



Sustainable Development

Premier Yu Calls for Action on Sustainable Development

In order to actively implement the nation's policy of sustainable development, Executive Yuan Premier Yu Shyi-kun has decided to concurrently serve as chairperson of the National Council for Sustainable Development and has appointed representatives of the private sector to sit on the council. Premier Yu stresses the importance of mechanisms for the implementation of sustainable development policy, and plans to take immediate action through the educational system to truly realize sustainable development.

The National Council for Sustainable Development (NCSD) (國家永續發展委員會) convened for the thirteenth time on May 11. Executive Yuan Premier Yu Shyi-kun took advantage of this conference to emphasize the president's concern for sustainable development and his wish to use the power of

the cabinet to expedite the work at hand. In addition, Yu stated that the president seeks to use real actions to let citizens know that the country is truly attentive to this crucial issue.

To proactively implement sustainable development, Premier Yu took over as chairperson of the NCSD in addition to his regular duties. Yu also changed the NCSD's composition and organizational framework. For example, in addition to the heads of Executive Yuan agencies, Yu has instructed that more scholars, specialists, and representatives of private organizations be appointed to the NCSD during its current session, hoping in this way to increase private sector input on sustainable development policy. Scholars, specialists, and representatives of private organizations

currently account for approximately one-third of the council's membership. And to strengthen implementation mechanisms, Vice Premier Lin Hsin-yi (林信義) will serve as the NCSD's deputy chairperson during its current session. Moreover, Minister of State Yeh Chun-jung (葉俊榮) will serve as executive director, while the deputy heads of the Ministry of the Interior, MOEA, Ministry of Education, COA, and EPA will serve as deputy executive directors. These appointments will insure that the NCSD has greater executive power and its resolutions can be effectively implemented.

The reorganized NCSD has established eight working groups responsible for drafting and implementing sustainable development policies. In accordance with the

In this Issue

Premier Yu Calls for Action on Sustainable Development	1
Taipei Department of Environmental Protection—Building an Eco-City	2
Three New Drafts of Marine Disposal Regulations	6
Poll Shows Air Pollution is Public's Greatest Environmental Concern	7
New Fuel Injection Engine Scooters to Cut Air Pollution ...	8
New Warning Pictograms for Environmental Sanitation Agents	9
2002 Ecotourism Site Environmental Monitoring Mechanism Announced	10
Hau Calls for Cleanup of Targeted Polluted Farmland within Two Years	11
News Briefs	12



Premier Yu Shyi-kun, here seated between Vice Premier Lin Hsin-yi (right) and Minister of State Yeh Chun-jung, has called on all agencies to take immediate action to implement sustainable development policies.

resolutions made at the recent conference, each working group must complete a draft action plan within a one-month period. Scholars, specialists, and representatives of private organizations have been invited to serve as consultative council members and keep a sharp eye on the feasibility of implemented projects. The executive director must now complete deliberation of the draft working group action plan by the end of August, and will submit the proposal to the next NCSO conference for approval.

Addressing the most salient issues connected with sustainable development in Taiwan, Premier Yu stated, “Although the NCSO has

Yu stated, “Although the NCSO has promoted the sustainable development concept since it was established in 1997, it hasn’t been fully implemented yet. It must now take action immediately if we hope to truly realize sustainable development.”

promoted the sustainable development concept since it was established in 1997, it hasn’t been fully implemented yet. It must now take action immediately if we hope to truly realize sustainable development.” Placing particular emphasis on implementation mechanisms, Yu expressly requires that the implementation of the NCSO’s action plans and resolution items by administrative agencies be rigorously tracked. Yu is determined that all plans be implemented to the full, and that the “pursuit of sustainable development” is not allowed to become an empty slogan.

For more information, please call 02-2311-7722 ext. 2211.

Eight Working Groups of the Council for Sustainable Development, Executive Yuan

Working group	Agency in charge	Working group	Agency in charge
Sustainability vision working group	Council for Economic Planning and Development	Life and production working group	Ministry of Economic Affairs
National land resources working group	Ministry of the Interior	International environmental protection working group	EPA
Resources and industry working group	Ministry of Economic Affairs	Health risk working group	Department of Health
Biodiversity working group	Council of Agriculture	Sustainable education working group	Ministry of Education

Waste Management

Taipei Department of Environmental Protection—Building an Eco-City

Enforcement by local environmental protection organizations is essential if the environmental protection policies and regulations formulated by the EPA are to have any effect. Since Taipei is the largest city in Taiwan, in this issue we interview Director Stephen S.H. Shen of Taipei’s Department of Environmental Protection and hear his views concerning Taipei’s environmental problems and response strategies. In particular, Director Shen discusses his “zero landfills by 2020” solution to the city’s waste disposal problem, and expresses his hope that Taipei can become a beautiful, ecological city.

The roots of the Department of Environmental Protection of the Taipei City Government (TDEP) can be traced back to July 1982.

At that time, facing increasingly severe environmental problems, the Taipei City government re-named the existing “Environmental

Sanitation Office” (環境清潔處) the “Department of Environmental Protection” (環境保護局) with the approval of the Executive Yuan, and charged it with protecting the environment and strengthening pollution prevention. Now in its twentieth year, TDEP currently employs more than 8,000 persons. Apart from handling administrative duties in connection with its environmental protection mission, TDEP is also responsible for the collection and disposal of household waste, the operation of the Neihu (內湖), Mucha (木柵), and Peitou (北投) incinerators, and management of the Shanchuku Landfill (山豬窟垃圾衛生掩埋

場). TDEP commands an annual budget of approximately NT\$6 billion, which is mainly used for waste disposal and environmental cleanup expenses (more than 55% of total budget), as well as waste disposal engineering, the city sanitation inspection team, and the operation of its three incinerators. In general, TDEP's largest expense item is waste removal and disposal.

Taipei's Environment Continues to Improve

“Many types of environmental monitoring data indicate that overall environmental quality in Taipei City has improved significantly.” TDEP Director Stephen S.H. Shen (沈世宏) went on to describe how the number of days per year with poor air quality (PSI>100) has dropped from more than 60 in the past to 44 last year. Today Taipei City looks forward to alleviating the problem of high ozone concentration in the air by acquiring natural gas buses and encouraging the use of electric bicycles. Progress is being made against the noise problem, and instances of environmental noise exceeding acceptable standards have dropped continuously over the most recent three years. However, while household sewer connections are growing by around 5% per year, there have been only minor variations in the overall quality of river water, and there has been no significant improvement.

Over the last few years TDEP has launched a series of activities to promote community environmental sanitation, an issue intimately linked to residents' everyday lives. For instance, in the past TDEP initiated a campaign to wipe out the small paper flyer advertisements that usually end up as litter on city streets, and last year it rated the cleanliness of public toilets as part of its very successful



Taipei City's recycling volume has greatly increased following the introduction of the per-bag fee collection system.

“Public Toilets Year.” This year TDEP has tried to reduce the amount of dog excrement on city streets through its “Use a Leash” and “Lend a Hand to Clean up Dog Excrement” campaigns. In addition, TDEP's “Green Mountains and Clean Water—Bring Litter Home in a Bag” campaign is spearheading the fight against litter in mountain and riverside recreation spots. “The mayor's support has been essential to the success of these activities,” said Director Shen, and Mayor Ma Ying-jeou's (馬英九) backing has enabled TDEP to receive strong support from other city government agencies. Extensive mobilization of the manpower of the TDEP and other government agencies—especially the participation of borough chiefs—has enabled TDEP's activities to reach every corner of Taipei and successfully improve community environmental quality.

Aiming for Zero Landfills by 2010

“Our biggest challenge is waste. While our original goal was to have zero landfills by 2020, we are now planning to achieve this by 2010.” Director Shen thus stated

the core environmental problem in Taipei, while also mentioning his forward-sighted solution of “zero landfill, total recycling.” TDEP hopes that all waste can be recycled and reused, including scrap metal, paper, and glass. Even kitchen garbage will be used to make compost, or fed to animals after sterilization. For its part, flammable waste can be used to generate electricity in incinerators. And after sorting, incinerator ash and building waste can also be reused. When this vision of recycling is fully realized, there will be no need to rely on landfills as final disposal sites.

The waste removal system currently works like this in Taipei: City residents put their household trash in bags and take it to fixed collection and removal points. There TDEP's sanitation teams pick up the waste in their trucks and transport it to disposal facilities for centralized treatment. TDEP currently disposes of waste at its Neihu, Mucha, and Peitou incinerators, which have a total disposal capacity of 4,200 tonnes per day. When operating at full capacity, these facilities are sufficient to dispose of most waste produced in Taipei City. In addition, Taipei also disposes of

waste in the Shanchuku Sanitary Landfill, which is the city's second sanitary landfill. Having gone into operation in 1994, this landfill has a total volume of 6.17 million cubic meters, and presently has 580,000 cubic meters of room left. It is

and springs and other metal parts, which can be sold to recycling firms for reuse. TDEP's statistics show that the average waste volume entering the city's landfills has fallen from 2,584 cubic meters per day in 1999 to 1,022 cubic

low all useable resources to be recycled, while producing energy from the incineration of the remaining waste. The ash produced from the incineration of waste will either be used by private ash recycling firms, or by reuse facilities established by TDEP itself. Ash will be used in the paving of roads, and incinerator slag can be used directly as a paving material. And when the existing incinerators approach retirement, they will be converted into thermal decomposition furnaces producing no dioxin. When there is no excess incinerator ash needing disposal, then the goal of "zero landfill, total recycling" will truly have been reached.

The average daily amount of household waste produced has fallen by 37.7% from 2,970 tonnes in 1999 to 1,581 tonnes today.

currently used for the disposal of noncombustible waste and incinerator ash.

To achieve its zero landfill goal, TDEP began implementing a per-bag fee collection system in July 2000, and this program has successfully reduced the city's waste output. To further lessen the burden on landfills, TDEP requires residents and businesses to perform waste sorting, which prevents useful resources from being sent to incinerators and landfills. TDEP is also relying on several newly-acquired technologies to keep flammable wastes from being put into landfills. For example, it uses huge waste crushers to grind up pieces of flammable waste prior to disposal by incineration. Spring mattress disassembly technology enables discarded mattresses to be broken down into flammable cloth and fibers, which can be incinerated,

meters per day in March and April of this year (2002), and only 856 cubic meters per day in May and June. This reduction in waste output will dramatically extend the useful life of Taipei's only operating landfill, while relieving pressure to build a third landfill.

TDEP plans to build a number of recycling facilities via a BOT (build-operate-transfer) approach in the future. These will include an organic waste disposal facility at the Peitou incinerator, a comprehensive sorting facility at the Neihu incinerator, and a crushing, sorting, and recycling facility for oversized and building waste at the second landfill. Organic waste disposal and comprehensive sorting facilities will be built at all three incinerators in the years to come, and a crushing, sorting, and recycling facility for oversized and building waste will be built at a third landfill. This system will al-

Per-Bag Fee Collection Cuts Taipei Garbage Volume by 38%

Taipei City previously collected waste disposal fees according to water use, and each household had to pay an additional NT\$4 in waste fees for every standard unit of water used. Although this was a convenient way of collecting waste disposal fees, the lack of a direct connection between water use and waste output made it occasionally unfair.

With the support of the city council, TDEP therefore began changing to a per-bag fee collection system on July 1, 2000. City

Taipei City's Timetable for Zero Landfill, Total Recycling by 2020

Time	2001~2005	2006~2010	2011~2015	2016~2020
Tasks to be completed	1. Use of restaurant garbage as hog feed (150 tonnes/day) 2. Trial compost plant (30 tonnes/day) 3. Composting of leaves from parks and schools (18 tonnes/day) 4. Crushing, sorting, and recycling facility for oversize waste (100 tonnes/day) 5. Mandatory pre-sorting of waste	1. Organic waste compost plant (900 tonnes/day) 2. Full sorting and disposal facility (300 tonnes/day)	1. Organic waste compost plant (500 tonnes/day) 2. Full sorting and disposal facility (1,600 tonnes/day)	Waste decomposition, ash vitrification and solidification facilities
Incinerated waste	2,451 tonnes/day	1,541 tonnes/day	775 tonnes/day	775 tonnes/day
Waste entering landfills	698 tonnes/day	466 tonnes/day	212 tonnes/day	212~0 tonnes/day

residents must now pack their waste in designated waste bags produced by TDEP and available for purchase at stores throughout the city before it will be picked up by a sanitation team. Residents can also separate recyclable resources from their waste and give them to a sanitation team recycling truck free of charge. This system not only provides economic incentives for waste reduction and recycling, but also realizes the polluter pays principle.

of household waste produced daily during March, April, and May of 2002 has fallen 42.2% over the amount in 1999 to 1,718 tonnes. This shows that the per-bag fee collection system has delivered significant benefits and is increasingly effective.

In addition, the amount of resources recycled by TDEP has risen 125% from an average of 73 tonnes per day in 1999 to 163 tonnes per day at present. Thanks

tion and full-scale recycling, easing demand for incinerator capacity, and extending the useful life of existing landfills.

Thanks to the successful implementation of per-bag fee collection by TDEP, the Regional Institute of the Environment gave its "Outstanding Asian Waste Management Award" to the Taipei City government on November 7, 2001. This award provides further affirmation for the city's success at giving residents outstanding, forward-looking waste management services. The Regional Institute of the Environment was jointly established by the Commission of the European Communities and the government of Singapore to study international non-profit non-governmental organizations that focus on environmental issues in Europe and Asia.

The successful implementation of a per-bag fee collection system is a major first step towards realization of the ideal of "zero landfill, total recycling." In the future TDEP will build on this foundation by instituting a variety of further waste management measures and acquiring advanced recycling technology. Director Shen has confidently declared, "We are absolutely sure we can reach our objective of "zero landfill, total recycling" by 2020."

The amount of resources recycled by TDEP has risen 125% from an average of 73 tonnes per day in 1999 to 163 tonnes per day at present.

Since Taipei implemented a per-bag fee collection system, use of designated waste bags has approached 100% among city residents. TDEP waste statistics indicate that average daily total waste volume in Taipei has fallen by 26.3% from 3,695 tonnes in 1999 to the current 2,722 tonnes. In addition, the average daily amount of household waste produced has fallen by 37.7% from 2,970 tonnes in 1999 to 1,581 tonnes today. Average daily total waste output during March, April, and May of 2002 has fallen to 2,408 tonnes, or 34.8% less than during 1999. These statistics similarly indicate that the average amount

to the dramatic increase in recycling that followed institution of the per-bag fee collection system, the recycling industry has staged a revival, and many schools, organizations, and apartment buildings, etc., are earning money selling recyclable materials to private recycling firms. When resources recycled by private recyclers are included, a total of 20,007 tonnes of materials were recycled in Taipei during May 2002, which works out to 645 tonnes of materials per day and a recycling rate of 20.5%. It is clear that the per-bag fee collection system is achieving the goal of waste reduc-

News Briefs

Everlight Chemical Severely Punished for Violation of Waste Disposal Act

Responding to the recent dumping of hazardous industrial waste in Nankan Creek, Luchu Township, Taoyuan County, EPA Administrator Hau Lung-bin on June 12 led EPA inspectors and environmental protection police in conducting a raid on the Everlight Chemical Company (永光化學股份有限公司) to collect evidence of wrongdoing. In addition to notifying the Taoyuan County district prosecutor's office to take legal

action, the EPA also immediately ordered Everlight to cease operations in part of its Kuanyin Plant No. 2. Administrator Hau issued a reward of NT\$200,000 to the local farmers who had boldly exposed the company's illicit behavior.

EPA Announces Water Quality Testing Results from Swimming Beaches

Seeking to protect the health and safety of people who wish to enjoy water fun in the summer, the EPA announced the first water quality testing results from seashore swimming beaches. Water quality was excellent

at Chiting Beach (崎頂) in Miaoli County and Shanyuan Swimming Beach (杉原海水浴場) in Taitung County. Water quality was good at Fulung (福隆) and Hsin Chinshan (新金山) beaches in Taipei County, Tunghsiao (通霄) in Miaoli County, Taan (大安) in Taichung County, Chichin (旗津) in Kaohsiung and Kenting Tiaoshih Recreational Seashore (墾丁跳石休憩海岸) in Pingtung County. On the other hand, tests revealed excessively high coliform bacteria counts at the Gold Coast (黃金海岸) in Tainan, which kept this beach from meeting Class A water quality standards.

The EPA has also drafted *Standards for the Designation of Marine Disposal and Incineration Zones* in accordance with Article 21 of the *Marine Pollution Control Act*. In drawing up these standards, the EPA has studied related Japanese and US regulations and experiences and has given careful consideration to the locations of sensitive marine

These drafts demonstrate Taiwan's determination to comply with international conventions in order to protect the marine environment.

environments and fishing areas. These standards delineate five areas in waters off the northwest, west, southwest, southeast, and east of Taiwan and designate one marine disposal zone in each of these areas. These standards also provide one marine incineration zone, located further off the southeast of Taiwan. In addition, these standards detail usage regulations for designated zones, including geographical coordinates, water depth, distance from the shore, total surface area, primary disposal uses, and usage periods.

The EPA is proud to present these three new drafts. In addition to providing comprehensive regulations for marine disposal and incineration in Taiwan, they also demonstrate Taiwan's determination to comply with international conventions in order to protect the marine environment.

For more information, please call 02-2311-7722 ext. 2841.

General Policy

Poll Shows Air Pollution is Public's Greatest Eco Concern

A recent EPA poll shows that the public considers air pollution Taiwan's most severe environmental problem and that, of all waste management problems, the handling of household waste is in the most urgent need of being resolved. The poll also reveals that citizens feel the handling of household waste has seen the greatest improvement over the last year and that over 80% of the public is satisfied with the job performance and integrity of EPA personnel.

The EPA commissioned a public opinion polling company to conduct the Environmental Policy Opinion Poll in April and May of this year. This poll was aimed at gaining an understanding of public satisfaction with EPA policy and the job performance of EPA personnel.

Air pollution was ranked the worst current environmental problem for the second year in a row, with 36.7% of those polled being of this opinion. As for the primary cause of air pollution, 68.5% of those surveyed blamed motor vehicles, while 13.8% attributed this pollution to factories. On the other hand, 17.5% listed river pollution as presently Taiwan's most severe environmental problem, earning it a ranking as the second worst environmental problem in the eyes of the public. The primary reasons noted as the causes of river pollution were industrial effluence, 48.8%, illegal waste dumping, 31.6%, and household waste water, 10.3%.

When asked which waste disposal issue is in the most urgent need of being resolved, 25.9% of those

surveyed pointed to household waste. This was followed by hazardous industrial waste, 20.4%, regulated recyclable materials, 11.4%, general industrial waste, 10.3%, medical waste, 9.3%, and high-technology industry (such as electronics and biotechnology companies) waste, 9.2%.

Concerning which environmental problems have improved compared to last year, 78.0% of those polled replied that the household waste handling problem had seen the greatest improvement. However, 59.3% said that air quality had not grown better and 20.2% said that that river pollution had worsened.

The survey revealed that public satisfaction with the job performance of EPA personnel has increased compared to last year. Of those polled this year, 3% said they had had contact with EPA personnel over the previous year. Of this 3%, 84.3% said that they were satisfied with the working attitude of these personnel and 80.7% said that they were satisfied with the moral character and integrity of these personnel. These figures reveal that the public has given its affirmation to the job performance and integrity of these personnel. EPA Administrator Hau Lung-bin says that this survey will be an important reference in promoting future environmental policy. As for the items with which the public is not satisfied, Hau added that the EPA would grant them the utmost consideration when evaluating and improving its environmental policies.

For more information, please call 02-2311-7722 ext. 2101.

Note: This opinion poll was conducted through a random telephone survey of Taiwanese at least 20 years old. The poll, with an effective sample size of 3,743, achieved a 95% confidence interval with a sampling error of 1.6% or less.

Air Quality

New Fuel Injection Engine Scooters to Cut Air Pollution

The five major Taiwanese motorbike manufactures have coordinated with EPA policy by developing new 125cc fuel injection engine scooters. These engines generate significantly lower emissions than traditional carburetor engines and will play a major role in reducing the air pollution caused by non-stationary pollution sources. The EPA is offering NT\$4,000 subsidies to help consumers purchase these low-pollution scooters.

“The Taiwanese scooter has formally entered the low-pollution era,” EPA Administrator Hau Lung-bin declared at the presentation ceremony for five new domestic fuel injection engine scooters on June 4. Each of the five big Taiwanese motorbike makers presented one fuel injection scooter at the presentation. Administrator Hau even personally took one of these scooters for a spin in order to encourage the public to purchase these new low-pollution scooters.

Motorbikes are the most common form of personal transportation in Taiwan. Statistics reveal that there are over 11 million motorbikes currently roaming Taiwan’s roads, meaning that there is one motorbike for every two people in Taiwan and making Taiwan the country with the highest concentration of motorbikes in the world. As motorbikes with traditional carburetors generate heavy emissions, about three times more than automobiles, they are the primary source of urban air pollution in Taiwan. These carburetor motor-

bikes account for approximately 10% of total annual emissions of CO and hydrocarbons in Taiwan. These figures demonstrate why the EPA has always made the reduction of motorbike emissions one of its most important missions.

Taiwan’s five big motorbike manufacturers, Kwang Yang Motor Co. (KYMCO), San Yang Motors, Motor Power Co., Yamaha, and Tai Ling Motor Co., have coordinated with EPA policy by each developing one 125cc fuel injection engine scooter model. These new scooters lower pollution emissions significantly and improve fuel efficiency without limiting performance or convenience of use. The CO and hydrocarbons emissions of these fuel injection scooters are at least 50% lower than those of motorbikes with carburetor engines and they are at least 18% more fuel effi-

The pollution emissions of these fuel injection scooters are at least 50% lower than those required under the stage IV emissions standards, which are not set to go into effect until 2004. Therefore, the EPA has drawn up guidelines under Article 18 of the *Air Pollution Control Act* for the provision of NT\$4,000 subsidies to owners of old motorbikes manufactured before December 31, 1997 that turn in their old motorbikes for recycling and purchase one of these new EPA-certified fuel injection scooters. The Recycling Management Fund will provide NT\$1,000 of this subsidy, while the Air Pollution Control Fund will provide the remaining NT\$3,000.

The EPA will continue to promote low-pollution scooters and encourage drivers to report aging high-pollution motorbikes for recycling. Also, following a review of the



Administrator Hau (right) takes a spin to promote low-pollution fuel injection scooters.

cient than carburetor engine motorbikes. Significantly, this is also the first time in the world that fuel injection engine scooters with engine displacement of under 150cc have been manufactured. So, not only will these new scooters play an important role in limiting motorbike pollution emissions, they also reflect the great technological advances achieved by Taiwan’s motorbike industry.

R&D and sales situations of fuel injection engine scooters, the EPA will select the appropriate time to further tighten motorbike emissions standards. By doing so, the EPA hopes to encourage domestic motorbike makers to shift completely to the production of fuel injection engine scooters so as to achieve its goal of cleaning up Taiwan’s air.

For more information, please call 02-2311-7722 ext. 2780.

Toxics Management

New Warning Pictograms for Environmental Sanitation Agents

The EPA implemented its new regulations for the labeling of environmental sanitation agents on July 1. These regulations require “warning” and “attention” pictograms to be included along with the Chinese text on all environmental sanitation agents in order to make the public aware of how to safely use these agents.

The EPA implemented its new regulations for the labeling of environmental sanitation agents on July 1. Under these regulations, enterprises are required to add these new “warning” and “attention” pictograms to their product labels when applying for a permit for a new environmental sanitation agent, or when applying to extend or modify a permit for an already approved agent. Also, for agents that are manufactured with old labels, the regulations allow a six-month adjustment period for adopting the new pictograms.

This new labeling system uses different colors and pictograms based on the toxicity and handling requirements of the various environmental sanitation agents in Taiwan in order to aid the public in understanding the special characteristics of these agents. Adopting the toxicity classification standards of the World Health Organization, this system uses three label background colors based on degree of toxicity: red for highly toxic agents, yellow for moderately toxic agents, and blue for mildly toxic agents. These regulations do not require a background color for labels on general-use agents.

Label pictograms are divided into square attention labels and diamond warning labels. There are nine attention labels currently required under this new system. These are “Wear Gloves,” “Wear Eye Protection,” “Wear Rain Boots,” “Wear Protective Mask,” “Wear Respiratory Protection,” “Wash After Use,” “Store Properly,” “Harmful to Cats and Dogs,” and “Harmful to Pet Fish.” Among these, “Wear Eye Protection,” “Wear Rain Boots,” and “Wear Respiratory Protection” are primarily intended for labeling the special agents used by professional pest control personnel. Due to the relatively low toxicity of the agents available to the average consumer at retail

text contained many technical terms that did not allow the average consumer to gain an understanding of the special characteristics of these agents. This situation surely increased the likelihood of accidents and inappropriate use. Therefore, the EPA decided to adopt this overseas method of using pictograms and colors to remind the user to pay attention to safety when using these products. The environmental sanitation agents industry has expressed its full support for this new labeling system because it will help ensure that consumers use their products safely.

For more information, please call 02-2311-7722 ext. 2860.



These new pictograms will help consumers use environmental sanitation agents safely.

stores, these agents will for the most part only be labeled with “Store Properly,” “Harmful to Cats and Dogs,” and “Harmful to Pet Fish.” The warning labels required under this new system include “Flammable” and “Highly Toxic.” The “Flammable” label is required on environmental sanitation agents that contain liquefied petroleum gas. The “Highly Toxic” warning label must be used on such highly toxic agents as technical grade rodenticides, restricted-use rodenticides, and general-use rodenticides.

In the past, only written text was used on the labels of environmental sanitation agents. Even when Chinese was used to list the active ingredients of these agents, the

Activity

2001 Outstanding Recycling Promotion Awards Ceremony

The EPA held a ceremony on June 18 to commend government agencies that have contributed to the promotion of recycling. The organizations receiving awards at this ceremony, which was hosted by EPA Administrator Hau Lung-bin, included the Taichung Bureau of Environmental Protection and nine other bureaus of environmental protection, and the Kaohsiung County Kangshan Public Office (岡山鎮公所) and 44 other town and township public offices. This award was meant to commend these agencies for their superior performance in promoting recycling last year.

EIA

Ecotourism Site Environmental Monitoring Mechanism Announced

In order to coordinate with the promotion of ecotourism in Taiwan, the EPA has announced the 2002 Ecotourism Site Environmental Monitoring Mechanism. Under this system, management authorities will conduct regular reviews of ecotourism sites. This monitoring will help prevent these sites from being damaged as a result of overuse.

The United Nations designated 2002 as the International Year of Ecotourism. APEC also announced its Tourism Charter which calls on member nations to formulate strategies for the development of tourism that will also protect the environment. As ecotourism is an international trend and Taiwan still has abundant ecotourism resources that have yet to be developed, the Executive Yuan earlier this year approved the 2002 Ecotourism Year Working Plan (2002年生態旅遊年工作計畫) which makes 2002 Taiwan Ecotourism Year. This working plan also calls for the composition of an ecotourism white paper, the formulation of ecotourism regulations, and the establishment of an environmental

monitoring system for ecotourism destinations. The plan also calls for the selection of 40 ecotourism travel routes. This plan has been devised with the goal of establishing ecotourism management regulations so as to make Taiwan a world-renown ecotourism destination by limiting damage to the environment and promoting high-quality and in-depth tourism.

The EPA, as part of its responsibility under the 2002 Ecotourism Year Working Plan, announced its Ecotourism Site Environmental Monitoring Mechanism (生態旅遊地環境監測機制) on June 14. This system is intended to help prevent excessive human activity from damaging the environment of ecotourism destinations. Under this system, ecotourism sites are required to draw up environmental monitoring plans that take into consideration the particular characteristics of the local environment and the usage requirements of the site. Environmental monitoring and reviews are to be conducted on a regular basis in accordance with these plans and the competent authorities in charge of tourism and the environment are to make follow-up reviews. The environmental monitoring of ecotourism sites that have already had their EIA approved should be conducted in accordance with their environmental impact statements (EIS) or environmental impact assessment reports and the review conclusions of these documents. Other sites should carry out their environmental monitoring in accordance with the

EPA's environmental monitoring reviews guidelines. The ecotourism spots that will be required to use the Ecotourism Site Environmental Monitoring Mechanism include government-run sites such recreational agricultural and fisheries sites, recreational forest areas, national parks, recreational farms, aboriginal tourism destinations, experimental forests, national scenic areas, and the scenic areas of local governments.

Taiwan's ecotourism activities started when the government conducted a development potential survey for whale and dolphin watching along Taiwan's coasts in 1998. This led to the establishment of whale and dolphin watching tours on Taiwan's east coast. This success also saw greater importance placed on ecotourism in Taiwan. Tourism Bureau statistics indicate that there are over 90 ecotourism activities scheduled in Taiwan this year. Reflecting the abundance of ecotourism resources in Taiwan, these activities focus on such natural resources as migratory birds, flowers, and special geological sites, and such cultural resources as aboriginal villages. The EPA hopes that, while ecotourists are appreciating the natural beauty and cultural atmosphere of Taiwan's ecotourism destinations, they will also demonstrate their concern and love for nature and culture by working together to ensure the sustainable development of ecotourism in Taiwan.

For more information, please call 02-2311-7722 ext. 2740.

Activity

International Conference on Environmental Health Risk Assessment and Management

To encourage the international sharing of environmental health risk assessment and management techniques, the EPA, the National Health Research Institute, the US

Environmental Protection Agency and French Institute in Taiwan jointly held the "International Conference for the Basis of Environmental Health Risk Assessment for Regulatory Decision Making" on June 12. Experts and officials from the US, France, Canada and Japan were invited to give presentations at this conference, which attracted more than two hundred do-

mestic specialists and scholars. The foreign experts attending the conference also took part in a discussion with local and central government agencies on June 13, and shared their ideas concerning the environmental health risk assessment mechanisms currently being formulated in Taiwan.

Water Quality

Hau Calls for Cleanup of Targeted Polluted Farmland Within Two Years

Administrator Hau made a special trip to Changhua County in June in order to personally check out agricultural land that is severely polluted with heavy metals. Hau declared that the EPA would step up its management of electroplating factories in Changhua so as to thoroughly eliminate heavy metal pollution sources.

The EPA in early June completed its comprehensive survey of 319 hectares of agricultural land that was suspected of suffering from heavy metal pollution. The survey indicates that 245.7 hectares of this land is indeed polluted. Of this polluted land, 178.45 hectares are located in Changhua County alone, accounting for 73% of all the polluted land identified in this survey. As most of this land is used to grow rice and harvest time is approaching, the EPA has instructed the Changhua County government to incinerate all edible agricultural products grown on this land in order to prevent contaminated agricultural products from reaching the marketplace.

EPA Administrator Hau Lung-bin took a trip down south to Changhua County on June 10 in order to personally accompany Changhua County Commissioner Wong Chin-chu (翁金珠) on an inspection of heavy metal polluted agricultural land. In addition to praising the hard work of environmental personnel in destroying these tainted crops, Administrator Hau also proclaimed the EPA's determination to wipe out heavy metal pollution sources in

Changhua County. Hau also emphasized that the heavy metal pollution of agricultural land is the price that has been paid for ignoring environmental protection. The EPA expects to thoroughly clean up this polluted land and eliminate its pollution sources within two years. In the meantime, however, the EPA has called for the de-

wastewater in storage tanks for transport to industrial park wastewater treatment facilities for treatment. Factories that do not comply with this requirement will be severely punished. If this measure proves successful, the EPA will expand it to other areas suffering from the pollution of agricultural land.

Of this polluted land, 178.45 hectares are located in Changhua County alone, accounting for 73% of all the polluted land identified in this survey.

struction of all edible agricultural products grown on land with pollution levels that exceed control standards in order to protect consumer rights and public health. The EPA will bear full responsibility for all compensation costs associated with the destruction of these crops. The EPA has also prohibited the growing of edible crops on any polluted land for which pollution remediation work has not been completed. However, farmers need not worry about the violation of their rights because the government will also provide compensation for the duration of the time planting is forbidden.

The heavy metal pollution of agricultural land is particularly severe in Changhua County because the numerous electroplating factories located in the vicinity of the county's main irrigation channels have been discharging their wastewater into these channels for many years. Therefore, the EPA has decided to promote a policy of separating irrigation canal networks from wastewater systems in Changhua County. It is also coordinating with the Ministry of Economic Affairs Industrial Development Bureau in order to assist electroplating plants in the Changhua area relocate to industrial parks within a limited time. Factories that have yet to be relocated are required to collect their

The EPA's survey has identified 28.61 hectares of heavy metal polluted agricultural land in Hsinchu County, 11.77 hectares in Taoyuan County, 6.9 hectares in Pingtung County, 4.28 hectares in Taichung County, 6.02 hectares in Kaohsiung County, 5.33 hectares in Tainan County, 1.86 hectares in Tainan City, 1.24 hectares in Taipei County, 0.55 hectares in Miaoli County, 0.39 hectares in Nantou County, and 0.3 hectares in Taichung City. County and city environmental protection bureaus are presently working to destroy all crops grown on the polluted land identified in this survey.

For more information, please call 02-2311-7722 ext. 2801.

Activity

Workshop for the 2002 Air Quality Improvement and Protection Plan

To encourage the sharing of experience between local bureaus of environmental protection, the EPA held the "2002 Air Quality Improvement and Protection Plan Demonstration Workshop" on June 26. Representatives from all county and city bureaus of environmental protection were invited to this event, at which particularly effective air pollution control cases from Taipei, Kaohsiung, and Taichung were presented. The EPA also held a panel discussion to fully realize the event's goal of sharing knowledge.

News Briefs

Administrator Hau and Pai Ping-ping Team up to Promote Environmental Bags

To promote the government's restrictions on the use of disposable plastic shopping bags and dishes, the EPA specially invited the prominent celebrity Pai Ping-ping (白冰冰) to serve as a spokesperson for the new policy together with EPA Administrator Hau Lung-bin. After launching its publicity campaign on June 5, World Environment Day, the EPA hopes that TV, radio, and newspaper exposure will induce citizens to join together to protect the environment.

Legislation of Resource Recycling and Reuse Act Completed

With the passage of the *Resource Recycling and Reuse Act* (資源回收再利用法) by the Legislative Yuan on June 4, the nation's recycling and reuse policy has made a transition from the former end-of-pipe control model to a more holistic model taking into consideration the entire product life cycle. The new act calls for the utilization of source reduction and recycling to make the sustainable utilization of resources an integral part of Taiwanese society. The act will take effect one year after its enactment. (see EPM Vol. V, Issue 6)

EPA and DOH Hold Inter-ministerial Coordination Meeting

The EPA and Department of Health (DOH) held an inter-ministerial coordination meeting on June 7. This meeting focused on such issues as dengue fever control work, environmental sanitation in mountain



Administrator Hau and Pai Ping-ping publicize the use of environmentally-friendly non-disposable shopping bags.

areas, the health risks posed to residents living close to illegal waste sites, the disposal of medical wastes and heavy metal standards for edible crops. Twelve proposals were passed at the meeting, and both agencies agreed that it had been very productive.

Mobile Phone Base Stations in Urban Areas Meet Electromagnetic Radiation Standards

The EPA has announced the results of its random testing of mobile phone base stations in the Taipei, Kaohsiung, and Taichung areas, and all test readings were lower than the EPA's *Recommended Environmental Nonionizing Radiation Values* (環境中非游離輻射建議值). If residents heed the EPA's recommendation, and avoid getting close to the front of base station antennas, they can escape the

risk of harm from nonionizing radiation. Taiwan currently has more than 20,000 mobile phone base stations, and in the future the EPA will continue to test base stations in other areas of the country.

Asia Chemical Given Air Pollution Reduction Award

The EPA bestowed an award worth more than NT\$11 million to the Asia Chemical Co., Inc. (亞洲化學股份有限公司) to honor it for its successful reduction of VOC emissions at its Yangmei plant. Asia Chemical has invested close to NT\$400 million in pollution control equipment, and is now able to recycle organic solvent fumes using condensers and process waste gasses by absorption using activated carbon. As a result, the company reduced VOC emissions by more than 500,000 kilograms during the first quarter of this year.

**Environmental Policy Monthly,
Taiwan, R.O.C.**

Publisher

Dr. Hau Lung-bin, Administrator

Publishing Directors

Chang Juu-en, Lin Ta-hsiung,
Chen Yeong-ren

Advisors

Lu Chiao-song; Chen Chau-teh; Fu Shu-chiang; Chen Shis-how; Yueh Chang-shya; Chang Hoang-jang; Ni Shih-piao; Chen Shean-rong; Chen Lian-ping; Leu Horng-guang; Tung Te-po; Huang Wan-chu; Young Chea-yuan; Chen Hsiung-wen; Wang Lung-chic; Chang Shen-ho; Horng Yuh-fen; Pong Sheng-ming; Wang Pih

Editor-in-Chief

Roam Gwo-dong

Executive Editors

Y.F. Liang, Chang Shiu-an-wu,
Hsiao Lee-kuo, Lin Char-hung,
Stan Blewett

Editorial and translation support provided by:

Hui-kuo Consulting, Ltd.,
Pristine Communications

The EPM has been published monthly since July 1997. The EPM is available in electronic form free of charge on the EPA website (www.epa.gov.tw).

For inquiries or subscriptions to the printed version, please contact:

Environmental Policy Monthly
Environmental Protection Administration
Office of Science and Technology

Advisors

41, Sec. 1, Chung-Hwa Rd.,
Taipei, Taiwan, R.O.C.
tel: 886-2-2311-7722, ext. 2207,
fax: 886-2-2311-5486
e-mail: umail@sun.epa.gov.tw

GPN: 2008600068

Contents Copyright 2002.

printed on recycled paper

行政院新聞局出版登記證局版北市誌
字第壹陸壹壹號

中華郵政北台字第6128號執照登記為
雜誌交寄