

# 工作小組報告

## Reports of the Sub-groups





### 目標

可持續發展工作小組在2010 – 2012年訂定了三個工作主題，分別是改善空氣質素（包括推動電動車輛的使用）、提升水質管理和更有效地處理固體廢物。在這些主題下，工作小組邀請了政府有關部門及工商業界共同探討這些議題和相關的商機，並監察可持續發展目標的進展。

### 工作小組關注議題

#### 1. 改善珠江三角洲地區空氣質素

工作小組關注香港空氣質素表現的客觀指標，環境保護署表示其網頁每天公布的空氣污染指數，已直接反映香港的空氣質素，亦為市民提供本地空氣污染的資訊及所需的健康指引；香港天文台定期在其網頁發布低能見度時數亦可作為反映空氣污染物水平變化的間接指標。小組亦有參考哈佛大學與理工大學有關香港空氣質素的研究。

小組留意到跨境車輛數目上升令香港空氣污染的問題惡化，環境保護署指出有關車輛必須符合香港訂定的現行排放標準，方會獲發所需牌照和獲准在本港行駛。

工作小組歡迎空氣中污染物濃度自粵港珠江三角洲區域空氣監控網絡於2005年11月建立以來大幅下降。除污染物濃度外，小組建議政府對空氣污染物的總排放量進行監測，而該排放量是受經濟活動的步伐影響。香港亦需注意跨境而來的空氣污染物。粵港雙方應繼續合作致力減少區內污染物的總排放量；其中香港政府與廣東省

### Objectives

The Sustainable Development Sub-group focused on three main tasks during 2010-2012, they were: Air Quality Improvement (including the promotion of electric vehicle), Water Resources Improvement and Solid Waste Treatment. The Sub-group exchanged opinions on major issues of concerns with various stakeholders to explore the related business opportunities and jointly monitor the progress of sustainable development.

### Major Issues of Concerns

#### 1. Pearl River Delta Regional Air Quality Improvement

The Sub-group concerned about objective and aggregate indicators to measure the air quality in Hong Kong. The Environmental Protection Department (EPD) pointed out that the Air Pollution Index which were publicised daily on-line at the EPD's webpage had directly reflected the air quality in Hong Kong. It also served to inform residents of the local air pollution information and provide the necessary health advisory. The Hong Kong Observatory also regularly released on its webpage the number of hours of reduced visibility which might also serve as an indirect indicator to reflect the variation of air pollutant levels. In addition, the Sub-group referenced the study done by Hong Kong Polytechnic University and Harvard University.

The Sub-group also discussed the increase of cross-boundary vehicles running between Hong Kong and Guangdong had worsened the air pollution in Hong Kong. The EPD pointed out that all those vehicles had to comply with the prevailing emission standards set for Hong Kong before they were issued with the necessary license and allowed to run in the territory.

The Sub-group welcomed the significant reduction in pollutant concentration since the establishment of the Pearl River Delta Regional Air Quality Monitoring Network in November 2005. Apart from pollutant concentration, the Sub-group suggested that there should be monitoring on the total emission which was affected by the level of economic activities. Hong Kong should also be mindful of the pollutants from across the boundary. Hong Kong and Guangdong would cooperate to sustain efforts in reducing total emission in the region. The undertaking of a joint study on the post-2010 arrangements for the reduction of



政府共同研究制定2010年後珠三角地區空氣污染物的減排安排是重要的一環。

## 2. 區域性綠色能源研發及推動使用電動車輛

對於推廣電動車輛，工作小組留意到現時電動車輛充電設施在私人樓宇及商用物業不足的問題。地產發展商認為在業權沒有分割的私人樓宇中將較為電動車輛提供充電設施；而在業權分散的樓宇中裝設這類充電設施則遇到不少技術性問題，例如鋪設線槽、電力供應及徵求業主及業主組織的同意等。

小組建議政府提供誘因擴展電動車輛充電網絡，鼓勵商業和住宅樓宇提供電動車輛充電設施。小組得悉當局已於2010年8月在推動使用電動車輛督導委員會下成立一個工作小組，以促進擴展電動車輛充電網絡，並一直尋求物業發展及管理業界的合作，在其商業和住宅樓宇設置充電站。同時，當局已豁免電動車輛的首次登記稅，並會設立綠色運輸試驗基金，推動公共交通服務營辦商試驗低污染和低碳的運輸技術，以促進電動車輛普及化。

小組又建議政府考慮進一步方便左軚電動車輛在本港試驗行駛；並與內地合作發展有效率和統一的電動車輛充電系統，尤其需要設計出合適商用車輛的電動車輛快速充電設施，為大珠三角帶來新商機，而且強調能源效益建設為大珠三角地區的長遠環保策略。

air pollutant emission in the Pearl River Delta region was a major initiative.

## 2. Development of Regional Green Energy and Promoting the Use of Electric Vehicles

On promoting electric vehicles (EV), the Sub-group noted the lack of charging facility at both private and commercial property. Property developers believed it would be easier to provide EV charging facility at private premises of undivided share; on the other hand, for premises with different landlords, installing these facilities would involve many technical hurdles such as trunking, power supply and consent from different owners and owners' organisations, etc.

The Sub-group advised the Government to offer incentives to property developers and users for providing EV charging facilities and using EVs respectively. It was noted that a working group had been formed under the Steering Committee on the Promotion of Electric Vehicle in August 2010 to promote the expansion of the EV charging network. The Government was also encouraging the property development and management sectors to set up EV charging points in their commercial and residential developments. Moreover, the Government had waived the first registration tax on EVs and set up the Pilot Green Transport Fund for public transport operators to test out green and low carbon transport technology including promoting the wider adoption of EVs.

The Sub-group further suggested the Government to consider further facilitate left-hand drive EVs to trial run in Hong Kong. Cooperation with the Mainland on development of an efficient and standardised EV charging system, especially on quick charging to commercial vehicles, could be a business opportunity within the Greater Pearl River Delta region. Building energy efficiency should be emphasised as a long-term environment protection strategy in the Greater Pearl River Delta region.

The Sub-group believed the Government should also regulate the emission from vessels entering Hong Kong waters and encourage ferry operators to switch to using cleaner fuel, such as ultra low sulphur diesel. Government should consider helping owners of diesel light goods vehicles to replace their vehicles with more environmental friendly models. This would, on the one hand, enhance the efficiency of the sector, and on the other hand, help reduce air pollution.



小組亦促請政府規管在港船隻廢氣排放及加快制訂計劃鼓勵渡輪服務營辦商轉用較清潔的燃料，如超低含硫量柴油(超低硫柴油)；及協助柴油輕型貨車的車主轉換環保型號車輛。一方面可以幫助業界提升效率，另一方面亦可以減少空氣污染。

### 3. 水資源管理

水資源管理方面，小組建議除監察現時東江水供水、香港用水及水質情況，亦關注政府推動節水措施，當中包括鼓勵商戶使用感應式節水水龍頭及研究水塔冷卻水由海水改用洗盥水循環再用；至於小組建議利用經濟誘因而調高自1995年起已沒有增加的水費來鼓勵節水，水務署希望社會有充份的討論才實施。

工作小組留意到近年一些香港企業計劃推行再造水項目，但《環境影響評估條例》所要求的評估程序太繁複，減低有興趣機構採用再造水的決心。小組建議水務署及環境保護署簡化有關程序或者豁免再造水用量較低的企業接受環境評估。有委員提出借鏡新加坡的再造水項目，其理念與污水循環再用相似，當局表示現在香港的供水情況仍未有需要採用再造水作飲用用途。

小組又與發展局研究環保節能節水設備。現時香港綠色建築議會根據國際標準設立了「綠色建築評級認證計劃」(BEAM Plus)，頒發不同級別的證書給設有良好環保節能措施的建築物，同時亦正製作一些

### 3. Management of Water Resources

On water resources management, the Sub-group suggested monitoring the fresh water supplied from Dongjiang water, Hong Kong's water consumption and quality, as well as Government's effort in promoting water conservation and the use of environmental friendly and energy efficient equipment. Water Supplies Department (WSD) encouraged commercial users to install sensor type water taps with flow restrictors and would conduct study on the use of grey water for cooling purposes. The Sub-group also discussed on increasing water charges, which had remained unchanged since 1995, to encourage water conservation. WSD was of the view that there should be adequate public discussion before implementation of relevant measures.

The Sub-group noticed some local enterprises intending to use reclaimed water, but the assessment procedures required under the Environmental Impact Assessment (EIA) Ordinance were so complicated, which would undermine the willingness of those interested in using reclaimed water. The Sub-group suggested the WSD and the EPD to consider streamlining the said procedures or exempting enterprises with low reclaimed water consumption from the EIA procedures. A member put forward the proposal that Hong Kong could consider drawing reference from the water reclamation project currently implemented by Singapore, which was conceptually similar to the recycling of treated sewage effluent. However, WSD expressed that given the current water supply situation in Hong Kong, there was no pressing need to use reclaimed water for potable purposes.

The Sub-group and Development Bureau concerned about the water conservation facility. The Hong Kong Green Building Council (HKGBC) had developed, on the basis of international standards, a Building Environmental Assessment Method Plus (BEAM Plus) Scheme, which conferred different levels of certificates on buildings with sound environmental friendly and energy efficient measures. To further promote the advantages of energy and water conservation, the HKGBC was also developing guidelines which would outline the investments required for and possible savings achieved by environmental friendly and energy efficient measures for reference by developers and business operators.



指引，列出使用環保節能措施所需的投資以及可節省的金額給發展商及商戶參考，以進一步宣揚節能節水的效益。

至於政府現正研究興建的海水化淡設施，由於運作時需要大量蒸氣，故小組建議水務署利用大亞灣核電站所產生的蒸氣供給海水化淡設施使用，達到環保節能效果。小組也會繼續與政府討論此議題。

#### 4. 保護供港的水源及水質

小組討論珠三角未來供水及用水情況，特區政府曾聯合廣東省水利廳使用科學調度，利用三大水庫蓄水去調節東江流量以及確保東江水供應量足夠，加上現在推行「先節後增」的策略，預計現行的供水安排足以應付未來香港超越2030年的估計用水量。如屆時現有水資源不足，會衡量當時的科技、能源以及經濟效益，考慮採用海水化淡、再造水或洗盥水等策略來增加水資源。而東江在江西的源頭亦得到江西省政府保證，確保在江西的源頭區域不會發展，以保證供港的水質。

The Government was currently studying on the construction of desalination plant. As desalination plant required a large amount of steam during operation, the Sub-group suggested the steam generated from Daya Bay Nuclear Power Station to be used in the plant so to achieve energy saving purpose. The Sub-group would continue to discuss this issue with the Government in coming term.

#### 4. Protecting the Source and Quality of Water Supplied to Hong Kong

On the water supply and usage of the Pearl River Delta, the Hong Kong Government had conducted a joined project with the Water Resources Department of the Guangdong province. Through scientific regulation of the water storage of their three major reservoirs, the Guangdong province was regulating the flow of the Dongjiang River to ensure adequate supply. Together with the current strategy of “containing growth of water demand through conservation”, it was expected that the existing water supply arrangement could cope with the projected water demand in Hong Kong beyond 2030. If water resources were insufficient by then, strategies such as seawater desalination, water reclamation or grey water recycling would be considered to increase water resources, taking into account the technology, energy situation and cost effectiveness prevailing at that time. On the issue of water resources in the Pearl River Delta, the meeting noted that the Jiangxi Provincial Government had indicated that the Central Authorities strongly supported the supply of water to Hong Kong, and Jiangxi was instructed not to develop the source areas of the Dongjiang to protect quality of water supplied to Hong Kong.





## 5. 污水處理

《十二五規劃綱要》的內容反映國家十分重視公共服務的提升，香港在污水處理、水資源管理及監察等方面的先進經驗若能向內地推展，將會帶來很多商機。香港環保技術服務提供者和供水服務提供者均可利用《內地與香港關於建立更緊密經貿關係的安排》進入內地市場拓展商機。小組會繼續留意兩地污水處理的合作。小組另邀請了環境保護署介紹香港污水處理設施的情況。

## 6. 固體廢物處理

工作小組探索香港與大珠三角地區合作，運用綜合廢物管理設施的概念，善用可再使用物料，將之轉化成可再使用的資源，唯有關的跨境合作須遵守國家相關法例對廢物進口的管制，以及符合相關國際公約對都市固體廢物跨境轉移的規限。現時香港亦正積極研究將廢物轉化為有用的能源，例如將新界東南堆填區廢物產生的甲烷氣體收集轉化為能源使用。

小組亦建議特區政府可考慮使用新加坡所採用的模式，把固體廢物焚化並製成能源，並把殘餘的廢物灰燼用作興建離岸堆填區。環境保護署現計劃在鄰近石鼓洲的人工島興建首座綜合廢物處理設施，該設施除了將垃圾焚化以減容積外，亦可於焚化過程中產生電能。環境保護署並計劃興建有機資源回收中心，將廚餘轉化成有用的生物氣和堆肥產品。生物氣可成為可再生能源，以供發電及作為其他能源之用。香港現時是利用三個堆填區，以減廢為先、廢物分類可被回收再用或循環再造為次，並提供最終廢物處理方法的綜合方案處理廢物問題。

## 5. Sewage Treatment

“The Outline of the 12<sup>th</sup> Five-year Plan” reflected the Nation’s emphasis on enhancement of public services. Business opportunities would arise from application of Hong Kong’s experiences in sewage treatment, water resources management and monitoring in the Mainland. The environmental technology and water supply service providers in Hong Kong could make use of the Closer Economic Partnership Arrangement (CEPA) to gain access to the Mainland market to explore business opportunities. The Sub-group would continue to monitor the cooperation of Hong Kong and the Mainland on sewage treatment. In addition, the Sub-group had invited the EPD to talk about the sewage treatment facilities in Hong Kong.

## 6. Solid Waste Treatment

Using the concept of Integrated Waste Management Facilities (IWMF), the Sub-group had explored the cooperation with the Greater Pearl River Delta region to make good use of the reusable materials and turn them into reusable resources. However, the cross-boundary cooperation should comply with the relevant national law of China on control of waste import and be in line with the requirements of the relevant international convention on regulating the transboundary movement of municipal solid waste. In the meantime, Hong Kong was actively exploring the option to turn waste into a useful energy source, e.g. collecting the methane generated by the wastes in the South East New Territories Landfill for conversion into energy.

At the same time, Hong Kong could also consider using the model adopted in Singapore where solid wastes were burnt and turned to energy, and use the leftover waste ash to create landfill islands. The EPD was currently planning to develop the first IWMF at an artificial island near Shek Kwu Chau. Apart from reducing refuse volume by incineration, the facilities could generate electricity during the incineration process. The EPD also planned to develop organic waste treatment facilities that could turn food waste into useful biogas and compost products. The biogas could be used as renewable energy for electricity generation and other energy uses. Hong Kong had now three landfills for waste disposal. Our first priority was to reduce waste, and as a second priority we would encourage waste sorting for reuse or recycling purposes. Together with final waste treatment for waste disposal, Hong Kong was pursuing an integrated waste management solution.