



Environmental Policy Monthly

Environmental Protection Administration, R.O.C. (Taiwan)

Feature Column

Dengue Vector Control and Environmental Sanitation

Dengue virus infections have increased in Taiwan in recent years. Global warming is expected to make disease vector control more difficult and increase the range of outbreaks. Apart from strengthening liaisons between sanitation and environmental organizations, other crucial links in Taiwan's Dengue vector control efforts include educational outreach, regional collaborative control and international exchange.

Dengue fever occurs through transmission of the dengue virus by mosquito vectors. Two species of mosquito in Taiwan are capable of transmitting dengue--*Aedes albopictus* and *Aedes aegypti*. While Taiwan is not located within the infectious zone for the dengue virus, transboundary movement of vectors into the area has led to increased infections in recent years.

Agencies Join Forces to Control Dengue as Range May Move North

Owing to Taiwan's subtropical hot summers, in past years the dengue virus has predominantly occurred during July and August. Global warming has resulted in earlier occurrences of the disease in recent years, especially in southern Taiwan, where average temperatures reach 25°C—just right for the

proliferation of mosquitoes. Dengue fever usually pops up every year, and it is unlikely that Taiwan will ever be completely free of the disease. This is now more so the case as the range of the disease appears to be moving north. The government has found that southern Taiwan's dengue outbreaks are lasting for longer periods of time with higher infection rates. Environmental and sanitation agencies have teamed up to establish a horizontal coordination mechanism to reinforce controls against the disease.

According to the Communicable Disease Control Act, dengue is designated as a Class 2 infectious disease. The Department of Health serves as the competent authority for epidemic prevention. The EPA works with DOH by making sure outdoor environments are absent of breeding areas for Dengue vector mosquitoes, and by spraying insecticides in emergency situations.

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Dengue control involves the following work:

Elimination of breeding habitat prioritized over insecticide use: Habitat control works through constant cleaning and checking of the outdoor environment, educational outreach and issuing fines for failure to make corrections. The public is expected to complement government measures by cleaning up residential environments and eliminating possible dengue vector mosquito breeding habitat. Failure to do so results in penalties.

"Dengue Vector Breeding Habitat Inspection Plan"

1. Environmental agencies of all levels are asked to complement this plan by working with health agencies in their jurisdiction to implement dengue vector control work.

2. The "Dengue vector mosquito breeding habitat elimination self-check guide" was published for the public and schools to inspect and remove containers of standing water in their vicinity.

"Residential Environment Cleanup Mobilization Plan": In this plan, government agencies initiate cleanup actions in the environment adjacent to their workplaces, integrating the efforts of community workers and volunteers.

Pesticide application training for dengue control personnel: Training is provided to local government ground level staff including environmental, health, sanitation and community workers.

Subsidies for county and municipality environmental agencies: Subsidies cover purchases of pesticides and sprayers, as well as costs for implementing dengue vector habitat control and educational outreach plans.

Media news announcements: The media is used to remind the public to take part in preventing dengue fever outbreaks by proactively cleaning up residential areas and regularly carrying out the four steps of "patrolling, dumping, scrubbing, and removing" containers of standing water near their homes.

Use regional joint control system to establish dengue control work stations during outbreaks: Personnel are dispatched to these stations to prevent dengue outbreaks from spreading to other regions.

Raising Awareness: Citizen Compliance Essential

Dengue-control work still has several bottlenecks to overcome. For one, it has been difficult to fully implement the concept of prioritizing habitat control over insecticide use. Not all residents are taking the initiative to clean out gutters in their yards or comply with pesticide spraying work. Citizen awareness of dengue fever is still quite low and liaison mechanisms between government agencies lack effectiveness. Implementing authorities also face challenges. Inspectors need to be very sensitive and aware of their environment to avoid overlooking hidden breeding habitats in vacant spaces, unkempt areas, basements, back alley gutters, pots, and gardens.



▶ *Attractive planters can beautify the urban environment and reduce disease vectors*



▶ *Illegal planters can obstruct traffic and provide habitat for vector mosquitoes*

Several measures have been drawn up to overcome these problems: Local governments are asked to place more importance on dengue control. Media announcements and public briefings strengthen awareness of the need for people to check, dump, scrub and remove containers of standing water in their neighborhoods. Scholars, experts, community workers and volunteers are brought together to collaborate on inspection and enforcement work. Penalties are issued for those who don't cooperate with government policy to clean up residential environments. The government collects related garbage and sludge cleaned up by residents. The government also strengthens training seminars for vector-control personnel, and reinforces inspections and improvements of open spaces, vacant buildings and unkempt spots.

Full-scale Disease Control Aided by International Cooperation

In the long run, dengue outbreaks may not be limited to any one season in the future. Therefore, comprehensive countermeasures require the integration of effective and accurate control strategies, cleanup of unkempt spots, and law enforcement. International exchange and sharing of control experience also play a part in eradicating the disease. Actions to be implemented in the future include:

1. Implement "Residential Environment Cleanup Mobilization Plan" to create comfortable, quality living environments
2. Implement "Potted Plant Environmental Sanitation Management Plan" to beautify urban environments in a way that reduces the spread of dengue vectors
3. Formulate environmental sanitation methods to ensure more effective implementation of control work
4. Formulate "Self management guidelines for vacant buildings and open spaces" in all counties and municipalities to spell out management and maintenance obligations of property owners
5. Reinforce regional joint control mechanisms that can provide adequate resources when necessary
6. Strengthen educational outreach for public control of dengue vectors as well as occupational skills training for control personnel
7. Strengthen inspection of mosquito vector habitat
8. Hold seminars on dengue control

Recent occurrences of dengue fever in Taiwan

Year	Confirmed cases	Dengue Haemorrhagic Fever cases	Total cases in Taiwan/offshore islands
2002	5388	242 (21 deaths)	5336/52
2003	145	2	86/59
2004	427	7	336/91
2005	306	5	202/104
2006	1074	19 (4 deaths)	965/109

Note: Dengue fever symptoms are classified as either classic dengue fever or dengue haemorrhagic fever. Mortality rates are higher for the latter.

General Policy

US Democratic Party Elites Meet with EPA Minister Dang

US Democratic Party elite Joe Lockhart led a delegation of eight to meet with EPA Minister Winston Dang on 8 April 2008. The delegation inquired extensively about Taiwan's politics, shifting environmental policy, important environmental challenges, renewable energy technology priorities, air pollutant total quantity control, reuse of food waste, solving China's long-range air pollution problems and sharing Taiwan's recycling experience with other countries.

EPA Minister Winston Dang told the delegation that in the past few years the formulation and implementation of Taiwan's environmental policy has had a great affect on domestic environmental quality.

Not only has Taiwan become the world's largest recycler with recycling accounting for 38.6% of waste, but it is gradually seeing the results of river pollution remediation work. Dang stated the need to prioritize greenhouse gas reduction through broader uses of renewable energy technology. Although the Bureau of Energy, Ministry of Economic Affairs currently manages Taiwan's energy affairs, 98% of Taiwan's energy sources are imported fossil fuels, and Dang expressed concern about over reliance on imported energy. Dang emphasized that the EPA is actively promoting energy conservation and renewable energy demonstration projects using agricultural waste.

As for the challenging problem of long-range air pollutants, the EPA has cooperated with the USEPA and NASA to establish a trace air pollutant monitoring station on Mt. Lulin. In recent years, this station has detected air pollutants from China containing mercury and other toxic heavy metals. Minister Dang said that while most people can refuse to eat fish from mercury contaminated waters, no one can refuse to breathe when the air is polluted with mercury. This serious problem urgently requires environmental authorities from both sides to meet for face-to-face talks on how to jointly resolve transboundary pollution problems in a way that brings reciprocal benefits.

Toxic Substance Management

Toxic Tankers to Install GPS by August 2008

Recent revisions to the Toxic Chemical Substance Transport Management Regulations call for toxic chemical substance transport vehicles to come under regulatory control in batches. The first batch of toxic chemical tankers will be required to install GPS equipment by 1 August 2008.

The EPA and the Ministry of Transportation and Communications jointly promulgated revisions to the Toxic Chemical Substance Transport Management Regulations (毒性化學物質運送管理辦法) on 25 January 2008. To reduce the impact on related enterprises, the regulation specifies that Class I, Class II, and Class III toxic chemical carriers will enter regulatory control in four batches. Class I toxic chemical tankers will be required to completely install GPS instant tracking equipment by 1 August 2008 according to specifications.

The EPA indicates this is the first time for Taiwan to install GPS equipment on toxic chemical ("hazardous contents") transport vehicles. The motivation for adopting GPS management methods on toxic chemical vehicles is to get related industries to place more importance on enhancing the safety management of their vehicles. This prevention measure also assists toxic chemical substance owners to ensure the transport of their property is carried out according to regulations. In the unfortunate event of an accident, instant notification functions will

provide the necessary disaster response information to safeguard the property and safety of the public.

The EPA indicates that the first batch of vehicles to install GPS will be programmed to instantly transmit manifest forms via telecommunications networks as well as transmit transport routes to the EPA according to regulations. Transport routes are then instantly locked into the monitoring system, which provides disaster response information to mitigate damages in the event of an accident.

As the first batch of tankers prepares to install GPS equipment, the EPA calls on vehicle owners to sign up for preliminary equipment trials starting in May, after which transporters can begin to test their equipment from 1 June 2008. The EPA has already installed a website and related information for toxic chemical vehicles required to install GPS (<http://210.69.101.152/GPSZone>). This website explains how to fill out application forms and provides a Q&A section for further inquiries. Related industries are encouraged to check out the website.

Soil & Ground Water

Heavy Metal Pollution: Three Factories Listed as Control Sites

Heavy metal contamination of soil has been discovered in central and southern Taiwan. The EPA's Soil and Groundwater Pollution Remediation Fund recently inspected samples taken from eight industrial sites around Taiwan. Heavy metal pollution in excess of control standards was found at three sites: Demao Co. Ltd. in Changhua County, Fenghuo Co. Ltd. in Taichung County, and Chaanq Kwen Enterprise Co. Ltd. in Kaohsiung County. In the worst case, soil contamination of chromium exceeded the control standard by a factor of seven. The three sites are now under regulatory control, and the owners are required to make corrections in a limited time.

The EPA's survey results showed heavy metal contaminated soils at three closed companies that had formerly engaged in metal electroplating and scrap metal disassembly. Demao Co. Ltd. contaminated their soil with 1,150 mg/kg of nickel (5.76 times control standards), 1,060 mg/kg of lead (1.06 times monitoring baseline), and 319 mg/kg of copper (1.45 times monitoring baseline). Fenghuo Co. Ltd. polluted the soil with 1,320 mg/kg of nickel (6.6 times control standards) and 1,790 mg/kg of chromium (7.16 times control standards). Chaanq Kwen Enterprise Co. Ltd. polluted the soil with 659 mg/kg of copper (1.65 times control standards) and 1090 mg/kg of lead (1.09 times monitoring baseline).

The two companies Fenghuo and Demao have already folded up, and Chaanq Kwen Enterprise has already terminated factory operations. All the factories are currently vacated.

The EPA has already asked local environmental

protection bureaus (EPBs) to either announce these three cases as soil pollution control sites or get the companies to complete improvement measures before a given deadline in order to prevent further spread of pollution. The EPA has also asked local EPBs to immediately confirm whether the residents near these factories have used the groundwater, planted crops or engaged in aquaculture, and to adopt appropriate measures.

The EPA emphasizes Article 9 of the Soil and Groundwater Pollution Remediation Act (土壤及地下水污染整治法) stipulates regulated industries must honestly report soil pollution test results upon establishment or termination of operations, or when shutting down business. This information must be submitted to local competent authorities for reference. Failure to do so could result in fines ranging from NT\$200,000 to NT\$1,000,000. For further information, please call 02-23832389 ext. 848.

Climate Change

Local Government Carbon Reduction Performance Awarded

Kicking off Taiwan's inaugural year of carbon reductions, guess which of Taiwan's 25 counties and municipalities are rated as model localities for carbon reduction efforts? The answer is: Taipei City, Taipei County, Taoyuan County, Tainan City, and Kaohsiung City. These local governments earned first place awards from the EPA for outstanding performance in carbon reductions and educational outreach. Miaoli County, Tainan County and Hualien County were runners up in the selection.

With increasing international awareness of global warming, carbon reduction and energy conservation, the EPA held the Local Government Carbon Reduction Outstanding Performance Awarding Ceremony on Earth Day, April 22, to commend local government action on these issues.

EPA Minister Winston Dang kicked off Taiwan's inaugural year of carbon reductions at the ceremony. Dang pointed out that while people can refuse to let

polluted food and water enter their stomachs, no one can keep polluted air out of their lungs or be immune to the effects of global warming on the environment, society, economy, diseases, and food security.

Minister Dang said that global awareness of climate change in 2007 makes this the year to begin practicing carbon reduction and energy saving actions. It is also an important year for establishing international partnerships. The theme for the event

was "Save Our Sky" and provided citizens with a list of ten ways to reduce carbon emissions in their everyday lives. Every small action that people take to reduce carbon consumption and save energy counts in the fight against global warming, including turning off lights, eating more vegetables and driving less.

A short film on the Minister's carbon reduction diary was shown during the event, showing how Minister Dang has cut down on eating out and has increased the ratio of vegetables in his diet for several years. Dang called on people to join the ranks of carbon reduction and energy conservation by creating less garbage, riding the bus, walking and taking the stairs more. These simple steps can give the Earth a break and help maintain a cooler climate.

Calling for lower carbon practices, Dang and EPA colleagues led the Earth Day event by pledging to eat vegetarian for the day, and bringing their own chopsticks, cups and eating utensils. The event hosted a lunch that primarily consisted of fruits and vegetables grown in Taiwan, conveying the message that everyone can make the choice to reduce the

energy used in transporting foods long distances.

The top ten ways to reduce carbon consumption are:

- 1) Replace incandescent bulbs with energy saving lights
- 2) Open the window to cool down
- 3) Turn off lights and unplug appliances
- 4) Give your vehicle a rest at least one day a week
- 5) Walk more for your health
- 6) Eat local foods
- 7) Order only what you can eat
- 8) Refuse products with overpackaging
- 9) Change one-time-use habits
- 10) Recycle and reuse all resources.

Soil & Ground Water

Scope of Soil Pollution Control Standards Revised

The EPA promulgated revisions to the Soil Pollution Control Standards on 1 May 2008, deleting a clause stating that samples must be taken from the unsaturated soil strata above the lowest groundwater level. From now on, soil containing pollutants in excess of soil pollution control standards will be considered contaminated no matter whether the soil sample is taken above or below the groundwater level.

The EPA indicates that groundwater levels fluctuate due to natural causes, during droughts or pumping. This has an important bearing on people's judgment of water levels when soil samples are taken. Polluters frequently attempt to avoid remediation obligations by saying samples of contaminated soil were collected below the groundwater level, and therefore that control standards should not apply to their situation. In the past this has caused disputes on the definition of pollution sites, creating necessity for revisions.

The EPA indicates that the revisions will have the greatest impact on pollution from petroleum products,

as oil is lighter than water and only dissolves slightly in water. When oily pollutants flow down into the groundwater, most oil remains above the water surface, sticking to soil particles as the water level rises and falls. Areas with the highest pollution concentrations are often somewhere between the highest and lowest water levels. Therefore disputes frequently center around whether the water level is at its lowest when soil samples are taken.

The EPA indicates that the next step will be to reevaluate soil pollution control criteria and control values.

Environmental Analysis

EPA Develops New Biochips to Test for Indoor Airborne Germs

Curious about the air quality of your office or home? Now you can find out with just one small computer chip that can conveniently detect the presence of ten kinds of diseases in indoor air.

The EPA Environmental Analysis Laboratory has successfully developed a new biochip that can simultaneously detect up to ten kinds of airborne disease-causing microorganisms including *Aspergillus flavus*. This technological innovation greatly shortens the time required to test air quality from a month to just a few days. Harmful germs now have nowhere to hide indoors.

The EPA indicates that once the Legislative Yuan approves the Indoor Air Quality Management Act (室內空氣品質管理法), this technology will have immediate applications, for example in examining the indoor air quality of elementary school classrooms and kindergartens.

The EPA and National Cheng Kung University's Department of Medical Technology cooperated on the research and development of the new biochip. The biochip can test up to ten kinds of airborne disease-causing fungi, including four kinds of dangerous fungi the American Industrial Health Association (AIHA) recommends should be absent from indoor air: *Aspergillus versicolor*, *Aspergillus fumigatus*,

Aspergillus flavus, and *Stachybotrys chartarum*.

The EPA indicates that most people spend at least 90% of their time indoors. That means that poor indoor air quality can have a big influence on health. This is especially the case in Taiwan's warm and humid climate suitable for the growth of microorganisms. Once outdoor air currents begin to stir, fungi spores in the atmosphere may get blown indoors, and propagate in ventilation or air conditioning systems, thereby increasing the risk of human infection.

Rapid test biochips can greatly reduce health risks says the EPA. DNA oligonucleotide probes of ten disease-causing fungi are successfully implanted into this new biochip. Characteristics of DNA sequences are compared to test for the characteristic genes of these species. Several different probes can be put on one chip, with each probe capable of testing for a designated species of fungi. This allows detection of many different species at once in a short period of time. For more information, please call: 03-4915818 ext. 2500.

General Policy

Eight Counties and Cities Demonstrate Outstanding Environmental Performance

The EPA has announced the results of the 2007 performance evaluation of local environmental agencies. The agencies were evaluated in 19 areas including performance in improving air quality and ensuring clean water sources. Eight counties and municipalities shared first place as Taiwan's most environmentally aware local governments: Taipei City, Taipei County, Taoyuan County, Taichung City, Taichung County, Chiayi County, Kaohsiung County and Ilan County.

Items on the 2007 performance evaluation covered 19 areas of environmental protection work including air pollution control, water pollution control, public complaint handling, and inspection and control of major pollution events. The EPA based its decision on year-round supervision evaluation records, statistics and onsite verification. The environmental loading and different conditions in each jurisdiction were brought into consideration during the evaluation.

Awarded not only for overall performance in complementing the EPA's central policies, the top eight counties and municipalities also showed creativity in using local assets to carry out their

work. For example, Taipei City performed well on its promotion of the "Mandatory Sorting Garbage Bag Ripping Demonstration Plan" and the "Environmental Policing to Eliminate Unkemptness Mobilization Plan." Taipei City also provided address data to speed up the process of handling citizen complaints.

Also noteworthy was Yilan County's cooperation with the Yilan Jail in a plan to reuse furniture. A carpentry class at the jail was responsible for repairing discarded furniture for resale. Taoyuan County was commended for its educational outreach on food waste recycling and diverse reuse methods. The

County organized stage performances to attract public participation and effectively promote environmental concepts. For more information, please call 02-2311-7722 ext. 2900.



▶ Taoyuan County's stage performances attract public participation and effectively promote environmental concepts

Recycling

41 Tonnes of Garbage Recycled during Matsu Pilgrimage

The EPA integrated recycling promotion efforts with the annual Matsu pilgrimage to get people to pick up garbage along the way. This first-time event was kicked off on 13 April 2008. Over a period of 8 days and 7 nights, 41 tonnes of garbage was recycled, equivalent to the weight of two million 600 ml plastic bottles.

The annual Matsu pilgrimage passes through Taichung County, Changhua County, Yunlin County and Chiayi County along a route over 280 km long. Every year the event attracts over a million



▶ Matsu pilgrimage, Taichung County, 2008

participants and generates a staggering amount of garbage. This year the EPA took the opportunity to hold a recycling education event and organize a recycling team consisting of over a thousand environmental volunteers, community groups, and private businesses. The team installed 6,000 recycling bins made of recycled paper and five recycling promotion stations to get people to recycle. Sixteen businesses sponsored manpower and materials.

A total of 41 tonnes of recyclable materials was

recovered, not including the amount recycled voluntarily by businesses along the route. The most abundant recyclables recovered were plastic and glass water bottles and drink containers and paper lunch boxes.

Along the route, the EPA set up recycling bins made from recycled paper to collect recyclables, food waste and rubbish, reminding people to sort their garbage while on the pilgrimage to help protect the environment.



▶ Garbage cleanup event during the Matsu pilgrimage

Ecolabeling

EPA Seeks Green Stores to Market Environmental Products

The EPA has set up a Green Store system on its Green Living Information Website to make it more convenient for the public to purchase environmental products. Legal retail outlets are encouraged to register as Green Stores to sell Green Mark and other environmental products. All it takes is for local environmental protection bureaus to audit qualified stores in order for the stores to obtain the rights to use the Green Store logo and participate in the Second Green Marketing Awards. Environmental product information will be posted on the website to make it easier for people to look up and purchase products.

With the coming era of green consumerism in Taiwan, the EPA has established the Green Store website to increase the visibility of businesses that sell environmental products. To register as a Green Store, a store must sell at least three kinds of Green Mark products, have well-labeled green product areas and install recycling facilities. Each Green Store

will be given a logo to post in a prominent location announcing that the store sells Green Mark products, and energy or water saving products. This will make it easier for people to locate such products.

Green Marketing Awards include three parts: policy, measures and outcomes. Policy is evaluated on the

basis of green marketing plans, as well as awareness and training for management and employees regarding green consumption and green procurement. Measures are evaluated on the basis of green procurement implementation methods; Green Mark and other environmental product placement, labeling, and marketing; sales methods; and environmental and sanitation management of stores. Outcomes are evaluated based on the categories of Green Mark and other environmental products, total sales, effectiveness of green marketing promotion, green procurement revenue and total ratio of green sales to

annual revenue.

The Green Marketing Award is divided into two categories for chain stores and individual stores. The top three businesses are selected in each category for a total of six winners. The EPA calls on domestic department stores, discount stores, supermarkets, chain stores, and retailers to participate in setting up green procurement environments. For more information, please check out the Green Living Information Website (<http://greenliving.epa.gov.tw>) or direct inquiries by phone to (02) 2336-5567.



 Green Store Logo

Environmental Inspection

Industrial Dust and Ash Inspections Expanded in Southern Taiwan

Illegally landfilled or discarded industrial dust and ash have been discovered in southern Taiwan in recent years. To eliminate this practice, the EPA is conducting focused inspections on 149 companies that generate industrial dust and ash.

Factories in southern Taiwan generated over 160,000 tonnes of baghouse and precipitator dust and ash in 2007. Careless dumping of such waste could seriously degrade environmental quality. The EPA has therefore come up with the "Regulated Industrial Dust and Ash Control Inspection and Supervision Plan for Southern Taiwan." Targeted waste includes the dust and sludge generated by electric arc furnaces for steel making, secondary smelting of chromium, cadmium, mercury and copper, and aluminum. Other factories targeted include those that generate non-hazardous dust and ash or their

mixtures. The plan will carry out a full-scale inspection of these factories.

The Southern Branch of the Bureau of Environmental Inspection states the focus of inspections will be to check whether air pollution control equipment complies with regulations, whether there are fugitive emissions of dust and particulate pollutants, and whether accumulated dust and ash of industrial waste storage, clearance and treatment accords with regulations. Samples will be taken of non-hazardous waste dust and ash or their mixtures to see which

enterprises have larger annual quantities. Tests will confirm whether the waste is hazardous industrial waste and violators of related regulations will be penalized.

The Southern Branch of the Bureau of Environmental Inspection stressed that improperly treated or

carelessly discarded hazardous industrial waste can seriously pollute the environment. All enterprises are called on to live up to their obligations to properly operate pollution control equipment and honestly report waste clearance and treatment flow in order to avoid penalties.

News Briefs

Six Counties and Cities Applauded for Promoting Green Consumption

As part of the EPA's "Private Enterprise and Organization Green Procurement Implementation Plan," six of the best performing local environmental agencies were awarded on 24 April 2008. The winners were Taoyuan County, Taipei City, Taichung City, Hsinchu City, Yilan County and Keelung City, all of which received EPA's approval for outstanding performance in actively guiding green businesses to set up green consumption service hotlines, guiding private companies and organizations to engage in green procurement, and holding related promotional events. The EPA states that in promoting green consumption, apart from executing government green procurement plans, since 2007 it has urged local environmental agencies to invite the participation of private businesses and organizations as well. A total of 1,532 businesses have responded, reaching a total

green procurement amount of over NT\$600 million, three times higher than in 2006. The top three green procurement spenders in 2007 were Full Tech Fiber Glass Corp. Ltd., Far Eastone Telecommunications Co., Ltd., and Wellpool Co. Ltd.'s Goldsun factory.

East Coast Leads in River and Ocean Pollution Remediation

The EPA announced the results of an evaluation of local government efforts in river and ocean pollution remediation on 24 April 2008. Top performers in river remediation were Taipei County, Taoyuan County, Yilan County and Hualien County. Top performers in ocean remediation were Yilan County, Kaohsiung County and Penghu County. The best performance was made on the east coast. Yilan County took first place for ocean remediation and neither Yilan nor Hualien showed signs of serious pollution.



▶ Yilan County held 'Creative Environmental Fair' before Earth Day

Activities

2008 Green Packaging Design Contest Open for Registration

The EPA held the 2008 Green Packaging Design Contest

to encourage companies to design and manufacture creative environmental packaging for their products. The contest registration deadline is 31 July 2008. The

activity is divided into two parts for industrial packaging and commercial packaging, the latter of which is further divided into the three categories of electric and electronic goods, foods, and other products. The top ten designs will be selected and publicly announced by the EPA. Designs will be evaluated in the three areas of "green concepts," "economic and environmental benefits," and "creativity." "Green concepts" comprise 60% of the score and include resource-saving, easy to recycle, and low-polluting qualities. "Environmental and economic benefits" comprise 10% of the score and are rated on reduced costs of packaging and logistics, and reduced environmental impact of materials. "Creativity" counts for 30% of the score and includes green design creativity, structural design innovation, aesthetics, and practicality. Details on the contest rules can be downloaded from the EPA's website under the section on excessive packaging restrictions (<http://www.epa.gov.tw/package>).

90% of Taiwan Internet Users Think Reducing Carbon and Energy Consumption Can Curb Greenhouse Effect

The EPA and Yahoo! Kimo News cooperated on hosting an Internet vote, which found that over 90% of people in Taiwan are concerned about global warming, carbon reduction and energy conservation issues. Respondents

say that eating more vegetables and riding automobiles less often and other carbon reduction and energy-saving actions can help turn around the worsening greenhouse effect. The online voting activity, entitled, "Do you care about global warming, carbon reductions and energy conservation?" lasted from April 17~21 and attracted nearly 15,000 respondents who expressed their views. About 94.7% of respondents expressed concern about these issues. For more information on this poll, please http://tw.quiz.polls.yahoo.com/quiz/quizresults.php?stack_id=1205&wv=1. To calculate your carbon footprint, go to http://tw.green.charity.yahoo.com/green_calculator.html

Environmental Mascot Design Contest, 15 Entries Selected

The EPA held an "environmental mascot" product design contest last month, attracting a total of 301 design entries, from which 15 outstanding works were selected for their environmental concepts and creativity. The winners were announced and given awards and grants on 24 April 2008. The EPA used this activity to remind people that caring for the environment and reusing resources in our daily lives can maximize the value and potential of products.



▶ These stylish reusable shopping bags won the "environmental mascot" product design contest

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