

**For discussion on
28 June 2021**

Legislative Council Panel on Environmental Affairs

Implementation of the Incense Tree Species Action Plan

PURPOSE

This paper informs Members of the implementation of the Incense Tree (*Aquilaria sinensis*) Species Action Plan 2018-2022 (SAP)¹ formulated by the Agriculture, Fisheries and Conservation Department (AFCD) for the conservation of Incense Trees in Hong Kong.

BACKGROUND

2. Incense Tree is a native tree species widely distributed in lowland areas in Hong Kong, in particular in mature woodlands near rural villages in the New Territories and outlying islands. There are still a number of mature Incense Trees in Hong Kong, which are mainly distributed in the northeastern part of the New Territories, Sai Kung and on Lantau Island. A number of local Incense Trees have suffered from illegal felling in the past years. In 2014, there were over 130 such cases. The AFCD consulted this Panel on measures to enhance the protection of local Incense Trees on 22 February and 27 June 2016. Taking into account Members' advice, the AFCD further formulated the SAP and started its implementation in 2018 to deter illegal felling of Incense Trees. The implementation details of various Incense Tree conservation measures of the SAP are elaborated in the ensuing paragraphs.

¹ The SAP is available on the AFCD's website:
https://www.afcd.gov.hk/tc_chi/conservation/con_flo/con_flo_con/files/Incense_Tree_SAP_2018_2022.pdf

IMPLEMENTATION OF THE SAP

Risk-based Patrol

3. The AFCDD has been conducting regular patrol in country parks and special areas to deter illegal activities including illegal tree felling. To step up efforts in combatting the illegal felling of Incense Trees outside country parks and special areas, the AFCDD set up an Incense Tree Patrol Team (the Patrol Team) in 2018 to conduct patrol specifically at locations with important Incense Tree populations. In the past three years (2018 – 2020), the Patrol Team conducted over 500 patrols in the territory, and conducted ground surveys systematically on the distribution of Incense Trees in Hong Kong. So far, the AFCDD has recorded about 5 000 mature Incense Trees throughout the territory. The figure will be updated from time to time as the survey is still ongoing.

4. Based on the information gathered from ground surveys by the Patrol Team, the AFCDD has identified several strategic locations of high Incense Tree density. High-precision Global Positioning System is deployed to record their locations and conditions over time. The data gathered is then integrated and analysed in the Geographic Information System. This long-term monitoring measure could provide invaluable information about Incense Tree population in Hong Kong and assist the Department to formulate the risk-based patrol strategy.

Surveillance in the Wild

5. As Incense Trees are widely distributed in Hong Kong, surveillance could hardly be effective if only human resources are deployed. To facilitate the collection of crime evidence and the deployment for swift enforcement actions against illegal felling of Incense Trees in the countryside, the AFCDD has installed Infrared Sensor Camera Traps (IRSCTs) at strategic locations (i.e. sites with high density of Incense Trees or sites where illegal felling activities would be more likely) for the long-term monitoring and protection of Incense Trees at those locations. The IRSCTs are triggered by heat sensor. Once moving heat objects (e.g. human activities) are detected, the cameras will take

pictures automatically and immediately send to the security contractor hired by the AFCD for round-the-clock instant inspection and screening. The security contractor would immediately report to the AFCD and the Hong Kong Police Force (the Police) if suspected illegal activities related to felling of Incense Trees are detected. The AFCD and the Police have formulated a joint operation protocol to facilitate swift enforcement actions upon detection of illegal activities by the IRSCTs.

6. Since 2017, the AFCD has installed over 50 IRSCTs at various strategic locations and detected over 30 cases of suspected illegal felling of Incense Trees. The information gathered and experience obtained from the operation showed that the IRSCTs could effectively monitor the illegal felling of Incense Trees. The AFCD would continue to identify suitable strategic locations to install IRSCTs to deter illegal felling of Incense Trees.

Enforcement Facilitation Measures

7. The AFCD, the Customs and Excise Department (C&ED) and the Police have stepped up collaboration to jointly investigate and combat illegal activities related to felling of Incense Trees in recent years. Relevant departments have also enhanced liaison and communication with concern groups, villagers residing near Incense Trees and hikers, to gather intelligence of illegal activities related to felling of Incense Trees. The Police conducts criminal investigations into all suspected cases of illegal felling of Incense Trees, while the AFCD renders assistance in inspecting the exhibits, providing expert advice and serving as an expert witness on the identification of the trees and agarwood concerned in the court proceedings. In order to reflect the seriousness of the offence and impose deterrent effect, offenders involved in illegal felling of Incense Trees are usually prosecuted under the Theft Ordinance (Cap. 210) and other criminal laws, for which the maximum penalty is imprisonment for 10 years. The number of cases involving illegal felling of Incense Trees in recent years has shown a decreasing trend, and relevant figures are at **Annex 1**.

8. The import, export and re-export of agarwood products² are regulated under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) (the Ordinance). Under the Ordinance, all shipments of agarwood products must be accompanied with a valid permit of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and be inspected by an authorised officer in Hong Kong. The maximum penalty for violating the above licensing requirements is a fine of one million dollars and imprisonment for seven years. The AFCD enforces the control under the Ordinance and conduct joint operations at export control points in collaboration with the C&ED from time to time to combat smuggling activities of endangered species (including agarwood). As agarwood carries fragrance, the AFCD has trained and deployed detector dogs to assist in detection of agarwood smuggling at control points. The AFCD has also conducted training sessions to assist frontline staff of the Police and the C&ED to identify agarwood and detect relevant illegal activities. The case number and relevant information of illegal imports and exports of agarwood in recent years are at **Annex 2**.

Collaboration with the Mainland to Combat Illegal Felling and Smuggling of Incense Trees

9. To combat the smuggling of Incense Trees, the AFCD has been maintaining close contact and exchanging intelligence with relevant Mainland authorities. An Incense Tree Enforcement Training Workshop, participated by Mainland government officials and enforcement staff, was organised by the AFCD in July 2018 to facilitate and enhance capacity building, intelligence exchange, and further collaboration between Hong Kong and the Mainland in combating illegal felling and smuggling of Incense Trees. In November 2019, the AFCD also visited Guangzhou and Dongguan to meet with Mainland government officials and researchers to have a better understanding of the latest development of the agarwood industry and market there. The AFCD will continue the exchange and liaise with relevant

² The regulated agarwood products do not include: seeds and pollen; seedlings or tissue cultures obtained (*in vitro*, in solid or liquid media, transported in sterile containers); fruits; leaves; exhausted agarwood powder, including compressed powder in all shapes; and finished products packaged and ready for retail trade (excluding woodchips, beads, prayer beads and carvings).

Mainland authorities on matters related to conservation of Incense Trees through various channels.

Protection of High-risk Specimens

10. Large and mature Incense Trees could produce more vigorous seeds and are essential for the continuation of the populations. They are also more likely to form resins (i.e. agarwood), and hence are more often the targets of poachers. In order to protect these important Incense Tree specimens from felling or damage, the AFCD has been identifying suitable specimens in the territory for installation of tree guards. Adequate space between the tree and the tree guard will be provided to prevent the tree guard from injuring the trunk or root systems of the tree. To date, over 190 tree guards have been installed at a number of locations with important Incense Tree specimens, to protect the Incense Trees from felling or damage.

11. In addition, if an Incense Tree is found to be cut or wounded, the AFCD will apply anti-fungal paint on the wounds to suppress the formation of agarwood. Otherwise, the agarwood formed may further attract poachers to cut the tree concerned.

Artificial Propagation and Planting

12. The AFCD has endeavoured to enhance the planting of Incense Trees widely in country parks in recent years. Since 2009, about 10 000 Incense Tree seedlings have been produced and planted every year to assist the propagation of this species in the Hong Kong countryside. To date, the AFCD has planted about 120 000 seedlings in country parks, which play an important role in the propagation of this species.

Scientific Studies

13. The AFCD also encourages research institutes to conduct studies to enhance conservation of the species and facilitate relevant law enforcement actions. For example, the AFCD has commissioned a research institute to

use a genomic approach to investigate the population genetic structure of Incense Trees and to identify suitable genetic markers to differentiate different Incense Tree populations. The AFCDC has also supported a research project in molecular authentication of endangered timber samples funded by the Environment and Conservation Fund. Forfeited products of *Aquilaria* spp. have also been donated by the Department to the institute for research purpose. This study investigates whether genetic markers could be applied to differentiate different timber species and the products derived from them (such as sculpture), which may assist enforcement authorities to combat illegal import/export of endangered timber species.

Publicity and Education

14. The AFCDC has been conducting publicity works related to Incense Tree conservation. For example, Incense Tree specimens are displayed in the Endangered Species Resource Centre of the AFCDC. Publicity posters have also been displayed at various visitor centres, information boards of country parks and control points. To raise public awareness on Incense Tree conservation, the AFCDC has engaged the media to produce video interviews on Incense Tree conservation, and disseminated messages of Incense Tree conservation through the social media to members of the public. Promotional videos and posts on the prevention of Incense Tree-related offences have been launched as well.

15. The AFCDC has also provided active support to local organisations for conducting education programmes related to Incense Trees. For instance, since 2019, the AFCDC has partnered with the Shiu-Ying Hu Herbarium of the Chinese University of Hong Kong to organise the “Botany STEAM” education programme to promote conservation of rare/protected local plants, which covers the knowledge related to Incense Trees, to local primary and secondary students. The AFCDC has also been providing Incense Tree seedlings/saplings to the Urban Renewal Authority from time to time for planting at public open spaces at their redevelopment sites for conservation and education purposes.

ADVICE SOUGHT

16. Members are invited to note the implementation of various measures of Incense Tree conservation under the SAP.

Environment Bureau

Agriculture, Fisheries and Conservation Department

June 2021

Annex 1

Relevant figures of Illegal Felling of Incense Trees

All criminal cases involving illegal felling of Incense Trees were handled by the Police mainly under the Theft Ordinance (Cap. 210), as well as the Summary Offences Ordinance (Cap. 228) or the Crimes Ordinance (Cap. 200). Relevant figures of illegal felling of Incense Trees since 2015 are set out as follows.

Year	Number of				Maximum Penalty (imprisonment / months)	Quantity seized/Number of Trees
	Cases	Persons arrested	Prosecutions	Persons convicted		
2015	120	16	5	3	35	106.6 kg / 249
2016	54	22	8	8	30	216.7 kg / 172
2017	53	9	1	1	30	94.4 kg / 102
2018	41	1	0	0	N/A	5.1 kg / 78
2019	32	0	0	0	N/A	0 kg / 53
2020	13	1	0	0	N/A	9.4 kg / 26

Number of Illegal Imports and Exports of Agarwood

Year	Number of cases for investigation*	Number of Prosecutions*	Maximum Penalty	Quantity seized
2016	11	2	A fine of \$21,000	134 kg
2017	12	4	Imprisonment of 6 weeks	414 kg
2018	41	8	Imprisonment of 24 months	244 kg
2019	27	8	Imprisonment of 24 months	66 kg and 17 live plants
2020	33	1	A fine of \$5,000	75 kg

*As investigation and prosecution procedures take time, the investigation and prosecution of some of the cases were not conducted in the same year.