

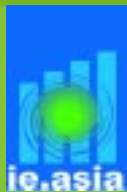
CLOSING the LOOP

changing gears towards green productivity

A newsletter produced by the PRIME Project, Industrial Ecology Module under the United Nations Development Programme (UNDP) and Board of Investments, Department of Trade and Industry



INTERNATIONAL CONFERENCE ON INDUSTRIAL ECOLOGY KICKS OFF



Industrial ecology experts, practitioners and those in the business of industrial park management come together in the first-ever International Conference and Workshop on Industrial Park Management dubbed as "New Strategies for Industrial Development." Scheduled in April 3-6, 2001 at the Makati Shanghi-la, the gathering promises to create a forum for an initial exchange among eco-industrial networking projects throughout Asia. Quite a number of these projects are already at different phases but no such venue for the exchange of information about these undertakings is present yet.

Through this initial interface, the event seeks to improve and support the design and strategy of eco-industrial development projects in Asia. In turn, new projects may even arise. This event is also seen to increase participants' awareness and capability, while clarifying eco-industrial concepts and standards. Ultimately, the event will establish a continuing working group and a strategy for funding, communications, and coordination of the working group.

The affair targets industrial estate managers concerned with locating opportunities and how to use the concepts as marketing tools. Entrepreneurs who eventually will become industrial estate developers may also find useful this initial offering. Other benefitting sectors include government representatives at the local and national level who will face new demands from eco-industrial development in terms of policies, planning issues and legislation. Local consultants and the finance sector will also benefit from the event.

The one-day conference on April 3 is designed to show how industrial ecology and eco-industrial networking can contribute to social and economic development in the Asian region. It will feature speakers from Asia, Europe, USA and Canada, who will provide an overview of the practical aspects of industrial ecology.

Meanwhile, the workshop scheduled on April 4-6 will offer an initial platform for exchange of information and experiences. It is targeted at a selected group of individuals including industrial estate managers, the business sector, representatives of local and national government, regional planners, and local consultants and experts. The workshop is structured around a series of interactive sessions involving case studies and site visits. Resource persons and moderators will be present to stimulate the discussion and debate.

The conference and workshop is expected to attract participants from Asian countries including Thailand, Indonesia, Malaysia, India, Australia, Vietnam, Taiwan, China, Nepal, and Pakistan.

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Welcome Guests and Participants!



For the first time, we are gathering experts and practitioners in the field of industrial ecology to exchange ideas and experiences as we play host to the International Conference and Workshop on Industrial Park Management entitled "New Strategies for Industrial Development."

With the number of eco-industrial networking projects throughout Asia, it is a perfect time to gather all these efforts and know their different levels of implementation. It is interesting to know the design and strategies of these projects and compare these with the others. This in itself is a rich source of information that will help improve existing methods and where new ideas may arise.

We envision that with the exchange of information, an international network will spawn from the event. This network, represented mostly by our Asian participants, is seen to provide a venue for the exchange of thoughts and ideas, knowl-

edge, and understanding of how eco-industrial park development and other efforts progress in different countries. Through this eco-industrial network, individuals may see the areas of similarities and differences in adopting industrial ecology, considering other country's economic priorities, political situation, financial capability, local and national policies, and level of acceptability of the concept. Organizational make-up and government influence may also play a factor in the process of implementing industrial ecology concepts.

We see this event as a springboard for eventually coming up with a "localized" model or framework on how to adopt these concepts in Asian countries. While we welcome the knowledge and experiences of our Western and European colleagues, we proceed in implementing industrial ecology tools by tailor-fitting a more effective plan suited to Asians. We realize the importance of sharing our experiences in piloting industrial ecology through the PRIME Project, as much as we appreciate other case studies from which there are a lot of lessons to learn. We may even come up with diverse methods but still keep in mind a common goal.

As local host to the conference and workshop, I, in behalf of the Board of Investments, the PRIME Project and our co-organizers, am honored to welcome you our guests and participants to this promising event. I hope this gathering becomes a successful venue for learning from one another's experience. Here's hoping that this will not be the first and last, rather the first in many.

Once again, Welcome and Mabuhay!



SHORT TAKES

THE FOLLOWING ARE EXCERPTS FROM AN ON-LINE ARTICLE PUBLISHED BY AT&T'S ENVIRONMENT, HEALTH AND SAFETY (EHS) DIVISION. THESE ARTICLES WERE WRITTEN BY BRAD ALLENBY, VICE PRESIDENT OF EHS AND AUTHOR OF SEVERAL BOOKS ON INDUSTRIAL ECOLOGY. TO READ THE FULL ARTICLE, VISIT THE WEB PAGE AT WWW.ATT.COM.

TECHNOLOGY AND ENVIRONMENTALISM

A more basic problem arises from the evolution of environmentalism, which has generally positioned environmental issues as "overhead" - that is, something to be taken care of only after primary missions are accomplished. In firms, this is represented by end-of-pipe technologies such as scrubbers or water treatment plants, which are relatively independent of product or process design. The mental model behind this approach, however, encourages simplistic, often ideological, approaches to complex problems and is problematic when applied to complex, real world systems.

Consider, for example, the costs of a wrong decision in an end-of-pipe scenario: in general, it will result in a little wasted capital, or an inadequate level of protection that, once recognized, can be fixed by a quick and simple switchout of the control technology. The penalties for being wrong are relatively small and easily fixed. End-of-pipe technology, in other words, is a simple system.

DEMATERIALIZATION

While dematerialization is frequently applied to consumer end products, it is obviously equally applicable to the production process - eliminating unnecessary cleaning steps in manufacturing electronics products, for example, which reduces solvent consumption - and in non-manufacturing fields such as agriculture. Reduction of pesticide use per unit crop, for example, dematerializes food production.

It is also important to note that dematerialization, in itself, is not the primary goal. Rather, the primary goal is to achieve a state of "sustainable material use" as part of a sustainable economy. Dematerialization, material substitution (both by environmentally preferable materials and by services of various kinds), materials cycling systems, identification and use of environmentally preferable materials through the economy - all have a role to play.



3rd APRCP in Manila concluded

by Amihan Gorospe



It was Manila's turn this year as it hosted the third Asian Productivity Cleaner Production (APRCP) Roundtable held on February 28 to March 2, 2001 at the Edsa Shangri-la Hotel in Mandaluyong City.

Themed as "Cleaner Production for Sustainable Growth," the conference focused on cleaner production experiences in the Asian region and attracted 320 participants from 27 countries. The roundtable aimed to enhance regional cooperation and improve knowledge about Cleaner Production. This gathering was likewise envisioned to facilitate information sharing, technologies, programs and policies. Further, the roundtable was organized to strengthen partnerships of international, regional and national programs, and to strengthen the Cleaner Production network across the globe.

Discussions during the event featured environmental policy, project strategies, sustainability, technology transfer, the role of the finance sector, and various tools like life cycle assessment. Parallel sessions included cleaner production and ISO 14000 workshops organized by the Asian Development Bank, Regional Institute of Technology and other international agencies.

The next Roundtable will be held in Indonesia in 2002. Previous roundtables were held in Thailand in 1997 and Australia in 1999.

Proceedings from the event will be available soon at the website at www.aprcp.org.ph.

Greening the Industry Network holds international conference

Contributed by Anthony SF. Chiu, Conference Coordinator for PRIME Project

"Sustainability at the Millennium: Globalization, Competitiveness & the Public Trust." This was the main theme of the ninth international conference of the Greening the Industry Network (GIN), held in January 2001 in Chulalongkorn University, Bangkok, Thailand. Coordinated by GIN-Asia's Dr. Somporn Kamol-siripichaiporn, this is the first time the conference was held in Asia. More than 350 participants from 32 countries attended the event at the Imperial Queen Park Hotel.

Public trust was one of the focus of the conference, due to the belief that the public is not just an important stakeholder but an informal regulator of the society. Many environmental projects

won legal stand, but faced closure from local protest. In the Philippines, the landfill case is an example.

Though Asians were still outnumbered, the atmosphere of the conference was very much global sustainability in theory, but Asian perspective by discussion. Aside from the social dimension of triple bottom line being emphasized, a number of excellent papers targeted the good equilibrium and levels of attainment for the other two dimensions, namely: economic and environmental issues.

Many speakers focused on the environmental aspects of the projects, but looked at the reality as practical guidance. Marketability was still well considered by the environmental researchers

in the conference.

Two important issues also arose: system transformation, rather than just product re-design or process-modification, was delivered across the Conference in its four-day technical presentation by numerous scholars. Some called it Industrial Transformation, while others put levels of attainment to its transformation. Mark Bateman of the USAEP led the Conference into another interesting topic on certification of environmental reporting. This issue earned a wide discussion tagged as west vs. east, small and medium enterprises vs multi-national corporations, and degrees of standards were a point of concern. Global Reporting Initiative report format, as discussed, would eventually equal or integrate financial reporting as a must in successful business entities.

Unique to many regional or international conferences, GIN promotes and provokes innovative ideas. The first day of the conference was allocated for dissertation presentation by doctoral students and their advisors, which were extra-ordinarily well attended by every conference participant.

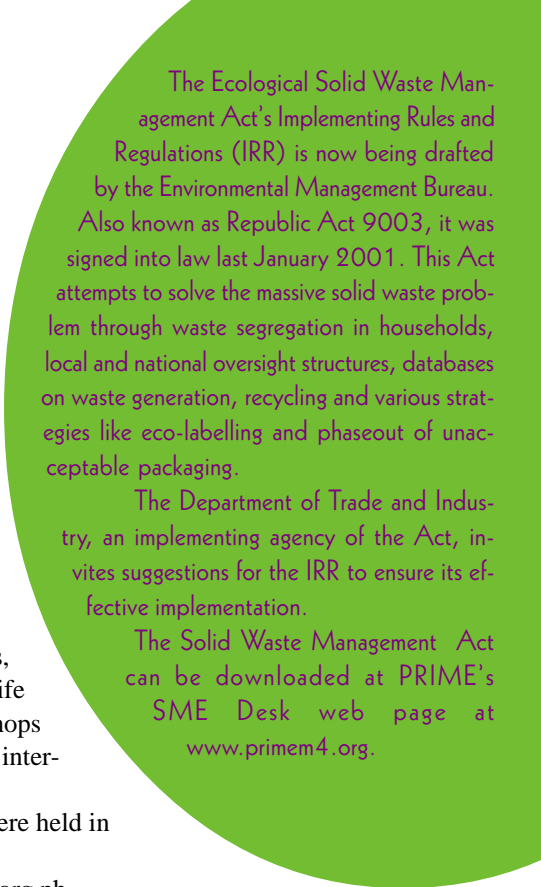
DTI SIGNS MOA WITH CLEAN AND GREEN



A Memorandum of Agreement (MOA) between the Bureau of Products Standards, Department of Trade and Industry (BPS-DTI) and the Clean and Green Foundation, Inc. (C&GFI) was recently signed, naming C&GFI as the Philippine Product Ecolabelling Administrator.

Signing the MOA are C&GFI Executive Director Imelda P. Sarmiento and BPS Director Jesus L. Motomull. Also shown here are co-signatories Asst. Director of Environmental Management Bureau, Department of Environment and Natural Resources (EMB-DENR) Fernandino Concepcion, with representatives of the National Consumers' Affair Council.

The signing took place after a two-day seminar on eco-labelling and life cycle assessment, held at the CEO Suites in Makati.



The Ecological Solid Waste Management Act's Implementing Rules and Regulations (IRR) is now being drafted by the Environmental Management Bureau.

Also known as Republic Act 9003, it was signed into law last January 2001. This Act attempts to solve the massive solid waste problem through waste segregation in households, local and national oversight structures, databases on waste generation, recycling and various strategies like eco-labelling and phaseout of unacceptable packaging.

The Department of Trade and Industry, an implementing agency of the Act, invites suggestions for the IRR to ensure its effective implementation.

The Solid Waste Management Act can be downloaded at PRIME's SME Desk web page at www.primem4.org.



THIS COLUMN PROVIDES A VENUE FOR OPEN DISCUSSION AND EXCHANGE OF INFORMATION BETWEEN GOVERNMENT AGENCIES AND THOSE INVOLVED IN THE BUSINESS OF INDUSTRIAL PARK MANAGEMENT. TELL US YOUR QUERIES AND WE WILL PROVIDE YOU THE ANSWERS THROUGH THE CONCERNED GOVERNMENT OFFICE/S AND VICE VERSA. YOU MAY SEND YOUR QUESTIONS OR COMMENTS AT PRIME@SKYINET.NET OR TELEFAX 895-8233 OR 899-5688.

Q HOW DOES THE LAGUNA LAKE DEVELOPMENT AUTHORITY (LLDA) HELP IN CONTROLLING THE EFFLUENTS OF INDUSTRIAL PARKS LOCATED WITHIN THE LAGUNA DE BAY REGION?



A LLDA MANDATES NEW OR FUTURE INDUSTRIAL PARKS WITHIN THE LAGUNA DE BAY REGION TO INSTALL A CENTRALIZED WASTEWATER TREATMENT PLANT (CWTP) AND ALL LOCATORS LOCATED THEREAT SHALL BE CONNECTED TO THE CWTP. HOWEVER, FOR EXISTING PARKS WITHOUT A CWTP, EACH LOCATOR SHALL BE REQUIRED TO INSTALL INDIVIDUAL TREATMENT FACILITIES TO ENSURE COMPLIANCE WITH EFFLUENT STANDARDS.

THIS IS UNDER THE NEW POLICY GUIDELINES OF RESOLUTION NO. 106, APPROVED BY THE LLDA BOARD OF DIRECTORS ON MARCH 25, 1999, GOVERNING ALL INDUSTRIAL PARKS OR ESTATES WITHIN THE LAGUNA DE BAY REGION.

FURTHER, MANAGEMENT OF INDUSTRIAL PARKS WITH A CWTP ARE REQUIRED TO SUBMIT A SET OF INTERNAL EFFLUENT STANDARDS TO THE LLDA FOR APPROVAL. THE INTERNAL STANDARDS FOR COMPLIANCE FOR INDIVIDUAL LOCATORS MAY BE LESS STRINGENT THAN THE LLDA STANDARDS PROVIDED THAT, THE CWTP SHALL MEET THE STANDARDS UNDER DAO 35. THUS, EACH INDUSTRIAL PARKS OR ESTATE SHALL BE REQUIRED TO ENTER INTO A MEMORANDUM OF AGREEMENT WITH THE LLDA, STATING ITS COMMITMENT TO COMPLY WITH THE NEW POLICY ATTACHING THEREWITH, A SET OF INTERNAL EFFLUENT STANDARDS FOR ITS OWN MONITORING PURPOSES.

IN THE IMPLEMENTATION OF THE ENVIRONMENTAL USERS FEE WITHIN INDUSTRIAL PARKS, LOCATORS INTERCONNECTED TO THE CWTP WHICH COMPLY WITH THE INTERNAL EFFLUENT STANDARDS OF THE PARK SHALL BE ASSESSED A FIXED FEE ONLY. NO VARIABLE FEE SHALL BE REQUIRED. HOWEVER, BOTH FIXED FEE AND VARIABLE FEE WILL BE ASSESSED, INCLUDING PAYMENT OF FINES AND PENALTIES FOR LOCATORS WHO FAIL TO MEET THE INTERNAL STANDARDS, EVEN IF THEY ARE CONNECTED TO THE FACILITY.

FOR PURPOSES OF CARRYING OUT THEIR RESPECTIVE FUNCTIONS, THE LLDA AND THE INDUSTRIAL PARK MANAGEMENT MAY CONDUCT AN INSPECTION AT LEAST ONCE A YEAR TO DETERMINE COMPLIANCE OF BOTH LOCATORS AND THE PARK ITSELF WITH THE NEW GUIDELINES.

FOR FURTHER INFORMATION, YOU MAY VISIT THE WEBSITE AT WWW.LLDA.GOV.PH.

KEEP POSTED

IEPHIL.COM BULLETIN BOARD. Share your thoughts on the various facets of industrial ecology and eco-industrial networking in Asia by reading and posting messages online. Sign up at the virtual bulletin board by visiting www.iephil.com.

“ADOPTING INDUSTRIAL ECOLOGY TOOLS FOR INDUSTRIAL ESTATES.” A new publication by the Industrial Ecology Module is now out. It presents a framework for integrating by-product exchange in industrial park operations and developing an eco-industrial park. For a FREE copy, contact us at telefax (02) 895-8233 or 899-5688, email at prime@skyinet.net.

ENVIRONMENTAL AWARENESS SEMINAR BASED ON ISO 140001. Two-day seminar (Module 1-5), April 25-26, 2001, 8AM to 5PM; Galleria Suites, Ortigas, Pasig City. Seminar Fee: P5000. Organized by the Environmental Management Systems Module of the PRIME Project, the Philippine Association of Envi-

ronmental Professionals, Inc. (PAEAP) and the Bureau of Product Standards, Department of Trade and Industry. For inquiries, contact (02) 890-5225 to 27. E-mail: bps@dti.gov.ph. URL: <http://www.primem4.org>. Or call PAEAP at tel. 635-5201 to 10.

EARTH DAY - APRIL 22, 2001. Themed as the Green People Power. Organized by the Earth Day 2001 Network. Contact (02) 426-5621 or visit the website at <http://www.earthday.net/signup/event.asp> to sign up your activity or event.

TOUR OF THE FIREFLIES: A CITIZEN'S BIKE RIDE TOWARDS LIVABLE CITIES AND GOOD GOVERNANCE. Organized by the Firefly Brigade, a citizen's volunteer group advocating sustainable transportation and environmental protection. Themed as “Pedal Power is People's Power,” the bike tour will pass through seven cities in Metro Manila, coinciding with the Earth Day Celebration on April 22, 2001.

For corporate contributions, contact The Firefly Brigade c/o Aru-Kik, YWCA, Tel. (02) 682-4304 / 430-4205. E-mail: fireflybrigade@mindgate.net or visit the webpage at www.fireflybrigade.org.

NEW BOARD OF TRUSTEES. The Philippine Chamber of Industrial Estates and Ecozones announces its newly elected members: RODEL EMMANUEL ADIVISO (Managing Director, Site Search Inc.); RUFO CULAYCO; ATTY. RODOLFO O. REYES (Administrator, CEZA); ELVIRA O. ADORABLE (Director, Joaquin Cunanan Co., Price Waterhouse Coopers); ATTY. EUSEBIO V. TAN (Principal, ACCRA Law Offices); ROBERTO Z. SISON (EVP-COO, Lima Tech. Ctr.); ATTY. VICTORIO A. DIMAGIBA (VP&GM, PNOG Petrochem); ATTY. BENITO C. SALAZAR (President, FTI); IEYO F. DE GUZMAN (VP, Northgate Cyberzone of Filinvest Alabang, Inc.); ERNESTO V. TAN (SrVP-Chief Financial Officer, Asea One Corp.); EMMANUEL Y. ANGELES, PH.D. (President, CDC).



Return Address:
Industrial Ecology Module
PRIME Project
3/F Board of Investments
385 Sen. Gil Puyat Ave., Makati City 1209
Philippines

