

For discussion
on 17 April 2009

**LEGISLATIVE COUNCIL
PANEL ON HOME AFFAIRS**

GREENING AND TREE PRESERVATION

PURPOSE

This paper aims to outline the current policy of greening in Hong Kong, particularly the aspects of preservation and maintenance of trees.

THE IMPORTANCE OF GREENING

2. Government has been actively promoting greening in order to improve our living environment. There is in particular a close relationship between greening and improvement of air quality. Green plants can help act as a sponge by sequestering carbon dioxide in the atmosphere while releasing oxygen. They can improve air quality by intercepting particulate matters and absorbing gaseous contaminants such as sulphur dioxide and nitrogen oxides in the atmosphere as well as help lower urban temperature. Government strives to uplift the quality of our living environment through active planting, proper maintenance and preservation of trees and other vegetation. Our target is to bring noticeable improvements in urban greenery and to enhance existing greened areas.

INSTITUTIONAL ARRANGEMENT

3. To co-ordinate Government's greening work, a high-level Steering Committee on Greening (SCG) has been established to set the strategic direction and oversee the implementation of major greening programmes since 2002. Policy oversight for greening was first assumed by the former Environment and Food Bureau and upon subsequent government bureaux re-organisation, this was transferred to the former Environment, Transport and Works Bureau and from July 2007, comes under the Works Branch (WB) of the Development Bureau. Currently, the SCG is chaired by the Permanent Secretary for Development (Works) with members drawn from various bureaux and

departments. The terms of reference and membership of the SCG is at **Annex A**. Separately, to promote and co-ordinate community greening efforts, the Permanent Secretary for Home Affairs chairs a Community Involvement Committee on Greening with secretariat support provided by the Leisure and Cultural Services Department (LCSD) and membership drawn from a wide spectrum of non-government bodies as well as government representation.

4. Under an “integrated approach” adopted over the years (as described below), responsibility for preserving and maintaining trees is assumed by relevant departments. As a guide, the responsibility follows the status of the land where the tree stands. Therefore, where trees are on land allocated or assigned to various departments, the department would be responsible for maintaining trees within their facility boundary or on a functional basis. Trees on land leased to private parties are the responsibility of the private landlord according to tree preservation clauses where applicable. Trees on unallocated and unleased government land generally remain with the Lands Department.

5. The linkage between the steer on greening and the operation of the maintenance departments is currently achieved through specific technical circulars issued by WB or its predecessors. The main circulars currently in force cover the following areas for compliance by the various departments –

- (a) tree planting in public works;
- (b) community involvement in greening works;
- (c) maintenance of vegetation and hard landscape features;
- (d) a cyber manual on greening;
- (e) registration of Old and Valuable Trees, and guidelines for their preservation;
- (f) procedures for control of tree felling, transplanting and pruning in government projects and the reporting of unauthorised tree removal on both private and unleased government land; and
- (g) guidelines on tree pruning.

GENERAL STRATEGY

6. There are two aspects in the promotion of greening –

- (a) planting of new vegetation; and
- (b) preservation and maintenance of existing vegetation.

PLANTING OF NEW VEGETATION

7. This takes place mainly in –
 - (a) planting in new public works projects; and
 - (b) planting in Greening Master Plan projects.

Various facility management departments and agencies as well as private sector property management companies also undertake planting in their respective facility boundaries. District Councils and various organisations also organise community planting events to promote greening or as area beautification projects.

Planting in New Public Works Projects

8. Works departments make every effort to plant new vegetation in the implementation of new public works projects. As space for planting in built-up areas of Hong Kong is limited, we are also pursuing new techniques in greening (such as vertical greening including the use of green wall panel in the design of noise barrier, and greening of rooftops in new government buildings and in renovation of existing government buildings). Green roofs can help improve cityscape and attenuate heat island effect. Since 2001, the Architectural Services Department has included roof greening in new projects as far as practicable. These projects include construction and refurbishment of schools, hospitals, offices, community centres, etc.

9. Vertical greening is a relatively new concept in providing greenery in Hong Kong. Government has embarked upon pilot schemes such as vertical greening for noise barriers along highways (e.g. Tseung Kwan O near Tsui Ping South Estate), vertical greening at lift towers and external walls in public housing estates (e.g. Phases 3 and 4 of the public housing estate site near Eastern Harbour Crossing), etc.

10. It should be noted that Government is fully committed to ensuring that no tree will be unnecessarily pruned or felled in public works projects and proper care and maintenance will be provided. In particular, WB has promulgated a set of sample contract provisions for incorporating in public work contracts since 2004 to further strengthen tree protection during construction. WB has also promulgated a set of guidelines in 2006 setting out the policy on tree preservation, and

procedures for control of tree felling, transplanting and pruning in Government projects. In cases of accidental damage of trees under public works, contractors are required to pay for replanting a specified number and size of trees for compensation of the original ones. Moreover, when the contractor is found to be responsible for unauthorised removal or damage of trees, contractors' performance will be reflected in the performance report which may affect their chances of securing future tender for public works contracts in future.

Planting in Greening Masters Plan Projects

11. In recent years, as an enhanced greening initiative, the Civil Engineering and Development Department (CEDD) with the support of the Development Bureau has adopted and implemented Greening Master Plans (GMPs) that seek to define the greening framework and provide a guide to the planning, design and implementation of works in various districts. In recognition of the fact that greening opportunities arises under different time frames, the GMPs embody a full spectrum of short, medium and long-term measures. Short-term measures are those conforming to the district layout and posing no direct conflict to existing land use or traffic arrangements and can be implemented within one or two years. Greening measures which have to be implemented in association with other projects or which require private sector participation are classified as medium-term measures. As for long-term measures, they depict the ultimate greening vision and include proposals such as tree corridors along major roads which can only be achieved in conjunction with urban renewal, etc.

12. Following the completion of the implementation of greening works in GMPs for Central and Tsim Sha Tsui in 2007, the implementation of greening works in GMPs for Mong Kok, Yau Ma Tei, Sheung Wan, Wan Chai and Causeway Bay started in August 2008 for completion by end 2009. Subject to funding approval by the Finance Committee, implementation of greening works in GMPs for remaining urban areas including Kowloon West (Sham Shui Po and Kowloon City), Kowloon East (Wong Tai Sin and Kwun Tong) and Hong Kong Island (Eastern District, Southern District and Western District) is scheduled to commence in late 2009 for completion in late 2011. Thereafter, consultation work will start for developing and implementing GMPs in the New Territories. As interim measures, various departments have/will implement greening enhancement proposals at focal points in the New Territories, for example, a recent initiative in Tin Shui Wai by CEDD.

PRESERVATION AND MAINTENANCE OF EXISTING VEGETATION

13. Government's policy is to protect and preserve trees as far as practicable. We also endeavour to enhance the greenery of built up areas and to provide adequate and proper maintenance of trees.

14. There are two major aspects on tree preservation and maintenance –

- (a) legislative measures; and
- (b) administrative measures.

Legislative Measures

15. To protect trees from vandalism, there are at present relevant ordinances for protection of trees on Government and private land, including –

- (a) Forests and Countryside Ordinance (Cap. 96);
- (b) Country Parks Ordinance (Cap. 208);
- (c) Public Health and Municipal Services Ordinance (Cap. 132);
- (d) Crimes Ordinance (Cap. 200);
- (e) Theft Ordinance (Cap. 210); and
- (f) Antiquities and Monuments Ordinance (Cap. 53).

16. For instance, the Forests and Countryside Ordinance (Cap. 96) protects trees in any forest or plantation on unleased government land and is applicable to both urban and rural areas. The Country Parks Ordinance (Cap. 208) protects all trees in country parks. The Crimes Ordinance (Cap. 200) and the Theft Ordinance (Cap. 210) are used to deal with more serious cases involving the damage and/or stealing of valuable trees (such as Incense Tree and Buddhist Pine). As for trees on pleasure grounds, public cemeteries and gardens of remembrance, they are protected under the Public Health and Municipal Services Ordinance (Cap. 132). These ordinances provide the necessary legal instruments for protecting trees in public places, whether they are in the urban area or country parks.

Administrative Measures

(a) Integrated Approach

17. For all vegetation on government land (including Old and Valuable Trees (OVTs), other trees and plants), Government adopts an “integrated approach” in assigning the maintenance responsibility. Under this approach, the department responsible for the maintenance of a facility is also responsible for the maintenance of vegetation there. A technical circular has been issued to stipulate responsibilities. For example, the Agriculture, Fisheries and Conservation Department (AFCD) is responsible for managing trees inside country parks. Highways Department (HyD) is responsible for managing trees along expressways. LCSD is responsible for managing trees at their venues and in landscaped areas along public roads (other than expressways outside the boundaries of country parks). The Housing Department (HD) is responsible for managing trees in public housing estates.

18. This approach in which the department responsible for the management and maintenance of a facility is also responsible for nurturing and protecting all the plants (including trees) within the facility has in general proven to be efficient and cost effective. It is important to note that the maintenance foci and requirements of trees at different locations may vary significantly. For instance, for trees along expressways, the foremost consideration is to ensure that the trees will not impact on the safety of road users and traffic. For trees on man-made slopes, the prime concern is to ensure slope safety. For trees in parks and other leisure facilities, the comfort and safety of the visitors will prevail.

19. Under the “integrated approach”, tree maintenance is part and parcel of the daily management duty of the facilities. For example, routine inspections to guard against illegal felling of trees are now carried out by park’s staff as part of their regular patrol of the park. Nurturing and maintenance of trees are carried out in conjunction with the horticultural and gardening activities for other plants and vegetation within the same facility. If such inspections and maintenance work for the trees and vegetation are to be carried out separately by staff from another department, issues including interface problems, work coordination, fragmentation of responsibilities, etc. may arise.

(b) General Process of Vegetation Maintenance

(i) Regular Maintenance

20. For tree inspection, maintenance departments formulate frequencies and methods of inspection for trees under their purview having regard to practical considerations such as planting environment, species and maturity of trees. For instance, HyD conducts regular inspection of the trees under their purview at least twice a year. LCSD also arranges regular inspection at least once each year for normal trees and at least two detailed inspections for trees in the Register of OVTs. Trees in country parks, being part of nature, normally do not require active maintenance, and it is appropriate to let nature take its course in most cases. AFCD inspects trees in or near such facilities as barbecue sites and visitor centers as well as those lining hiking trails given that they may be more easily accessed by members of the public.

21. Maintenance departments may employ approved contractors with horticultural qualifications and appropriate experience to carry out tree inspection, assessment as well as maintenance work (such as watering, fertilising, disinfecting, pruning withered branches or those which are likely to affect traffic, trimming overgrown trees and removing withered ones). Based on the actual situation of trees under their purview, departments and their contractors will also arrange appropriate recovery measures for trees which are found to be affected by diseases and pests or in substandard health conditions.

22. WB has compiled a Cyber Manual for Greening in 2004 for reference by all departments concerned. The content of the manual includes reference materials on tree maintenance, with information on the treatment for infected trees. WB has also reviewed and compiled the General Guidelines on Tree Pruning in 2007. The guidelines describe the types of pruning, safety measures and pruning techniques in such operations, and provide guidance on pruning of withered branches and pruning for other tree maintenance work. Considering the differences in maintenance arrangements of trees located within different facilities, departments concerned have also formulated their own guidelines in line with their specific operational needs, in addition to the aforementioned materials. They also make reference to the international standards and techniques which are commonly recognised and applied, and improve and review theirs as and when necessary.

(ii) Ad-hoc Maintenance of Trees

23. Normally, a mature tree in good conditions does not require special maintenance apart from the routine measures mentioned above. Ad-hoc measures would be carried out only if required. For instance, when the environmental conditions surrounding the tree are found to be unfavourable, measures to enlarge growing space for the root system, to enhance soil aeration and drainage, or to replenish top soil/mulch to an appropriate level would be considered. In addition, suitable chemical treatments should be applied when a tree is found to be seriously infested by certain diseases or pests (e.g. termites). When a tree is found to be structurally unsound posing potential hazard to the public, measures to provide support to the weak points such as cabling and propping, pruning of the defective/dead branches or crown reduction to reduce end weight should be conducted to reduce the risk. In extreme cases where a tree is dead, dying or has high risk of failure, the whole tree would have to be removed for the sake of public safety.

(iii) Emergency situation

24. Where public safety is at stake, or at fully justified emergency situations, the control requirements of tree preservation will not be applicable. Hazardous trees will be removed as speedily as possible in cases such as lightning, typhoon, torrential rain or landslide.

(c) Old and Valuable Trees

25. It would particularly be worthwhile to highlight the OVTs. To strengthen the protection of trees with special value on unleased Government land within built-up areas or tourist attraction spots in village areas, Government established a Register of OVTs in 2004, which has been uploaded onto the website of LCSD for public assess. The register records trees which satisfy certain criteria such as large size, precious or rare species, old age, outstanding form and/or cultural, historical or memorable significance. A set of guidelines was also issued in the same year on a comprehensive scheme to conserve the trees on the Register, covering a wide range of aspects including registration, maintenance and inspection of registered trees.

26. Currently, there are 511 OVTs on the Register. To improve the transparency of the register, LCSD will include the reasons for removal of each OVT when updating the Register. Other information such as the inspection date and maintenance measures required will also be published. Respective District Councils will also be informed of the reasons for OVT removal.

27. Felling or removal of a registered OVT is prohibited, unless with very special reasons. In addition, the area surrounding a registered tree is designated as a tree protection zone, in which construction works cannot be carried out without the prior approval of the Lands Department (LandsD). If a registered tree exists on a piece of government land to be leased to a private developer, LandsD will include appropriate clauses in the lease to stipulate that the tree protection zone should not be used for any other purposes.

(d) Staffing, Training and Equipment

28. Due to difference in growth environment of trees and the required maintenance arrangement, different maintenance departments have made reference to their specific operational needs in arranging suitable staffing, training and equipment to discharge their tree maintenance responsibilities. The number of staff involved in departments responsible for tree maintenance and their scope of responsibilities are listed in **Annex B**. Apart from their own staff resources, maintenance departments can also employ approved contractors to carry out relevant tree maintenance work when needed.

29. Tree maintenance departments provide proper training to their staff responsible for tree works. For example, the tree maintenance work undertaken in-house by AFCD is supervised by Forestry Officers belonging to the professional grade and Field Officers with relevant experience. The in-house maintenance work of LCSD is carried out mainly by its tree teams, comprising staff of Leisure Services Managers, Amenities Assistants, Artisan and Workmen. All tree team staff have received in-house training, including horticulture maintenance and/or arboriculture training programmes organised by LCSD's training section. Some have also received overseas arboriculture training courses.

30. Departments and their contractors equip their staff with sufficient tree maintenance equipment so as to conduct tree health inspection and recovery treatment for trees with health problem. Taking LCSD, AFCD and HyD as examples, they are equipped with more advanced equipment (such as sonic tomograph and resistograph) to test wood texture. HyD also requests contractors to provide necessary installation that is required for roadside works such as lifting platform for works at tree crown level, etc.

31. In order to enhance the standard of tree maintenance, departments receive the latest technique and knowledge on tree conservation and recovery through various channels and incorporate appropriate techniques that are suitable for local application. They also exchange experience with tree maintenance associates in the Mainland and overseas and send staff to attend international forums and overseas courses on arboriculture to grasp the new techniques in tree conservation. For example, the supervisory staff of the tree team of LCSD have received more specialised training (such as British National Certificate Course in Horticulture (Arboriculture)). Some of them also possess the qualification of Certified Arborist of the International Society of Arboriculture. We estimate that there are about 60 staff in various government departments possessing this qualification.

32. Regarding the enhancement of quality of our work force in tree works as a whole, Construction Industry Council Training Academy (CICTA) has organised training courses on horticultural work for landscape workers and supervisors and for management staff of construction companies, property management companies, etc. WB will continue to cooperate with CICTA in strengthening trainings on tree maintenance.

TREES IN PRIVATE PROJECTS AND COOPERATION WITH NON-GOVERNMENT SECTOR

33. The above applies to the Government while in private setting, there are three major aspects –

- (a) tree preservation clauses;
- (b) cooperation with the Private Sector and Quasi-government organisations; and
- (c) community involvement in greening.

Tree Preservation Clauses

34. As regards private land, Government has included tree preservation clauses in land leased since the 1970's. For land leased before the 1970's, when modifications of their leases are applied as a result of re-development, LandsD will take these opportunities to incorporate tree preservation clauses in so far as possible.

35. For private development projects, LandsD has also issued an updated Practice Note in August 2007 regarding the revised control measures on tree felling in private projects. Generally speaking, land owners need to apply to LandsD before felling or transplanting any trees on their land where there is a tree felling/preservation clause in the land lease. After seeking advice from the concerned departments with expertise in trees, LandsD will process the applications in accordance with established criteria, including whether there are sufficient justifications for tree removal and acceptable compensatory planting plan. If trees protected by lease conditions are felled or interfered in contravention of these conditions, LandsD may request the owner to carry out compensatory planting and take lease enforcement actions in accordance with the relevant terms of the lease.

Cooperation with the Private Sector and Quasi-government Organisations

36. Apart from Government making its own effort, initiatives and support from both the private sector and quasi-government organisations are also desirable. Examples are the Sheung Wan Revitalisation Scheme undertaken by the Urban Renewal Authority together with the support of other Government departments, and streetscape improvement works in Hollywood Road, Chater Road and surrounding areas undertaken by private developers.

Community Involvement in Greening

37. Furthermore, community support for greening is also demonstrated through active participation in community forums of GMPs and various greening activities organised by departments such as seminars are organised to owners' corporations, property management companies, staff of horticulture firms, etc. to promote greening and share experience (the latest one was organised in March 2009). External organisations (such as Kadoorie Farm and Botanic Garden and Institute of Horticulture (Hong Kong)) have also offered valuable support on greening in the Community Involvement Committee on Greening.

LATEST DEVELOPMENT

38. On 31 March 2009, to follow up on the Jury's recommendations in a Coroner's Court investigation into the collapse of a coral tree in Stanley, the Chief Executive tasked the Chief Secretary for Administration (CS) to lead departments concerned to conduct a review on tree management (including staff training, risk assessment of trees and

adequacy of the present guidelines and implementation). CS will form a taskforce comprising representatives from the Development Bureau, Environment Bureau, Home Affairs Bureau and Transport and Housing Bureau, and departments under their respective purview. CS has tasked the Development Bureau to do a stocktaking exercise to map out areas for deliberation and action, with particular reference to the specific recommendations of the Jury in aspects of dedicated risk management expertise, notification mechanism amongst various maintenance departments, enhanced training and guidelines. The taskforce will meet within a month and is committed to completing the review in three months' time.

Development Bureau
Agriculture, Fisheries and Conservation Department
Leisure and Cultural Services Department
April 2009

**Terms of Reference and Membership of the
Steering Committee on Greening**

Terms of Reference

- (i) To formulate and review greening policies on an on-going basis;
- (ii) To identify new greening initiatives to meet the changing aspirations of the community with particular reference to the urban areas;
- (iii) To consider and approve greening targets and programmes submitted by the working committees;
- (iv) To oversee the implementation of departmental greening efforts; and
- (v) To consider resource requirements for greening programmes.

Chairman

Permanent Secretary for Development (Works)

Membership

Permanent Secretary for Home Affairs
Deputy Secretary for Development (Planning and Lands)1
Deputy Secretary for Development (Works)1
Director of Agriculture, Fisheries and Conservation
Director of Architectural Services
Director of Buildings
Director of Civil Engineering and Development
Director of Highways
Director of Home Affairs
Director of Housing
Director of Lands
Director of Leisure and Cultural Services
Director of Planning
Director of Water Supplies
Commissioner for Tourism
Commissioner for Transport

Secretary

Chief Landscape Architect

Annex B

Number of Staff Involved in and Scope of Responsibilities of Tree Maintenance Departments

Departments	Number of Staff and Scope of Responsibilities
Agriculture, Fisheries and Conservation Department	About 83 staff are deployed for vegetation maintenance in all the 24 country parks in Hong Kong which together occupy some 40% of Hong Kong's land. Their duties comprise mainly tree planting work, grass-cutting, fertilising, maintenance of fire breaks and pruning of trees. Some 700 000 – 900 000 trees are planted annually in country parks in Hong Kong. The tree planting activity alone accounts for some 95% of the staff time. The remaining 5%, i.e. equivalent to 4-5 staff are involved in tree maintenance work in country parks.
Leisure and Cultural Services Department	About 110 staff are responsible for management of trees in the Department's venues and landscaped areas along public roads other than expressways outside the boundaries of country parks. Staff in various districts also provide support for routine maintenance and care of trees.
Highways Department	About 20 staff are responsible for managing tree maintenance work on slopes, retaining walls and expressways under the Department.
Housing Department	About 31 staff co-ordinate tree maintenance work in public housing estates. Frontline management staff in 160 housing estates also provide assistance.
Architectural Services Department	About 8 staff responsible for slope maintenance maintained by the Department also co-ordinate tree maintenance work.
Drainage Services Department	About 16 staff co-ordinate tree maintenance work within drainage facilities.
Water Supplies Department	About 12 staff co-ordinate tree maintenance work within waterworks facilities.

Note: Lands Department carries out ad-hoc tree maintenance (i.e. tree pruning or removal of broken branches upon complaints and referrals) on unallocated government land not maintained by other departments with the assistance provided by its contractor.