

URBAN PLANNING AND ENVIRONMENTAL LAW
QUARTERLY
(Published since May 1992)

簡家驄律師行 · 城規環保季刊

Rarely in Hong Kong are government officials' decisions challenged in the courts on environmental grounds. Even more rarely do the courts uphold environmentally – based challenges. The recent decision in *Chu Yee Wah v. Director of Environmental Protection* is one such welcome rarity.

The Editors

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COURT REQUIRES EPD AND DEVELOPER NOT TO TREAT OUR ENVIRONMENT AS A BUCKET FOR POLLUTANTS

On 18 April 2011 The Hon. Fok JA (sitting as an additional member of the Court of First Instance) delivered his judgment in *Chu Yee Wah v. Director of Environmental Protection* HCAL 9/2010, which was a judicial review application.

The application

Ms. Chu, a resident of Tung Chung, applied for orders of *certiorari* to quash decisions of the Director of Environmental Protection (“**Director**”) made under the *Environmental Impact Assessment Ordinance*, Cap.499 (“**EIAO**”) concerning the environmental assessment and approvals in respect of two of the three large-scale infrastructure works to be constructed near Tung Chung as integral components of the Hong Kong-Zhuhai-Macau Bridge project (“**HKZM Bridge**”), namely: the HKZM Bridge HK Link Road (“**Link Road**”), and the Boundary Crossing Facilities (“**BCF**”) (“**Projects**”). The applicant contended that the environmental impact assessment reports (“**EIARs**”) for the Projects were fatally flawed, essentially because they did not properly assess the Projects’ impact on air quality of the affected locality. The Projects, and the third project, are described in the judgment as follows :

“The Hong Kong section of the HKZM Bridge project consists of three main parts, namely (i) the HKZM Bridge Hong Kong Boundary Crossing Facilities (“the Boundary Crossing Facilities”), (ii) the HKZM Bridge Hong Kong section and North Lantau Highway Connection (also known as the HKZM Bridge Hong Kong Link Road) (“the Link Road”), and (iii) the Tuen Mun – Chek Lap Kok Link Road (“the TM-CLK Link”).

The Boundary Crossing Facilities, construction of which was due to commence in the 3rd quarter of 2010 but which has not yet in fact commenced, are to be located on a reclaimed site in the northeastern waters of the Airport Island near Chek Lap Kok. The Link Road, construction, which has not yet commenced but which is due to commence this year (2011), is to approach the Boundary Crossing Facilities of the HKZM Bridge from the western boundary of the HKSAR via the Airport Channel between Chek Lap Kok and the northern shore of Lantau Island.

The TM-CLK Link, when combined with the existing Tuen Mun Bypass, is to provide a direct route linking the Northwest New Territories and North Lantau from north to south, as well as various other locations, including the Kong Sham Western Highway, the port back-up areas in the Northwest New Territories, the Tuen Mun River Trade Terminal, the existing EcoPark in Tuen Mun Area 38, the Hong Kong International Airport, the proposed Lantau Logistics Park, the HKZM Bridge and developments in North Lantau.”

The court summarised the relief sought by Ms. Chu as follows:

“The applicant seeks an order of *certiorari* to quash the decisions of the Director granting approval for (a) the Environmental Impact Assessment Report relating to the HKZM Bridge Hong Kong Boundary Crossing Facilities and (b) the Environmental Impact Assessment Report relating to the HKZM Bridge Hong Kong Link Road. Both of those decisions were made on 23 October 2009 pursuant to s.8(3) of the EIAO.

She also seeks an order of *certiorari* to quash the decisions of the Director granting an environmental permit to construct and operate (a) the HKZM Bridge Hong Kong Boundary Crossing Facilities and (b) the HKZM Bridge Hong Kong Link Road. Both of those decisions were made on 4 November 2009 pursuant to S.10 f the EIAO.”

The Projects are “designated projects” under S.4 of the EIAO, and so an environmental permit had to

be issued by the Director before construction could begin.

Fok JA explained clearly the procedure under the EIAO for processing an environmental permit application. In general terms, the proponent must prepare an environmental impact assessment report describing the likely environmental impacts of the proposed project. Specifically, an EIAR must be prepared in accordance with the requirements of the study brief, as directed by the Director, for the project (“SB”), and general guidelines contained in the *Technical Memorandum on Environmental Impact Assessment Process* (“TM”).

As part of her duties under the EIAO, the Director is responsible for formulating both the TM and the SB. The EIAO provides for consultation with, and participation by, the Advisory Council on the Environment and members of the public in the SB preparation process.

Once the EIAR is accepted by the Director as complying with the TM and SB it is released for a short period of consultation, after which the Director decides (i) whether to approve the EIAR and, if so, (ii) on application by the proponent, whether to issue an environmental permit, conditionally or otherwise, under S.10 of the EIAO.

These steps were followed, or appeared to be followed, in this case by the proponent – the Highways Department (“HD”) – and the Director. In the EIARs public consultation stage in late 2009, 2,715 public submissions were received. On 23 October 2009 the Director approved three separate EIARs and on 4 November 2009 issued the environmental permits for the Projects.

The applicant challenged “the Director’s decisions to approve the BCF EIAR and the Link Road EIAR respectively pursuant to S.8(3) of the EIAO and her subsequent decisions, based on the earlier approval of the EIA Reports, to issue environmental permits for those two projects pursuant to S.10 of the EIAO. The applicant’s complaints related to the adequacy of the air quality assessment of the operational phases of those projects in the EIARs.

The two broad grounds of the challenge were, firstly, based on the contention the EIARs did not comply with the TM and SBs; and, secondly, based on the Director’s alleged irrationality or *Wednesbury* unreasonableness in approving the EIARs and issuing the environmental permits.

Of these two broad grounds, the first was, as it turned out, the more important. Both grounds involved questions of law properly for the court to adjudicate. Specifically, the adequacy of an EIAR in terms of the TM and SB is for the court to decide, when the Director’s decision is being judicially reviewed: *Shiu Wing Steel Ltd. v. Director of Environmental Protection (No.2)* (2006) 9 HKCFAR 478.

The applicant complained that the Projects’ EIARs did not meet the EIAO requirements in seven ways, namely that :-

- “(i) the TM and SBs require the EIARs to provide a quantitative ‘stand-alone’ analysis of the projected environmental conditions without the Boundary Crossing Facilities and Link Road projects but the EIARs fail to do so and erroneously conclude that these projects would have no cumulative residual air quality impact;
- (ii) the TM and SBs require the EIARs to explain how the input data used in the PATH model used in the assessment of air quality was compiled and verified and to disclose the

results generated by it but this is not done in the EIARs;

- (iii) the assessment year selected, namely 2031, does not represent the reasonably worst-case scenario for background air quality as required by the SBs and has failed to demonstrate how the AQOs (air quality objectives) will not be breached as a result of the HKZM projects going into operation before 2031;
- (iv) the EIARs failed properly to assess ozone as required by the TM and SBs;
- (v) the EIARs failed to assess sulphur dioxide (SO₂) as required by the TM and SBs;
- (vi) the EIARs do not provide a quantitative or qualitative assessment of the projects’ impact on public health as required by the TM and that the omission of such an assessment means that the Director could not perform her statutory duty under s.10(2)(c) of the EIAO;
- (vii) the EIARs should have, but failed to, assess the health risk posed by pollutants outside the AQOs, such as toxic air pollutants (TAPs) and fine suspended particulates (PMs).”

Fok JA noted that the first to fifth complaints were allegations of non-compliance with the TM and SBs. The other two complaints were allegations of non-compliance, and that the Director had, therefore, acted unreasonably or irrationally in granting environmental permits, in which case she had issued the permits contrary to S.10(2)(c), EIAO.

Before dealing with the applicant’s seven complaints, Fok JA reviewed authorities concerning construction of a TM (a general guidelines document) and a SB (a project-specific guide). He cited the Court of Final Appeal in *Shiu Wing Steel* (above) :

“...the TM and the SB are to be construed not as legislative instruments but as they would be understood by an expert risk assessor. In other words, the court determines what the TM and the SB require but technical evidence may be needed to show that an EIA report meets or does not meet the requirements so determined.”

and

“The definition of the legal effect of the TM and the SB is necessarily a matter of law but it is necessary to appreciate any special or technical meaning which experts may attribute to particular terms.”

Importantly, the learned judge noted that protection of the environment is just as important as ensuring major projects are completed efficiently.

The decision

The applicant failed on grounds 2-7. The court concluded – after reviewing senior counsel’s detailed, interesting submissions – that HD’s consultants’ assessment methodologies and the data included (or not included, which was at the core of some of the grounds) in the EIARs did not offend against the EIAO, the TM or the SBs.

With respect to grounds 6 and 7, the court also ruled that, even if things could have been done better, the Director’s decisions were not invalid for *Wednesbury* unreasonableness or irrationality

However, Fok JA decided in the applicant’s favour on her first ground, or complaint, and it is the learned judge’s reasons in relation to this ground which are the most significant and hopeful for protection of Hong Kong’s environment in the future.

The applicant’s complaint was, in the context of air quality impacts, that the EIARs did not meet the minimum technical requirements of the TM by failing :

“to present a separate (i.e. stand-alone) analysis of the project environmental conditions without the projects in place is in breach of the following provisions of the TM, namely Sections 4.1.1, 4.2.1, 4.3.1(c), Section 4.4.2(g) and Annex 20 §4.6.”

We shall not set out all of the provisions of the TM relied on by applicant’s counsel; but, as an example, TM S.4.3.1(c) and TM Annex 20, clause 4.6 expressly require an EIAR to assess as a “baseline condition” the projected state of the environment (within the designated geographical area) “without the project in place” :

TM S.4.3.1(c) provides (in part) :

“the general principles that the Director shall use in evaluating the assessment methodologies are described below:

...

Impact Evaluation: an evaluation of the anticipated changes and effects shall be made with respect to the criteria described in Annexes 4 to 10 inclusive, and in quantitative terms as far as possible. The methodologies for evaluating the environmental impact shall be capable of addressing the following issues:

- (i) the existing or projected environmental conditions without the project in place”

TM S.4.4.2(g), dealing with the “quality of the EIA Report,” requires the Director to consider “whether the assessment has considered and compared the environmental benefits and disbenefits of various scenarios with or without the project”.

Clause 4.6 of TM Annex 20, under the sub-heading “Baseline Conditions”, asks :

“Has a prediction of the likely future environmental conditions in the absence of the project been developed?”

The applicant’s first ground was, in short, that the EIARs were incomplete because they did not consider the state of the subject environment assuming the Projects did not go ahead, i.e. the “no action alternative”, as it is called in the United States, where environmental litigation has a robust record over more than forty years.

On this point, the Director’s case was that the TM and SBs did not “impose a positive requirement that the conditions without the project in place should be presented” in the EIARs. Counsel for the Director submitted that EIARs had to address only “the cumulative air quality impact, meaning the aggregate effect of any pollutants produced by the projects themselves combined with sources of pollution with sources of pollution from elsewhere”.

The respondent’s case was that the TM and SBs set out criteria which the predicted air quality deterioration (with the project operating) must not

exceed, and, as such, the legislative guidelines required evaluation on a cumulative basis.

The court accepted that the respondent's interpretation of the relevant EIAR requirements was probably correct. But – and this is the strong language which offers hope of better environmental protection – Fok JA went on to say:

“... in *Shiu Wing Steel*, the Court of Final Appeal held that the purpose of the EIAO as declared in its long title governs its interpretation and also that its purpose of protecting the environment must inform the meaning attributed to the TM and SB, being instruments created under its authority. In this respect, it is pertinent to keep in mind that, as declared in its long title, the EIAO is “to provide for assessing the impact on the environment of certain projects” and “for protecting the environment”. The EIAO defines the term “environmental impact” as meaning:

- (a) *an on-site or off-site change that the project may cause the environment;*
- (b) *an effect of the change on –*
 - (i) *the well being of people, flora, fauna and ecosystems;*

.....
whether the change or effect occurs within or outside the site of the project”.

Plainly, therefore, one of the means by which the EIAO seeks to achieve its purpose of protecting the environment is by assessing the extent to which a project will have an environmental impact. That adverse impact is the change in the environment from the position that would prevail if the project were not implemented.”

After referring to several U.K. authorities, the court posed the question, (using applicant's counsel's analogy):

“... is the environment to be treated like a bucket into which pollutants may be introduced so long as there is still space within the bucket to accommodate them? Or, is it the case that any pollutant introduced into the bucket must be identified and measured and then, if possible, mitigated? If the former, it would be understandable that there would be no requirement for the EIA Reports to present the baseline conditions without the project in place. On the other hand, if the latter, this would lend weight to the applicant's contention that the TM and the SB, properly construed, require the baseline conditions without the projects in place to be presented.”

In applying environmental standards required by the EIAO, the question of whether predicted impacts will exceed particular benchmarks is a relevant yardstick, *but it is not the only one*. Critically (and, it might respectfully be said, refreshingly), Fok JA stated :

“If environmental protection is to be meaningful, it seems to me that it must aim to minimise the environmental impact of any project and, in the case of air quality, by minimising the amount of pollutants released into the atmosphere. It would be contrary to the purpose of the EIAO, which recognises that the environment is worthy of protection, if the statutory scheme in this jurisdiction were to be construed as if it treated the environment like a bucket into which waste may be deposited until it is full. That approach does not protect the environment. Instead, protecting the environment means endeavouring to minimise the environmental impacts of a proposed project.”

Fok JA said that both the SBs and TM had to be complied with by HD in preparing the EIARs. The general criteria of the TM are not displaced by the specific requirements of the SBs.

In accordance with the TM – such as S.4.3.1(c) – and bearing in mind the purpose of the EIAO, the EIARs were required to include a stand alone analysis of a prediction of the environmental conditions that would be expected in the absence of “the Projects”.

The learned judge held that as the EIARs did not include this stand alone analysis of the no-action alternative they did not comply with the TM and SBs. Therefore the Director did not have the power to grant environmental permits for the Projects, and her decisions to approve HD's EIARs and to issue environmental permits for the Projects must be quashed.

The court made an order *nisi* that the Director to pay one third of the applicant's costs.

LEGISLATION DIGEST

Motor Vehicle Idling (Fixed Penalty) Ordinance (Cap. 611) [Bill was introduced to the Legislative Council on 28 April 2011]

The Government introduced the *Motor Vehicle Idling (Fixed Penalty) Bill* in the Legislative Council (LegCo) on 28 April 2011. To reduce air pollution, heat and noise nuisances caused by idling motor vehicles with running engines, the Bill introduces a statutory requirement for drivers to switch off their engines while vehicles are stationary. The law will apply to all areas used by vehicles, including private roads and car parks.

The Secretary for the Environment, Mr Edward Yau, said that the current proposal will strike a reasonable balance between the need to protect the public from nuisances caused by idling vehicles and operational requirements of drivers and the transport trades.

The Bill's provisions take into account the views of the transport trades and the public. The object of the Bill is to prohibit the practice of leaving engines idling while the motor vehicle is parked. The Bill provides exemptions from the prohibition and imposes a fixed penalty for contravention of the prohibition. The Bill includes the following comments/provisions:

- (1) in light of the sentiments of different sectors in the community, in particular those of the transport trades, as well as overseas experiences, we propose to provide a grace period of three-in-sixty-minutes to drivers of all motor vehicles;
- (2) expanding the scope of the previously proposed exemption at taxi stands from the first two taxis to the first five taxis;
- (3) expanding the scope of exemption at green minibus stands from the first two green minibuses to the first two green minibuses of each route;
- (4) expanding the scope of exemption at red minibus stands from the first two red minibuses to the first two minibuses, a red minibus with at least one passenger on board and a red minibus which is immediately behind it; and
- (5) exempting non-franchised buses with at least one passenger on board.

The government proposes to apply the idling prohibition to all motor vehicles equipped with an internal combustion engine (ICE), including vehicles powered by petrol, diesel and liquefied petroleum gas, as well as hybrid vehicles. However, the prohibition will not apply to a hybrid vehicle when it is powered by electricity. The prohibition will not be applicable to electric vehicles, as they do not generate any emissions.

The Bill also provides that a driver who contravenes the prohibition against idling vehicles is liable to a fixed penalty of \$320. Traffic wardens will be the main enforcement agents. Environmental protection inspectors will also be empowered to enforce the law to carry out relevant duties during blitz operations in conjunction with traffic wardens.

Waste Disposal (Amendment) Ordinance 2006 (Commencement) Notice 2011/ Waste Disposal Ordinance (Application of Section 16) Notice 2011 [Gazette published on 20 May 2011]

In order that the Clinical Waste Control Scheme (“the Control Scheme”) and the associated regulation on the disposal of clinical waste can commence operation on 1 August 2011, the Government gazetted the *Waste Disposal (Amendment) Ordinance 2006 (Commencement) Notice 2011* (“the Commencement Notice”) alongside the *Waste Disposal Ordinance (Application of Section 16) Notice 2011* (“the Application Notice”) on 20 May 2011.

The Control Scheme tightens control on handling, collection, transportation and disposal of clinical waste, which is essential in safeguarding public health and minimising pollution risks. The details of regulatory requirements of the Control Scheme and the disposal charge for clinical waste are set out in the *Waste Disposal (Clinical Waste) (General) Regulation* and the *Waste Disposal (Charge for Disposal of Clinical Waste) Regulation*.

The Commencement Notice provides that the Secretary for the Environment appoints 1 August 2011 as the date on which section 3, 5 and 6 of the *Waste Disposal (Amendment) Ordinance 2006* come into operation. These sections prohibit the collection and disposal of clinical waste without licence or authorisation. This will provide the legal basis for implementation of the Control Scheme.

The Application Notice provides that the Director of Environment Protection appoints 1 August 2011 as the day on and from which section 16 of the *Waste Disposal Ordinance* is to apply in relation to clinical waste. Section 16 of the *Waste Disposal Ordinance* prohibits the use by any person of any land or premises for the disposal of waste unless the person has a licence from the Director of Environment Protection or the circumstances fall within the specified exception. The prohibition under section 16 of the *Waste Disposal Ordinance* will apply to clinical waste upon the commencement of the Control Scheme. Producers of clinical waste will be required to consign clinical waste to a licensed waste collector for disposal at premises authorised under: (i) a waste disposal licence issued under section 21 and 22 of *Waste Disposal Ordinance* or (ii) an authorisation from the Director of Environment Protection pursuant to section 10(3) of the *Waste Disposal (Clinical Waste) (General) Regulation*.

TOWN PLANNING

Rail extension works to commerce

The statutory, administrative and funding application procedures for the South Island Line (East) (“SIL(E)”) and Kwun Tong Line Extension (“KTE”) have been completed and construction work will commence as soon as possible with an aim to complete by 2015.

A spokesman for the Transport and Housing Bureau said that the MTR Corporation Limited (“MTRCL”) would be responsible for funding,

design, construction, operation and maintenance of the two railway projects. These projects will provide convenient and rapid service to the Southern District on Hong Kong Island, and to Hung Hom and Whampoa District, which are presently not connected to the railway network.

The spokesman also said that in considering the planning parameters for the Wong Chuk Hang site and Valley Road Estate site, the government has taken fully into account the use of land adjacent to the district and expectations of the residents. When the Executive Council decided to proceed with further planning of the SIL(E) project in 2007, besides reserving the Wong Chuk Hang site, an area to the north of the Ocean Park Station ("Ocean Park Site") had also been reserved for future property developments. However, after considering the use of land near the Ocean Park Site, the government decided to concentrate property developments at the Wong Chuk Hang site, so as to free up the Ocean Park Site for other purposes which are in more harmony with the district.

The proposed comprehensive development at the Wong Chuk Hang site will include a rail station and depot, public transport interchange, shopping mall, social enterprises and social welfare facilities.

The majority of the proposed property development will be small to medium-sized units having an average size of 76 square metres. In addition, about 20% of the flats will be of about 50 square metres in size to help meet the housing needs of nearby communities.

With regard to the planning of the Valley Road Estate site, the spokesman said that although the maximum allowable plot ratio for the site is 9, the government has asked the MTRCL to adopt a maximum domestic plot ratio of 5 for the planning and design of the site, and buildings will be limited to twenties-storey, to address public concerns of possible "wall effect" development. The development will provide flats of sizes ranging from 40 to 200 square metres catering for different demands in the market.

SIL(E) is a new rail corridor extending from south to north of Hong Kong Island, running from South Horizons on Ap Lei Chau to Admiralty via Lei Tung, Wong Chuk Hang and Ocean Park. With the SIL(E), passengers from the Southern District will be able to reach Admiralty in about 10 minutes. KTE is the extension of the existing MTR Kwun Tong Line, running from Yau Ma Tei Station to Whampoa, with two new stations at Ho Man Tin and Whampoa. With the KTE, a journey from Whampoa to Mong Kok, normally taking about 25 minutes on road during peak hours, will be much reduced to approximately 5 minutes.

[IS Department, Hong Kong SAR Government, 18/05/2011]

Draft Aberdeen and Ap Lei Chau Outline Zoning Plan approved

The Chief Executive in Council has approved the draft Aberdeen and Ap Lei Chau Outline Zoning Plan ("OZP"), which provides a statutory land use planning framework to guide development and

redevelopment in the Aberdeen and Ap Lei Chau area.

The Planning Scheme Area, covering an area of about 784 hectares, includes Tin Wan in the west and part of the Aberdeen Country Park in the north. To the east, it is bounded by the approach road to Aberdeen Tunnel, Wong Chuk Hang Road and Island Road. To the southwest, the area covers the islands of Ap Lei Chau and Ap Lei Pai.

Approximately 1.5 hectares of land covering two shopping centres as part of South Horizons on Ap Lei Chau is zoned "Commercial". This zone is intended primarily for commercial developments, which may include supermarkets, shops and services, and eating places, functioning mainly as local or district shopping centres serving the immediate neighbourhood of South Horizons and the Southern District.

Approximately 7.2 hectares of land bounded by Heung Yip Road, Police School Road and Nam Long Shan Road is zoned "Comprehensive Development Area". This zone is intended for comprehensive development/redevelopment of the site for residential and commercial uses together with a rail depot and station with the provision of public transport and other supporting facilities.

A 58.6 hectares site is zoned "Residential (Group A)" for high-density residential developments, and 0.4 hectare of land is zoned "Residential (Group C)" for low-rise, low-density residential developments.

A 3.5 hectares zone, "Residential (Group E)", is designated for phasing out existing industrial uses in these areas through redevelopment or conversion for residential use.

In order to ensure an adequate supply of industrial floor space, 9.9 hectares of land is zoned "Industrial" for general industrial uses.

A 15.1 hectares area is zoned "Open Space" for the provision of outdoor open-air public space for active and/or passive recreational uses. In addition, 103.5 hectares of land is zoned Government, Institution or Community for the provision of a wide range of facilities to serve the needs of local residents.

Approximately 103.4 hectares of land is zoned "Other Specified Uses" to provide sites for specified purposes and uses. For example, the Wong Chuk Hang Industrial Area has been designated as a business zone primarily for general business uses.

Approximately 213.8 hectares of land is zoned "Green Belt", which is intended primarily for defining the limits of urban and suburban development areas by natural features, to protect the natural landscape and environment, as well as to provide a countryside recreational outlet for the local population and visitors.

An area of approximately 28.4 hectares is zoned "Coastal Protection Area" to conserve, protect and retain natural coastlines and sensitive coastal natural environment. Falling within this area are coastal areas mainly below 20-metre to 40-metre contours that cover many coastal features, such as

cliffs, rocks and some beaches. These areas of high scenic quality should be protected from development.

Approximately 2 hectares of land covering the western part of the Nam Fung Road Woodland Site of Special Scientific Interest ("SSSI") is zoned "SSSI". The Nam Fung Road Woodland SSSI is densely covered by native broad-leaved trees and rare flora and is considered as a piece of fung shui woodland in a natural environment.

[IS Department, Hong Kong SAR Government, 20/05/2011]

Revised plan for wetland project

A stalled private housing development at a Yuen Long wetland might be resurrected in a different form, with most of the houses to be built on stilts and separated by canals.

The new developer of the project, which is much smaller than the initial plan proposed by a big developer which lapsed last year, says the revised design will minimise disruption to the Nam Sang Wai wetland. However, environmentalists are still sceptical, saying the new proposal covers Hong Kong's second-largest natural reed bed and the design for houses there could be a ruse to avoid rules prohibiting wetland development.

Seven green groups yesterday met a planning consultant for the new developer to discuss progress on the revised plan. The initial plan included building more than 2,000 houses and a golf course covering a total of 137 hectares, including some government land to be swapped for a nearby site also owned by the developer. But the latest plan is less likely to involve any government land and will cover only a fraction of the private land in the south western portion of the site, away from cormorant habitats and an egret flight path.

A project consultant said low-rise houses would account for up to 80 per cent of the homes to be built on the site; the rest of the buildings will be no higher than eight storeys.

A campaign manager with the *Conservancy Association* questioned whether the design was a trick to win approval for the development. In the manager's opinion, the houses might be designed to circumvent the no-net-loss principle for wetland development. Under the principle imposed by the government, developers should minimise wetlands reduction and compensate for wetland loss.

Green groups insisted that the site should not be developed, but at the same time were worried that the owners would then simply turn the site into commercial fish ponds to pave the way for future development. The groups were also concerned about how the consultant would assess the ecological importance of Nam Sang Wai, which was damaged by mysterious fires late last year and early this year.

The developer will submit a project profile to the Environmental Protection Department to initiate the environmental impact assessment process and will file an application to the Town Planning Board at a later date.

[South China Morning Post, 01/06/2011]

Mega projects rob the streets of life

Huge developments, like Kowloon Station, are pushing pedestrians out instead of enhancing neighbourhoods, and the Hong Kong government should take a more active role in planning new large developments so as to maintain the city's vibrant street life, a research organisation suggests.

The Urban Land Institute, a global organisation that claims members in 95 countries and which studies land use, said developments with large podium structures and blank walls, such as the Kowloon Station project, have lost their connection to street-life and are isolated from neighbourhoods.

The Institute has issued a report containing 10 principles for the government and property developers to follow to avoid isolated developments. It recommends every district should have a comprehensive design plan that complements surrounding districts, with government departments working together to achieve a common vision for the city.

New developments should integrate with existing neighbourhoods so the designs reflect the surrounding community's character. Projects larger than about 150,000 square metres may lead to isolated blocks.

Although the government has encouraged developers to provide public open space in their projects, these areas are often difficult for people to reach. The Institute said ground level space should be physically and visually connected to similar space at upper levels, thereby encouraging its use. These areas should emphasise natural elements, such as trees and lawns, with space to sit or play. Big developments should integrate smoothly with infrastructure and the transport network at the ground level.

The Institute suggested the town-planning process should involve more stakeholders early on and from diverse backgrounds, and that developers must work more closely with community groups to incorporate their needs.

A fellow of the Institute of Planners agreed the government should put more resources into town planning and improve the pedestrian environment. In his opinion, the government has tightened restrictions on development in recent years, but it has not reviewed density at critical stages as the city grows.

[South China Morning Post, 02/06/2011]

Government to offer eight sites for sale to ease land concerns

The government will put up eight sites for sale in the forthcoming quarter in a bid to increase land supply amid soaring property prices. Some developers believe the measure will not stop home prices from rising, but others say the move will have a medium to long-term effect on the market.

A spokeswoman of the government said yesterday that the eight sites to be sold by tender and auction

between next month and September were expected to offer capacity for approximately 6,000 residential flats, which is double the estimated 3,000 units provided by the nine residential sites offered for sale in the April-June quarter.

Apart from the already announced 0.7887-hectare ex-government supplies depot site at North Point's Oil Street, the spokeswoman said six more residential sites from this year's application list had been chosen for sale in the next three months. The West Rail property development project at Nam Cheong Station was also planned for disposal.

To ensure there would be enough flats, the government will impose a requirement for developers to build a minimum number on the larger sites at Sha Tin's Kau To, Yuen Long's Tan Kwai Tsuen and Tseung Kwan O. These sites can provide at least 2,100 units in aggregate. Subject to the Town Planning Board's approval, West Rail Property Development will put the Nam Cheong site out for tender in September 2011. This project is expected to provide 3,313 flats, about 2,485 (or 75%) of which will be small and medium-sized flats.

Developers and analysts are not sure that the government's planned sales will prevent housing prices from rising. A property developer and a professor from Polytechnic University's building and real estate department said the measures could address concerns about an insufficient supply of flats. Nevertheless, since the flats would not be available for two or three years, the news will not immediately affect home prices.

On the other hand, another developer said Hong Kong would need a new supply of about 30,000 flats a year to meet demand, and therefore 6,000 units in a quarter was not a lot. He expected prices would continue to rise.

[South China Morning Post, 11/06/2011]

WEST KOWLOON CULTURAL DISTRICT (WKCD)

Critics challenge Foster's zero-carbon claim

When world-renowned architects Foster and Partners were completing their ultimately successful bid to design the West Kowloon arts hub, Hong Kong was promised a showpiece cultural precinct that would also boast zero carbon emissions.

This undertaking is now under scrutiny, with some critics doubting whether the zero-carbon target will ever be feasible for the project, and at least one calling Foster's promises during the bidding stage foul play.

When the WKCD Authority announced that Foster and Partners' design had won the competition, it said the design had been chosen because of its emphasis on environmentally friendly features, which would reduce the precinct's carbon footprint and contribute to the development of a green and sustainable district.

Advisers to the Authority have now disclosed that they were unconvinced by the zero-carbon claim when assessing the Foster design, because insufficient data had been provided to prove the plan's feasibility.

Doubts over the plan focus on the fact that the Foster team's zero-carbon target applies only to the precinct's buildings, and not to transport links serving the centre, particularly vehicles. These, the team maintains, would be an uncontrollable factor outside the scope of its design. The Foster team's engineers said their zero-carbon concept was based on a universally accepted definition, one adopted by the British government.

However, some panel members opined that the principle should be applied to the whole district, not just to its buildings.

The plan envisages energy-saving buildings and the use of renewable sources of energy, such as wind and solar, to supply some of the centre's electricity needs and to power transport within the centre.

As the team's promotional literature put it, their approach is holistic. Sustainability must take into account not just buildings but infrastructure - particularly transport, because buildings and the movement of people accounts for 70% of the energy we consume.

The Foster plan also calls for an energy centre to convert food waste collected from the neighbourhood into biogas, which will provide power for a sky-rail, eco-buses and stoves in flats and hotels within the district. The recycling of food waste will offset some of the precinct's emissions, as it reduces greenhouse gases, like methane, which are otherwise released in landfills.

A spokeswoman for Foster and Partners said its zero-carbon strategy took the entire West Kowloon district into account by putting traffic underground. Well-planned transport links to and from the district will also limit the number of cars travelling to the arts hub.

The Authority has commissioned a consultant to look into environmental issues in more detail when preparing the development plan and the environmental impact assessment report.

[SCMP, 15/04/2011]

Key to the arts hub is in the details

Recently, fewer headlines have generated as much debate than the new scheme for the WKCD, designed by award-winning architects Foster and Partners. But the firm believes that the public debate is mainly due to a lack of a clear understanding of the details.

The firm says there is a lot more to the design than people have seen, and that the concerns regarding the project are unfounded.

Artists claim too many structures will be built for the performing arts zone, and the scale of the development is too large and very imposing. The government's brief called for 17 core arts and cultural facilities at the WKCD, based on extensive research with arts and cultural stakeholders. Most of the venues are small, such as the medium-sized theatres and music halls. Everything on the site will be less than 100 metres high, compared to the nearby International Commerce Centre, which is over 400 metres high. The hub will also have a waterfront park, colonnaded avenues, tree-lined streets as well as intimate lanes that are all inspired by the energy and unique mix of Kowloon.

There have also been complaints that the WKCD looks more like a commercial development than an arts precinct. There are shopping and dining facilities in the avenue down the centre of the site, but embedded within this "urban quarter" are the main cultural venues, the blackbox theatres, M- (the experimental museum displaying visual arts), the Concert Hall and the Xiqu Centre. These will be supplemented by cultural software facilities supporting education and participation in the arts.

Some artists were hoping to see something akin to Greenwich Village, where artists from different disciplines live and mingle in an ad hoc way, as well as more small scale structures and spaces to give the place intimacy, where the public and artists can interact on a more personal level.

Artists have also commented that they think the arts hub will not suit them. In this regard, Foster and Partners stressed that WKCD has been designed especially for local artists. The urban quarter will have a wide range of flexible spaces to live, work and stay. An additional 17,000 square metres of low cost, flexible rehearsal space and exhibition venues have been added (above the 15,000 square metres originally allocated), mixed with schools for the visual and performing arts, arts and crafts studios and other facilities, to engage artists and the young and to ensure artistic communities and creative professionals are supported in a continual exchange of ideas. "Blackbox theatres", catering to audiences of 100 to 300 people, will be available for use by theatre groups at affordable prices.

According to Foster, the park, which will be the first part of the district to open, will be a place to relax, have tea in a pavilion or enjoy a picnic on the waterfront. There will be sculpture gardens, performances and cultural events, turning the park into a cultural venue in its own right. The firm is now refining the design for the next stage of public consultation.

[China Daily, 15/04/2011]

Arts groups demand greater say on WKCD

Local arts groups are clamoring for more inclusion in planning the WKCD, saying there needs to be increased dialogue between the project's authority and educational bodies and those engaged in producing art.

At a meeting between lawmakers and 20 deputations representing the city's major arts organisations, it was recommended that the WKCD Authority should collaborate with existing art organisations and venues, so the WKCD can become a centre connecting the existing network of creative hubs.

According to the representative of a local arts group, the Authority should recruit professionals already managing the city's cultural venues to help design and direct some of the mega-project's venues and programmes.

It was also suggested that the Hong Kong Academy for Performing Arts be granted university status and moved into the project to facilitate the creation of content and develop local artistic human capital.

The sentiment among arts organisations has been that they were left out of the planning process and their recommendations went unheeded. There was

also a serious lack of leadership, brought on by the sudden departure of the project's first CEO, Graham Sheffield.

One of the concerns of local arts group is that the initial HK\$21 billion earmarked for the project may be spent exclusively on construction, leaving little or nothing to support artists. A financial model breakdown and subsidy guidelines have been called for.

According to a professor of architecture at a local university, another way to generate revenue may be to establish underground links with other projects, such as Harbour City and the Express Rail Link, which will create more than 2 million square metres of underground space generating a return of HK\$33 billion over 12 years.

Other suggestions include the creation of public piers, which are absent in Foster and Partners' winning design concept, to ensure access to the harbour, and establishing smaller venues for schools and community organisations.

The Authority said it would consider the views and would forge ahead with the project's third-stage public consultation, to begin by the end of 2011. These consultations will be instrumental in fixing the project's final development plan.

The mega-project is expected to be constructed in phases, with the first stage to be completed in 2015.

[China Daily, 17/05/2011]

Arts hub gives priority to small performing venues

The performing arts director of the WKCD Authority told lawmakers that the Authority was giving priority to building small and medium-sized performing venues in the arts hub. According to the director, his team was working with Norman Foster, the architect designing the arts hub layout, to locate sites within the 42-hectare site that are ready for construction. The four "black-box theatres" would take three to four years to complete. Four venues, including a theatre, a concert hall and a Cantonese Opera centre, will also be equipped with art education facilities.

[SCMP, 17/05/2011]

New arts hub chief to tackle problems

The incoming chief executive of the WKCD, Michael Lynch, said he is aware of the fledgling project's leadership problems, and addressing them will be a priority. His predecessor, Graham Sheffield, caused controversy by resigning after only five months. An executive director also quit after a very short period.

Mr Lynch, an Australian, said he would be heading to London for talks with Sir Norman Foster, the architect for the district, before returning in late July to begin work.

He also told an arts administration forum at the Academy of Performing Arts that he wants to launch what he called Phase Zero, which he described as a period of engaging the public with the site long before anything has been built there.

[RTHK, 02/06/2011]

HONG KONG BRIEFING

Renewable energy systems approved

Hong Kong's two power companies received a total of 55 applications from private residential buildings and organisations for grid connection of

renewable energy systems and all have been approved.

CLP Power assists applicants in conducting technical assessments to ensure any renewable energy systems connected to the grid will not cause potential harm to property or people, or compromise the stability of the electricity grid. The average cost for assessment is \$300 to \$400 per kilowatt. This charge is waived in many cases.

With Hongkong Electric, the average cost for grid connection is \$400 per kilowatt. The service charge is waived for installations with rated capacity not exceeding 30 kilowatts installed by schools and charitable organisations.

Meanwhile the total energy generated by government renewable energy facilities in 2009-10 was 2.15% of the government's total electricity consumption for that year.

[news.gov.hk, 20/05/2011]

Old trees removed for public safety

The government has removed two diseased Chinese Banyan trees on a slope on Battery Path in Central to protect public safety. Both trees were in the old and valuable trees category, but were infected with brown root rot disease. This disease is typically found in tropical and subtropical regions. It leads to rapid health deterioration in trees, causing them to die within a short time, and there is no known cure.

As the trees showed no sign of recovery, the responsible agencies removed both trees to eliminate the risk of the tree falling so as to safeguard public safety, and to contain the spread of the disease to other trees on the same slope. The departments will continue to monitor the condition of nearby trees.

[news.gov.hk, 28/05/2011]

Effective control of vehicle emissions

Acting Secretary for the Environment, Dr Kitty Poon says strengthened controls on smoky vehicles has led to a significant drop in the number of emission-test notices issued.

In response to an enquiry by a legislator, Dr Poon said the government has strengthened controls on smoky vehicles since 1999, including introducing an advanced smoke test, increasing the fixed-penalty fine for smoky vehicles to \$1,000, and training more accredited spotters. As a result, the number of emission-test notices issued plummeted by more than 80%, to about 6,500 in 2010 from its peak of approximately 39,000 in 2000.

It is estimated 6,500 emission-test notices will be issued in this year. A notice requires the owner to conduct smoke tests in vehicle emission testing centres within a prescribed period of time. Some smoky vehicles have to undertake the smoke test more than once before they are thoroughly repaired and pass the test. Based on past data, it is estimated about 7,900 tests will be conducted in connection with emission-test notices.

Since April 2008, owners of smoky vehicles have been required to fix the smoke problem and pass the smoke test in a vehicle emission testing centre within 12 working days. Owners failing to comply with the requirement will have their vehicle registration cancelled.

[news.gov.hk, 01/06/2011]

Satisfactory water quality at some beaches

The Leisure & Cultural Services Department has rated water quality at 22 beaches 'good' for this

weekend, and 11 'fair'. Golden Beach dropped from good to fair while Kiu Tsui Beach was upgraded from poor to fair. Bathers should avoid swimming at beaches for up to three days after a storm or heavy rainfall.

[news.gov.hk, 02/06/2011]

Control of mosquitoes

Permanent Secretary for Food & Health (Food), Marion Lai, has called on the Anti-Mosquito Steering Committee to boost community participation in mosquito control. Chairing the Committee's first meeting, Ms Lai said a concerted effort by the government, local organisations, estate management bodies and the public is crucial to the effectiveness of mosquito control work. Her call came after the Committee reviewed the effectiveness of anti-mosquito measures and Dengue vector surveillance work.

The Food & Environmental Hygiene Department introduced an ovitrap rapid alert system in April 2011, and expanded the scope of the Dengue vector surveillance programme to cover a number of densely populated or frequently visited areas, as well as areas where local Dengue fever cases occurred in the past. Forty-four areas are now covered by the programme.

The department said it will clear potential mosquito breeding grounds in public places and apply larvicides to stagnant water, handle mosquito complaints promptly and initiate prosecutions against violators of anti-mosquito regulations.

[news.gov.hk, 03/06/2011]

Testing bus emissions devices

The Environment Bureau and franchised bus companies will soon trial the retrofitting of Euro II and III buses with selective catalytic reduction devices to cut nitrogen-oxide emissions. The trial will begin in the third quarter of 2011. Results will be analysed after six months to assess the feasibility of retrofitting Euro II and III buses with the devices on a large-scale. These devices are effective in reducing nitrogen oxides and have been applied to Euro IV and Euro V diesel commercial vehicles.

The anticipated cost of a large-scale retrofit is about \$150,000 per bus. The actual cost will depend on the complexity of the retrofit, currency exchange rates and the trial results.

[xinhuanet.com, 03/06/2011]

Review of nuclear safety at Daya Bay

The Security Bureau has formed a task force to conduct a comprehensive review of the Daya Bay Contingency Plan and to plan large-scale exercise for early next year. The Under-Secretary for Security told legislators the plan will be revised with reference to suggestions made by the International Atomic Energy Agency, and taking note of the Fukushima nuclear incident and local factors.

The review will be completed this year and will cover the latest international nuclear safety standards and contingency measures, the notification mechanism for nuclear incidents, and an examination of the radiation monitoring and assessment procedures in Hong Kong.

Next year's drill will simulate emergency situations to test departments' preparedness and response capabilities. Nuclear plant operators and Guangdong authorities will be invited to play various roles in the exercise. Public participation in the exercise will also be considered.

[Hong Kong Business, 07/06/2011]

Environmental guide for listed companies

The Hong Kong stock exchange has been looking into ways to introduce the Environment, Social and Governance Guide (ESG) as part of the integrated reporting by listed companies. The guide has been increasingly adopted worldwide.

Integrated reporting is the representation of a company's performance in terms of financial and non-financial results, such as disclosure of social and environmental performance. If adopted, this requirement will have a far-reaching effect on the local power supply sector.

Whilst the impact of its business activities on the environment is inevitable, the power supply sector must strive to minimise the effect in a proactive and position manner, company secretary of CLP Holdings said: "The environment aspect of the ESG reporting is a challenge for all companies, not just power supply companies, in their corporate governance and compliance".

[SCMP, 13/06/2011]

Extended controls on fishing needed

The ban on bottom trawling in Hong Kong waters due to take effect at the end of 2012 will need to be supported by other controls if it is to be fully effective in restoring the region's once-abundant marine life, fisheries experts say.

They are worried that many trawler operators, who now account for 80 per cent of fishing, may switch to smaller-scale operations that the government is still working out ways to control.

Bottom trawling – one of the most destructive fishing methods – destroys coral, sea pens, sponges and other organisms, destroying marine ecosystems.

"If all the trawler operators switch to small-scale fishing, then it will be the same situation," Stanley Shea, project co-ordinator of the marine conservation group Bloom Association, said. "There need to be other regulations to help. You can't just do some things and not others."

Fisheries expert Professor Yvonne Sadovy of the University of Hong Kong's School of Biological Sciences, said that controls on recreational fishing, for which the government has no plans, are necessary.

Under legislation passed last month after a seven-year campaign by conservationists, the ban on bottom trawling will take effect on 31 December 2012 following distribution of a HK\$1.73 billion package to buy back boats and compensate affected fishermen, which has been approved by legislators. But it is likely to be at least a decade before the waters around the mouth of the Pearl River Delta begin to display the impressive array of marine life that once helped make Hong Kong an important fishing port.

"Hong Kong will have to be patient. Smaller fish will come back quickly, but in terms of the ones we want to eat, the bigger ones...they're more like elephants. They take a longer time to recover," Professor Sadovy said. "So I think at least 10 years, maybe 20 years, before we get something that's really going to make a difference here."

Andy Cornish, director of conservation at the World Wide Fund for Nature (WWF) in Hong Kong, said most of the marine life had been wiped out by over-fishing and destructive fishing methods. Trawling had played a big part in causing this devastation.

Professor Sadovy said Hong Kong's marine life had once been very diverse. "We had spawning grounds. We had the coral reef-associated fish; very productive and very diverse, this particular area," she said. But today, fish caught by trawlers average only 10 grams, or about the length of a finger.

Scientists such as Professor Sadovy predict the recovery of Hong Kong's marine ecosystem will have a spill-over effect into neighbouring waters, as fish populations spread out from areas where trawling has been banned.

There are approximately 1,100 trawlers registered in Hong Kong, 400 of which fish primarily in Hong Kong waters, whilst the remainder fish further afield. Some 700 offshore trawlers will receive only about HK\$150,000 but the inshore trawlers will get up to HK\$5.5 million each. Officials said that offshore trawlers were less affected by the ban.

[SCMP, 13/06/2011]

Pledges alone cannot protect our oceans

The high seas – the areas of oceans that lie beyond the limits of national jurisdiction, which extend 325 kilometres from shore – make up roughly two-thirds of our oceans and 45 per cent of the planet's surface. This area, which contains perhaps the largest reservoir of biodiversity left on earth, is exploited by many countries, but managed by no one, and it is under extreme pressure.

The problem is not a lack of commitments. Rather, what has been missing is the fulfilment of these commitments. Governments are once again on the "road to Rio" for a summit in June 2012.

Much of the current plight of the world's marine fisheries is a result of subsidised, industrial-scale overfishing. The Rio Declaration of 1992 recognises a responsibility to ensure that activities do not damage other states' environment or that of areas beyond the limits of national jurisdiction. But significant depletion of the world's fisheries reveals how the international community is failing to meet one of the most important commitments that came out of the 1992 Earth Summit.

Further attempts to sustainably manage the marine environment emerged at the World Summit on Sustainable Development in South Africa. A series of UN General Assembly resolutions since 2004 have also set out regimes to protect the biodiversity of the deep seas. Yet compliance has been patchy.

Another suggestion was to establish a representative network of Marine Protected Areas. Last year in Japan, governments agreed to establish such areas in 10 per cent of the world's oceans by 2020. Currently, this level of protection applies to only about 1 per cent.

One impediment is the lack of high-seas governance. Subsidies are another major problem. It is estimated that approximately US\$27 billion a year in subsidies to the fishing industry worldwide have generated excess fishing capacity that exceeds by a factor of two the ability of fish to reproduce.

The United Nations Environment Programme (UNEP) calculates that investing US\$110 billion to strengthen fisheries management will allow the planet's fisheries to recover. The bottom line is that the present value of benefits from "greening" the fishing sector is estimated to be three to five times the investment required to do so – an excellent return.

Next year's Rio+20 conference presents a major opportunity to demonstrate that international co-operation through the UN is possible, and that transformational change can be achieved.

[SCMP, 24/06/2011]

CLIMATE CHANGE

Solutions for climate change

Hong Kong has sought solutions and has taken action to combat climate change, the Secretary for the Environment, Edward Yau, told a climate change summit in Brazil. Speaking at a plenary session of the *C40 Large Cities Climate Summit* in Sao Paulo, Mr Yau said Hong Kong enacted the first principal legislation tailor-made for enhancing buildings' energy efficiency last year.

"To raise energy efficiency in existing buildings, we launched the \$450 million Buildings Energy Efficiency Funding Schemes in April 2009, which provide subsidies on a matching basis to incentivise building owners to conduct energy-cum-carbon audits and energy efficiency projects for their buildings.", Mr. Yau said.

On green transport, Mr Yau said the Government was committed to promoting the use of electric vehicles in Hong Kong and had been exploring the supply of different manufacturers' electric vehicles to Hong Kong. He noted that: "To lead by example, the Hong Kong Government will give priority to EVs when replacing government vehicles in this and the next financial years. Meanwhile, a wide range of financial incentives has been introduced to encourage car buyers in Hong Kong to purchase EVs."

The government also plans to build infrastructure to help reduce the city's carbon emissions, including a district cooling system at the Kai Tak Development and some waste treatment facilities, which can turn waste into energy.

[*info.gov.hk*, 29/05/2011]

Jump in CO2 emissions

Global emissions of carbon dioxide hit their highest level last year, driven mainly by booming coal-reliant emerging economies, the International Energy Agency said.

The IEA warned that emissions were coming close to a target set by the 190-nation Cancun climate talks last year to limit global warming to less than two degrees Celsius above pre-industrial times.

Carbon dioxide emissions rose 5.9 per cent to 30.6 billion tonnes last year; 75 per cent of the growth came from emerging economies such as China or India.

The head of the UN Climate Change Secretariat, called the figures a "stark warning to governments to make rapid climate progress", starting with a meeting of government negotiators in Bonn from June 6 to 17. Governments "need to push the world further down the right tract to avoid dangerous climate change".

The IEA, which advises its members on energy policy, has also carried out an analysis on the world's power plants showing 80 per cent of the electricity generation related emissions for 2020 are already locked in. The room for manoeuvre is only of 20 per cent.

The Cancun climate change talks which took place at the end of last year failed to reach a binding deal extending the Kyoto Protocol for cutting carbon dioxide emissions beyond next year. Scientists say

rising levels of carbon dioxide, the main greenhouse gas from burning fossil fuels and deforestation, is warming the planet.

There was also concern that after the Fukushima nuclear disaster in Japan, many countries, such as Germany, were opting out of nuclear energy, which emits virtually no carbon dioxide.

[SCMP, 01/06/2011]

Climate change to restrict water supply

The United Nations food agency has warned that climate change will restrict the availability of water supply for farming sometime in the future, and urged governments to face the issue of climate change and look for practical solutions.

A report released by the Food and Agriculture Organization (FAO) said climate change will reduce river run-off and aquifer recharge. As well the loss of glaciers will eventually adversely impact the amount of surface water available. The report concluded that large areas of irrigated land in Asia which rely glaciers as the water source will also be seriously affected. In addition, heavily populated river deltas are at risk from a combination of reduced water flows, increased salinity and rising sea levels.

FAO also found that whilst increased temperatures will lengthen the growing season in northern temperate zones, they will reduce it almost everywhere else, causing yield potential and productivity of crops to decline.

The report suggested that governments should improve their ability to measure water resources and should encourage farmers to change their cropping patterns to allow earlier or later planting in order to reduce their water use.

[*Manila Bulletin Publishing Corporation*, 13/06/11]

Carbon credits may be awarded for camel cull

Australia has come up with a practical way of tackling climate change. The government is considering a scheme conceived by an Adelaide-based company, Northwest Carbon, that would see "carbon credits" awarded for culling wild camels, the methane-belching ruminants that roam the outback. Northwest Carbon proposes to shoot camels from helicopters or round them up and send them to abattoirs to be converted into meat for human beings or pets.

Feral camels in Australia not only compete with native animals for food and water, trample vegetation and damage fences, they also make a hefty contribution to Australia's greenhouse gas emissions. Researchers found that each camel discharges 45kg of methane every year and this is equivalent to one tonne of carbon dioxide. With more than million of them living in Australia and their numbers predicted to double every nine years, that represents a lot of climate-changing gas damaging the environment.

The scheme is currently being considered by the federal government and the killing of camels may be officially registered as a mean of cutting national emissions. Those who help to reduce the camel population will earn carbon credits, which they could then sell to industrial polluters seeking to off-set their own emissions in Australia.

[*The Independent*, 10/06/11]

Manage weather disasters by preventing climate change

A famous environmentalist has warned that changing the type of light bulbs we use and recycling our newspapers is not sufficient to save the environment and, ultimately, the Earth. In order to stop an increasing number of natural disasters happened in recent years, the world needs to get serious about fighting climate change.

According to an interview with Lester Brown of Earth Policy Institute in Washington, the world is ill-prepared and may not survive an impending colossal natural disaster such as flooding, hurricanes, tornadoes, droughts or record-breaking heat waves that are triggered by climate change. However, at some point it is likely these disasters will be unmanageable at the societal level.

Brown says that one of the most troubling impending disasters is the current "irreversible" rapid melting of the ice sheet in Greenland. If temperatures continue to rise, it is feared the ice sheet in Greenland will melt completely and raise sea levels by a projected seven metres, which will disrupt rice production in the river deltas in Asia, where 60 percent of the world's population lives.

Brown added that rising sea levels will also impact real estate values along coastal regions in North America and low lying communities such as New Orleans, which has only since recovered from Hurricane Katrina in 2005, will be threatened.

An annual disaster conference has been scheduled to be held from 19th June 2011 to 22nd June 2011 in Canada and it is expected that approximate 1,500 delegates from Canada and around the world, will attend. The organiser of the annual disaster conference said that this year's workshops will focus on emergency preparedness, pandemic planning, business resilience and emergency response to natural disasters, catastrophic events and terrorist attacks.

The annual disaster conference will also touch on the soaring cost of grain, which is expected to lead to a full-blown food crisis, and how companies can protect themselves from cyber threats and hackers.

[*Vancouver Sun*, 12/06/11]

Climate change brings risk of more infectious diseases

The number of people in New Zealand hospitalised with infectious diseases has surged in the last 20 years. Researchers warn that the government must make more effort to ascertain the links between global warming and public health.

A report by the University of Otago in New Zealand shows that more than a quarter of acute hospitalisations in New Zealand result from infectious diseases, compared with only 18 percent in the early 1990s. In addition, it is widely believed that a warmer, wetter and stormier climate has the potential to make this burden of serious illness significantly worse because of the biological and ecological origins of many infectious diseases. This potentially means both additional human suffering and additional costs to the tax-payer funded health system.

A study conducted by the university showed "significant gaps in our knowledge" of the connections between climate change and infectious diseases, and that much more effort should be made by relevant authorities into the possible increase of infectious diseases because of climate change.

The research suggests that it is critical to understand current and potential impacts of climate change on human health, including infectious diseases. For example, special attention should be focused on the understanding of the risk of mosquito-borne diseases, such as dengue fever,

carried by insects from tropical countries, as many New Zealand habitats could be colonised by new mosquito species as temperatures and rainfall increased.

It was reported that the New Zealand government has spent NZ\$ 70 million on eradicating the southern salt marsh mosquito in recent years, as part of the government's programme to protect public health.

Studies indicated that food-borne salmonella was also related to warmer temperatures. However, the links between increased temperature or rainfall and diseases caused by campylobacter, cryptosporidium and severe E-coli infections were much less clear. If increased rainfall and flooding did occur, it was likely that many communities without reticulated water supplies would be more vulnerable to water-borne diseases.

The increase in serious skin infections could also be linked to warmer temperatures and higher humidity and this is another area that urgently needs further research. The study also found that the New Zealand government had little information about climate and health. For example, only one of five relevant authorities had a briefing document related to climate change and health, and the document was published in 2001.

[China Daily, 13/06/11]

ADVISORY COUNCIL ON THE ENVIRONMENT (ACE)

Summary of minutes of the 177th meeting of the Advisory Council on the Environment (11 April 2011)

External lighting in Hong Kong

Members were briefed on the findings of the consultants' study, commissioned in 2009, on external lighting, from the perspective of energy wastage and light nuisance as well as the proposed way forward in addressing concerns over external lighting.

The salient points arising from the meeting are :-

1. In view of high building density, heavy mix of commercial and residential buildings in densely-populated areas, and different land use zones, Hong Kong could adopt a unique approach while still making reference to other cities in tackling energy wastage and light nuisance. Assessment of the impacts of excessive external lighting should also be conducted.
2. The study should be extended to more districts, as many districts face similar problems.
3. A Task Force should be set up with a firm timetable. Matters to be considered by the Task Force include the development of technical standards and related supplementary parameters. The Task Force should include members from District Councils and victims of light nuisance.
4. More stringent guidelines and mandatory requirements should be laid down. Voluntary measures are not effective. Legislation should be introduced to control the commercial sector's use of lighting.
5. A balance needs to be struck between keen competition in the use of illuminated signboards by the commercial sector on the one hand and the goal of attracting tourists on the other hand. The use of voluntary guidelines and mandatory requirements in parallel would not only provide a level-

playing field for the commercial sector but will also reduce their operating costs and contribute to carbon reduction.

6. In setting out the guidelines and regulations, consideration should be given to the fact that advertisement signboards are to some building owners a source of revenue.
7. Guidelines should be introduced prior to the lengthy process of introducing legislation. The Task Force would solicit support from the commercial sector to voluntarily reduce excessive use of external lighting.
8. Some property developers welcomed statutory control of external lighting. The Task Force should focus on formulating a regulatory framework. Examples include limiting external lighting until 11 pm in residential districts and until mid-night in commercial-cum-residential districts, and controlling the angle of lighting of illuminated signs. The Task Force should also rely on non-governmental organisations to conduct creative educational campaigns, such as the lights-out event, to raise public awareness.
9. Emphasis is placed on the need for the government to provide a safe environment by street lighting rather than relying on illuminated signs.
10. A more positive approach should be adopted in highlighting the benefits of regulatory measures, such as energy saving, carbon reduction, and the underlying principle of sustainable development.
11. More effort should also be made in educating the public about the impacts of external lighting. In particular, information should be publicised about the sources of light nuisance, appropriate levels of lighting for different installations in residential and commercial areas, savings to be achieved by reducing lighting, and effective control measures.
12. The guidelines should be published in the latter half of 2011.

The Environmental Impact Assessment Subcommittee's report on "Development of Integrated Waste Management Facilities Phase 1"

The report on "Development of Integrated Waste Management Facilities (IWMF) Phase 1" was submitted by the Nature Conservation and Infrastructure Planning Division of the Environmental Protection Department (EPD).

The report concerned 3 assessment scenarios based on 2 potential sites, namely : developing an IWMF at the Middle Tsang Tsui Ash Lagoon (TTAL) in Tuen Mun alone; developing an IWMF at an artificial island near Shek Kwu Chau (SKC) alone; and developing an IWMF at each of the 2 potential sites (co-existence scenario).

Points made in the report include :-

1. Clarification was sought of the phrase "the first phase of the IWMF". The Environmental Impact Assessment (EIA) subcommittee meant that the project proponent would build one facility prior to another even if the co-existence scenario was adopted, and did not rule out the possibility of the co-existence scenario.
2. An alternative site at TTAL has less ecological impact. As the target under planning was to build one IWMF, only the

IWMF at TTAL should be endorsed in Phase 1.

3. The EIA subcommittee takes a number of factors into account in selecting sites, apart from environmental concerns. The primary consideration is whether, applying the precautionary principle, the project is environmentally acceptable. But adverse impacts, engineering constraints, extra-time involved, additional cost and even government policy should also be considered.
4. Developing the IWMF on the artificial island near SKC met reservations, in view of the visual impacts of the development on the natural landscape and permanent loss of marine habitat. With more waste reduction and recycling measures rolled out, and the plan to construct one IWMF at this stage, the site with least ecological impacts should be selected.
5. The Administration should provide information on proven technologies of incinerators to support a large scale project such as IWMF. Information on "classification of waste at source" in Hong Kong should also be made public.
6. The content of the EIA report was in line with the EIA Ordinance (EIAO) and TM. The purpose of the EIA process was to assess the impact on the environment of certain projects and proposals, to protect the environment, and to deal with incidental matters. The detailed objectives and contents of an EIA report were also stipulated in the TM, which did not include identification or recommendation of a preferred option for a project development.
7. It is noted that the project proponent sought advice from the Authority in October 2010 on the need for a new Study Brief for the coexistence scenario. The Authority advised that the requirements of the original Study Brief could cover the environmental issues to be assessed for the co-existence scenario. A new Study Brief was not necessary. Therefore the co-existence scenario of incinerators at TTAL and SKC sites was not included in the Project Profile and Study Brief of the EIA report.
8. The Council should only give advice on environmental aspects under the EIAO framework, and should not take any stance as to the preferred site. It is premature for the Council at this stage to discuss site selection. The Administration could be invited to brief members on relevant considerations for the preferred site.
9. An IWMF is needed as part of Hong Kong's waste management strategy. Therefore, a community liaison group should be set up, comprising representatives of concerned and affected parties. This would enhance the public consultation process, which should include a host of issues, apart from environmental concerns.
10. It is noted that although the TTAL site appears to have less impact in terms of ecology, there is already a cluster of unpleasant facilities in the district.
11. The Administration should make a firm commitment to designate the marine park should the SKC site be selected for the construction of the IWMF. In this regard, the project proponent should advance the preparation works for the designation of the marine park in the waters between SKC and

Soko Islands on the understanding that the designation of the marine park would immediately follow completion of the project construction work.

12. The assessment of the EIA report under the EIAO was only the first statutory process in taking the project forward. Views from stakeholders, including District Councils concerned, resident groups and interest groups, would be taken into account in considering the approval of the EIA report and selection of site. Other procedures, such as seeking of funds from the Legislative Council, would be required subsequently.

Summary of proposed recommendations from the report on the 116th Environmental Impact Assessment Subcommittee meeting

The project under consideration by the subcommittee is a proposal to construct facilities to reduce the bulk size of municipal solid waste (MSW) to be disposed of in landfills and to recover energy from the MSW. The project would help save precious space in existing landfills and provide electricity for use in Hong Kong.

The proposed project will be located at the Middle Tsang Tsui Ash Lagoon (TTAL) in Tuen Mun or on an artificial island near Shek Kwu Chau (SKC). It will occupy approximately 11 hectares. Incineration technology will be adopted for the treatment of MSW. The project will mainly comprise a thermal incineration plant with a capacity of 3,000 tonnes per day (tpd) and a mechanical sorting and recycling plant with a capacity of 200 tpd.

At the proposed Middle TTAL site, the project will also include the decommissioning of a part of the lagoon previously used for disposal of pulverized fuel ash. At the proposed SKC site, reclamation will be needed to accommodate the project.

The EIA subcommittee made the following recommendations.

TTAL site

(I) Proposed conditions

- (a) A detailed proposal should be submitted for the enhancement of air quality monitoring in Tuen Mun District.
- (b) A Habitat Creation and Management Plan should be submitted for the proposed compensatory permanent pond habitat within the project site and the proposed interim habitat enhancement work at the unoccupied Middle Lagoon on the southern side of the project site.
- (c) A programme to monitor potential ash leakage from the ash lagoons should be included in the Environmental Monitoring and Audit programme.
- (d) A community liaison group should be established.

(II) Proposed recommendations

- (a) Formulate a Woodland Enhancement Plan for areas in the vicinity of the project site which are sparsely vegetated to achieve some carbon off-setting.
- (b) Recycle and reuse bottom ash generated by the waste incineration process with a view to maximising its beneficial use before final disposal in landfills.
- (c) Formulate plans for developing communal facilities, with considerations of the potential to promote local employment opportunities, by using

the energy and electricity generated by the project gainfully.

- (d) Build on the experience of the first phase of the IWMF and take into account the progress of the effectiveness of waste reduction measures in considering the way forward for further development of similar facilities.

SKC site

(I) Proposed conditions

- (a) A detailed proposal should be submitted for enhancement of air quality monitoring in Cheung Chau.

- (b) Preparation works for the designation of the marine park in the waters between SKC and Soko Islands should be advanced, including a study of details of the park designation, in a consultation with stakeholders.

- (c) A detailed programme should be submitted to monitor the finless porpoise during construction and in 6 specified operational phases.

- (d) A detailed plan should also be submitted for establishing an on-site wastewater treatment plant, based on realistic assessment of the polluting potential of the various sources of sewage.

- (e) A community liaison group should be established.

(II) Proposed recommendations

- (a) Maximise the use of local solid waste, including construction and demolition materials, for reclamation of the artificial island.
- (b) Formulate a fisheries enhancement programme with a view to enhancing fisheries resources in the vicinity of the project area and promoting related activities, such as eco-tourism and recreational fishing.
- (c) Recycle and reuse bottom ash generated by the waste incineration process with a view to maximising its beneficial use before disposal to the landfills.
- (d) Formulate plans for developing community facilities, with special consideration of the potential to promote local employment opportunities, by using the energy and electricity generated by the project gainfully.
- (e) Build on the experience of the first phase of the IWMF and take into account the record of the effectiveness of waste reduction measures in considering the way forward for future development of similar facilities.

REGIONAL & INTERNATIONAL

CHINA

Pharmaceutical plant blamed for serious pollution

Harbin Pharmaceutical Group, a major pharmaceutical company in Heilongjiang province of China, drew severe criticism after China Central Television reported on pollution problems at one of its factories.

It was reported that the company emitted waste gases and water exceeding legal limits. Many residents living in the neighbourhood of the plant have to keep their windows closed in summer because of the polluted air. For years the odour concentration has been 20 times higher than the

legal limit and sewage discharge has slightly exceeded the legal limit.

An Environment Protection Bureau official said that the increase in the company's waste treatment investment lags far behind its production capacity expansion. The company's annual spending on advertising is 27 times its investment on environmental protection.

To attempt to solve the pollution problem, the company has decided to build a production facility with improved technical specifications in a suburb of Harbin; the first-phase of the project is scheduled to be completed in 2013.

[China Daily, 09/06/2011]

JAPAN

Fukushima nuclear plant may have suffered 'melt-through'

A 750-page report has been compiled by Japan's emergency nuclear task force and will be submitted to the International Atomic Energy Agency. The report concedes that the fuel rods in reactors No 1, 2 and 3 at the Fukushima Daiichi power plant had not only melted, but also breached their inner containment vessels and accumulated in the outer steel containment vessels.

The nuclear task force's head criticised the plant's operator, Tokyo Electric Power, for having failed to adequately protect plant workers early in the crisis and for failing to provide adequate information about the radiation leaks.

According to the report, as of late May 2011, approximately 7,800 workers were involved in the task of stabilising the plant. The most urgent problem facing the workers is how to deal with the vast quantities of highly radioactive water which had accumulated in reactor buildings and basements and in ditches. The estimated 100,000 tonnes of contaminated liquid – runoff from water used to douse overheating reactors – is hampering efforts to repair the plant's cooling systems.

[Guardian, 08/06/2011]

PHILIPPINES

Philippines launches electric tricycle scheme

The Philippines President Benigno Aquino announced that the country will launch a scheme to replace millions of petrol-powered tricycles with electric ones as part of the effort to clean up the nation's polluting mass transport system.

Currently, the Philippines has more than 3.5 million tricycles, which emit more than 10 million tonnes of carbon dioxide every year. Transport sector emissions account for 30 percent of air pollution in the Philippines, according to Manila-based Asian Development Bank. In Manila, vehicle emissions account for as much as 80 percent of air pollution.

It is hoped that the scheme will also encourage public utility vehicles to change to using alternative energy, like natural gas, and electric or hybrid engines.

The scheme will also help the country save tens of millions of dollars annually. The electric tricycles, which use rechargeable lithium ion batteries, are more expensive initially, but old petrol tricycles are more than twice as expensive to operate in the long run.

[Philippines News, 15/04/2011]

AUSTRALIA

Nullarbor wilderness protection area established

A 9000 square kilometre portion of the Nullarbor in the state of South Australia is to be declared a Wilderness Protection Area under the *Wilderness Protection Act 1992* (SA). The area begins at the West Australian border and extends east along the coastline for approximately 200km. It includes a wide and unique range of intact coastal and arid habitats, as well as the widely renowned Bunda Cliffs.

The protected region will include most of the already existing Nullarbor National Park, and part of the Nullarbor Regional Reserve. It will become the 12th and largest Wilderness Protection Area in South Australia, effectively doubling the area of land set aside under what is the highest level of environmental protection available under current legislation.

[*Environmental Defender's Office (SA) release*, March 2011]

Sample tested after gas well leak

A Sydney gas company, AGL Energy, is testing soil and water samples for contamination after waste water was released into the environment instead of being captured. Unknown chemicals may have been discharged from the gas well and escaped into nearby drinking water catchments.

A spokeswoman for AGL said that the incident had been reported to the Environmental Protection Agency and nearby land owners and tenants had also been informed. Soil and water samples have been collected and taken to an external laboratory to test whether the leakage had impacted the surrounding area.

A spokesman for the Office of Environment and Heritage at the Department of Premier and Cabinet said it is also conducting an investigation into the matter.

[*The Sydney Morning Herald*, 28/05/2011]

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[*Environmental Defender's Office (SA) release*, March 2011]

Southern Ocean's 'fizz' a threat to marine life

The sea is like a soft drink. Put a glass of lemonade in the sun and it quickly becomes flat. Leave it in the fridge and the fizz – the carbon dioxide – bubbles for longer.

There is a similar effect when carbon dioxide is swallowed by the ocean. Each year, about a quarter of human carbon dioxide emissions are absorbed by the sea. Some is taken up by warmer

water in the tropics, but more is retained in the cold water at the poles.

The impact is greatest in the Southern Ocean, where ocean acidification – the “evil twin” of climate change – is happening at what scientists at the Greenhouse 2011 conference in Cairns warned was an alarming rate. The conference heard that there is increasing evidence that changing ocean chemistry could disrupt entire marine ecosystems.

Data published over the past decade shows tiny marine organisms are finding it harder to make calcium carbonate shells and skeletons. Shells are up to a third lighter than 200 years ago. An Australian Antarctic Division study published last year found elevated ocean carbon dioxide levels also affecting krill, the cornerstone of the Southern Ocean ecosystem. Embryonic krill exposed to high carbon dioxide levels were developmentally impaired and did not hatch successfully.

One scientist observed that “krill are a food source for a huge number of things in the Southern Ocean, including commercial fish stocks, whales, seals, penguins and birds. If you damage them it will have an impact right up through the food chain.”

Ocean acidification is actually a misnomer; in truth the sea is becoming less alkaline. According to an Antarctic research centre ocean acidification report, the chemistry of the Southern Ocean has fallen from a pH of 8.2 in pre-industrial times to 8.1 today. Under current emissions trajectories it will be 7.8 by 2100.

Among other effects of ocean acidification, research suggests whale sonar is travelling farther and clown fish are losing the ability to navigate.

[*The Age*, 09/04/2011]

UNITED KINGDOM

Air quality row may affect Olympics

The European Union restricts emissions of nitrogen dioxide and other pollutants because of their health impacts. Existing levels of these gases are believed to cause approximately 3,000 deaths each year. The restricted emissions targets were originally due to be achieved by 2010. Many EU countries, including the UK, had difficulty in meeting this deadline, and were granted extensions until 2015.

However, the Department for Environment, Food and Rural Affairs (Defra) of the UK has admitted many UK cities will not meet the targets before 2020, while London could be as late as 2025.

If the European Commission is not satisfied with these revised target dates, it could launch infringement action in 2012. Should it decide to do so, the action could be taken by June 2012, which is a month before the Olympics will be held in London.

The UK government has revealed details of a number of initiatives aimed at curbing emissions, including financial incentives for switching transportation from road to rail, research on how retailers could deliver goods outside peak times, and differential pricing for vehicles emitting lower levels of pollutants.

London's Lord Mayor has initiated a range of short and long term measures to reduce pollution, including imposing an age limit on taxis, investing in cycling infrastructure, cleaner buses and mandating tougher standards for the London Low Emission Zone.

A government spokesman said that it did not expect infringement action to be taken by the

European Commission if the Commission accepts that the UK is doing all it reasonably can to meet the pollutants limit.

[*BBC News*, 09/06/2011]

ITALY

Italy's nuclear power referendum gets under way

Italy will conduct the world's first nuclear power referendum since Japan's Fukushima disaster.

A majority 'yes' vote to maintain the ban on nuclear power would block Prime Minister Silvio Berlusconi from generating a quarter of Italy's electricity needs with nuclear energy. But the outcome of the referendum will only be valid if there is a turnout of at least 50 percent.

Berlusconi's government has been doing all it can to limit the turnout. The prime minister has said he does not intend to vote and his government tried to frustrate the ballot in a failed court appeal. After the court dismissed the government's appeal against the nuclear referendum, opposition groups mounted a campaign to increase voter turnout.

Italy has not operated a nuclear plant since 1990. Three years earlier, a similar referendum was held in the wake of the Chernobyl disaster of 1986. Voters opted for the non-nuclear option in each of three ballots and Italy began phasing out its nuclear capacity. Referendum decisions in Italy have effect for only five years. Since 1992, Italian governments have, in theory, been free to embark on a new nuclear energy programme.

Italy is the only member of the G8 that does not use nuclear power for generating electricity, which advocates of nuclear energy argue is the key reason for the country's exceptionally high electricity bills. The high cost of electricity to both private consumers and business is also cited as a prime cause of Italy's low economic growth in recent years.

[*The Guardian*, 12/06/2011]

Referendum blow for nuclear energy

Italian Prime Minister Silvio Berlusconi has accepted the referendum vote to rejection of his plan to restart the abandoned nuclear programme.

Turnout for the referendum was about 57%. Had the turnout been less than 50%, the result would have been invalid. More than 94% of voters opposed the government's plans to resume nuclear power for generating electricity.

The Prime Minister said that the will of Italians is clear on all the referendum points and added that the government and parliament must respond fully.

Critics of nuclear power say Japan's Fukushima disaster in March has helped sway public opinion against nuclear power, which Italians also rejected in a referendum soon after the 1986 Chernobyl disaster.

Italy, like Japan, is prone to earthquakes but the government has said nuclear power is needed to supply about 20% of electricity by 2020.

[*BBC News*, 14/06/2011]

THE UNITED STATES

Biodegradable products may be doing more harm than good

North Carolina researchers have concluded that products that are advertised as biodegradable are

likely to do more damage to the environment than non-biodegradable products. In the process of the breakdown of biodegradable articles by microorganisms, a greenhouse gas known as methane is produced.

The Environmental Protection Agency reports that although methane can be converted for energy or burnt off-site at the landfills, at least 35% of landfills allow the methane to escape. And Federal regulations do not require the landfills to collect such methane after the materials have been disposed of.

[*CNN*, 31/05/2011]

CANADA

Canada's UN climate inventory data at odds with local report

The federal government has told the international community that its policies to reduce heat-trapping pollution linked to global warming are up to 10 times more effective than it told Parliament at the beginning of June 2011.

The mixed messages were sent less than a few weeks apart in separate reports required by Environment Canada under Canadian and international law.

The first report was a Canadian inventory of greenhouse gas emissions submitted to the office administering the United Nations Framework Convention on Climate Change, which is an international treaty that requires its members to stabilise the concentration of the greenhouse gases in the atmosphere to prevent climate changes. This report stated that federal greenhouse gas reduction initiatives may have been responsible for 25-40 megatonnes of annual greenhouse gas emission reductions by 2009.

On the other hand, the second report declared that federal government actions would have resulted in 4 megatonnes of annual greenhouse gas emission reductions for 2009. This report was required under Canadian legislation that forces the government to produce reports detailing federal climate change policies and their relevance to meeting Canada's international obligations under the Kyoto Protocol.

A spokesman for Environment Canada said that the numbers in the second report, submitted to the Parliament, reflects the fact that this analysis took a more conservative approach to projecting impacts of government policies. In contrast, the first report, submitted to the UN, contained a high-level estimate of the possible impact of all measures introduced on 2009 emissions.

Environment Canada has been criticised for excluding statistics indicating a substantial rise in overall pollution from the oil sands sector from 2008 to 2009 in its inventory report, while including numbers suggesting the industry was making progress in reducing emissions per barrel of oil produced.

In reply to the criticism, its spokesman answered that the statistics covering overall pollution levels for the oil sands were not required under the UNFCCC reporting criteria, even though Canada had included this data in its report from 2010. He also said that the data on emissions per barrel were included because it was an important part of the department's overall analysis reported to the UN climate change secretariat.

[*Canada.com*, 09/06/2011]

BRAZIL

Belo Monte dam moves forward

Brazil's Foreign Ministry rejected a request from the Organisation of American States (OAS) to suspend work on its massive hydro-electric Belo Monte dam in the Amazon rainforest.

The Belo Monte hydroelectric dam development may be Brazil's most controversial environmental concern. The US\$17 billion project would be the world's third largest dam, and will divert the Xingú river, a tributary of the Amazon in the state of Pará.

Opponents believe that the dam will displace between 20,000 and 40,000 people and flood hundreds of acres of Amazon forest and local settlements. The Inter-American Commission on Human Rights of the OAS said the construction should be suspended until the concerns of indigenous people in the area were addressed.

The dam is expected to generate approximately 11,000 megawatts of electricity annually. However, it could dry up rivers in the Amazon, causing the extinction of native species of fish and other wildlife. Other concerns are that the turbines will also generate vast quantities of methane which is a greenhouse gas more potent than carbon dioxide.

Lawsuits have been brought to challenge the legality of the construction authorisation given by Congress.

[*The Rio Times*, 12/04/2011]

KENYA

KAM embarks on green energy campaign

The Kenya Association of Manufacturers (KAM) has embarked on a programme aimed at reducing energy consumption in industries. KAM has been given Sh240 million in financial support by Denmark, through a climate change programme promoting green energy.

The funding will allow KAM to conduct comprehensive energy audits and carry out a national awareness campaign promoting the benefits of prudent energy utilisation. The funding will also be used for programmes to demonstrate to the industry the benefits of energy efficiency investments, via organised exchange visits with companies which have successfully implemented energy saving measures.

[*allAfrica.com*, 15/06/2011]

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**Convictions under environmental legislation:
March to June 2011**

[Note: the EPD no longer classifies second (and subsequent) offences.]

The EPD's summary of convictions recorded and fines imposed during the above period is as follows:

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March 2011

Sixteen convictions were recorded in March for breaches of legislation enforced by the Environmental Protection Department.

Six of the convictions were under the Air Pollution Control Ordinance, 2 under the Noise Control Ordinance, 1 under the Ozone Layer Protection Ordinance, 6 under the Waste Disposal Ordinance and 1 under the Water Pollution Control Ordinance.

The heaviest fine in March was \$50,000, assessed against a company that exported ozone depleting substances without a licence.

April 2011

Twenty-nine convictions were recorded in April for breaches of legislation enforced by the Environmental Protection Department.

Eleven of the convictions were under the Air Pollution Control Ordinance, 9 under the Noise Control Ordinance, and 9 under the Waste Disposal Ordinance.

The heaviest fine in April was \$12,000, assessed against a company that manufactured or imported a volatile organic compound with content in excess of the limit of a regulated adhesive that is listed in Part 2 of Schedule 7, Air Pollution Control (Volatile Organic Compounds) Regulations.

May 2011

Thirty-three convictions were recorded in May for breaches of legislation enforced by the Environmental Protection Department.

Fifteen of the convictions were under the Air Pollution Control Ordinance, 5 under the Noise Control Ordinance, 8 under the Waste Disposal Ordinance and 5 under the Water Pollution Control Ordinance.

The heaviest fines in May were \$30,000, assessed against a company that used powered mechanical equipment otherwise than in accordance with permit conditions and a company that contravened the provisions of a licence.

June 2011

Twenty-five convictions were recorded in June for breaches of legislation enforced by the Environmental Protection Department.

Five of the convictions were under the Air Pollution Control Ordinance, 8 under the Noise Control Ordinance, 1 under the Ozone Layer Protection Ordinance, 1 under the Product Eco-responsibility Ordinance, 8 under the Waste Disposal Ordinance and 2 under the Water Pollution Control Ordinance.

The heaviest fine in June was \$50,000, imposed on a company that used powered mechanical equipment without a valid construction noise permit.