in accordance with the actual situation, including deployment of additional manpower to conduct enforcement and blitz operations at night and on public holidays where necessary. The AFCD also collaborates with relevant departments to strengthen the combat against illegal feeding of wild animals. Figures on prosecutions against illegal feeding of wild animals are set out in **Table 2 of Annex 1**.

#### III. Public Education

12. The AFCD has been organising educational activities and guided tours at wild animal-feeding black spots in the countryside to increase public awareness on wild animals and to promote the message of no-feeding of wild animals. Since 2019, the AFCD has extended the educational activities to kindergartens and primary schools, with a view to educating young students that they should not feed wild animals. From 2019 to April 2021, the AFCD has provided funding support to relevant organisations to conduct about 150

outdoor educational exhibitions, 30 country park wildlife guided tours, and 140 educational seminars at school or online. To formulate more targeted publicity programmes and long-term management strategy, the AFCD launched a consultancy study this year to analyse the motivation of feeding wild pigs by some members of the public. It is anticipated that the study will be completed by the end of 2022.

13. In addition, the AFCD has carried out publicity through different channels, including the traditional media and social media, and has jointly arranged fun day and roving exhibitions with various government departments, in order to educate members of the public about no-feeding of wild animals as well as what they should do when encountering wild animals. The AFCD is producing more videos to further promote these messages to members of the public. The AFCD has also provided technical advice to relevant government departments on the design of railings at pavements and hiking trails where wild pigs are frequently found, to reduce the trapping of wild pigs by railings.

#### **EFFECTIVENESS OF MEASURES**

14. In the past few years, the AFCD has been implementing various measures mentioned in paragraphs 3 to 13 above to reduce the nuisance problem caused by wild pigs to members of the public as far as possible. According to the statistics, districts with a relatively larger number of wild pig nuisance black spots are the Southern District, the Central and Western District, the Tai Po District and the Sai Kung District. Through the implementation of various measures under the management plan for wild pigs, the AFCD has resolved or temporarily resolved the nuisance problems at about 60% of wild pig nuisance black spots<sup>2</sup>. The AFCD is following up with the remaining black spots, including stepping up patrol, or carrying out joint operations with relevant departments to resolve the nuisance problems. The AFCD will continue to monitor the situation of each nuisance black spot,

<sup>&</sup>lt;sup>2</sup> For example, black spot problem will be considered resolved or temporarily resolved after deploying newly designed rubbish bins and litter containers as replacement and conducting minor works on those refuse collection facilities for fixation, such that wild pigs are unable to scavenge for food there, or conducting wild pig capture or relocation operations, etc., and if no complaints on wild pig nuisance have been received for some period.

and adopt appropriate measures to tackle the nuisance as soon as possible. Figures of wild pig nuisance black spots by district and the progress of the AFCD's work for tackling these nuisance black spots over the past four years are set out in **Table 3 of Annex 1**.

15. Overall speaking, the number of complaints received by the AFCD has changed from a rising trend in 2016 to 2019 to a slight decline in 2020. The number of reports on wild pig sightings or nuisance in recent years is set out in **Table 4 of Annex 1**. The effectiveness of the above mentioned measures relies on the joint efforts of the public and their understanding that feeding of wild animals does no good to the wild animals. As the effects of some measures (e.g. contraceptive vaccine) will gradually be reflected in the medium to long term, it is anticipated that the number of wild pig nuisance reports received in the next few years will gradually decrease.

## **ADVICE SOUGHT**

16. Members are invited to note the progress of implementation of wild pig management measures.

Environmental Bureau Agriculture, Fisheries and Conservation Department June 2021

# Figures on the Capture and Contraception/Relocation Programme (CCRP) and Prosecution of Illegal Feeding of Wild Animals

## Table 1

Since the launch of the CCRP in 2017, figures of wild pigs handled under the programme are as follows:

Year/ Number of wild pigs	Captured	Administered with contraceptive vaccine*	Surgically sterilised*	Relocated to remote countryside*
2017-18#	51	14	0	40
2018-19#	115	46	18	81
2019-20	293	59	47	222
2020-21	344	72	93	270
Total	803	191	158	613

\* The number of wild pigs administered with contraceptive vaccine/surgically sterilised may overlap with that of wild pigs relocated to remote countryside, as wild pigs might be relocated after they have been administered with the vaccine/after the surgery.

# The figures do not include all the wild pigs captured as the CCRP was still in pilot stage in 2017-18 and 2018-19.

# Table 2

Figures on prosecutions against illegal feeding of wild animals (including wild pigs) over the past three years are tabulated as follows:

	2018-19	2019-20	2020-21
Number of prosecutions against	32	26	48
illegal feeding of wild animals			
(including wild pigs)*			
Number of successful prosecutions	20	28	31
against illegal feeding of wild			
animals (including wild pigs)			

\* Some of the prosecutions instituted in the latter part of the year might be processed in the following year.

# Table 3

Figures on wild pig nuisance black spots in each district and the progress of the Agriculture, Fisheries and Conservation Department's (AFCD) work for tackling nuisance black spots over the past four years are as follows:

District	Black Spots in the District	Number of Wild Pig Nuisance Black Spots		
	Number	Already Solved	Temporarily Solved	In Progress
Southern	19	8	5	6
Central and Western	15	3	7	5
Tai Po	9	0	5	4
Sai Kung	9	2	4	3
Wan Chai	8	3	3	2
Tsuen Wan	6	4	0	2
Eastern	4	0	0	4
Tuen Mun	4	1	1	2
Sha Tin	4	0	1	3
Wong Tai Sin	3	0	1	2
Kwai Tsing	3	1	1	1
Yuen Long	2	2	0	0
Northern	2	1	0	1
Islands	1	0	0	1
Kowloon City	1	0	0	1
Sham Shui Po	1	1	0	0
Kwun Tong	1	0	1	0
Total	92	26 (28%)	29 (32%)	37 (40%)

## Table 4

Figures of complaints and injury reports related to wild pigs received by the AFCD over the past five years is as follows:

Year	Number of reports on wild pig sightings or nuisance	
	(number of injury reports)	
2016	583 (2)	
2017	738 (3)	
2018	929 (7)	
2019	1 184 (9)	
2020	1 002 (3)	

## Newly Designed Rubbish Bins and Litter Containers Resistant to Wild Animals

Figure 1: Roller Fence Rubbish Bin





Figure 2: Two Fold Rubbish Bin

Figure 3: Litter Container with Pedal

