

Eco-industrial parks a growing trend

Stuart Hamby, Special to The China Post
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Reducing, reusing, and recycling at the household level is an important step in lessening humanity's impact on the planet, but environmental efforts in industry can have a much larger effect on the Earth's ecosystems.

One key way companies can reduce their toxic footprint is by participating in industrial parks in which waste from each firm is reused by the other or recycled. Such "ecological industrial parks" were a large part of the discussion at the 19th Modern Engineering and Technology Seminar held in Taipei yesterday.

The concept of "ecological industrial parks" was introduced at the seminar by Robert C. Lao, resident project manager for the Canada-China Project on Cleaner Production, who spoke about their efficacy in reducing pollution in Canada, mainland China, and Denmark. Industrial parks designed with an eye to the environment are not limited to these countries, but are growing in number around the world. Such countries as Japan, Germany, the United States, and Austria already boast such industrial estates.

Also growing in global importance is the idea of sustainable industry, which goes hand in hand with the eco-industrial park concept. Giving the specific example of mainland China, Lao noted the "Clean Production Promotion Law," passed in June 2002, in the face of both market forces and consumers who have historically neglected to consider the costs of environmental degradation in the price of manufactured goods. The new law implements rewards and punishments for industry and defines both government and industry responsibilities in environmental efforts.

Chih C. Chao, fellow and senior advisor at the Industrial Technology Research Institute in Hsinchu, furthered the idea of the symbiotic relationship within an ecological industrial park. Such parks rely on - and simultaneously support - an "eco-industry," which comprises environmentally friendly services and technology.

As an example of this kind of symbiotic relationship, Chao said such waste as furnace slag, asphalt, and even excess steam from the steel industry can be used as recycled materials or energy sources in the chemical, construction, and other industries located within the same park.

Stuart Hamby writing sample

Not only is the cost of the resources themselves reduced when waste materials are reused, but the close proximity of the supplier and client practically eliminates transportation costs.

Identifying the realm of possibilities in the reclamation and recycling of waste materials, Edward T. Chen, deputy director of the Department of Solid Waste Management for the City of Houston, Texas, presented various recycling technologies currently used by his agency. Further, Chen identified the process flow involved in the reclamation of waste materials, which could be adapted in their present state by Taiwan's recycling industry. He noted that such processing could be implemented at demolition sites after a particularly destructive typhoon, transforming piles of rubble and mixed materials into resources that could be reused "as is" or refined into usable construction materials.

Chen emphasized that such reclamation and recycling centers can be run at a profit, which helps to attract businesses to the environmental effort.