

For discussion on
28 March 2011

**LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**Proposed Capital Injection into
the Environment and Conservation Fund**

PURPOSE

This paper seeks Members' support to inject \$500 million into the Environment and Conservation Fund (ECF) as proposed by the Chief Executive in his Policy Address delivered in October 2010.

PROPOSAL

2. We propose to inject a one-off sum of \$500 million into the ECF in 2011-12 so that it can continue to provide funding to its existing programmes as well as new programmes that meet emerging policy priority and public expectation.

BACKGROUND

3. The ECF received an injection of \$1 billion in 2008 with a view to enhancing partnership with different stakeholder groups; broadening the spectrum of audience of the green campaigns; and soliciting worthwhile, innovative and larger scale projects that can create a long-term positive impact to the environment. To achieve these objectives, the following key programme areas were identified –

- (a) territory-wide educational and community involvement campaigns;
- (b) minor works projects to demonstrate and promote energy efficiency and conservation and waste reduction;

- (c) technology transfer from professional institutions to practitioners to enhance environmental performance of industrial process; and
- (d) regional and international policy and technology conferences to promote exchanges amongst professional bodies on latest developments and best practices on environment and conservation matters.

4. The ECF, since its establishment in 1994, has set up a robust mechanism of project vetting and monitoring. An organisation chart showing the structure of the ECF Committee and the vetting subcommittees is at Annex A and a brief account of the various ECF funding schemes is at Annex B.

JUSTIFICATIONS

5. Since the injection in 2008, the ECF has supported projects from diversified applicant groups and covered various environmental themes. As at end February 2011, the ECF has approved over 1,600 projects with a total commitment of over \$880 million since the injection in 2008. Taking into account the amount of applications that have been received and under process, we anticipate that the remaining balance of the ECF would be committed within this year. In light of the continuous inflow of applications, we propose to further inject \$500 million to the ECF to continue to provide funding support to worthwhile projects that can address emerging policy priority and needs of the community. The ensuing paragraphs seek to report on the progress and achievements of the ECF under the key programme areas identified.

PROGRESS OF ECF PROGRAMMES

(I) Territory-wide educational and community involvement campaigns

Enhancing community involvement

6. The Environmental Campaign Committee (ECC), a non-statutory advisory body set up in 1990 to advise the Government on community environmental education matters, is a close partner of the ECF in pursuing

community-wide environmental programmes. As a standing practice, the ECC Chairman is appointed to sit on the ECF Committee to enhance communication and synergy of the two committees in pursuing educational and promotional programmes. The ECC submits an annual programme plan to the ECF Committee to seek funding to conduct community-wide campaigns to raise public awareness on environmental protection. Over the years, the ECC has worked closely with the ECF Committee to progressively refine the environmental programmes to enhance community involvement to strive for wider and deeper engagement of various key stakeholder groups.

Business sector

7. In 2008, the ECC initiated to synergize government-initiated environmental award schemes and brought together such schemes into the newly launched Hong Kong Awards for Environmental Excellence (HKAEE). The HKAEE seeks to be an all-round environmental scheme for companies to benchmark their environmental performance and to uphold environmental excellence as an essential element of business success. The highlight of the HKAEE is the Sectoral Awards, which is an annual competition for companies under the respective sectors to compete for the highest honour under a conscientious and all-round assessment process of the companies' environmental performance, green culture and policy, and influence on their business partners.

8. Other than the annual competition, the HKAEE also presents labels and certificates to recognise the achievements of companies in waste reduction, energy efficiency, indoor air quality, products with environmental attributes, as well as carbon reduction, and to encourage companies to strive for continuous improvement in such environmental aspects.

9. Since its launch in 2008, the HKAEE is increasingly being recognised as a prestigious environmental scheme for the business sector. The number of participants in the Sectoral Awards per annual has grown from 366 to 468 (or by nearly 30%) from 2008 to 2010, and the number of small and medium enterprises has more than doubled. The cumulative number of labels and certificates presented has reached over 2,000. These schemes present an opportunity for businesses to benchmark their environmental performance so as to encourage their continuous

improvement, not only in resource conservation and green business operations, but also in cultivating green corporate culture and shaping low carbon business opportunities.

School sector

10. The school sector has all along been a focus of ECC programmes. At the school management level, the ECC organizes, since 2000, the Hong Kong Green School Awards, to encourage principals and teachers to implement green school management practices and policies and undertake comprehensive and innovative environmental education programmes. Over these years, 165 primary and secondary schools (or about 14% of schools registered in Hong Kong) have attained green school status. At the student level, the ECC provides training to Student Environmental Protection Ambassadors (SEPA) and the number has reached over 15,000 in 2010/11 school year. Through these programmes, we strive to establish schools to become demonstration units in the community on green culture, practice and education and to nurture teachers and students to be change-makers in influencing others to practise green living.

General public

11. In its educational activities and theme-based campaigns, the ECC reaches out to the general public through publications, promotional videos, seminars and various competitions to spread green messages. Themes covered in these campaigns include, for example, waste recovery, low carbon living and climate change. Depending on the nature of activities and campaigns, the number of participants/audience in each programme may range from several hundreds to tens of thousands. In the past years, the various educational and promotion activities have reached out to over 100,000 participants/audience per year on average.

Broadening partnership with key stakeholders

12. The ECF has proactively reached out and formed partnership with different stakeholder groups to help disseminate green messages and to broaden the spectrum of audience of the green campaigns. Specifically –

- *Nurturing green community leaders* – As mentioned in paragraphs 7 to 10, the ECC conducts systemic and on-going campaigns to recognise and encourage green leadership in important stakeholder groups such as the education and business sectors through the Hong Kong Green School Awards, the Student Environmental Ambassadors Scheme, and the Hong Kong Awards for Environmental Excellence. In addition, the ECF encourages collaboration with District Councils (DCs) in order to leverage on DCs’ district network to line up district bodies to organise environmental campaigns that can address district characteristics and hence deepen the outreach into the community;
- *Expanding the network of strategic partners to charitable organizations* – The ECF engages charitable bodies as strategic partners to ride on their wide community service networks and to build up role models of green organisations. The Tung Wah Group of Hospitals, Po Leung Kuk and Yan Chai Hospital are first movers engaged by the ECF to introduce green governance and environmental measures to transform their organisations into green non-governmental organisations (NGOs) and to leverage their wide networks of service units to enhance promotion of green messages to different stakeholders in the community.

(II) Minor works projects to demonstrate and promote energy efficiency and conservation and waste reduction

13. To raise the general public’s awareness towards green technologies, the ECF introduced the “Minor Works” funding scheme in early 2008 to fund demonstration projects in the community. The programme aims to raise the awareness and receptiveness of up and coming green facilities and to induce a mindset change that will help change people’s habit and choices. In addition, the “On-site Meal Portioning Funding Scheme” assists schools to adopt green lunch practice through meal portioning for waste reduction. At the community level, the ECF has funded waste separation facilities for housing estates to facilitate waste separation at source. In addition, noting that the electricity consumed by buildings contributes to about 60% of Hong Kong’s greenhouse gas emissions, the “Building Energy Efficiency Funding Scheme” has been rolled out to provide financial incentives to residents’

organisations to upgrade the energy efficiency performance of building services installations.

At the school and institutional level

14. The “Minor Works” projects have been well-received, with 567 applications from schools and NGOs already approved as of end February 2011 and total funding amount of about \$216 million. About one-fifth of all the primary and secondary schools in Hong Kong have obtained funding for one or more of the major types of green facilities, namely green roof, renewable energy facilities, and energy efficient installations. As demonstration set-ups, the applicants of these “Minor Works” projects are required to organise educational activities for students, parents, staff, service recipients, etc. so as to raise awareness on the application of such technologies and to encourage wider receptiveness and application of green technologies in the community. The associated education activities have reached out to over 130,000 stakeholders.

15. On waste reduction, the ECF launched the “On-site Meal Portioning Funding Scheme” in December 2009 to provide funding for schools to install the necessary equipment for implementing on-site meal portioning. Up to end February 2011, 62 funding applications amounting to about \$80 million have been approved. When all these schools start to implement on-site meal portioning, it is estimated that the use of about 43,000 disposable lunch boxes daily would be avoided. In addition, on-site meal portioning facilitates students to adjust the meal portion as they need so as to reduce food waste, and helps to impress upon students, teachers and parents the green messages of conserving food and avoiding the use of disposable lunch boxes and cutleries.

At the community level

16. The ECF has also spared no effort to reach down to the community level to provide necessary facilities of a green living environment. To reduce waste at source and encourage waste recovery and recycling, the ECC has actively sought to incentivise and facilitate residents’ organisations and property management companies to participate in waste separation by distributing standard complimentary waste separation bins for use in communal areas of the buildings such as lift lobbies. If the residents’

organisations or property management companies would like to enhance penetration of waste separation facilities, the ECF also provides partial funding support for them to procure and set up source separation facilities on floors of buildings. With the concerted efforts in promoting waste reduction and recycling, 1,673 housing estates/residential buildings and 671 commercial and industrial buildings have signed up to join the Source Separation of Waste (SSW) Programme as at end February 2011. As a result, over 80% of the population has waste separation facilities provided in their housing estates.

17. On promoting building energy efficiency, the ECF launched the Building Energy Efficiency Funding Scheme (BEEFS) in April 2009 to partially subsidise building owners to conduct energy and carbon audits and energy efficiency projects. As at end February 2011, 1,313 applications were received, covering some 8,700 buildings, which account for one-fifth of our 41,000 building blocks in Hong Kong. 565 applications for energy efficiency works have been approved, which, when all completed, are estimated to result in a saving in electricity consumption by over 124 million kWh per annum, which is equivalent to a reduction of 87,400 tonnes of carbon dioxide emissions. The scheme has helped to spread messages on energy efficiency to property management companies, residents' organisations and households, and has, through ECF's subsidies, catalysed conscious consumer choice in switching to energy efficient devices.

(III) Technology transfer from professional institutions to practitioners

18. With climate change and environmental issues high on the international agenda and a global trend to transform into a low carbon economy, the industrial sectors need to keep abreast of latest green technologies and environmental abatement measures in order to stay competitive. In this regard, the ECF has continued to develop research capacity and encourage knowledge transfer to the industrial sectors by providing funding to support research projects on environment-related topics.

19. To attract more innovative, large-scale projects of longer-term impact, the ECF has reviewed its positioning and accords priority to research projects or studies whose outcome will have potential for general application in the fields concerning environment and conservation so as to enhance

performance in environmental protection. Project applicants are encouraged to engage the relevant stakeholders (such as potential users or beneficiaries of project results) to solicit input and support for the projects, and to have continuing engagement and regular dialogues with the stakeholders during the project periods to ensure the application of study results. A list of priority research themes has also been introduced since April 2010 so as to focus resources to build up knowledge and talents on areas of priority. With all these efforts, we have attracted more research projects to contribute to local knowledge capacity, with over 40 applications approved since the injection in 2008 till end February 2011.

(IV) Regional and international policy and technology conferences

20. To promote regional and international exchanges on environmental agendas, the ECF has introduced a mechanism for funding conferences since August 2009. Specifically, academics who received funding for conducting research projects may apply for funding to attend international conferences outside Hong Kong so as to present findings and enhance knowledge dissemination. Institutions or professional bodies may also apply for funding for hosting conference in Hong Kong so as to bring international experts to Hong Kong to facilitate knowledge exchange and build up local capacity. As at end February 2011, eight conferences on various topics (including climate change, sustainable development and waste management etc.) would be/have been organised in Hong Kong from 2009 to 2011.

21. A summary of the projects supported under the above key programme areas is at Annex C.

COMMUNITY PARTICIPATION

22. The preceding paragraphs have provided a detailed account of progress achieved in the four programme areas as set out in the previous submission to the Finance Committee in 2008. The following paragraphs attempt to explain how the community is involved in various key environmental areas including energy efficiency, waste management, air quality, nature conservation, climate change and environmental education

23. Since the 2008 injection, the ECF has broadened the base of applicant groups and audience of green campaigns. The various ECF projects come under a range of environmental themes which have helped the public to appreciate emerging priorities of environmental matters and government initiatives under key policy areas. More importantly, the ECF has provided resources to empower various strategic partners, whether established charitable organizations, district-based NGOs, schools, etc. in undertaking environmental projects, enhanced the capacity at the community level in initiating projects complementary to various policy initiatives, and engaged more stakeholders in the community in active participation in these initiatives.

Energy efficiency

24. Given that buildings account for 89% of our electricity consumption, enhancing building energy efficiency will help improve local air quality, alleviate the adverse effect of climate change and contribute to the quality and sustainability of our built environment. The ECF has launched funding schemes to incentivise the relevant stakeholders to take concrete actions on building energy efficiency. The BEEFS mentioned in paragraph 17 was rolled out in April 2009 to subsidise owners of residential, industrial and commercial buildings to carry out energy-cum-carbon audits and conduct energy efficiency projects. As at end February 2011, a total of 1,313 applications were received, roughly covering one-fifth of the buildings in Hong Kong. Schools and NGOs may also apply for funding from the ECF to install energy efficient devices. About one-fifth of all the primary and secondary schools in Hong Kong have obtained funding for energy efficient installations, whereas for NGOs, over 170 funding applications have been received since the launch of the relevant funding scheme for NGOs in October 2009. In total, over \$360 million have been committed to projects to promote energy efficiency.

Waste management

25. The Government is pushing ahead with a multi-pronged action plan to tackle the imminent waste problem. The foremost task is reducing waste at source and the success rests on the provision of much needed hardware facilities as well as behavioural change among the public. For the former, the ECC actively distributes standard complimentary waste

separation bins to schools, residential, commercial and industrial buildings, while the ECF provides subsidies to install waste separation facilities on floors of buildings. With these concerted efforts, waste separation facilities are now covering over 80% of the population. To further strengthen district recycling networks, the ECF has provided funding to various waste reduction and recovery projects, such as glass, plastic and food waste recycling. Also, to address the needs of single block buildings in older districts, a model project has been devised for NGOs to adopt to penetrate into these buildings and enlist participation of residents in source separation of waste. In addition to strengthening recycling networks, these projects also strive to induce a mindset change on waste separation and in turn behavioural change among the public. In total, over \$140 million has been committed to various projects on waste reduction and recycling.

Air quality

26. In addition to projects that aim to raise public awareness and facilitate concrete actions of green living, the ECF also provides funding to research projects that seeks to bridge knowledge gaps to facilitate future policy formulation and to develop technology to enhance environmental performance. A number of major research projects on air pollution issues have obtained ECF funding , inter alia –

- The Hong Kong Productivity Council is developing a retrofit device that would automatically stop the engine when a motor vehicle becomes stationary, and to restart the engine when it has to start moving again. The device will also enable the operation of air-conditioning system by battery when the engine is switched off. While aiming to improve roadside air quality by facilitating switching off of an idling engine, the device also seeks to address the local context, especially in the hot and humid season, by allowing the air-conditioning to continue to run.
- The Hong Kong University of Science and Technology and the Hong Kong Polytechnic University are conducting two complementary and comprehensive studies on air pollution. The studies will measure a wide range of air pollutants and perform data analyses for understanding the sources and key pathways leading to the formation of particulates, visibility impairment and

photochemical smog, and will help to pinpoint the causes of these pollution problems in the Pearl River Delta Region for drawing up future control strategy. The two studies have started in mid-2010 and will last for four years.

27. In total, around \$19 million has been committed to projects under this area.

Nature conservation

28. The Government introduced the New Nature Conservation Policy (NNCP) in 2004 to regulate, protect and manage natural resources that are important for the conservation of biological diversity of Hong Kong in a sustainable manner. Under the NNCP, a Management Agreement scheme has been rolled out under the ECF to provide funding for NGOs to initiate nature conservation projects at the 12 priority ecologically important sites identified under NNCP. So far, ECF has provided funding to nature conservation projects at two of the priority sites – Fung Yuen and Long Valley, with notable contribution to the natural habitats and conservation of biodiversity. Butterfly species found in Fung Yuen have increased by over 20% while bird species found in Long Valley have increased over 30% since the launch of the projects in 2005. In addition, various research studies on nature conservation and biodiversity have been supported by the ECF. In total, over \$23 million has been committed to projects under this area.

Climate change and environmental education

29. The ECC and ECF have carried out various programmes to raise public awareness on the imminence of climate change and induce behavioural change towards low carbon living. A total of over \$330 million has been committed to projects on climate change and environmental education in general. Among the various programmes –

- *Demonstration set-up of green technologies* - To raise the general public's awareness towards green technologies, the ECF has supported over 560 project applications from schools and NGOs to install facilities such as green roofs, and renewable energy installations in their premises (including schools, community service buildings, camp sites etc) so as to demonstrate the green

technologies to the community. As demonstration set-ups, funding recipients are required to organise educational activities for students, parents, staff, service recipients, etc. so as to raise awareness on the application of such technologies and to encourage wider receptiveness and application of green technologies in the community.

- *Public education* – The education of climate change has permeated under ECC’s key programmes, namely Hong Kong Green School Awards, Student Environmental Ambassador Scheme, and Hong Kong Awards for Environmental Excellence, to engage important stakeholder groups in action against climate change. A holistic and territory-wide “Combating Climate Change Campaign” is also being implemented in 2010 and 2011 to reach out to a wide range of audience. In addition, a wide range of environmental education and community action projects have been funded by ECF to promote individual behavioural and lifestyle changes towards low carbon living.
- *Knowledge exchange* – To encourage exchange of best practices, expertise and experience on environmental issues, the ECF has provided funding to regional conferences on climate change. The C40 Workshop held in Hong Kong in early November 2010 brought expert delegates and government officials from 42 cities to share city strategies for addressing climate change, in particular, through adopting green transport and building technologies. Also, the Second International Climate Change Conference held in October 2009 was a regional platform with an international audience of more than 300 professionals from government, business and research organisations.

NEW DIRECTIONS

30. The EPD will, in consultation with the ECF Committee, review the operation and the programme areas from time to time in light of the current environmental issues that the community attaches priority to and having regard to the Government’s policy initiatives. With the proposed injection of new funding, we consider ECF would support projects in the following

key programme areas –

- *Waste reduction and recycling* – While continuing the existing programmes on source separation of waste, the ECF will expand its programme to tackle food waste. \$50 million will be earmarked for a new funding scheme to facilitate housing estates to collect and recycle source separated food waste. The funding scheme will soon be rolled out upon finalization of the implementation details. Meanwhile, through its existing funding schemes, the ECF will enlist NGOs to undertake projects to raise public awareness on food waste reduction and carry out on-site treatment of food waste at NGO premises such as elderly centres, hostels, etc.
- *Energy efficiency* – The ECF schemes for buildings, NGOs and schools for installing energy efficient devices have been well received. Such schemes have not only enabled consumers to make an informed choice for energy efficient devices, but also effected instant reduction in electricity consumption. The ECF will continue to support projects under the scheme and consider whether additional resource will be allocated when the earmarked amount of \$450 million for BEEFS is exhausted. Meanwhile, the ECF will build on this existing network of funding recipients to promote energy conservation messages so as to deepen the impact on behavioural change.
- *Nature conservation* – The Management Agreement Scheme has been a key programme of the ECF in support of the NNCP. Under this scheme, the projects at Fung Yuen and Long Valley have been effective in enhancing biological diversity and conserving the two sites. The ECF will continue to support Management Agreement projects and consider how to enhance the Scheme to further protect sites or areas with high conservation values.
- *Environmental education* – Since 2008, the ECF has widened the range and scope of educational education programmes and diversified the engagement of different stakeholders. Projects supported have included not only educational campaigns but also action-based activities and works enhancement that have material contribution to reducing environmental impact. All in all, the success of ECF programmes rests on how we achieve behavioural change among the public. The ECF

will build on the existing network of stakeholders engaged under various programmes to deepen and sustain educational messages for inducing behavioural change.

CONSULTATION

31. We consulted the ECF Committee in February 2011. Members in general supported the proposed injection to the ECF. They expressed views on the new directions of the ECF, such as focus on waste reduction programmes, and affirmed that the ultimate aim of various ECF programmes was to deepen and sustain educational messages and induce behavioural change. The ECF Committee will hence constantly keep its programme areas under review with respect to these objectives.

32. Subject to approval of the Finance Committee on the proposed injection, briefings will be arranged for potential applicant groups so as to solicit interest from these groups in pursuing worthwhile projects under the ECF's programme areas and to ensure that funding will be utilised in supporting programmes that best meet the community's need.

PUBLIC REACTION

33. The proposed injection should be welcomed by green groups, advocates and the academic circle as an effective way to widen community engagement to take concrete action to protect the environment.

FINANCIAL IMPLICATIONS

34. We expect that the funding injected can be used to support projects in the coming 2 to 3 years. Subject to Members' views, we would seek the Finance Committee's approval of the proposed \$500 million injection in May 2011, and the injection to the ECF would be made in 2011-12 accordingly. The ECF Secretariat at the Environmental Protection Department will continue to provide administrative support to project vetting, monitoring and engagement of stakeholders with its existing resources. On financial management, the Investment Committee, set up in 2008, will

continue to advise and monitor the investment and financial position of the ECF.

Environmental Protection Department
March 2011

Environment and Conservation Fund Committee (ECFC)
To vet applications for

- research, technology demonstration and conference projects over \$2,000,000
- community waste recovery projects over \$2,000,000
- EE&CA projects over \$2,000,000
- energy conservation projects over \$2,000,000
- nature conservation management agreement projects
- public education programme on municipal solid waste

Provide funding support

Environmental Campaign Committee (ECC)
To carry out territory-wide environmental programmes and campaigns, including –

- For the business sector, the Hong Kong Awards for Environmental Excellence
- For the school sector, the Hong Kong Green School Awards and Student Environmental Ambassador Scheme
- For general public, theme-based educational campaigns such as those on climate change and source separation of waste, etc.

Environmental Education and Community Action (EE&CA) Projects Vetting Subcommittee
(Subcommittee set up under ECC with delegated authority from ECFC to process applications)
To vet EE&CA general projects and minor works projects and approve applications of project amount \$2,000,000 or below.

Research Projects Vetting Subcommittee
To vet research, technology demonstration and conference projects and approve applications of project amount \$2,000,000 or below.

Waste Recovery Projects Vetting Subcommittee
To vet community waste recovery projects, projects under source separation of waste programme and on-site meal portioning in schools, and approve applications of project amount \$2,000,000 or below.

Energy Conservation Projects Vetting Subcommittee
To vet projects under the Building Energy Efficiency Funding Scheme and energy conservation projects for NGOs, and approve applications of project amount \$2,000,000 or below.

Funding Schemes under the ECF

Environmental Education and Community Action (EE&CA) Projects, including minor works projects

General EE&CA projects are educational programmes or activities that aim to enhance community awareness of environmental problems in Hong Kong and mobilize individuals to take direct and positive action to improve and conserve the environment.

Minor works projects were introduced in early 2008. Schools and NGOs may obtain funding to set up green roofs, organic farms, renewable energy facilities, small-scale food composting machines, etc. to demonstrate the application of green technology. Under this scheme, schools may also apply for funding to switch to energy efficient installations, while applications from NGOs are catered for under “Energy Conservation Projects for NGOs”. Applicant organizations are required to organize relevant education activities to introduce to students, parents, service recipients and other stakeholders the environmental benefits of green facilities and to promote messages of green living such as energy efficiency and waste reduction and recycling.

Building Energy Efficiency Funding Scheme (BEEFS) and Energy Conservation Projects for NGOs

BEEFS was launched in April 2009 to provide funding support to Owners’ Corporations, owners’ organisations or residents’ organisations of residential, commercial and industrial buildings to –

- conduct energy-cum-carbon audit in communal areas of the buildings to systematically review the use of energy and quantifying the greenhouse gas (GHG) emissions associated with the buildings, and to identify opportunities for enhancements of energy efficiency and conservation and reductions in the level of GHG emissions arising from building operations.
- encourage existing building owners to carry out alteration, addition or

improvement works to upgrade the energy efficiency performance of building services installations for communal use in buildings. Building services installations covered include lighting, electrical, air-conditioning and lift and escalator installations.

The Energy Conservation Projects for NGOs was launched in October 2009 and provides funding support for NGOs to conduct energy-cum-carbon audit and energy improvement works in premises owned or occupied by them. In addition, NGOs may obtain funding under the scheme to conduct educational activities that promote energy efficiency and conservation.

Community Waste Recovery Projects

These are community-based and result-oriented projects that aim to enhance awareness and ensure sustained participation of the public in waste reduction and recovery, with sustained and tangible effect in local communities.

Source Separation of Waste Programme

The programme provides funding support to Owners' Corporations, owners' organisations or residents' organisations of residential, commercial and industrial buildings to acquire waste separation facilities on each floor of the buildings so as to make waste separation more convenient to residents, occupants and visitors and mobilise their participation in waste separation at source.

On-site Meal Portioning in Schools

The scheme was launched in December 2009 to provide funding support to schools to carry out conversion works and install facilities necessary for implementing "on-site meal portioning" so as to encourage more schools to switch to on-site meal portioning to reduce food waste and avoid the use of disposable lunch boxes and cutleries.

Public Education Programme of the "Policy Framework for the Management of Municipal Solid Waste (2005-2014)"

The programme welcomes applications from non-profit making organisations to seek funding to organise educational programmes that help

to promote the initiatives in the Policy Framework.

Nature Conservation Management Agreement Projects

The projects aim to enhance the conservation of the priority ecologically important sites identified under the New Nature Conservation Policy (NNCP) through management agreement between NGOs and landowners. Under these agreements, NGOs may provide landowners with financial incentives in exchange for management rights over their land or their cooperation in enhancing conservation of the priority sites.

Research, Technology Demonstration and Conference Projects

Research projects should aim to contribute in a direct and practical way towards the environment and should not be too theoretical in nature. Technology demonstration projects should encourage the use of the technologies by different sectors. The benefits much accrue to one or more industries and not just to individual companies. Completed projects should be publicised so as to disseminate the projects results. International conferences should facilitate exchange of best practices, expertise and experience on environmental and conservation issues and raise Hong Kong's profile as a leading green city.

Projects supported by the Environment and Conservation Fund (ECF)

(a) **Territory-wide educational and community involvement campaigns**

As of end February 2011, over \$238 million has been approved for over 100 projects under this area.

Programmes of the Environmental Campaign Committee (ECC)

The ECC organises education and engagement programmes for various stakeholder groups in its annual programme plans, with a total of \$70.85 million allocated to ECC for these various programmes for the four financial years since injection in 2008. The key programmes include –

Hong Kong Green School Awards

The Hong Kong Green School Awards is an annual benchmarking scheme for Green School Status. Through participation, schools are encouraged to formulate a school environmental policy and implement an environmental management plan towards a green school. Environmental training workshops and green school visits for school heads, teachers and school administrative staff are conducted. After the training and experience sharing from school visits, participating schools would implement green measures in areas including environmental policy, campus environment, environmental management measures, and environmental education. Schools reaching the benchmarks would be awarded to recognise their achievements.

Since its launch in 2000, the programme has been well-received by schools with a participation of more than 160 pre-schools, 540 primary and secondary schools over the years, among which 15 pre-schools have been presented with outstanding awards and 165 primary and secondary schools (or about 14% of schools registered in Hong Kong) have attained green school status.

Student Environmental Protection Ambassador Scheme

Student Environmental Protection Ambassador Scheme is an annual scheme for primary and secondary school students. Under this scheme, student ambassadors would be trained on comprehensive topics including waste avoidance and reduction, energy conservation, nature conservation and organic farming, etc. to enhance their environmental knowledge and to encourage behavioural change in taking positive initiatives in protecting the environment. Students that have completed the respective training would be presented with environmental badges and are encouraged to undertake environmental activities at schools, such as helpers at environmental clubs and schools' greenery area, etc. to help promote green messages among students.

In the 2010-11 school year, more than 15,000 students ambassadors from 620 primary and secondary schools are participating in the programme.

Hong Kong Awards for Environmental Excellence (HKAEE)

The HKAEE is an annual scheme that aims to encourage businesses and organizations to adopt green management and present them with a unique opportunity to benchmark their commitment towards protecting the environment. In addition to engaging companies and organizations in improving environmental performance through the recognition schemes, the HKAEE aims to

disseminate the experience of winning organizations to a wider audience through a series of publicity in the mass media and information seminars. There are three types of recognition, namely the Environmental Labels, the Carbon"Less" Certificates and the Sectoral Awards.

- The Sectoral Awards Scheme is an annual competition and presents honour to those organizations which have demonstrated all-round and outstanding environmental performance in Green Leadership, Programme and Performance as well as Partner Synergy. It is an annual competition under designated business sectors.
- The Environmental Labels give recognition to organizations that have achieved specific environmental goals in areas including reducing waste, saving energy, improving indoor air quality, and strengthening a product's environmental attributes.
- The Carbon"Less" Certificates are granted to the participants to certify the amount of carbon emissions reduced.

Since HKAEE was launched in 2008, the number of participants in the Sectoral Awards per annual has grown from 366 to 468 (or by nearly 30%) from 2008 to 2010, and the number of small and medium enterprises has more than doubled. The cumulative number of labels and certificates presented has reached over 2,000.

Combating Climate Change Campaign

To enhance the impact of its efforts in driving the public to change for a better environment, in mindset as well as in behaviour, the ECC has been implementing a large-scale and holistic public engagement campaign against climate change in the years 2010 and 2011. The "Combating Climate Change Campaign" includes a series of public seminars cum exhibitions; school talks for students; training for teachers to conduct environmental education; educational videos; promotional programmes on bus TVs; publications on low carbon living; etc. It aims to educate on the imminence of climate change and the importance of practising low carbon living. The programmes are on-going and aims to reach out to a wide range of audience including teachers, students and the general public –

- At the school level: through a train-the-trainers approach, to train up around 100 teachers to conduct environmental education, and to engage around 40,000 students in school-based activities; through over 100 school seminars, to outreach to 60,000 students; through distribution of educational DVDs to over 1,000 schools, to outreach to around 100,000 students.
- At the public level: through eight public seminars, to reach over 1,500 audience; through the publications on low carbon living and related engagement activities, to outreach to over 10,000 audience; through promotion videos on bus TVs, to reach hundreds of thousands audience.

Moving towards a Green NGO Programme

In 2008, the ECF has identified charitable organisations as strategic partners in promulgating green messages by cultivating them to become green NGOs. The green partnership aims to leverage the synergy within the network of a large charitable organisation to build a green culture; to broaden the engagement of different stakeholder groups, including top management, service recipients, students and staff; and to enhance outreach to the community through the service network of these organisations. Under the partnership, the NGOs would submit applications

under various ECF funding schemes to install green facilities and organise environmental activities at its service units. While the ECF provides funding support for such green facilities or education activities, these are only first steps in transition towards a green NGO. The NGOs are encouraged to make comprehensive and sustained efforts to set role models of green organisations.

The ECF has formed green partnership with three charities to undertake environmental programmes to develop into green NGOs. The green partners are –

- Tung Wah Group of Hospitals (TWGH), total funding \$19.8M.
- Po Leung Kuk (PLK), total funding \$31.09M
- Yan Chai Hospital (YCH), total funding \$17.99M

These existing three green partners are well-established NGOs with a total of about 500 service units covering a variety of service recipients including students, elderly, youth, women, etc. The green partnership would seek to build up green culture in these NGOs and to leverage their wide network of service units to enhance promotion of green messages to different stakeholders in the community.

Collaboration scheme with District Councils (DC)

Under this scheme, DCs are invited to organise district-wide environmental programmes by partnering with NGOs. DCs may identify specific district-based environmental issues and invite NGOs to apply for ECF funding for implementing district-wide environmental programmes on such issues. Since the scheme was launched in September 2008 till end February 2011, eight projects involving Sha Tin, Yau Tsim Mong, Tuen Mun and Tai Po DCs and covering a range of topics including greening, organic farming, energy conservation and waste recycling have been approved, with total funding of \$17 million.

Environmental Education and Community Action (EE&CA) Projects

The EE&CA projects cover various kinds of education and promotion projects on environmental issues. The themes and types of activities are diversified, such as organic farming for the general public, eco-tours for the youth, youth forums on climate change, seminars on carbon reduction for business enterprises, exhibitions at shopping malls and public areas, etc. They cover a wide range of target groups, including students, teachers, uniformed groups, women, elderly, local residents, employees, people with physical and intellectual disabilities, etc. It is estimated over 200,000 participants have been/will be involved. Since the injection in early 2008 till end February 2011, 54 projects have been approved, with total funding of \$14.57 million.

For approved projects, applicant organisations are provided with a standard questionnaire for collecting feedbacks on the projects from participants. According to the questionnaires completed, over 85% agreed that both their environmental knowledge and environmental awareness have been enhanced, while around 80% expressed that they would put the knowledge into practice in their daily life such as waste reduction, separation and recovery of waste, energy saving, water conservation, etc., and would help to spread environmental messages to their families, schoolmates and friends.

Community Waste Recovery Projects

Since injection in 2008 till end February 2011, 19 waste recovery projects, totaling \$35.56 million, have been approved.

Among the projects approved, two NGOs obtained funding to run the processing centres for waste plastic and waste electrical and electronic equipment (WEEE) for 3 years. The centres process community waste plastic and WEEE and turn them into recyclable materials with added values, providing more stable outlets for these materials that lack a market outlet, and in turn alleviating the burden of disposing of these waste materials at landfills. The plastic processing centre commenced operation in March 2010 while the WEEE processing centre commenced operation in October 2010.

To promote source separation of waste (SSW) in single block buildings in older districts, a model ECF project, aiming to strengthen engagement of NGOs to implement promotion programmes to enlist more of these buildings to participate in SSW, has been developed since August 2010. The model has been promulgated to NGOs for reference in formulating project proposals to promote SSW. As at end February 2011, five applications formulated based on this model were approved, targeting to recruit a total of over 20,000 households to join SSW.

Other than the above, projects on specific themes, such as food waste composting and glass bottle recycling etc., have also been approved. In total, 970 tonnes of recyclables have been collected under the 19 waste recovery projects.

Public Education Programme on Management of Municipal Solid Waste

Since 2007 till February 2011, 19 public education programmes have been approved, totaling \$8.03 million. These projects cover a wide range of topics, including reduction of plastic shopping bags, green procurement, green festive packaging, recovery and recycling of waste electronics and electrical equipment, food waste reduction, etc. The applicant organisations include green groups, schools, local community groups and trade association and the projects have reached out to diverse stakeholders including students, rural villagers, housewives, practitioners of the retailing industries, etc.

Nature Conservation Management Agreement Projects

Since 2005 till February 2011, seven projects have been approved, with total funding of \$21.07 million, for undertaking nature conservation projects at two of the priority ecologically important sites, namely Long Valley and Fung Yuen. The Fung Yuen project aims to conserve and enhance the natural habitat of butterflies in the Fung Yuen Valley and since the launch of the project in 2005, the number of butterfly species found there has increased over 20%. Over 80% of the butterfly species in Hong Kong could be found. The Fung Yuen Valley has received over 110,000 visitors and held seminars for over 12,000 students from primary and secondary schools, as well as tertiary institutions. As for the Long Valley project, the number of bird species found there has increased over 30% since the launch of the project in 2005. Over 50% of the bird species in Hong Kong could be found. Wetland dependent species has also increased since the launch. With publicity activities in place, public awareness has also been raised on the need for conservation.

(b) **Minor works projects to demonstrate and promote energy efficiency and conservation and waste reduction**

As of end February 2011, \$609 million has been approved for over 1,400 projects under this area.

Environmental Education and Community Action (EE&CA) Projects – Minor Works projects

Since the launch of the scheme in early 2008 till end February 2011, the scheme has received overwhelming response from potential applicants. 567 applications have been approved, with total funding of \$216 million. Among the approved projects, 93% is from schools and the remaining 7% from NGOs. About one-fifth of the primary and secondary schools in the territory have obtained funding for one or more of the major types of facilities (namely, greening such as green roof; renewable energy facilities; and energy efficient installations). The applications from NGOs cover a variety of premises such as elderly and youth centres, camp sites, rehabilitation centres etc. and would enhance the variety of demonstration of the application of green technologies in varied contexts of daily life.

The Minor Works projects have to be implemented in a sustained manner after the completion of the works part. Upon the completion of installation, applicants will enter a monitoring period of six months to two years, during which applicants need to organise relevant educational activities and make reports to the ECF Secretariat. As at end February 2011, 139 projects completed the installation part and the schools/NGOs have started to organise educational activities riding on the facilities for their students and service recipients. The educational activities of these projects have engaged over 130,000 stakeholders. In particular, for schools, many have organised talks, exhibitions, planting activities, activities blended in the school curriculum such as science, physics, geography etc.

The EPD has conducted a review on the Minor Works projects supported by ECF in raising environmental awareness and facilitating environmental education. The preliminary findings of the study have shown that 85% of the respondents have participated in one form or other of the environmental activities in relation to the green facilities funded by the ECF. By self-rating on a five-point scale of 1-5 marks, the respondents consider that their environmental awareness has increased from such educational activities, from an average of 3.3 marks to 4.1 marks. Nearly all have found that they benefited from the facilities or the related educational activities. The most commonly identified benefits include –

- improved environmental awareness;
- increased knowledge on waste reduction/energy saving/better use of resources; and
- increased concern about environmental protection and social responsibilities.

Building Energy Efficiency Funding Scheme (BEEFS) and Energy Conservation Projects for NGOs

Building Energy Efficiency Funding Scheme (BEEFS)

The ECF Committee has earmarked \$450 million for this scheme to partially subsidise residents' organisations to conduct energy-cum-carbon audits and energy efficiency projects. Since BEEFS was launched in April 2009 till end February 2011, 565 Energy Efficiency Projects and 121 Energy-cum-carbon Audits have been approved, with total funding amount over \$269 million.

As at end February 2011, a total of 1,313 applications were received under BEEFS, covering over 8,700 buildings, i.e. about one in five of the 41,000 buildings in Hong Kong have submitted applications. The approved Energy Efficiency Projects, when all completed, are estimated to result in a saving in electricity consumption by over 124 million kWh per annum, which is equivalent to a reduction of 87,400 tonnes of carbon dioxide emissions.

Energy Conservation Projects for NGOs

Since the launch of the scheme in October 2009 till end February 2011, 179 funding applications have been received. Other than energy-cum-audits and energy improvement works, NGOs may obtain funding under the scheme to conduct educational activities that promote energy efficiency and conservation.

As at end February 2011, 113 energy conservation projects have been approved with total funding of \$34.5 million, including 7 for energy-cum-carbon audits, 89 for energy improvement works and 17 for energy conservation education programmes. The approved energy improvement works projects, when all completed, are estimated to result in a saving in electricity consumption of 3.99 million kWh per annum, which is equivalent to a reduction of 2,791 tonnes of carbon dioxide emissions.

As for education programmes, various activities have been/would be organised to promote energy conservation, such as enlisting volunteers to outreach to disadvantaged groups such as singleton elderly to replace for energy efficient lighting and educating students to conduct simple carbon calculation, etc.

On-site Meal Portioning in Schools

The ECF Committee has earmarked \$150 million for this scheme to assist schools to install the necessary equipment for implementing on-site meal portioning. Since the launch of the scheme in December 2009 till end February 2011, 62 projects were approved, totaling about \$80 million. Upon completing the installation works and implementing on-site meal portioning at these schools, the use of about 43,000 disposable lunch boxes (about 1,290 kg) would be avoided.

Source Separation of Waste Programme

To reduce waste at source and encourage waste recovery and recycling, the ECC has actively sought to incentivise and facilitate residents' organisations and property management companies to participate in waste separation by distributing standard complimentary recycling bins for buildings for use in communal areas. Similarly, for schools, the ECC may provide complimentary waste separation bins to primary and secondary schools and has achieved nearly 100% coverage of waste separation facilities at all day schools.

Launched in late 2008, these ECC programmes are on-going and have continued to be welcomed. The ECC has earmarked about \$18 million in total for these programmes. Over 700 sets of bins have been distributed to schools under this scheme. Over 4,200 sets of bins have been distributed to residential and commercial and industrial buildings.

If residents' organisations or property management companies would like to enhance penetration of waste separation facilities, the ECF also provides partial funding support for them to procure and set up source separation facilities on floors of buildings. Under this funding scheme, 346 buildings have been funded with facilities to implement source separation of waste on a floor basis, with a total approved amount of about \$1 million, since injection in 2008 till end February 2011.

With concerted efforts of various programmes in promoting waste recycling, Hong Kong has achieved 49% municipal solid waste recovery rate in 2009, which overshoots the target laid down in the "Policy Framework for the Management of Municipal Solid Waste (2005-2014)" published in 2005 (of 45% by 2009 and 50% by 2014). 1,673 housing estates/residential buildings and 671 commercial and industrial buildings have signed up to join the Source Separation of Waste (SSW) Programme as at end February 2011. Over 80% of the population has waste separation facilities provided in their housing estates.

(c) **Technology transfer from professional institutions to practitioners to enhance environmental performance of industrial process**

As of end February 2011, \$35 million has been approved for over 40 projects under this area.

Research, Technology Demonstration and Conference Projects

The ECF has continued to develop research capacity and encourage knowledge transfer to the industrial sectors by providing funding to support research projects on environment-related topics. The ECF has also reviewed its positioning and accords priority to research projects or studies whose outcome will have potential for general application in the fields concerning environment and conservation so as to enhance performance in environmental protection. A list of priority research themes has been introduced since April 2010 so as to focus resources to build up knowledge and talents on areas of priority. In addition, to encourage collaboration between research institutes and the industrial sectors, the ECF encourages applicants to engage the relevant stakeholders (such as potential users or beneficiaries of project results) to solicit input and support for the projects. Among projects supported by the ECF –

- The Hong Kong Productivity Council is developing a retrofit device that would automatically stop the engine when a motor vehicle becomes stationary, and to restart the engine when it has to start moving again. The device will also enable the operation of air-conditioning system by battery when the engine is switched off. While aiming to improve roadside air quality by facilitating switching off of an idling engine, the device also seeks to address the local context, especially in the hot and humid season, by allowing the air-conditioning to continue to run.
- The Hong Kong University of Science and Technology and the Hong Kong Polytechnic University are conducting two complementary and comprehensive studies on air pollution. The studies will measure a wide range of air pollutants and perform data analyses for understanding the sources and key pathways leading to the formation of particulates, visibility impairment and photochemical smog, and will help to pinpoint the causes of these pollution problems in the Pearl River Delta Region for drawing up future control strategy. The two studies have started in mid-2010 and will last for four years.

Since the injection in 2008 till end February 2011, 41 research and technology demonstration

projects have been approved with total funding \$35 million. These projects cover a wide range of topics including conservation of biological diversity, waste reduction and recycling, air and water quality, use of sustainable energy, etc.

(d) **Regional and international policy and technology conferences to promote exchanges amongst professional bodies on latest developments and best practices on environment and conservation matters**

As of end February 2011, \$7.8 million has been approved for 8 projects under this area.

Research, Technology Demonstration and Conference Projects

As at end February 2011, eight conferences on various topics (including climate change, sustainable development and waste management etc.) would be/have been organised in Hong Kong from 2009 to 2011. For example –

- The 2nd International Conference on Climate Change (ICCC2009) held on 7 – 9 October 2009 offered a broad program addressing the business risks and opportunities, the science and its implication for mitigation and adaptation, the policies and programs that would chart the way forward. The conference was attended by over 300 attendees from various business sectors, government departments, NGO's and universities.
- The C40 Workshop held in Hong Kong in early November 2010 brought delegates and government officials from 42 cities to share city strategies for addressing climate change, in particular, through adopting green transport and building technologies.