

ITEM FOR FINANCE COMMITTEE

**Head 44 – ENVIRONMENTAL PROTECTION DEPARTMENT
Subhead 700 General non-recurrent
New Item “Capital Injection into the Environment and Conservation Fund”**

Members are invited to approve the creation of a new commitment of \$500 million for capital injection into the Environment and Conservation Fund.

PROBLEM

The remaining balance of the Environment and Conservation Fund (ECF) is expected to be committed within this year. Injection into the ECF is essential so that it can continue to provide funding to eligible environment and conservation programmes that meet emerging policy priorities and public expectations.

PROPOSAL

2. The Secretary for the Environment proposes to inject a one-off sum of \$500 million into the ECF in 2011-12.

JUSTIFICATION

3. Since its establishment in June 1994, the ECF has been playing an important role in the promotion of environmental protection in Hong Kong through grants of funds to project applications by eligible groups. It has contributed significantly to deepening the community’s involvement in green campaigns and driving action changes. 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

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strategic partners, whether established charitable organisations, district-based non-governmental organisations (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. The \$1 billion injection in 2008 has enabled the ECF to broaden the base of applicant groups and audience of green campaigns.

4. With the ECF's focused efforts in pursuing its various programme areas, the number of projects supported by the ECF has risen substantially to a total of over 1 600 projects since the last injection in 2008, surpassing the total of about 1 200 projects in the immediately preceding 14 years from 1994 when the ECF was set up. By end February 2011, over \$880 million was committed under the ECF. 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 priorities and needs of the community. The ensuing paragraphs provide a summary of the progress and achievements of the ECF under its key programme areas. More detailed information can be found in Enclosure 1.

Encl. 1

Achievements of ECF Programmes

(I) Territory-wide educational and community involvement campaigns

(a) Enhancing community involvement

5. The Environmental Campaign Committee (ECC) is a close partner of the ECF in pursuing community-wide environmental programmes. 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.

6. In 2008, the ECC synergised government-initiated environmental award schemes and brought them together under the newly launched Hong Kong Awards for Environmental Excellence (HKAEE). The HKAEE is increasingly being recognised as a prestigious environmental scheme for the business sector. The highlight of the HKAEE is the Sectoral Awards, an annual competition for companies under the respective sectors under a conscientious and all-round assessment process of the environmental performance, green culture and policy, and influence on their business partners. Since 2008, the annual number of participants in the Sectoral Awards has grown by nearly 30% to over 460 in 2010,

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and the number of small and medium enterprises has more than doubled. In addition, the HKAEE has presented over 2 000 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.

7. The school sector has all along been a focus of ECC programmes. At the school management level, the ECC organises, since 2000, the Hong Kong Green School Awards, to encourage principals and teachers to implement green school management and undertake comprehensive and innovative environmental education programmes. Over these years, 165 primary and secondary schools (or about 14% of registered schools) have attained green school status. At the student level, the ECC provides training to Student Environmental Protection Ambassadors and the number has reached over 15 000 in 2010/11 school year.

8. 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 covering various environmental themes. In the past years, the various educational and promotion activities have reached out to over 100 000 participants/audience per year on average.

(b) Broadening partnership with key stakeholders

9. 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, the ECF encourages collaboration with District Councils to line up district bodies to organise environmental campaigns that can address district characteristics and hence deepen the outreach into the community. The ECF also engages charitable bodies as strategic partners to ride on their wide community service networks to promote green messages and to build up role models of green organisations.

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

(a) At the school and institutional levels

10. 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 "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. The associated education activities have reached out to over 130 000 stakeholders.

11. On waste reduction, the ECF launched the “On-site Meal Portioning Funding Scheme” in December 2009 to provide funding for schools to adopt green lunch practice through meal portioning. Up to end February 2011, 62 funding applications amounting to about \$80 million were 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 could be avoided. In addition, on-site meal portioning facilitates students to adjust the meal portion as they need so as to reduce food waste.

(b) At the community level

12. The ECC and ECF incentivise and facilitate residents’ organisations and property management companies to participate in waste separation by distributing standard complimentary waste separation bins and providing funding to set up tailor-made source separation facilities on floors of buildings. With the concerted promotion efforts, 1 673 housing estates/residential buildings and 671 commercial and industrial buildings have signed up to join the Source Separation of Waste Programme as at end February 2011. Over 80% of the population has waste separation facilities provided in their housing estates.

13. In addition, the ECF launched the Building Energy Efficiency Funding Scheme in April 2009 to 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 some 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.

(III) Technology transfer from professional institutions to practitioners

14. 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 in order to stay competitive. In this regard, the ECF has continued to develop research capacity and

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encourage knowledge transfer to the industrial sectors by providing funding to support research projects. Project applicants are encouraged to solicit support from the relevant stakeholders (such as potential users or beneficiaries of project results) to ensure that the study outcome has potential for practical application. With 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

15. To promote regional and international exchanges on environmental agenda, 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 conferences outside Hong Kong to present findings and enhance knowledge dissemination. Institutions or professional bodies may also apply for funding for hosting conferences 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.

Community Participation

16. The ECF is instrumental in enhancing community participation in various key environmental themes including energy efficiency, waste management, air quality, nature conservation, climate change and environmental education.

- *Energy efficiency* – 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 provided funding support of over \$360 million to owners of residential, industrial and commercial buildings, schools and NGOs to incentivise them to switch to energy efficient installation with immediate benefits of energy savings and raise awareness of consumers' choice of energy efficient installation.
- *Waste management* – 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. The ECC and ECF have been facilitating the provision of waste separation bins to schools, residential, commercial and industrial buildings, as well as projects involving recycling of glass, plastic and food waste. In addition to

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strengthening recycling networks, these projects 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 in this area.

- *Air quality* – Around \$19 million has been committed to projects on air quality, which are mostly research projects that seek 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 development of a retrofit device that would automatically stop the engine when a motor vehicle becomes stationary and restart the engine when it has to start moving again; and two complementary comprehensive studies that would measure a wide range of air pollutants and perform data analyses for understanding the formation of particulates, visibility impairment and photochemical smog, with an aim to pinpointing the causes of these pollution problems in the Pearl River Delta Region for drawing up future control strategy.
- *Nature conservation* – The Government introduced the New Nature Conservation Policy (NNCP) in 2004 to protect and manage natural resources that are important for the conservation of biological diversity of Hong Kong. Under the NNCP, a Management Agreements scheme has been rolled out to provide funding for NGOs to initiate nature conservation projects at 12 priority ecologically important sites. So far, the ECF has provided funding to nature conservation projects at two of the priority sites, Fung Yuen and Long Valley, which achieved good results. 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.
- *Environmental education* – The ECC and ECF have carried out various programmes to raise public awareness on the environmental issues, with particular emphasis on the imminence of climate change, air quality and energy efficiency, with a view to inducing 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. Various programmes include the demonstration set-up of green technologies such as green roof and renewable energy facilities; targeted and sustained public education efforts for specific stakeholder groups such as the business and school sectors; and regional conferences that facilitate exchange of best practices, expertise and experience on environmental issues.

New Directions

17. The Environmental Protection Department 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, the ECF will build on this existing network of funding recipients to deepen the impacts on behavioural changes notably in the promotion of energy efficiency, nature conservation, environmental education and waste reduction. One of the new programmes that the ECF has planned to roll out pending approval of the funding injection is to expand its programme to tackle food waste. We plan to initiate a new funding scheme of \$50 million to facilitate housing estates to collect and recycle source separated food waste. 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.

FINANCIAL IMPLICATIONS

18. Subject to Members' approval of this proposal, the \$500 million will be injected into the ECF in 2011-12. We expect that the funding injected can be used to support projects in the coming two to three years. The ECF Secretariat at the Environmental Protection Department will continue to provide administrative support to project vetting, monitoring and engagement of stakeholders using existing resources.

PUBLIC CONSULTATION

19. 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.

20. We also consulted the Legislative Council Panel on Environmental Affairs at its meeting on 28 March 2011 (Paper CB (1)1673/10-11(05)). Members generally supported the proposed injection. Specifically on the proposed funding scheme to facilitate housing estates to collect and recycle source separated food waste, Members were generally supportive and provided comments on measures to ensure a stable outlet for the food compost so generated. Members also expressed

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their views on further enhancing ECF's work, such as by engaging the business sector and stepping up efforts in nature conservation. We shall relay such views to the ECF Committee for consideration.

21. 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.

BACKGROUND

22. The ECF is a statutory trust fund established in 1994 under the ECF Ordinance (Cap. 450). It is open to applications from local non-profit making organisations. The ECF, since its establishment, has set up a robust mechanism of project vetting and monitoring. On financial management, the Investment Committee was set up in 2008 to advise and monitor the investment and financial position of the ECF. An organisation chart showing the structure of the ECF Committee and the vetting subcommittees is at Enclosure 2.

Encl. 2

23. 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.

Projects supported by the Environment and Conservation Fund (ECF)

(I) 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.

(a) Programmes of the Environmental Campaign Committee (ECC)

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

Hong Kong Green School Awards

3. 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.

4. 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

5. 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

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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.

6. In the 2010/11 school year, the number of student ambassadors has reached to over 15 000.

Hong Kong Awards for Environmental Excellence (HKAEE)

7. The HKAEE is an annual scheme that aims to encourage businesses and organisations 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 organisations in improving environmental performance through the recognition schemes, the HKAEE aims to disseminate the experience of winning organisations 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 under designated business sectors and presents honour to those organisations which have demonstrated all-round and outstanding environmental performance in Green Leadership, Programme and Performance as well as Partner Synergy.
- The Environmental Labels give recognition to organisations 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.

8. 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

9. 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

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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 aim 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.

(b) Moving towards a Green NGO Programme

10. In 2008, the ECF has identified charitable organisations as strategic partners in promulgating green messages by cultivating them to become green non-governmental organisations (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. The NGOs are encouraged to make comprehensive and sustained efforts to set role models of green organisations.

11. 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, total funding \$19.8 million
- Po Leung Kuk, total funding \$31.09 million
- Yan Chai Hospital, total funding \$17.99 million

12. These existing 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.

(c) Collaboration scheme with District Councils (DC)

13. 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.

(d) Environmental Education and Community Action (EE&CA) Projects

14. The EE&CA projects cover various kinds of education and promotion projects on environmental issues. The themes and types of activities as well as target groups 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. It is estimated that 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.

15. 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.

(e) Community Waste Recovery Projects

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

17. Among the projects approved, two NGOs obtained funding to run the processing centres for waste plastic and waste electrical and electronic equipment (WEEE) for three 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.

18. 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, have also been approved. In total, 970 tonnes of recyclables have been collected under the 19 waste recovery projects.

(f) Public Education Programme on Management of Municipal Solid Waste

19. 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.

(g) Nature Conservation Management Agreement Projects

20. 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.

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

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

(a) Environmental Education and Community Action Projects – Minor Works projects

22. 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.

23. 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.

24. The Environmental Protection Department 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

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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.

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

Building Energy Efficiency Funding Scheme (BEEFS)

25. 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.

26. 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

27. 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.

28. As at end February 2011, 113 energy conservation projects have been approved with total funding of \$34.5 million, including seven 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.

29. 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.

(c) On-site Meal Portioning in Schools

30. The ECF Committee has earmarked \$150 million 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.

(d) Source Separation of Waste Programme

31. 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.

32. Launched in 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 and over 4 200 sets of bins have been distributed to residential and commercial and industrial buildings.

33. 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.

34. 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 Programme as at end February 2011. Over 80% of the population has waste separation facilities provided in their housing estates.

(III) Technology transfer from professional institutions to practitioners

35. As of end February 2011, \$35 million has been approved for over 40 research and technology demonstration projects. 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.

Research, Technology Demonstration and Conference Projects

36. 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.

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(IV) Regional and international policy and technology conferences

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

Research, Technology Demonstration and Conference Projects

38. Various topics (including climate change, sustainable development and waste management etc.) that would be/have been organised in Hong Kong from 2009 to 2011 include –

- The 2nd International Conference on Climate Change (ICCC2009) held on 7 to 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 programmes 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.

Organisation Chart of the Environment and Conservation Fund Committee and the Vetting Subcommittees

