

For information

LEGISLATIVE COUNCIL PANEL ON DEVELOPMENT

**Progress Report on
the Work of the Tree Management Office**

Purpose

This paper reports to Members work progress of the Tree Management Office (TMO) in the Development Bureau (DEVB) in the implementation of the tree management policy.

Tree Management Policy

2. It is Government's tree management policy to promote a holistic greening approach embracing adequate space allocation for new planting, proper selection of planting species, quality landscape design and planting practices as well as proper works implementation in the upstream and through regular monitoring of tree conditions and professional vegetation maintenance in the downstream. The protection of public safety is a priority consideration. The above objectives are to be achieved by raising the quality of tree management work, widely soliciting the views of tree experts and promoting community involvement.

The Integrated Approach

3. The tree management work of the Government is carried out under an "integrated approach", that is, the department responsible for the maintenance of an area or a facility is also responsible for the maintenance of trees there. To ensure more effective implementation across departments of the "integrated

approach” to tree management, the TMO acts as a central authority to give policy steer, a focal point of coordination of departmental efforts and a provider of arboricultural expertise.

Work Focus of the TMO

4. The key areas of work of the TMO are as follows:

- (a) enhancing tree risk management
- (b) raising the professional standard of tree management by
 - (i) building a professional team in the TMO
 - (ii) enhancing training for tree management personnel in departments
 - (iii) seeking experts’ views
 - (iv) developing practice guidelines and conducting researches
 - (v) setting up an inventory of trees
- (c) enhancing public education and community involvement
- (d) enhancing the care of Old and Valuable Trees (OVTs); and
- (e) enhancing the tree complaint mechanism and the emergency response system

(a) Enhancing tree risk management

5. The main task of the TMO is to minimise the threat of problematic trees to public safety. Making reference to internationally recognised best practices, the TMO developed a tree risk assessment arrangement in 2010 with the promulgation of detailed guidelines for compliance by tree management departments. The purpose of tree risk assessment is to assess the risks of trees in areas with high pedestrian or vehicular flow in accordance with a systematic methodology and procedures, with particular emphasis on the risk angle, and to

come up with appropriate follow-up measures to minimise the risks of problematic trees. Tree risk assessment is conducted step-by-step in two stages. In the first stage which involves an “area basis” assessment, the departments will first identify those areas with high pedestrian or vehicular flow under their management. In the second stage involving a “tree basis” assessment, the departments will, in accordance with the guidelines on tree risk assessment, carry out assessment for tree group inspections at locations with high pedestrian or vehicular flow, identify trees that may need particular care, such as OVTs and stonewall trees, as well as dead trees and trees with major health or structural problems that may pose hazards to the public.

6. If individual trees are identified to be in need of particular care or detailed inspection during tree group inspections, visual assessment will be conducted for them, and depending on their conditions, further inspections using equipment (e.g. resistography or sonic tomography) will be conducted to determine the most appropriate measures to be taken. Where, upon assessment, mitigation measures such as pruning tree crowns, removing dead branches, controlling pests and diseases, and cabling and propping as support to trees are deemed necessary, early follow-up actions will be taken by departments. If there are no other feasible remedial measures, departments will remove hazardous trees as a last resort so as to eliminate the threat to public safety.

7. To ensure that the tree risk assessment is properly carried out, tree management departments are required to adopt quality assurance measures such as close supervision of frontline works and internal audit. The TMO will also audit check the tree risk assessments conducted by tree management departments, for example, carry out desk-top checks of the tree inspection forms completed by departments on a selective basis and random site inspection of the conditions of trees to ensure that the tree risk assessments are conducted in a professional manner and in compliance with the promulgated guideline.

8. The information on tree risk assessments conducted by departments and the number of audit checks carried out by the TMO in the past 2 years are as follows:

	No. of tree group inspection forms submitted by departments	No. of checked tree group inspection forms	Percentage of checked forms over the total no. of forms submitted	No. of tree risk assessment forms for individual trees submitted by departments	No. of checked forms for individual trees	Percentage of checked forms over the total no. of forms for individual trees
2011	20 062	160	2	7 475	305	4
2012	22 566	455	2	5 011	205	4

9. Apart from audit checks of forms, random site inspections in districts are also carried out by the TMO. In this connection, 1 920 cases of problematic tree were referred to departments in the second half of 2011 and a total of 847 cases referred as at 17 October 2012.

10. Since the potential risks posed by problematic trees may increase with environmental changes during the wet season, the TMO will also take such action as appeals to government departments and private property owners to take appropriate precautionary measures for trees within facilities under their care before the wet season.

11. The TMO will, before onset of the wet season, remind all Government departments to complete their tree risk assessment and all necessary measures as early as possible so as to ensure that trees on Government land are safe. It will also remind private property owners and property management companies of their duty of care for trees within their properties, disseminate information on tree maintenance, and appeal to them for inspection of trees within their premises so as to minimise risks.

12. In view of the large number of trees in Hong Kong and since the health and structural conditions of trees change in step with their normal lifecycle as well as changes in the external environment, we have appealed to the public to assist in monitoring the conditions of trees in our community, as a

support to the tree management departments in their inspection work. To enlist a wider community support in the surveillance of problematic trees, the TMO has also carried out from time to time publicity and promotional activities, and conducted a number of tree care seminars for schools and the community to bring home the message of tree care and how to identify problematic trees. The TMO has also collaborated with the Leisure and Cultural Services Department (LCSD) and Housing Department (HD) to enlist the support of Green Ambassadors¹ and Estate Tree Ambassadors² in monitoring the conditions of trees in the territory. Moreover, the Government also launched the “Tell me@1823” app for smart-phones in April 2011 so that members of the public may submit photographs along with voice descriptions when reporting problematic trees. Equipped with a geospatial functionality, “Tell me@1823” also captures the physical location of the tree under complaint and helps expedite necessary follow-up action.

(b) Raising the professional standard of tree management

(i) Building a professional team in the TMO

13. The TMO is responsible for co-ordinating the tree management work of departments, enhancing public education and community involvement, as well as facilitating the departments to manage the trees under their care in a more effective and professional manner by providing training, promulgating best practices, conducting relevant researches and handling complex cases, etc. In support of its important mission to raise the level of professionalism in tree management work in Hong Kong, the TMO is staffed mainly by officers with considerable professional arboricultural expertise and experience. Of the 16 officers in the TMO, three possess a relevant doctoral degree, 14 have attained

¹ LCSD has appointed about 353 Green Ambassadors, including District Councillors and community leaders, to assist in the surveillance of trees in the community and other greening initiatives.

² There are about 613 Estate Tree Ambassadors under HD’s Tree Ambassador Scheme to assist in the surveillance of trees in public housing estates.

professional qualification of the International Society of Arborists (ISA) Certified Arborists, while 13 have attained additional professional qualification in arboriculture such as ISA Certified Tree Risk Assessor, ISA Certified Municipal Specialist or LANTRA Professional Tree Inspection Certificate.

(ii) Enhancing training for tree management personnel in departments

14. To nurture a professional workforce capable of providing quality tree care service, the TMO is committed to enhancing its training of personnel. It, in collaboration with tree management departments, is formulating a training and manpower development plan to ensure an adequate supply of professional staff at the managerial, supervisory and frontline levels for the competent discharge of the full spectrum of tree management responsibilities. The purpose of such training is to provide proper training for personnel who have to carry out tree risk assessment work, promote safety for tree-related work and provide proper training for contractor staff. Such training is in the form of classes conducted by TMO personnel, courses arranged by course providers through tenders, and other courses arranged for departmental staff by outside organisations in the market.

15. Tree-related training organised by the TMO for tree management personnel in departments includes such topics as tree risk management, tree identification, common tree problems, control of pests and diseases, proper tree maintenance, tree protection during construction etc. Some of these training sessions are also open to consultant/contractor staff engaged by Government departments. To date, the Greening, Landscape and Tree Management Section (GLTMS) has arranged 140 training courses with a total attendance of 17 000.

16. Apart from the tree management staff engaged by contractors, there were about 411 personnel of major tree management departments (excluding staff of the TMO and the Lands Department) involved in the day-to-day tree management work as at the end of February 2012. Among them, 183 possessed arboricultural qualification while some of them have more than one professional

qualification in arboriculture³. The TMO will continue to encourage staff of various levels to take part in training courses and obtain professional qualifications in arboriculture with a view to raising the professional standard of our tree management staff.

(iii) Seeking experts' views

17. The TMO has had exchanges and collaboration with research institutes, tertiary institutions and professional bodies to collect views on tree care matters. Experts' views on a number of tree management topics are sought to keep TMO abreast of the best practices and the latest technology in tree management, in particular urban tree care, with invitations to organise seminars and workshops for departmental staff so as to raise the standard of local tree management.

18. The Development Bureau set up an Expert Panel on Tree Management in March 2011 to provide the needed expertise in both policy and operational aspects concerning tree management, with the objective of promoting the well-being of trees in Hong Kong, especially those with special value or interest. Apart from its chairman and secretary, the Expert Panel currently is made up of 10 non-official members and 3 official members. Among its non-official members, there are plant pathologist, experienced tree experts, professor of forestry and community arborists, etc. while the overseas experts are from Guangzhou, Australia, Malaysia and the United States.

19. The TMO will continue with its efforts to organise professional exchanges with neighbouring regions (for example Taiwan and Guangdong) to learn from experts their valuable tree management experiences.

(iv) Developing practice guidelines and conducting researches

³ These qualifications include ISA Municipal Arborist, ISA Tree Risk Assessor and LANTRA Professional Tree Inspection Certificate.

20. Tree management is a professional task. To promote a holistic and quality-oriented approach to tree care in Government departments, the TMO collaborates with the Greening and Landscape Office (GLO) in disseminating knowledge on various aspects of tree management through training and the formulation of guidelines and best practices. We have issued guidelines on a variety of tree management topics, including the Pictorial Guide for Tree Maintenance, Do's and Don'ts in Pruning (Fact Sheet), Proper Planting Practices⁴, Do's and Don'ts in Pruning (Leaflet), General Guidelines on Tree Pruning, Minimising Tree Risks, Pictorial Guide for Tree Maintenance to Reduce Tree Risks, Tree Care During Construction, Tree Risk Assessment, Introduction to Brown Root Rot Disease, Audit Checks of Tree Risk Assessment and A Note of Toxicity of Plants – On Plant Selection and Maintenance. These tree management guidelines and best practices will also be disseminated to the industry and the community at large through DEVB's dedicated greening website (www.greening.gov.hk), tree website (www.trees.gov.hk), seminars and workshops, etc.

21. In an endeavour to raise the standard of tree management work in Hong Kong, the GLO and the TMO will spearhead research studies to build up our professional knowledge base. Identified research topics include wood strength of common tree species in Hong Kong, common biological tree decaying agents in Hong Kong, choice of planting medium and selection of suitable tree species for greening. The research findings will be shared among the tree management departments as well as the industry.

(v) Setting up an inventory of trees

22. Improving the collection and analysis of tree information will help enhance the standard of tree management. To this end, the TMO has set up the

⁴ The guidelines on proper planting practices issued by the GLTM Section to date cover topics such as "Design for Tree Protection Zone", "Keep Sufficient Space Clear of Vegetation at the Base of Trees", "Do Not Plant Too Deep", "Provide Adequate Growing Space for Future Growth of Canopy", "Provide Sufficient Growing Space between Trees and Adjacent Building/Structures" and "Select and Plant Good Specimens".

following three databases of trees for research and analysis purposes, and for facilitating its day-to-day tree management work:

(1) Tree Register

Since July 2010, the TMO has uploaded to its tree website information (including location, species, tree conditions and mitigation measures (if applicable), the inspection department and photos, etc.) on trees which have undergone detailed inspections by tree management departments but the mitigation measures for which have not yet been completed as well as trees requiring special attention (e.g. OVTs and stonewall trees). There are about 1 030 trees on the Tree Register.

(2) Tree Failure Database

At present, information on fallen trees will be sent to DEVB by the tree management departments to facilitate the TMO's analyses and researches on those trees. The analysis reports will be submitted to the Expert Panel on Tree Management for studies and deliberation. The Tree Failure Database contains the information of about 950 fallen trees.

(3) Tree Management Information System (TMIS)

In order to set up a standardised information system to maintain a more comprehensive record on trees under the care of different departments, the TMO is now working with the Efficiency Unit (EU) on the development of a new electronic Tree Management Information System (TMIS) so that relevant information on individual trees (e.g. species, size, location and health/structural conditions as well as tree care records) could be captured systematically and comprehensively for future reference. The system will also facilitate management analysis of our tree stock, thereby providing a solid basis to support our efforts in promoting a

professional approach to tree management.

The system is substantially completed and tree management departments can start inputting tree information into the system. In view of the vast amount of data on trees kept by departments and the time to take for inputting and consolidating these data, it is not expected that the system can only support the risk assessment and data management analysis on a more comprehensive manner in the second quarter of next year. There are over 400 000 data files on trees in the database.

(c) Enhancing public education and community involvement

23. The DEVB seeks to foster a culture of care in Hong Kong for greenery, including trees, across the territory through a variety of community involvement and public education activities, and encourage the public to participate in tree risk management and community surveillance of trees. During the past year, around 18 public education and community involvement activities were organised by the DEVB, with a total attendance of about 3 850. 137 public education and community involvement activities on greening and tree management were organised by the relevant departments and bureaux, with a total attendance of over 1.46 million. The promotional activities organised by the DEVB are highlighted below:

- (a) seminars on proper tree management for professional groups and other non-government organisations;
- (b) talks on tree care for secondary students, primary students and uniformed groups, and roving exhibitions in schools;
- (c) launching of the tree website (www.trees.gov.hk) in July 2011 to encourage community involvement in surveillance of trees;
- (d) launching of the revamped dedicated Greening website (www.greening.gov.hk) in April 2011, with enhanced content to

raise public awareness of, and to disseminate knowledge on, greening, planting practices and tree management;

- (e) participation in the Hong Kong Flower Show 2012;
- (f) public talks on “Rural and Urban Forests in Hong Kong” in September 2011, and roving exhibitions at various parks between September and December to mark the 2011 International Year of Forests;
- (g) publication of a quarterly Greening Newsletter;
- (h) regular displays on greening, landscaping and tree management issues at LCSD’s Green Education and Resource Centre in Kowloon Park and the Environmental Resource Centre of the Environmental Protection Department in Kennedy Town;
- (i) production of a series of three educational videos⁵ to raise public awareness of the importance of tree care and to encourage the public to report problematic trees. These videos are now being shown in the public housing estates of the Housing Department, venues of the Home Affairs Department and major indoor recreational centres managed by LCSD;
- (j) talks on tree care for secondary students, primary students and uniformed groups, and roving exhibitions in schools; seminars on proper tree management for professional groups and other non-government organisations; and visits to District Councils to promote the community surveillance of trees;
- (k) development of a Facebook game with its theme on tree protection, in a bid to enhance, through on-line games, the awareness of the public, especially the young people, on tree care, thereby creating a

⁵ These videos have also been uploaded to www.greening.gov.hk.

city of “People, Tree and Harmony”;

- (l) development of a teaching kit on issues related to greening, landscape and tree management;
- (m) publication of tree and landscape maps to introduce interesting trees, open spaces and landscape assets in Hong Kong; and
- (n) launching of new apps for smart-phones on tree appreciation.

(d) Enhancing the care of OVTs

24. To take good care of our valuable tree resources, the Government has established the Register of OVTs to provide priority protection to the trees on the Register. Trees are placed on the Register for reasons of large size, precious or rare species, particularly old age, outstanding form and/or cultural, historical or memorable significance. As at 15 October 2012, there are 483 trees on the Register. Trees on the Register will be updated on a regular basis, including the addition of newly-selected ones, and the exclusion of those that failed during typhoons or were removed due to pests and diseases.

25. Unless there are strong justifications, such as trees having serious diseases, felling or removal of any listed OVTs are strictly prohibited. Furthermore, the area surrounding an OVT has been designated as a tree protection zone. No construction work is allowed within the zone unless prior approval has been obtained from the Lands Department.

26. The LCSD, the Agriculture, Fisheries and Conservation Department, the Highways Department, the Architectural Services Department and the Housing Department are responsible for the care of OVTs under their purview. The tree management departments will inspect the OVTs at least twice a year, and take proper maintenance measures depending on the conditions of the trees. The TMO will also follow up cases referred by departments on the maintenance of OVTs by providing assistance in tree inspection and treatment of pests and diseases.

27. Many of the trees on the Register are mature or even at senescence. In general, these trees are weak in terms of growth and recovery and are susceptible to environmental factors such as strong winds and heavy rains as well as pests and diseases. Together, these may hasten their deterioration or even death. To better protect old trees, the TMO will, in collaboration with the tree management departments, adopt proactive and preventive strategies to strengthen the health of old trees. Measures adopted include improving the growing environment of old trees (i.e. extension of planters and improvement of soil quality), watering and applying fertilisers in the light of the characteristics and needs of individual trees, and pruning properly to contain the spread of pests and diseases.

28. The TMO will consult the Experts Panel on matters relating to OVTs and other trees with special value or interest. As, during the recent wet season, about 10 OVTs were blown down or detected with structural problems which necessitated their removal, the TMO will take proactive measures to maintain the OVTs. These include updating the Expert Panel with the health conditions of all the OVTs by batches, consulting their views and coming up with appropriate conservation plans to improve, by taking positive measures, the growing and health conditions of these trees. Ann OVT (YTM/8), a Chinese Banyan (*Ficus microcarpa*) on Park Lane, Nathan Road collapsed due to Brown Root Rot (BBR) Disease while another OVT (YTM/11) at the same location also infected with the disease and detected with structural problems, was removed. The TMO has stepped up the inspection of other OVTs in the vicinity and strengthened researches on the pathology and treatment of BBR. Relevant plans have been submitted to the Expert Panel to ensure proper maintenance of the OVTs.

(e) Enhancing the tree complaint mechanism and the emergency response system

29. Operating round-the-clock and with the capability to receive public

complaints/enquiries via telephone, email, fax or letter, the “1823” Call Centre serves as an effective, centralised platform for the public to lodge tree complaints and enquiries. Apart from referring the cases received to the responsible department, the “1823” Call Centre also monitors the progress of follow-up action on individual cases and keeps complainants posted in the process.

30. The TMO will take the lead in resolving complex tree cases which tree management departments may not be able to deal with on their own, e.g. cases requiring specialised arboricultural expertise, trees of special interest to the community, cases involving cross-departmental implications, etc. When such cases are brought to the TMO’s attention or when the TMO comes across such cases in the course of its day-to-day work, the TMO will proactively liaise with the tree management department concerned in ascertaining the facts of the case, exploring possible solutions and providing advice on the implementation of the identified solutions.

31. The TMO and tree management departments have enhanced the procedures for handling emergency tree cases. The TMO has set up an internal alert system, whereby Fire Services Department (FSD), the Hong Kong Police Force, the “1823” Call Centre and Highways Department (HyD) will immediately notify the TMO when a major tree failure involving the following occurs –

- (a) major injuries (i.e. the injured was admitted to hospital) or loss of human life;
- (b) substantial damage to properties; or
- (c) serious/complete blockage to main pedestrian/vehicular access.

32. Each tree management department is required to designate a departmental contact officer to liaise with the TMO in handling emergency tree-related cases, and to put in place an effective mechanism for their internal communication and decision-making when a tree-related emergency situation

occurs. The tree management department concerned is required to attend to the scene promptly. In addition, for tree-related cases involving major injuries or loss of human life, TMO staff with certified arborist qualification will arrive at the scene as soon as possible after notification from FSD/the Police/the “1823” Call Centre/HyD to obtain first-hand information on the incident and to offer guidance to the tree management department concerned regarding the handling of the incident.

Conclusion

33. Trees contribute to the quality of our life in a crowded city – improvement in air quality, lower temperature and visual appeal. However, as living organisms, trees go through the natural cycle: they grow, age, become weak and die. The TMO and the tree management departments will step up the inspection of trees at locations with high pedestrian or vehicular flow, conduct tree risk assessment properly and take appropriate measures to mitigate risks so as to safeguard public safety. In parallel, we hope the public will participate in community surveillance and report problematic trees so as to minimise the accidents caused by tree failure.

Development Bureau
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