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Feature Article

Sustainable Development Policy Guidelines to Target Sustainable Visions

In August 2009, Taiwan completed the "Sustainable Development Policy Guidelines" to reinforce its visions of sustainability: Present and future generations will all be able to enjoy a "tranquil and diverse environmental ecology," "vital, open and prosperous economy," and "safe and harmonious welfare society."

To pursue national sustainable development, the Executive Yuan established the National Council for Sustainable Development (NCSD) in 1997, with the premier serving as the head, to lead the government team in promoting national sustainable development work, and to implement the country's Agenda 21, Sustainable Development Action plan, National Sustainable Development Indicators and other important documents.

Taiwan's dense population in such a small area with limited natural resources, frequent natural disasters, unique international status and other factors make the pursuit of sustainable development even more urgent compared to most other countries. The "Sustainable Development Policy Guidelines" has been formulated and is based on Taiwan's current sustainable development situation, with U.N. sustainable development concepts and principles used as a

reference. By means of response measures to global trends and the formulating of government policies, action by all citizens on sustainable development will be spurred, and national sustainable development will be implemented.

Vision

1. Sustainable development vision

Present and future generations will all be able to enjoy a "tranquil and diverse environmental ecology," "vital, open and prosperous economy," and "safe and harmonious welfare society."

2. Vision's contents

(1) Tranquil environment

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On the residential environment front, it is hoped that public facilities in living areas – which include parks, parking lots, educational and cultural facilities, medical care facilities, athletic fields, disabled-friendly spaces, etc. – will gradually be complete with no facilities lacking. On the natural environment front, Taiwan will finally recover its original "Beautiful Island - Formosa" appearance because of appropriate pollution prevention and control and sufficient and effective ecological conservation measures.

(2) Diversified ecology

Although Taiwan's territory is not large, the island possesses rich biological resources and is home to an abundance of species. Through education and the raising of environmental awareness among the public, we should become sufficiently aware of our connections with other living organisms in our daily processes of using precious resources to satisfy our needs. Adhering to the ethical principle of common prosperity will enable Taiwan's functional framework built on biological diversity to become even stronger, enabling everyone to enjoy the sustainable bounty of the land.

(3) Flourishing economy

Facing globalization in the 21st century, Taiwan's economic development can move towards even further open and positive competition in industry. Enhancing technology research and development, innovation, and establishing green production technologies will produce a high-tech manufacturing industry system as a result, and help Taiwan become East Asia's "Intelligent Technology Island." On an additional front, fairness should be vigorously pursued in market trading, with government and private enterprises providing "customer oriented" services, and consumer rights being adequately guaranteed. In addition, with the Internet bringing many more things within reach, and the financial, insurance, telecommunications, transport, legal services, accounting services and other sectors undergoing internationalization and becoming more efficient, the economy's international competitiveness will subsequently increase.

(4) Welfare society

"Safety without fear," "life without worries," "welfare without flaws," "health without anxieties," and

"culture without boundaries" should serve as the description for the envisioned welfare society. After an employment security system is established, everyone will be able to be employed through diligence and hard work. When a welfare system is put in place, widowers, widows, those without parents or children, as well as the abandoned, disabled and sick will all be able to receive care. As the medical care system is upgraded and abundant social measures are implemented, the health and spirit of all of the nation's citizens will progress. Thereupon, citizens will be able to arrive at a nationwide consensus on valuing all and together protect social order and tranquility, in order to enjoy a life free from worry and fear.

Basic Principles

1. Principle of generational fairness

The present generation of citizens has a responsibility to protect and ensure sufficient resources for use by future generations through sustainable development.

2. Principle of balanced consideration

Balanced consideration should be given to environmental protection, economic development and social justice.

3. Environmental carrying capacity principle

Social and economic development should not exceed the environment's carrying capacity.

4. Principle of precaution

Promotion of prevention measures such as environmental impact assessments to reduce damage to the environment caused by development activities.

5. Principle of social justice

Distribution of environmental, social and economic resources should be in line with the principles of fairness and justice.

6. Principle of safeguarding health

Economic and social development should not harm the health of citizens.

7. Principle of public participation

Regarding sustainable development policies, the expectations and opinions of every sector of society should be collected. Through sufficient communication and under the principle of transparency, the wisdom of all sectors can be brought together and included in the formulation of policies.

8. Principle of science and technology innovation

Based on the spirit of scientific inquiry and methods, policies related to sustainable development and strategic environmental assessments should be mapped out. Through innovation in science and technology, efforts to achieve the three goals of environmental protection, economic development and social justice can be catered to simultaneously. Policy mechanisms should be adjusted and related systems established for the implementation of sustainable development measures.

9. Principle of policy integration

In mapping out sustainable development plans, ecosystem life cycles should be comprehensively taken into consideration. In carrying out sustainable development policies, government and the private sector should be coordinated, with each carrying out its respective responsibilities to achieve successful results.

10. Principle of international participation

Work in line with U.N. standards and international conventions, and carry out responsibilities as a member of the international community. In providing aid to developing countries, sustainable development principles should be incorporated into provisions.

Concept and Direction

1. Molding a "good mountain, good water, and good life" environmental quality:

Enhance management and monitoring of natural resources, including air, water, land, animal and plant life, marine, and forest resources. Allocate the various types of resources in an un wasteful, fair and rational manner, and cultivate an ecologically rich environment with unique cultural characteristics.

2. Creating healthy and ecologically balanced urban and rural communities:

Based on considerations of environmental carrying capacity and the premise of total quantity control on environmental loads, promote the establishment of waste treatment facilities, as well as installations of air and water pollution treatment facilities, and facilities to separate sewage and wastewater reclamation and reuse systems. Through a systematic approach, plan and improve rural and urban landscapes and public infrastructure, enhance human health risk assessments, and adopt disaster prevention and response measures, in order to create a safe and healthy environment free of worry for the nation's citizens.

3. Enhancing social welfare policies:

Promote social welfare policies, eliminate the gap between rich and poor, as well as strengthen welfare measures for aboriginal, senior and disadvantaged citizens and women and children, in order to achieve the goals of social fairness and justice.

4. Adjusting people's living habits:

Advocate green consumption and simple living, placing an emphasis on quality of life while working to replace extravagant and wasteful habits. Establish recycling communities and implement waste product and resource recycling and reuse systems, to create a plain and thrifty living environment.

5. Promoting risk management and visionary planning for economic development:

(1) In promoting economic development, forward-looking precautionary planning against calamities should be strengthened, with priority given to ecological conservation and preservation of biological diversity. National land, environmentally sensitive lands, wildlife habitats and virgin lands should be appropriately conserved, in order to maintain the stability, balance and ability to flourish of ecosystems.

(2) Adjusting energy policy and industrial structure in response to global climate change

Enhance energy diversification, research and develop

clean energy, and green industries, to ensure energy security and long-term stability in supply. Enhance the use of biofuels and promote low-polluting, energy-saving transportation systems, to reduce the transport sector's carbon dioxide emissions. Raise energy efficiency, adjust the industrial structure, and enhance clean production technology in order to ensure the integrity of ecosystems, in response to global warming and climate change.

6. Strengthening the sustainable development policy making mechanism:

Incorporate the sustainable development concept into every ministry and agency's policy making process, in order to bring policy planning in line with the idea of sustainable development. Develop suitable tools and combine advance planning work for large-scale public infrastructure projects, with every ministry and agency carrying out sustainability assessments in the policy and project planning process to serve as a reference in policy making.

7. Enhancing execution capacity for sustainable development:

(1) Adjust organizational structure and strengthen human resources for implementation of policies

Adjust the government's organizational structure, enhance the functions of the National Council for Sustainable Development, and integrate ecological conservation, resource development and environmental protection units to establish a Ministry of Environment and Natural Resources. Proceed with

government reorganization and promote efforts in line with the policy principles of "streamlining, ability, beauty."

(2) Enhance sustainable development-related budget allocations.

(3) Extending sustainable development education

Integrate educational resources, enhance life-long sustainable development learning, as well as integrate social resources in order to strengthen citizens' sustainable development awareness and activism.

8. Periodic review of national sustainable development promotion results:

In response to international trends, map out and revise the National Sustainable Development Indicators, to serve as a policy tool reflecting government administration, reviewing the nation's overall development policies and mapping out an administrative vision.

9. Promoting public participation in policy making:

On the basis of public support and consensus, respect minority and disadvantaged groups, and promote expansion of participation in public and global environmental protection affairs, in order to fully utilize the wisdom and know-how of every sector of society.

10. Assisting local promotion of sustainable development:



With "partnerships" and "public participation" serving as important keys in the Earth Summit's calls for and promotion of sustainable development, the central government should continue to assist city and county governments in promoting sustainable development, in order to enable comprehensive promotion of sustainable development work.

▶ The Executive Yuan established NCSD in 1997, with the premier serving as the head

Feature Article

Soil and Groundwater Reporting Required for Sites with High Pollution Potential

In coordination with revisions to the Soil and Groundwater Pollution Remediation Act, the EPA announced the "Regulations for Testing and Reporting of Soil and Groundwater Quality by Industry Competent Authorities for Reference," which details reporting procedures and other administrative items that industry competent authorities must follow.

To help environmental protection organizations at all levels gain a better understanding of the soil and groundwater inspection results and potential pollution data for the nation's intensive manufacturing (industrial) zones, on 3 February 2010 the EPA announced revisions to the Soil and Groundwater Pollution Remediation Act, assigning responsibility to the relevant industry competent authority to conduct soil and groundwater tests in zones with high pollution potential. Article 6 Paragraph 3 of this act states: "Industry competent authorities of industrial parks, export processing parks, science-based industrial parks, environmental science and technology parks, agricultural science and technology parks and other designated zones shall regularly test soil and groundwater quality in accordance with pollution trends in the area, and submit data for future reference to the competent local government authority responsible for the designated sites."

In accordance with revisions to the Soil and Groundwater Pollution Remediation Act, on 13

January 2011 the EPA drafted the Regulations for Testing and Reporting of Soil and Groundwater Quality by Industry Competent Authorities for Reference (abbreviated as Reporting Regulations). The Reporting Regulations comprise a total of six articles intended for industry competent authorities to refer to when making their soil and groundwater quality inspection reports. Details include sampling dates, sample size, site location, distribution of sampling points, test items, reporting dates, and other binding matters.

Each industry competent authority must comply with Article 6 Paragraph 3 of the Soil and Groundwater Pollution Remediation Act and Reporting Regulations by conducting periodic soil and groundwater quality tests. In February and July of each year test results must be sent to the local competent authority presiding over their jurisdiction for reference. This mechanism will ensure early warning and prevention of pollution.

Waste Management

Revisions to Waste Clearance and Disposal Management Regulations

Permit Management Regulations for Public and Private Waste Clearance and Disposal were initially promulgated on 23 November 2001 and were recently revised by the EPA. Besides simplifying the procedures, the operational records safekeeping location was revised and operational circumstances that shall be recorded by waste clearance and disposal organizations were added based on the current inspection methods.

Regarding the implementation of Permit Management Regulations for Public and Private Waste Clearance and Disposal Organizations, since the application procedure for waste disposal and clearance permit by the "existing plants and

waste processing facilities" does not involve "plant construction," the regulation that requires submission of "periodic monitoring test reports during the period of plant construction" by the applicant was annulled. However, the environmental background survey report

shall still be submitted for reference when relevant pollution incidents occur in the future.

Further, to comply with revisions to the Environmental Impact Assessment Act, the following stipulation was added to simplify the reviewing process: "Once the application cases mentioned in the foregoing paragraph pass the environmental impact assessment, the issuing authority shall, after the applying organizations submit the documents pursuant to Article 9 Paragraph 2 subparagraph 4 to subparagraph 6, approve the establishment. The applying organizations shall complete the construction plan, submit a trial operation plan and dispute

prevention measures explanation, and conduct the trial operations only after receiving approval."

To alleviate the potential for operators investing large sums of money in the construction of their waste processing facilities (factory) and then unwittingly incur citizen disputes, it was also added that when waste disposal and clearance organizations apply for the establishment of the facilities, a "dispute prevention measures explanation" shall be submitted. The operators can then devise measures for potential disputes in advance so that damages from public complaints can be minimized.

Recycling

Expanding Controls over Beverage Retailers to Embrace Responsibility to Recycle

To make it more convenient for the public to recycle beverage containers and also broaden recycling channels, the EPA announced the addition of chain beverage stores and beverage vending machines to the list of places where operators must provide a recycling receptacle. This measure is projected to increase the number of recycling sites by over 20,000.

On 4 January 2011, the EPA announced revisions to the "Scope of Container and Dry Battery Vendors Required to Install Resource Recycling Facilities, Facility Installation, Specifications and Other Binding Matters Regarding the Recycling Facilities That Chain Fast Food Stores Shall Install." For beverage vending machine operators, these regulations take effect on 1 March 2011, and for other chain beverage stores and chain fast food stores, on 1 May 2011. Violators will be subjected to a fine ranging from a minimum of NT\$60,000 to a maximum of NT\$300,000 in compliance with Article 51 of this law.

The focus of these two legal revisions are the inclusion of "chain beverage store operators" to the list of enterprises required to install beverage container recycling receptacles. Operators that have installed "beverage vending machines" at public sites (specifically—public parks, transportation depots and rest stops, and scenic and recreational sites) are required to have management authorities install resource recycling receptacles next to vending machines, offering consumers a place to dispose their waste containers and participate in waste container

recycling efforts. Additionally, "chain fast food store operators" must accept waste beverage containers



▶ Beverage vending machines where the operators must provide recycling receptacles

from the public even if they were not purchased at their store.

If there is an existing recycling receptacle within 50m of the vending machine, it is not necessary to install another one; however operators must indicate on the vending machine "the location of the nearest recycling receptacle" to let the public know where to recycle their beverage containers.

For hypermarkets, supermarkets, chain convenience stores, cleaning preparations and cosmetics retail

chains, convenience stores in transport terminals and stations, gas stations, beverage vendors at gas stations, and chain fast food stores regulations to install recycling receptacles are currently being enforced to provide an estimated 14,000 recycling sites. This amendment broadens the scope of enterprises required to install recycling receptacles to include chain beverage stores and beverage vending machine operators and provides an estimated additional 20,000 recycling sites. Related details are viewable on the Web site <http://w3.epa.gov.tw/epalaw/index.aspx>.

Soil and Groundwater

Stricter Regulations on Underground Storage Tank Testing Effective in 2013

In order to expand controls on underground storage tank systems and prevent pollution of soil and groundwater, the EPA recently revised relevant regulations governing pollution prevention equipment and monitoring equipment installation management. The scope of the controlled industries will be expanded to include all 58 industry categories controlled under the Water Pollution Control Act, and starting on 1 January 2013 operators will be required to regularly commission an analysis laboratory to conduct tests.

According to EPA statistics, as of 31 December 2010, among the nation's 2,760 gas stations, 78 had been listed for control. Among these, 17 stations are remediation sites and 50 stations are control sites, and all are currently implementing measures to improve pollution, while the remaining 11 stations have already been removed from the list. Based on data compiled from 2001 up to the present, there has been an annually increasing trend in the number of listed sites, indicating that the underground oil products pollution problem is worsening. The EPA appeals to operators for the need to make pollution prevention and periodic monitoring a part of their daily management priorities, thus enabling early discovery of pollution and alleviation of remediation fees.

To effectively prevent pollution and ensure that operators report honestly, in January 2010 a revision to the "Regulations Governing Underground Storage Tank System Groundwater Pollution Prevention Equipment Installation and Monitoring" was announced. The focus of this revision is to expand the target of the previously existing management regulations from only one industry category to include all 58 industry categories (including gas stations)

controlled under the Water Pollution Control Act.

Additionally, starting on 1 January 2013, operators that use either tank seal tests, soil gas analysis, groundwater monitoring, or monitoring between tanks, must all periodically commission testing organizations to conduct monitoring. For those using soil gas analysis, groundwater monitoring, and monitoring between tanks, aside from commissioning testing organizations the operator must also conduct self-monitoring once a month. In the future, operators' monitoring personnel and testing organizations' personnel shall be required to pass relevant training and certification by the EPA to be qualified to conduct such monitoring.

In the third quarter of 2010, the overall reporting rate was 99.63%, an increase of 8% over the fourth quarter of 2006. For those who failed to report, the EPA has already requested local environmental protection bureaus to issue fines in accordance with Article 56 of the Water Pollution Control Act and list these sites as subjects for priority follow up assessments. To ensure the sustainability and

reuse of soil and groundwater resources and protect public health, the EPA will continue vigorously enforcing the "Management Regulations" by focusing on the yearly and batch-by-batch inspection of the groundwater pollution prevention equipment and monitoring equipment. Follow up investigations will be conducted for those assessed to have high pollution

potential from the inspections. The execution of these measures provides a nationwide survey of the soil and groundwater pollution caused by underground storage tank systems and helps to push operators to improve self-management in order to prevent the occurrence of soil and groundwater pollution.

EIA

Tenth Revision of Determining Standards for Environmental Impact Assessment Planned

The ongoing increase of development activity has prompted relevant authorities and enterprises to respond to the difficulties and questions arising from the practical implementation of the existing "Standards for Determining Specific Items and Scope of Environmental Impact Assessments for Development Activities" (abbreviated as "Determining Standards"). To address comments regarding certain aspects of this article, the EPA will begin drafting the tenth revision to the "Determining Standards."

Since its original announcement on 18 October 1995, the Determining Standards have been revised nine times. Announced on 2 December 2009, the most recent revision focused on the following key points:

1. Considering dividing reservoir watershed areas into two types: Development activity in the first type of reservoir watershed area must comply with the environmental assessment regulations in accordance with the current regulations; whereas development activity in the second type of reservoir watershed area must comply with environmental assessment regulations in accordance with current drinking water quality protected area regulations.
2. Defining the parameters of agricultural product processing sites referred to in Article 15 of the Determining Standards.
3. Determining whether timber felling by the forestry industry is classified as development activity and whether the government should conduct strategic

environmental assessment for felling projects.

4. Simplifying the determining procedure to decide whether the reuse organizations meeting the determining criteria stipulated in each section of the proviso of Article 28 Paragraph 1 Subparagraph 11 should conduct environmental impact assessments.

The EPA convened a public hearing on 19 January 2011, during which relevant government authorities, industry representatives and the public met to discuss and share ideas regarding this revision. More details are viewable at the Web site <http://atftp.epa.gov.tw/announce/>. The Determining Standards is an important subsidiary law of the Environmental Impact Assessment Act, and careful deliberation is needed to ensure that revisions are appropriate and meet practical implementation needs. The EPA welcomes businesses and the public to share viewpoints and offer suggestions regarding these revisions with the Department of Planning by e-mail at yhschang@epa.gov.tw, or by telephone at 02-23117722 ext. 2733.

Water Quality

EPA Minister Shen Visits Pig Farm and Praises Waste Reduction

On 4 January 2011, Minister Stephen Shu-hung Shen toured Hsantung Pastures in Yunlin County and viewed a farm animal toilet system that utilizes clean hog raising management methods. The minister praised Mr. Chang

Chung-dou for his efforts to reduce pollution and protect the environment, and presented him with a Certificate of Appreciation. Minister Shen also promised to continue promoting efforts to resolve the pollution problems generated from traditional hog raising methods.

Traditionally pig farms use clean water to clean sties. This method produces operational wastewater problems and also mixes potentially recyclable and reusable hog excrement with hog urine, which is then processed and discharged. Yunlin County Hsantung Pastures raises over 10,000 hogs at its sties. Determined to reduce the amount of environmental wastewater on his farm, this hog raiser took the initiative to implement "clean pig farming" technology by installing hog toilet facilities in the corners of the sties. Following a simple training regimen, the hogs naturally gravitated towards the designated location to defecate and urinate. This system substantially reduces the amount of hog house wastewater production by 70~80% and saves time on cleanup labor. It can also reduce disease among the hog population and improve the quality of their living environment, and empirical evidence has shown an increase in the post-weaned rate by nearly 20%.

Recently, this farm has made further improvements by installing automated agricultural equipment.

It developed a motorized chain-driven excrement scraper board that links the simple hog toilets to the automated scraper apparatus. An excrement collecting device is attached at the end allowing it to collect hog excrement at a fixed location, thus conserving water and reducing labor. In addition, a water curtain system has been incorporated into the animal house design to reduce odors. This farm has repeatedly cooperated with the EPA and local environmental protection bureaus, opening up its facilities for visits and enthusiastically introducing its clean pig farming technology. It has become a model pig farm.

Onsite implementation of clean pig farming has proven to be an effective way of reducing wastewater and odors. The EPA will engage in ongoing efforts to promote the installation of hog toilets inside animal houses, draft animal house management plans, and help farmers upgrade and utilize clean pig farming technology. We hope these efforts will encourage the evolution of more progressive pig farmers working hand-in-hand to better our environment.

Environmental Sanitation

EPA and DOH Present Certificates of Appreciation for Dengue Fever Control

On 18 January 2011, the EPA and Department of Health (DOH) convened the "2010 Summary on Dengue Fever Epidemic and Appreciation Press Conference" jointly hosted by EPA Minister Stephen Shu-hung Shen and DOH Minister Yaung Chih-liang. The ministers explained the status and results of 2010 dengue fever epidemic control efforts, and also presented certificates of appreciation to the Government Information Office, the Ministry of Education, and the governments of Tainan City, Kaohsiung City, and Pingtung County to commend them for a job well done controlling the dengue fever epidemic.

To combat dengue fever epidemics, in January, May, August, and October of 2010 the EPA executed a nationwide, three-tier mobilization cleanup plan to eradicate the breeding grounds of the dengue vector, the *Aedes aegypti* mosquito, with particular emphasis on southern Taiwan. This plan was propelled by the efforts of local villages and boroughs mobilizing volunteers and the public to clean up dengue vector breeding grounds. The EPA, DOH, and local environmental protection and public health bureaus conducted follow-up inspections and random spot checks to thoroughly eliminate indoor and outdoor

dengue vector breeding grounds. A "double-checking by each tier" approach was employed to maximize effectiveness and actualize the plan's multilevel mobilization mechanisms. The results were evident as dengue vector breeding grounds were dramatically cleared away, thus reducing the public's chances of being bitten and contracting the disease.

According to Centers for Disease Control (CDC) data, the brunt of Taiwan's 2010 dengue fever epidemic was concentrated in Kaohsiung City (including recently annexed Kaohsiung County) and Tainan City

(including recently annexed Tainan County), while Pingtung County had a relatively marginal number of cases. On 21 October 2010, the EPA and DOH jointly established the "Central Command Center for Dengue Fever" and "Frontline Command Outposts." Personnel from central government agencies and local environmental protection and public health bureaus were mobilized, and briefings were convened to keep abreast of the epidemic's status and coordinate actions. Personnel from the EPA and DOH were dispatched to conduct joint inspections and integrate efforts with local environmental protection and public health bureaus to carry out frontline epidemic prevention work. Central and local governments joined forces to effectively control the 2010 dengue fever epidemic. After the peak of the epidemic had waned and control was established, the Executive Yuan approved the disbanding of the command center and frontline outposts on 31 December, after which the epidemic control mechanisms returned to normal.

During the press conference, the EPA also took the opportunity to express gratitude to all those who worked so hard on dengue fever epidemic prevention efforts. This included those participating and cooperating with the "Central Command

Center for Dengue Fever," the Government Information Office and Ministry of Education for communications assistance, as well as various other governmental agencies and local environmental protection and public health bureaus for effectively managing personnel and resources. Only through this collective effort was it possible to gain control of the 2010 dengue fever epidemic.

The epidemic has abated for now, but the EPA reminds the public that it takes more than governmental prevention and control measures to successfully prevent and control dengue fever. The public must get involved and work together to combat this mosquito-borne disease by adhering to the principle of "first clearing away breeding grounds, then spraying insecticide if necessary" and the "three-tier mobilization" method. The EPA urges the public to inspect their homes and adjacent outdoor spaces for any containers or other potential breeding grounds for dengue vector mosquitoes and apply the cleaning steps of "patrol, turn over, clean, and brush." Ultimately, the only way to effectively prevent dengue fever outbreaks is for the public to initiate collective efforts to secure their own homes and surrounding environments.

Climate Change

Minister Shen and Famous Chef Jointly Advocate Low Carbon Dishes

On 18 January 2011, the EPA held a press conference for its "Low Carbon Food Choices Reference Guide" publication. Well-known culinary expert, Chef Ah Ji, was also invited to give a live demonstration, and he prepared two well-balanced, nutritious, and delicious low carbon New Year's dishes.

Minister Stephen Shu-hung Shen stated that the year's end is drawing near and everyone is busy preparing delicacies to enjoy together with their families during the Chinese New Year holiday. Therefore, this is an ideal time for the EPA to hold the "Low Carbon Food Week" event. In addition to publicizing the low carbon food handbook and inviting Chef Ah Ji to give a demonstration, on 21 January a vegetarian culinary competition called "Low Carbon Foods to Welcome the New Year and Celebrate Health Together with Family" was held.

According to studies by the Norwegian University of Science and Technology, 20% of the world's

household carbon footprint are related to the food chain. A United Nations Food and Agriculture Organization (FAO) report also indicated that livestock products account for 18% of global greenhouse gas emissions. The EPA specially published the "Low Carbon Food Choices Reference Guide" to encourage the public to choose low carbon foods, reduce food mileage, purchase foodstuffs that are in season, reduce the amount of processing and packaging, and use low carbon methods of cooking. These simple steps will ensure the public is getting a well-balanced, low carbon, and nutritious diet.

Chef Ah Ji put on a cooking demonstration and shared

some pithy rhymes to keep in mind a diet derived from low carbon emissions, such as "eat in-season and locally grown food," "just a tad of oil, sugar, and salt," "cook only the amount you will eat," "less processed is more natural," and "five vegetables and fruits a day brings health your way." "Low carbon diet" is not merely a slogan, but an integral part of daily living.

Minister Shen explained that each stage of a food product's life — production, shipping, processing, storage, cooking, intake, and waste disposal —

produces greenhouse gases, and if we apply just a little of our hearts and minds, we could easily reduce carbon footprints from the food chain. Minister Shen also thanked the scholars and specialists involved in compiling the "Low Carbon Food Choices Reference Guide," along with the Department of Health, the Council of Agriculture, Delta Electronics Foundation, Environmental Quality Protection Foundation, and the Homemaker's Union and Foundation for their collaborative efforts.

Air Quality

Decorating with Plants a Refreshing and Healthy Way to Celebrate the New Year

House cleaning and reuniting with family and friends for holiday feasts are major parts of the Chinese New Year tradition. The cleaning process inevitably sends plumes of dust airborne, and gas stove cooking can produce excessive amounts of CO₂. Appropriate placement of indoor plants can help clean the air and make it healthier to breathe. Indoor plants create a relaxing atmosphere, add character to living spaces, and purify the air.

Placing a Malabar chestnut at your doorway or entrance adds a touch of style, and more importantly it removes formaldehyde and CO₂ from the air. At the doorway beside your shoe rack, or next to a window sill, put a small, potted African violet, which amplifies the holiday spirit and also reduces the amount of dust. In addition, medium and large-sized plants with big, beautiful leaves, such as palms or Brazilian cycads, can be placed in the corners of the living room; ivies on desks and shelves; small plants, such as Reiger begonias, parlor palms, or ornamental pineapples, which are a symbol of "coming of prosperity," on the dining table; Chinese evergreen, and bird nest ferns on the living room floor; and cyclamens and kalanchoes on the bedside cupboard or table. In addition to enhancing the aesthetics of living spaces, plants also effectively improve

indoor air quality by removing non-volatile organic compounds such as formaldehyde, chloroform, ammonia, methylbenzene, and trichloroethylene.

The preparation of Chinese New Year holiday feasts normally involve much cooking with gas stoves, which can result in excessive amounts of CO₂ inside the home. To help remedy this situation, African violets, Boston ferns, poinsettias, philodendrons, spider plants, or peace lilies can be placed in the dining room, and butterfly orchids or ornamental pineapples in the library and bedroom.

The EPA welcomes the public to download the "Using and Caring for Air-Purifying Plants Handbook—Household Edition" at <http://ivy1.epa.gov.tw/air/object/淨化室內空氣之植物-居家生活版-1.pdf>.

News Briefs

Liquid Fuels with Sulfur Content Exceeding 0.5% Announced as Substances Prone to Cause Air Pollution

On 24 December 2010, the EPA announced that "liquid fuels used by stationary pollution sources and with sulfur content exceeding 0.5% shall be classified as substances prone to cause air pollution," and aggressively encouraged source improvement to alleviate stationary pollution emissions of oxysulfide and derivative

suspended particles. The principal items addressed in these revisions include enforcing the 0.5% sulfur content control limit on liquid fuels used by all current stationary pollution sources, while it omits the original decree stating that "liquid fuels used by stationary pollution sources located in special districts with sulfur content exceeding 1% shall be classified as substances prone to cause air pollution and shall be controlled." Revisions were also made to Item 3 of the original announcement with the new

stipulation being that sellers and users of substances prone to cause air pollution must first attain a permit; and due to the advancements in testing technology, the stipulations regarding the allowance of variations of

sulfur content were omitted. Details of these revisions are viewable at the Web site <http://ivy5.epa.gov.tw/epalaw/index.aspx>.

Activities

Vegetarian Cooking Contest Held for Low Carbon Food Campaign

The EPA combined the new healthy diet concepts of low carbon and light foods in organizing the "Celebrating Chinese New Year with Low Carbon Vegetarian Cooking Contest." The results of this delectably competitive culinary extravaganza are hot off the stove. In the general public category, the gold medal goes to Jin-Teng Yang of Taiwan Hospitality and Tourism College (for a dish named: "Lucky Fullness"); and in the student category, the gold medal goes to Bo-ru Chiu of Vanung University (for a dish named: "All is Bliss.")

The exceptional culinary creations cooked up at this event have been compiled into a cookbook and are available to the public for free downloading. It's easy! Just follow the recipe and you can enjoy a "great meal for a deal" celebrating the New Year with healthy, low carbon family meals. More details about the award winners and their recipes are on the EPA's Green Web site at <http://ecolife.epa.gov.tw/>.

"Love 100 Flea Market" Encourages Reuse of Resources

Chinese New Year has arrived and so has National Cleanup Week. Family members of each household thoroughly cleaned up their residences and neighborhoods, following a custom that traditionally symbolizes the act of getting rid of the old and greeting the new. Events for this year's National Cleanup Week included providing the public with removal services for bulk waste, environmental rectification, a community volunteer environmental cleanup day, and a resource reuse and recycling flea market.

This year welcomes the nation's centennial, and on January 31, the EPA held the "National Cleanup Week "Love 100 Flea Market" charity event to promote the efficient reuse of resources and extend the lives of

products. Top-level officials and employees donated home appliances and goods that were showcased and put up for sale. All the proceeds from this event went to local disadvantaged groups and public welfare organizations, while effectively extending the lives of resources. The EPA hopes that the flea market event will inspire and remind the public to cherish natural resources and refrain from throwing away household goods that are still functional. These practices will reduce energy consumed for waste handling and foster a new, thrifty lifestyle movement throughout society.

Promoting "Model Environmental Protection Districts" to Create Comfortable Living Environments

Anping District of Tainan City was selected as the EPA's 2010 "Model Environmental Protection District." The culmination of a year's efforts, driven by community spirit that sparked widespread participation of residents, enabled them to create a comfortable living environment by achieving the seven environmental sanitation sustainable indicators. These indicators are: "making the local environment comfortable," "cleaning and opening up the sewage ditches," "cleanup of residential yards," "greenification of vacant buildings and land," "cleanup of indoor air," "filling in potholes and smoothing out roads," and "minimizing toxic substances for a healthy environment." Anping District was able to do all this while continuing to preserve its unique local flavor and demonstrate environmental consciousness. The EPA subsidized funding for improvements and greenification, and the rest of the actual work came from the support of city government departments and district offices leading neighborhood chiefs to work and promote together. Community residents closely cooperated in patrolling the environment and doing cleanup work that improved the collective environmental sanitation quality of their neighborhoods.

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