Minutes of the 3rd Urban Forestry Advisory Panel (UFAP) Meeting

Date : 27 April 2018
Time : 9:30 am
Venue : Communal Conference Room 7, G/F, West Wing, CGO

ATTENDANCE

Chairperson

Ms Deborah KUH	H/GLTMS	

Members

Ir CHAN Yun-cheung	Geotechnical Engineer	
Prof. CHAU Kwai-cheong	Soil Scientist	CUHK
Ms Cecilia CHEUNG So-mui	Urban Forestry Manager	MSAR
Mr Kingsley CHOI Lim-cho	Horticulturalist	
Mr Mark DUNTEMANN	Tree Risk Manager	Natural Path
Mr Kevin ECKERT	Urban Arborist	ArborGlobal
Dr Billy HAU Chi-hang	Ecologist	HKU
Mr Evans IU Po-lung	Landscape Architect	
Mr Patrick LAU Hing-tat	Landscape Architect	EarthAsia
Dr David LAU Tai-wai	Botanist	CUHK
Mr Ian SHEARS	Urban Forestry Manager	CoM
Dr WONG Fook-yee	Ecologist	
Mr Benjamin HUNG	Ch Leiusre Mgr (Passive Amenities), LCSD	
Dr Jackie YIP	Sr Conservation Offr (Technical Services)Atg., AFCD	
Mr Perry TO	Sr Landscape Architect/D(U), HyD	

Via Skype

Dr Paul BARBER	Forest Pathologist	ArborCarbon

Secretary

Ms Olivia CHEUNG	AS(TM)3, DEVB(Works)

IN ATTENDANCE

Ms Angie AU YEUNG	AS(TM)1, DEVB(Works)
Dr Samuel LAM	AS(TM)2, DEVB(Works)

Ms Louisa NGAI	AS(GL)1, DEVB(Works)
Mr George HO	AS(GL)2, DEVB(Works)
Ms Salina LEE	AS(GL)3, DEVB(Works)
Ir Herman SHIU	Contract Sr Geotechnical Engr (Special Duties), DEVB(Works)
Mr CHOW Yun-tong	Sr Landscape Architect /D(NT), HyD
Mr Eric WONG	Sr Maint Engr/NW, HyD
Ms Tina TAI	TMO5, DEVB(Works)

ABSENT WITH APOLOGIES

Ms Yasmin CHIR	H/TMO, DEVB(Works)	
Dr Philip CANNON	Forest Pathologist	USDA
Prof. Cecil KONIJNENDIJK	Scholar	UBC
Mr Frank RINN	Urban Arborist	RINNTECH
Prof. ZHANG Qi-xiang	Horticulturalist	BFU
Prof. XING Fu-wu	Horticulturalist	SCBG

Discussion Items **Action**

1. Opening Remarks

1.1 The Chairperson welcomed all Members to the meeting.

2. Pre-wet Season Planning and Emergency Response on Tree Management Work
(UFAP Paper No. 01/2018)

2.1 AS(TM)1 briefed Members on the pre-wet season planning on tree management work and emergency response on tree failure incidents undertaken by the Greening, Landscape and Tree Management Section (GLTMS). She also introduced the clean-up arrangements after the passage of severe weather conditions.

Action

2.2 Upon a member's enquiry on tree failure data, CSGE informed the meeting that two tree failure databases currently served to collect information provided by departments respectively for tree failures under normal condition and tree damage due to the typhoons. Each database used different form for data entry. A member commented that only one form was adopted for the database in the California Tree Failure Report Program in United States. He would provide GLTMS with the form being used for reference, as he had assisted in development of the aforementioned form. Concerning member's suggestion on sharing the database to arborists in the industry, CSGE opined that reports on failures would be produced on half-yearly basis. The GLTMS was reviewing the database and the mechanism in updating it to see if enhancement could be done.

2.3 In response to question about the database, CSGE remarked that tree species, which were more resistant to typhoon damage, could be identified through statistical analysis of the tree failure data. Their engineering aspects and properties of different species could also be studied. The information would be useful for the tree maintenance work and the selection of suitable tree species. A member commented that analysing tree failure information could be very useful for tree risk management works because the information over the years could be used to support policy shift for more proactive and progressive in tree maintenance and management strategy. Another member suggested that the Form 1 and 2 of the fallen trees should be studied and the findings should be recorded in the database. The Chairperson supplemented that the database would also record investigations on tree failures and the information after being compiled for an annual or bi-annual report would be circulated to directorate staff of departments.

2.4 A member enquired the following -

(a) The division of the post-storm clean-up works by various departments; and

(b) The use of the tree failure database apart from the record purpose.

Action

2.5 AS(TM)1 pointed out that the Food and Environment Hygiene Department and Highways Department would clean-up the fallen tree branches or debris on the public roads and the pedestrian paths. The departments concerned such as Leisure and Cultural Services Department and Drainage Services Department would be responsible for those clean-up works at parks and sewage plant respectively. Respective departments would clean-up the fallen tree branches or debris within their allocated land.

2.6 In response to a member's suggestion to apply artificial intelligence (AI), the Chairperson regarded that the GLTMS had been looking into tactical use of technology and AI in tree management. She appealed to the support from higher institutes that had interest in research on this aspect. Members were encouraged to relay this message to these institutes.

2.7 A member informed that the post-storm fallen trees would be useful for the study of tree annual rings to climate change. He also asked for the arrangement of fallen trees originating from private lands that were left on the government land for clean-up. AS(TM)1 informed that the concerned departments would clear the trees to avoid blocking the road.

2.8 A member opined that some non-core departments would hire the contractor to handle tree removal. It was undesirable when the contractor took a long time to have the approval from Lands Department for removing the hazardous trees. He suggested that the Government should consider hiring independent checkers to streamline the process of vetting tree removal applications. AS(TM)1 replied that the arrangement and the guidelines to speed up the tree removal application were being actively reviewed. GLTMS

Action

2.9 A member observed that tree topping was always applied in the Mainland before the typhoon season and it was a kind of preventive measures. He suggested that the Government of HKSAR should know more about their practice. The Chairperson responded that relevant departments would arrange tree assessments and their subsequent maintenance in the pre-wet season. Before the onset of typhoon, relevant departments prepared quite well and might reduce the tree crown according to the assessment. Though aggressive crown reduction might minimise typhoon damage, as tree experts and to maintain proper arboricultural practices, we would not adopt tree topping, but improve public awareness on proper tree care and preparedness for the wet season.

2.10 A member suggested that the fallen part of the tree should be collected for qualitative and quantitative analysis of BRR infection. In addition, the form used for the typhoon damage should include the weather information such as wind speed, wind direction and rainfall, etc. These data were useful in conducting statistical analysis in future to assess any correlation between BRR infection and physical factors in tree failure. GLTMS

2.11 A member shared her pre-wet season planning and emergency response on tree management work in Macau. A new arrangement would be put in force soon that all parks, gardens and sitting-out areas would be partially or completely closed for 24 hours after the passage of typhoon in consideration of the potential risk of tree failure and the time required to conduct the tree risk assessment. Should the venue be unable to re-open after 24 hours, the public would be notified about estimated re-opening time. The Chairperson invited the member to send the detailed arrangements for consideration by relevant departments.

*(Post-meeting note: the contingency arrangements namely "**園林綠化部防災救災應變機制**" provided by the member was at **Annex I.**)*

Action

3. Enhancement of Tree Risk Assessment and Management (UFAP Paper No. 02/2018)

3.1 AS(TM)1 briefed Members on the proposed enhancement measures in the Tree Risk Assessment and Management (TRAM) in respect of the qualification and experience requirements of the inspection officers, the tree group inspection (Form 1) and the individual tree risk assessment (Form 2).

3.2 A member considered that the inspection officer's practical skills and on-ground practical experience was more important than his/her academic background. He quoted an example that some certified arborists having a very sound academic background might not fit for conducting TRAM because of inexperience in tree management. As such, the academic and professional qualification, which might restrict some competent arborists, to conduct TRAM should not be a mandatory requirement.

3.3 Three members echoed that practical experience was more important than academic qualification. Academic qualification might be useful in decision-making but not for conducting TRAM. A member suggested that a licencing system could be considered for implementation of TRAM.

3.4 A member reminded that the academic qualification should be defined clearly and carefully to avoid ambiguity and confusion.

Action

3.5 AS(TM)2 reported that the GLTMS was working with the Qualification Framework (QF) under the Education Bureau for positive capacity building. An Arboriculture and Horticulture Industry Training Advisory Panel had been set up under QF and one of its tasks was to develop a set of Specification of Competency Standards (SCS) for the arboriculture and horticulture industry in Hong Kong. The SCS would set out the skills, knowledge and outcome standards required for practitioners to effectively perform various tasks of different complexity in a work context up to workplace requirements. The Chairperson supplemented that until the SCS was finalised and the relevant academic qualifications were recognised under QF, it was an important task now to handle the discrepancies during the transition period.

3.6 A member pointed out that the academic qualification was very important for the engineers to become registered in the list. However, for the tree risk assessment and management, he considered that the academic qualification might be a help to acquire the knowledge, but should not be regarded as the basis.

3.7 A member considered that the proposed Form 1 was different to current industry practices and was the tool taken out for level one inspection. It only served as a screening tool to identify problematic trees in which Form 2 would be used. He suggested evaluating the qualification for completing Form 1 to meet the standard of the industry. For the proposed Form 2, he considered that Form 2 was developed for qualified person. The information on Form 2 was more than adequate, and therefore, it could be further simplified. He would provide his form which was shorter and more precise to AS(TM)1 for reference after the meeting. AS(TM)1 enquired if the endorsement officer was required in other countries. The member replied that it was not a common practice to have someone to endorse the form. However, a manager might play this role.

Action

3.8 A member opined that the information provided in a tree survey, which was always required in a project, seemed to be similar to that in the TRAM. Therefore, there would be a duplication of effort when both a tree survey and TRAM were required in a project.

3.9 A member agreed that Form 1 and 2 should be simplified. Moreover, he questioned about the qualification of the auditing officer. AS(TM)1 informed that the mechanism, in particular for the requirement of the auditing officer was under review and would be enhanced. Moreover, the audit guidelines for TRAM would be reviewed. GLTMS

3.10 A member shared his experience that, in private sector, tree assessment would be submitted to the management committee. Though the management committee seldom had any tree expert, the Chairperson of the committee would make decision based on the information.

3.11 In response to a member's enquiry about the triage system, AS(TM)1 informed that the triage system had been implemented and the concerned guidelines had been uploaded to the internet for public access. The Chairperson supplemented that a trial on an information tag based on the triage system had been conducted in Kowloon Park without much public interest. There were also safety, access, and tree health concerns as interested members of the public were walking over the roots of the trees to get a closer view of the tags, which were already quite large. As a result, information remained digitised, though other technologies were being explored to deliver onsite information to the public.

4. Legislative and Regulatory Requirements for Tree Management (UFAP Paper No. 03/2018)

4.1 The Chairperson invited Members to share views on the current mechanism in Hong Kong including existing administrative measures, and appropriateness of a new or dedicated tree legislation.

Action

4.2 A member hoped that the concerned departments should step up the process of granting approval for tree removal application. Besides, they should also allow flexibility in compensatory planting instead of sticking to the ratio of 1:1.

4.3 A member remarked that tree risk management programme in New York City and the need to have a centralised legislation and policy were under review. At present, different departments within five boroughs were responsible for tree management which was considered a bit inefficient. A centralised legislation governing the basic policy and qualifications arranged by a borough would be more efficient.

4.4 A member opined that unless there was a really significant gap, it was more important to step up the administrative measures related to tree protection than to have a single legislation. Another concern was about the regulations on landscape design, its delivery and the decision making. He considered that the law enforcement would also be a challenge.

4.5 A member considered that there was some political pressure on the tree legislation and the public in general might have mistrust on government policy. To improve the administration of the government was therefore very important. A member echoed that developing the partnership between the administration and the community might be a good way to educate the public, to create a strong sense of trust.

4.6 A member noted that tree laws were available and enforceable in other countries. Therefore, there should be something that we could learn from these cities and be applicable to Hong Kong.

4.7 The Chairperson regarded that the aspiration and the intent of tree legislation were to minimise illegal tree removal. We should study how practicable of the legislation to stop illegal tree removal.

Action

4.8 A member shared that there was an ordinance in the city of Honolulu but was useless. People learnt how to get around it and the enforcement was very difficult. There was not sufficient resource to take the prosecution. A member echoed that the case was similar in big cities such as Chicago and New York City.

4.9 A member shared that there was an exceptional tree register in Melbourne with special regulation. The trees in the register were underpinned management arrangements and it was considered to be more effective and flexible. .

4.10 A member would like to know the advantage of the tree law over the existing administrative measures, as there was always room for improvement for the existing system, but should be identified first.

4.11 The Chairperson reiterated that the government maintained an open view on tree legislation. She would like to seek views on how practical we could prove the illegal tree removal or someone had purposely killed a tree.

4.12 A member agreed that it was sometimes very difficult to find out the cause of tree decline, especially due to poisoning.

4.13 A member commented that for now there might be no consequences of tree vandalism or illegal removal. He opined that legal control was required regardless of the difficulty in law enforcement.

Action

4.14 SConO/AFCD shared AFCD's experience in undertaking enforcement actions related to unauthorised tree felling or damage, under the Forests and Countryside Ordinance (Cap.96) and Country Parks Ordinance (Cap.208) . AFCD officers would conduct investigation upon receiving reports of illegal tree felling activity, and take enforcement actions accordingly. However, in practice, difficulties were sometimes encountered in investigation due to lack of evidence. In response, a member suggested that, as the mobile devices were so popular, they could be used to take photo or video as evidence. The Chairperson noted this could be something to explore.

4.15 The Chairperson thanked Members for sharing their views. She summarised that the tree legislation needed to be enforceable, provable and practicable. A centralised legislation to deal with one asset was another concern. She invited members to send further views or comments through e-mail by next week.

*(Post-meeting note: Comments have been provided by a member at **Annex II**.)*

5. Application of Joint Stabilising Sealant on Footpath (UFAP Paper No. 04/2018)

5.1 SLA/HyD and SEM/HyD briefed Members on the background, rationale of using joint stabilising sealant (JSS) on footpath pavement with paving blocks, effect of JSS on tree health, and current design and development of roadside pit/planter for planting.

5.2 In response to a members' enquiry on whether HyD would use of JSS for all public pavement, SME/HyD replied that the JSS would not be used for all public pavement. Its application depended on situation.

Action

5.3 A member suggested that HyD should use permeable paving block to allow water penetration. Moreover, based on his experience, there was no direct relationship between the tree pit size and the tree health, but trenching would be a problem to trees. He shared his observations on the growing condition of various *Khaya senegalensis* in Wan Chai.

5.4 In response to a member enquiry on the chemical used to clean the joints or gaps before applying the JSS, SME/HyD replied that they would not use any chemical for cleansing, but manually removed the dirt before application.

5.5 A member had reservations based on the following -

(a) The effectiveness of the JSS in preventing the unevenness of pavement caused by some trees with very aggressive surface roots, such as *Ficus microcarpa*; and

(b) The use of the JSS to prevent the growth of moss between blocks as he personally thought that it was natural and pleasing.

5.6 A member considered that street trees had extensive root growth and could not be limited to the tree pit. Instead, structural soils were designed to allow better air and moisture penetration. It would be a good option to provide a favourable condition below ground for roadside trees. The use of sealant was not preferred.

5.7 A member questioned about the seriousness of moss problem and the loss of sand base that justified the use of JSS in the 67 street locations. Understanding the cause of the uneven settlement would help find the best solution to the problem.

5.8 A member commented that the global trend in tree management was to improve the penetration, so the use of JSS was against the trend. Selection of right tree species could solve the problem of unevenness surface. He suggested that HyD could consult Green Building Council for advice. HyD

Action

5.9 A member's suggestions to HyD were as follows – HyD

(a) To ensure the chemical content of the JSS was non-toxic and not harmful to tree growth;

(b) To find out if there were any long-term successful cases in other countries; and

(c) To collect some data on tree health before and after using the JSS for comparison.

5.10 A member considered that the JSS would change the micro-climate and thus affect the tree health. As such, he suggested using permeable paving within the drip line of the tree.

5.11 The Chairperson opined that HyD should further analyse the purpose of the JSS relative to its effectiveness and the impact of the JSS on tree health. HyD should also make reference to the experience of other cities. The best long-term measure was to use permeable pavers which were considered favourable for tree growth. Effort would also be spent to study the quality of soil and tree pit details that would minimise surface rooting and provide a more sustainable design. HyD

6. Any Other Business

6.1 A member raised his concern on the development of QF for the industry. He reiterated that some people might eventually reach very high levels in the QF but had never touched a tree. They should not be qualified for tree works. He stressed the importance of identifying qualified personnel for assessing tree risks irrespective of their academic qualifications and the training to create qualified personnel.

Action

6.2 The Chairperson opined that developing specifications of competent standard for tree works were sophisticated. She agreed with member's concern that the development of QF should give due consideration to his concern and would liaise with QF on this. She pointed out that the SCS was very significant and would become the fundamentals in the future. She appealed to Members' support to set aside differences and invest their efforts in the development of the SCS and the long-term future of the industry.

6.3 There being no other business, the meeting adjourned at 12:20 pm.

Greening, Landscape and Tree Management Section
Development Bureau
July 2018

Annex I

園林綠化部防災救災應變機制

一.風季前設施、樹木巡查機制

每年 4 月 30 日之前，各轄下處級要為其管轄的設備設施做一次風季前的大巡查(包括樹木)。(已制定風季前設施年度巡查記錄表)。

檢查的內容包括：(1)植物、植被。(2)設施、設備。如有損毀或需要維修立即通知工程部門，以保証風季來臨前所有設施完好安全。

二.風後巡查機制：

一般狀況之颱風(即 8 號風球或以下)：

(1) 由民防小組樹隊同事即時巡查各區樹木損毀或倒塌狀況，並向上 級即時滙報，制定清障的路線和執行。

(2) 風球落下後，所有公園、休憩區和步行徑作臨時關閉，以便清查損毀情況。待查核及評估後，於最長不超過 24 小時內公佈各公園和休憩區的開放清單。

(3) 本部同事及通知外判公司在許可狀況下，巡查各區的綠化區域，收集植物、植被損毀狀況、以及設備、設施損毀狀況爭取於 12 小時內向上級滙報以便進行分級和安排處理。

特強之風暴(即 9 號風球或以上)：

(1) 由民防小組樹隊同事即時巡查各區樹木損毀或倒塌狀況，並向上級即時滙報，同時先開通所有主要道路，以便救災工作進行。

(2) 風球落下後，所有公園、休憩區和步行徑全部關閉，以便排查損毀狀況，並於 24 小時內將初步排查後的情況向外公佈，其後要每天中午前更新。

(3) 組成城市樹木災後普查小組，並制作受災樹木及柴木分佈狀況地圖，以便進一步計劃清理路線和其他各項安排。

(4) 本部同事及通知外判公司在許可狀況下，巡查各區的綠化區域，收集植物、植被和設備、設施損毀狀況的資料，爭取於 24 小時內向上級滙報，以便進行分級和安排處理。

三.風後保障機制

(1) 按先後緩急清除所有主要街道的倒樹，以便開通道路讓救災車輛通行。

(2) 一般狀況之颱風下，當風球除下後，所有關閉的綠化區域，爭取 24 小時內向外公佈設施開放情況的清單。

(3) 若遇特大風暴，當風球除下後，所有關閉的綠化區域，爭取在 72 小時內向外公佈設施開放情況的清單。

Annex I

Department of Gardens and Green Areas

Contingency Plan for Natural Disasters

1. Inspection Mechanism of Facilities and Trees before Typhoon Season

All Divisions should carry out a thorough inspection to all facilities (including trees) under their jurisdiction before the onset of typhoon season on 30 April each year.

Inspection should cover: (1) plants and vegetation; (2) facilities and equipment. If any damage is spotted or any repair and maintenance is required, works department should be informed immediately to ensure the safety of all facilities before the typhoon season.

2. Inspection after Typhoon

General Typhoon (i.e. Typhoon Signal No.8 or below)

(1) Tree Teams conduct immediate inspections for assessing any tree damage or failure in each district and then report immediately to their seniors to facilitate their formulation of the routing for clearance of obstacles.

(2) After the lowering of the typhoon signal, all parks, sitting out areas and walking trails will be temporarily closed for inspection. After inspection and assessment of the damage, the re-opening schedule of parks and sitting out areas shall be announced within 24 hours.

(3) If the condition permits, staff in this department and the contractors upon notification should inspect the green areas and collect information about the damage of plants, vegetation, facilities and equipment in each district. Afterwards, they report to their seniors within 12 hours so as to facilitate their seniors to accord priority and arrange follow-up actions.

Extreme Typhoon ((i.e. Typhoon Signal No.9 or above)

(1) Tree Teams conduct immediate inspections for assessing any tree damage or failure in each district. Then, Tree Teams immediately clear the obstacles in major roads and concurrently report to their seniors to facilitate their follow-up arrangement.

(2) After the lowering of the typhoon signal, all parks, sitting out areas and walking trails will be temporarily closed for inspection. After the initial assessment, the condition of parks and sitting out areas shall be announced within 24 hours and then updated by noon every day until re-open.

(3) A team for post-disaster tree survey will set up to prepare a map indicating the distribution of affected trees and firewood to facilitate their formulation of the routing for clearance of obstacles and other arrangements.

(4) If the condition permits, staff in this department and the contractors upon notification should inspect the green areas and collect information about the damage of plants, vegetation, facilities and equipment in each district. Afterwards, they report to their seniors within 12 hours so as to facilitate their seniors to accord priority and arrange follow-up actions.

3. Safety Mechanism after Typhoon

(1) The failed trees in all major streets should be cleared based on their priority in order to open the road for the emergency vehicles.

(2) Regarding the general typhoon after the lowering of the typhoon signal, the re-opening schedule of all temporarily closed green areas shall be announced within 24 hours.

(3) As for the extreme typhoon after lowering of the typhoon signal, the re-opening schedule of all temporarily closed green areas shall be announced within 72 hours.

Annex II

Comments from a Member

I fully agree with the basic premise of the paper and suggested approach, i.e. that urban trees are living organisms, with a limited life span, and with a need to manage them with a lifecycle perspective in mind. Moreover, with trees in urban areas, we always have to recognise the reality of their often high-pressure sites, in terms of physical, ecological and social properties. Legislation that is too restrictive to sound and proper urban forest management according to this would not be the right approach. Obviously specific trees of high value will require protection, but there should not be a 'every tree should be maintained at all cost' approach. Urban forestry is about the bigger picture, and about seeing a city's tree population as an urban forest ecosystem.

The need for specific tree (protection) legislation will depend on the local situation. As also described in the paper, based on cases from across the world, in some instances the existing governance and legislative framework covers all relevant aspects well. This existing framework first needs to be properly analysed, and potential gaps have to be identified. It seems that the current framework in Hong Kong is quite comprehensive, and will cover most aspects of tree protection and tree management.

In Vancouver, a stricter tree bylaw became needed because of major canopy loss, primarily on private land. Land owners were allowed to cut one tree per year, irrespective of size. Legislation needs to address the protection of trees on private land, and especially also the protection (and potential replacement) of trees during development projects. In Hong Kong, this aspect seems to be well covered with existing policies and legislation. Moreover, documents such as the 'Handbook on Tree Management' are in place to provide information and guidance for private property owners.

The suggested approach until item 23, which suggests a cautious and open-minded approach, seems to be a good way forward. Having a specific 'tree law' does not seem to be the best solution, for example as it would overlap with many existing provisions, while also entailing the risk of a too rigid approach to tree protection, rather than focusing on a more comprehensive urban tree management approach.

In this context, I also commend the suggested TRAM approach, and the call for more staff with specific qualifications and experience.