



# PATLEPAM News

The Official Newsletter of the  
PHILIPPINE ASSOCIATION of TERTIARY LEVEL EDUCATIONAL  
INSTITUTIONS in ENVIRONMENTAL PROTECTION and MANAGEMENT

Volume 7, Number 1

September 2004

## 9th National Senior Educators' Assembly Set in Dumaguete City

# Educators Convene for Partnerships in Sustainable Livelihoods

"Harnessing the Academe's Initiatives and Linkages for Sustainable Livelihoods" is this year's theme of the Ninth National Senior Educators' Assembly in Environmental Protection and Management to be held on September 29-30, 2004 at the Bethel Guest House in Dumaguete City. In collaboration with the Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management (PATLEPAM), the Environmental Management Bureau of the Department of Environment and Natural Resources, and the United Nations Development Programme, this year's assembly is principally hosted by the Silliman University, thru its President, Dr. Agustin Pulido. A member of the Board of Directors of PATLEPAM, Silliman University is one of the oldest universities in the Philippines.

Lined up for discussion for the assembly will be sustainable livelihood initiatives and linkages by the academe in the following areas: Sustainable Fishing and Coastal Resource Management (to be presented by Dr. Angel Alcala of Silliman University); Sustainable Agriculture (to be presented by Director Lulu Loyola and Ms. Rhodora Lapastora of the Office of Extension and Development of the West Visayas State University); Sustainable Forestry (to be presented by Dr. Pacencia Milan, president of Leyte State University); Sustainable Tourism (to be presented by Dr. Nida Calumpong of Silliman University); and Eco-Industrial Development (EID) (to be presented by Chancellor Marcelo Salazar of the Mindanao State University-Iligan Institute of Technology). Ms. Georginia Pascual-Sison, project specialist of the Environmental Management Programme for Industry Competitiveness of the Board of Investments, will also give updates on the EID courseware development project with PATLEPAM.

The assembly will also be a follow-through deliberation, validation, and planning of the next steps for the candidate sites for the PATLEPAM's project on "Building Capacities of Communities to Cope with Globalization."

Ambassador Preciosa Soliven, secretary-general of UNESCO in the Philippines, will also talk about the United Nations Decade of Education for Sustainable Development (2005-2014). Dr. Ruth Guzman, chair of PATLEPAM's Board of Directors, along with PATLEPAM's Regional Coordinating Centers, will cap the challenge with the tertiary education sector's response to this Decade event.

## Planning Workshop on Capacity 2015 held

The Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management (PATLEPAM) and the Environmental Management Bureau of the Department of Environment and Natural Resources (EMB-DENR), with the assistance from the United Nations Development Programme (UNDP) conducted a planning-workshop on "Building Capacities

of Communities to Cope with Globalization" last August 9-10, 2004 at the Sulo Hotel in Quezon City. This workshop commences implementation of PATLEPAM's Memorandum of Agreement with the DENR on the preparation of project document on the said title, until the first quarter of 2005.

The planning workshop aimed at laying down the first steps for the development of a project proposal that will undertake capacity building activities for three of the

*(continued on page 6)*



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*Planning Workshop participants discuss initial steps for the project proposal development on linking small and medium enterprises, LGUs and academe for sustainable economic development endeavors.*

# Updates from PATLEPAM Regional Coordinating Centers

## PATLEPAM NCR Conducts Various Seminars on the Environment

Three seminars on various aspects of environmental management were pursued by PATLEPAM NCR for 2004.

Close to 200 teachers from various universities and colleges in Metro Manila attended the seminar-workshop on Trends and Teaching Strategies in Environmental Education held last March 6, 2004 at the Benitez Theater of the College of Education at UP Diliman, Quezon City.

Among the topics presented were "Biotechnology: Forefront of Development" by Dr. Catherine Genevieve Lagunzad of Ateneo de Manila University; "Persistent Organic Pollutants" by Dr. Juliana Hafalla of Far Eastern University (FEU); "Trends in Environmental Education" by Dr. Crescencia Joaquin of the University of the Philippines, and the "Draft National Environmental Education Action Plan for Sustainable Development for 2005-2014" by Ms. Elenida del Rosario-Basug of the Environmental Management Bureau of the Department of Environment and Natural Resources.

Invited guests for the said affair were Dr. Leticia Peñano-Ho, dean of the College of Education of UP Diliman, Atty. Amado Fojas and Prof. Jaime Joaquin, president and past president, respectively, of the Rotary Club of Sto. Domingo in Quezon City.

This first event was sponsored by the PATLEPAM-National Capital Region, with Dr. Joaquin and Dr. Hafalla as coordinators, the UP Diliman-College of Education and Rotary Club of Sto. Domingo. The event was also an opportunity for PATLEPAM NCR meeting.

Meanwhile, the FEU as another PATLEPAM Coordinating Center for NCR, thru Dr. Hafalla, convened two other seminars on the environment. The first was a talk on "Environmental Management Programme for Industry Competitiveness (EPIC) by Ms. Georginia Pascual-Sison, EPIC project specialist last February 2004. This was held at the FEU for faculty members and senior students of its B.S. Biology program.

Further, a seminar on Environmental Management Accounting was held last August 20, 2004, for close to 200 teachers and students of PATLEPAM member-schools in Metro Manila. This seminar was conducted in cooperation with EPIC, through project specialist Ms. Jocelyn Esguerra, and the Institute of Accounts, Business and Finance of FEU.

## PATLEPAM Region 3 Hosts Training on EMA

A Region 3 Teachers' Training on Environmental Management Accounting (EMA) was hosted by the Central Luzon State University (CLSU), Science City of Munoz, Nueva Ecija, last August 6, 2004, with the theme, "EMA : Another Tool for Better Environmental and Economic Performance in Business." The training was spearheaded by the CLSU Environmental Management Institute Director, Dr. Annie Melinda Alberto, who is also PATLEPAM Region 3 Center Coordinator. Close to 35 participants, coming from the different state and private colleges and universities in Region 3 attended the training.

CLSU President, Dr. Rodolfo Undan gave the inspirational message to the training, while CLSU Vice-President for Academic Affairs, Dr. Ruben Sevileja, welcomed the participants.

Principal trainer for the event was Ms. Jocelyn Esguerra, technical specialist of the Board of Investments' Environmental Programme for Industry Competitiveness, who tackled the following topics: The Context of Business Management; Overview of the Philippine Environmental Policy; Introduction to Environmental Management Systems; Introduction to EMA; Environmental Cost Identification; Environmental Performance Evaluation; and Indicators and Financial Assessment of Environmental Investments.



Organizers of the seminar-workshop are shown, led by PATLEPAM Regional Center Coordinators for NCR Dr. Crescencia Joaquin of UP Diliman (fourth from right) and Dr. Juliana Hafalla of Far Eastern University (second from left).

## The other PATLEPAM Regional Coordinating Centers are:

For Region 2 - Isabela State University (c/o Dr. Eileen Bernardo)

For Region 4 - University of Perpetual Help System – Binan (Chancellor Karen Tamayo and Dr. Juvy Mayrena)

For Region 5 - Bicol University (c/o President Susan Cabredo and Dr. Nimfa Pelea)

For Region 7 - University of Southern Philippines (c/o Engr. Glenn Java)

For Region 8 - Leyte Institute of Technology (c/o President Bonifacio Villanueva and Engr. Reginaldo Lastimado)

For Western Mindanao - Western Mindanao State University (c/o Dean Dino Sabellina)

For Southern Mindanao - University of Southern Philippines (c/o Dr. Helen Pondevida)

## **PATLEPAM RCCs for CAR, Region I Established**

New Regional Coordinating Centers (RCCs) for the Cordillera Administrative Region (CAR) and Region I were established last May 2004 with the assistance of the respective Environmental Management Bureau (EMB) - Environmental Education and Information Sections through their heads Ms. Wilhelmina Lagunilla and Ms. Venus Juinio. Identified as RCCs were: for CAR- St. Louis University; and for Region I – St. Louis College.

Universities and colleges in Baguio City, Benguet and Region I were invited to a meeting held at the Conference Room of the EMB-CAR. The said meeting was attended by around 15 participants. Also present during the said meeting were EMB-CAR Regional Director Joel Salvador, EMB Region I Director Benedicto Molano, and Mr. Harry Quiaoit and Ms. Bernadita Bondoc of the PATLEPAM Secretariat.

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## **PATLEPAM Region 6 Conducts Seminar-Workshop on EMA and EID**

The PATLEPAM Regional Coordinating Center for Region 6 based at the West Visayas State University (WVSU) conducted a one-day Seminar-Workshop on Environmental Management Accounting (EMA) and Eco-Industrial Development (EID) last August 27, 2004.

Guests to the said event were Mr. Raphael Lotilla, former deputy director-general of the National Economic Development Authority (NEDA) and Engr. Virgilio Fabronero of EMB Region 6. Invited resource speakers were Ms. Jocelyn Esguerra, technical specialist and Ms. Georginia Pascual-Sison, project specialist of the Environmental Management Program for Industry Competitiveness (EPIC) of the Board of Investments (BOI) under the Department of Trade and Industry (DTI). About 50 participants from the DENR-Regional Office, CHED, NEDA and colleges and universities in the region attended the seminar-workshop.

The gathering was also an opportunity for Ms. Amelia Guillergan, head of the Environmental Education and Information Section of EMB Region 6 to discuss the topic on "The United Nations Decade of Education for Sustainable Development" (2005-2014). She encouraged the participants to play an active role including and undertaking sustainable development concerns and goals in their institutions' own programs.

At the event, PATLEPAM member-schools likewise presented their accomplishments for the year in the areas of instruction, research, extension and other related activities for environmental protection and management.

The activity was a joint undertaking of the PATLEPAM, WVSU represented by its president Dr. Lourdes Aranador, who is also PATLEPAM Vice-President for Visayas, PATLEPAM Region 6 coordinator Dr. Lourdes Morano and the EPIC Project of the BOI-DTI.

## **PATLEPAM Northern Mindanao Spearheads Industry-Academe Linkage for Environment**

An industry-academe linkage for the conservation of the environment has been spearheaded by Mindanao State University-Iligan Institute of Technology (MSU-IIT) as PATLEPAM Regional Coordinating Center (RCC) for Northern Mindanao. MSU-IIT Chancellor Marcelo Salazar, who is also PATLEPAM Vice-President for Northern Mindanao initiated the Iligan Bay Chamber of Industries-Academe Action Planning Workshop for Environmental Issues and Concerns held at the MSU-IIT last March 2, 2004. Among its activities were the organization of the Solid Waste Management Committee and the identification of environmental issues and concerns to be tackled, such as: Air and Water Pollution, Toxic and Hazardous Substances, Solid Waste Disposal, Aquatic Resource Degradation, and Poor Drainage System.

Other major activities undertaken by PATLEPAM Northern Mindanao RCC led by Dr. Olga Nuneza of MSU-IIT were the following: a Public Briefing on "Warming Up to a Changing Planet" last April 14, 2004 that was attended by 150 participants from LGUs, NGOs, POs, industries and academe; PATLEPAM's Annual Regional Meeting last April 15, 2004; and two lectures on Persistent Organic Pollutants (POPs) conducted for MSU-IIT constituents and solid waste management stakeholders of Iligan City, and for representatives from NGOs, POs, academe and other stakeholders.

Two other trainings were conducted by PATLEPAM Northern Mindanao: one was Training on Pollution Prevention/Cleaner Production for small and medium enterprises of Iligan City; another was a Seminar-Workshop on Good Manufacturing Practices, attended by food service providers such as canteens, hotels and restaurants, food processors, teachers and students.



*PATLEPAM Vice President for Mindanao Marcelo Salazar (second from left) and PATLEPAM Northern Mindanao Center Coordinator, Dr. Olga Nuñez (first from left) with Klima resource persons during the Public Briefing on "Warming Up to a Changing Planet".*

# The United Nations Decade of Education for Sustainable Development (2005-2014)

Supporting efforts to promote development that is socially desirable, economically viable and ecologically sustainable, the United Nations (UN) General Assembly adopted by consensus, on 20 December 2002, a resolution establishing a UN Decade of Education for Sustainable Development (DESD) from 2005-2014. The resolution names the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the lead agency to promote the decade.

## A movement to declare a decade

Since 1985, the UN has designated on-going International Decades to draw attention to major issues and to encourage international action on questions of global importance. The conception of a Decade of Education for Sustainable Development was introduced by the Japanese government at the World Summit for Sustainable Development (WSSD) Preparatory Committee IV (Bali, Indonesia, June 2002) and endorsed at the highest political levels at the WSSD in Johannesburg, South Africa in September 2002. Three months later, it was adopted by consensus at the 57th session of the UN General Assembly and a Decade of Education for Sustainable Development declared to commence 1 January 2005.

## Aims of the Decade

The outcomes of the Johannesburg Summit and the establishment of a Decade of Education for Sustainable Development affirms the need to integrate sustainable development into education systems at all levels in order for education to be a key agent for change. The Decade aims to promote education as the basis for sustainable human society and to strengthen international cooperation toward the development of innovative policies, programmes and practices of education for sustainable development (ESD).

Governments have been invited to consider the inclusion of measures to implement the Decade of Education for Sustainable Development in their respective educational strategies and action plans by 2005, taking into account the international implementation scheme to be prepared by UNESCO.

## Education for Sustainable Development (ESD): the meaning and scope

ESD is "an emerging but dynamic concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating and enjoying a sustainable future". It is not so much education about sustainable development, but education for sustainable development, which makes the concept more participatory and comprehensive.

The aim is not only for the educator and the learner to understand the issues of sustainable development but also to cope with and act upon the interdisciplinarity of the issue. ESD becomes a more information-driven and participatory concept that encourages educators and learners to interact, debate and foster learning that emerges from experiences and creativity.

This more dynamic meaning of ESD utilizes all aspects of public awareness, education and training as powerful instruments to create both understanding about sustainability but also to develop the knowledge, skills, perspectives and values to participate in individual and collective decisions that will improve the quality of life in the short and long run. This also means that while there will be overall agreement on "What is ESD?" there will be nuanced differences according to local contexts, priorities and approaches. This is a critical point. It means that there will no single "right" definition of ESD, but there will be overall agreement on the concept of sustainable development that education addresses.

The goals, emphases and processes of ESD must, therefore, be locally defined meeting the local environmental, social, economic conditions in culturally appropriate ways. This can be facilitated through community involvement, which will enable people to make decisions on issues affecting the quality of their lives. Exchange of relevant experiences on sustainable solutions from around the world would enrich options and promote diversity through international cooperation.

In general, improving basic education and reorienting existing education have common end points of developing knowledge, skills, perspectives and values to enable citizens to continue learning after they leave school, to earn a sustainable livelihood and live sustainable live on a daily basis.

ESD has four major thrusts: promotion and improvement of basic education, reorienting existing education at all levels to address sustainable development, developing public understanding and awareness of sustainability, and training.

These thrusts were originally identified in Chapter 36 of Agenda 21 and have been expanded upon in the Commission for Sustainable Development Work Programmes as follows:

- The creation of awareness of the need for and public understanding of the principles behind sustainability. This includes educating people to promote sustainable consumption and production patterns. In this the media can play an important role.

- The availability of quality life-long education and learning opportunities for all peoples regardless of their occupation or circumstances. This can be achieved by reviewing national education policies and reorienting formal education systems.

- The reorienting of existing education programmes to address the social, environmental, and economic knowledge, skills, perspectives and values inherent to sustainability. Education must be incorporated into national strategic and action plans for sustainable development.

- The development of specialized training programmes to ensure that all sectors of society have the skills necessary to perform their work in a sustainable manner.

## Lessons Learnt

Among the lessons that have been learnt about edu-  
(continued on page 6)

\*Excerpts taken from *Connect (UNESCO International, Science, Technology and Environmental Education Newsletter) Vol XXVIII, No. 1-2, 2003.*

# Moving the Tertiary Education Sector for the United Nations Decade of Education for Sustainable Development (2005-2014)\*

## Issues and Perspectives on Environmental Education from Tertiary Education

- Catalytic role of the networking and collaboration among tertiary educational institutions for environmental protection and management (i.e. PATLEPAM, EENP)
  - capability-building of member-schools for environmental education and sustainable development
  - connecting academe to business and industry
  - promotion of community participation and public awareness with respective clients of member-schools
  - contribution to policy formulation
  - production and distribution of relevant and appropriate environmental education materials
- Sustainability of the networks and funding

## Gaps in the National Environmental Education Action Plan (1992-2002) for the Tertiary Education Sector

- Reprinting of foreign textbooks on Environmental Education (EE)
- Value formation study for EE
- Scholarship program and establishment of scholarship fund
- Upgrading of EE facilities and equipment
- Philippine EE database

## Recommendations for the National Environmental Education Action Plan for Sustainable Development for 2005-2014

- Institutionalization of the integration of EE in CHED
- Stronger networking, collaboration and partnerships
- Review of existing curriculum and infusion of EE courses/ modules
- Innovative programs such as ECO-CORPs (Environmental Conservation through Citizens' Organized Participation and Support) for the National Service Training Program Law implementation
- Review of teaching methodologies and approaches to EE
- Inter-phasing the formal curricular programs in the context of the United Nations Decade of Education for Sustainable Development

\*Excerpts from the paper of Dr. Ruth Guzman, chairperson PATLEPAM Board of Directors, to the EMB-sponsored Consultative Workshop on the Updating of the National Environmental Education Action Plan, November 26-28, 2003, Sulo Hotel, Quezon City

# Environmental Education: Perspectives for the Tertiary Education \*\*

## Issues and Gaps of Environmental Education (EE) at the Tertiary Level

- CHED Policy on EE** – not evident
- Institutional Framework** – lack of environmental education framework at the school level
- Curriculum/Syllabi** – lack of cohesion and focus in the application of environment-friendly technologies and solutions in the various courses; green productivity as thrust is not evident
- Faculty**- No clear guidelines on academic background and training competence for EE
- Licensure Examination** – limited item about environmental concerns
- Research, Community Extension Work** – Environment-related projects/activities and funding limited
- Sustainability** – environment-related co-curricular and extra-curricular activities at school level are not sustainable
- Collaborative Work** – on environment-related concerns with industry, professional organizations and LGUs is minimal

## Recommendations

- Each school to formulate its own EE program
- Schools to apply EE “best practices” in its operations

*(continued on page 7)*

\*\* Excerpts from the paper of Dr. Reynaldo Veja, president, and Engr. Vinci Nicolas Villasenor, dean of Mapua Institute of Technology, to the EMB-sponsored Consultative Workshop on the Updating of the National Environmental Education Action Plan, November 26-28, 2003, Sulo Hotel, Quezon City.

## Planning Workshop on Capacity 2015...

(continued from page 1)

key actors in the local development process, as well as, develop the enabling environment for them to function optimally, namely; (i) Small and Medium Enterprises (SMEs) – one of the main pillars of sustainable development and the key engine of economic growth; (ii) Local Government Units (LGUs) which have administrative jurisdiction over the subject SMEs, and (iii) the academe, to enable it to provide continuing support and technical assistance, as well as, develop the humanpower base for both SMEs and LGUs on sustainable economic development endeavors.

The said project is expected to result in the increased annual average growth of 5% and economic output of 50% for SMEs, and their contribution to poverty reduction by 50% and the improvement of the quality of the environment and natural resources base of the specific localities where they are situated by the year 2015.

Moderating the proceedings for the said event was Dr. Ruth Guzman, chair of the PATLEPAM Board of Directors and vice-president for Research, Extension and Information Services of the Rizal Technological University. UNDP's Environment Portfolio Manager Ms. Amelia Dulce Supetran and Assistant Director Jason Lao of the Bureau of Export Trade Promotions of the Department of Trade and Industry were the resource persons for the planning workshop. Key officials and regional center coordinators of the PATLEPAM, with participants from the DENR, National Economic Development Authority participated in the workshop.



## Educators Trained on Eco-Industrial...

(continued from page 8)

of final drafts of the modules; and provide a forum for the discussion of the next steps to advocate the teaching of EID as a separate three-unit subject or as an enrichment module in related existing courses of tertiary education, or both.

About 50 participants from the academe attended the said training wherein about 11 modules and 15 case studies were presented by various module/case study writers coming from the different PATLEPAM member-institutions nationwide.

Environmental modules were prepared by PATLEPAM on the following topics: Overview of EID, Global and Local Environmental Situation and Sustainable Development Concepts; Ecosystems Structure and Functions; Ecological Concepts related to EID; Environmental Legislations and Policies; Technological and Industrial Impacts on Air, Water and Land; Environmental Management Systems; Environmental Impact Assessment; Pollution Prevention/Cleaner Production; and Environmental Cost Accounting.

Among the guests present were EMB Director Julian Amador; Ms. Georginia Pascual-Sison, project specialist of the Board of Investment's Environmental Management Programme for Industry Competitiveness; and Dr. Ruth Guzman of Rizal Technological University, chair of the PATLEPAM Board of Directors.

## The United Nations Decade of Education...

(continued from page 4)

education for sustainable development over the decade, the following aspects deserve to be underlined:

-Basic education provides the foundation for all future education and is a contribution to sustainable development in its own right.

-There is a need to refocus many existing education policies, programmes and practices so that they build concepts, skills, motivation and commitment needed for sustainable development.

-Education is the key rural transformation and is essential to ensuring the economic, cultural and ecological vitality of rural areas and communities.

-Lifelong learning, including adult and community education, appropriate technical and vocational education, higher education and teacher education are all vital ingredients of capacity building for a sustainable future.

-The challenge of sustainable development is a difficult and complex one, requiring new partnerships --- among governments, academic, and scientific communities, teachers, non-government organizations (NGOs), local communities and the media. All are essential to the birth of a culture of sustainability.

**However, significant issues and challenges remain, such as the following:**

-Better integration of education for sustainable development into relevant development policies and national action plans. This involves improved coordination among the concerned Ministries.

-Development of guidelines on education for sustainable development.

-Emphasizing education for sustainable development in non-formal as well as formal education.

-Strengthening institutional capacity building and professional development processes for improved planning and implementation of education for sustainable development.

-Increasing monitoring, evaluation and reporting of sustainable development education initiatives and their outcomes and impacts.

-Increasing attention to the sustainability of initiatives so that policies, programmes and activities are embedded in long-term education plans and financial arrangements.

## DENR, PATLEPAM Train Educators...

(continued from page 8)

Organized Participation and Support).

Environmental modules had been developed on the following topics: State of the Philippine Environment; Basic Ecological Concepts; Sustainable Development; Core Environmental Messages; Air Pollution Prevention; Water Resources Management; Toxic Chemicals and Hazardous Waste Management; Solid Waste Management; Biodiversity Conservation; and Urban Forestry.

The DENR, through the Office of the Regional Executive Director of NCR, the Special Concerns Office and the Environmental Management Bureau, with PATLEPAM, are spearheading the implementation of Project ECO-CORPs.

# PATLEPAM, BOI Forge Agreement on Environmental Management Accounting

The Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management (PATLEPAM) and the Environmental Management Programme for Industry Competitiveness (EPIC) of the Board of Investments (BOI) of the Department of Trade and Industry signed a Memorandum of Agreement (MOA) on Environmental Management Accounting (EMA) last June 16, 2004 at the Penthouse of the BOI in Makati City.

The MOA aimed at promoting the adoption of the EMA by the industry, particularly the small and medium enterprises to help them improve their environmental and economic performance. Through the said MOA, the PATLEPAM and EPIC hope to work together for the integration of EMA in the various course offerings of the academic institutions.

Environmental Management Accounting (EMA) is an important accounting tool that could help businesses identify environmental costs, measure and promote the opportunities for resource recovery, recycling, reuse and other forms of enhancing production efficiency, and thus, ensure recovery of investment on green technology.

Under the MOA, the PATLEPAM member-institutions will be expected to actively promote EMA through issuance of circulars, publications and other IEC materials that can help integrate EMA in the curriculum. The said MOA is expected also to result in the increased promotion and integration of EMA in the various academic institutions nationwide; to provide and avenue like EMA orientation seminars and consultation workshop at the regional levels; coordination with the proper authority such as the Commission on Higher Education to include EMA a part of the general curricula.

The MOA was signed by Dr. Erlinda Arcella, programme manager of EPIC and Dr. Ruth Guzman, chair of the PATLEPAM Board of Directors and vice-president for Research Information and Extension Services of the Rizal Technological University.

Since then, seminars on EMA for various universities and colleges had been conducted /lined up with the following venues: Isabela State University (for Region 2) Central Luzon State University ( for Region 3); Bicol University (for Region 5); West Visayas State University (for Region 6); UP Diliman College of Education and Far Eastern University (for the National Capital Region); and Mindanao State University–Iligan Institute of Technology (for Northern Mindanao).



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*Director Erlinda Arcellana of the Board of Investments (second from left) and PATLEPAM Board of Directors Chair, Dr. Ruth Guzman (second from right) look on to the Memorandum of Agreement they signed on Environmental Management Accounting.*

## Issues and Gaps of Environmental Education...

*(continued from page 5)*

- EE to be a component of institutional accreditation
- Faculty should be given training, hand in hand with skills to integrate EE into respective disciplines
- Constant updating of EE developments
- Spread EE to various sectors: e.g. LGUs, grassroots, communities, etc.
- Promote textbook and module writing to aid in the delivery of EE
- Strengthen the integration of EE in the professional curricula by infusion in the applicable courses
- Additional support from the CHED, DOST and other agencies to schools interested in urban and industrial issues.

### Conclusion : Proposed Action Plans

- Concerted Efforts
- Policy Reforms
- Curriculum Development
- Advocacy Program
- Research and Development
- Information
- Training and Scholarship
- Logistical Support

## Educators Trained on Eco-Industrial Development Courseware

The Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management (PATLEPAM), in cooperation with the Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources and the Board of Investment's (BOI) Environmental Management Programme for Industry Competitiveness (EPIC) held a Trainers' Training on Eco-Industrial Development (EID) Courseware. The training was held last May 19-21, 2004 at the Humabon Hall of the Sulo Hotel, Quezon City.



Director Julian Amador of the Environmental Management Bureau-DENR addresses the participants of the three-day Trainers' Training on the Eco-industrial Development Courseware held last May 19-21, 2004 at the Humabon Hall of the Sulo Hotel in Quezon City.

The said training aimed to: walk-through the content and methods of the final drafts of the modules of the EID Courseware with a core of university trainers; provide a venue for the pre-testing and peer review

(continued on page 6)

## DENR, PATLEPAM Train Educators on the ECO-CORPs Modules

Educators handling the Civic Welfare Training Service under the National Service Training Program (NSTP) Law implementation, from five pilot schools in Metro Manila, had been trained by the Department of Environment and Natural Resources (DENR) and the Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management (PATLEPAM) on various environmental modules last March 30 – April 2, 2004 at the Visitors' Center, North Avenue, and the EMB Air Quality Management Training Center, Quezon City. Trained were teachers from the following schools: Rizal Technological University, New Era University, Philippine School of Business Administration, University of Sto. Tomas, and Pamantasan ng Lungsod ng Maynila.

It will be recalled that in December 2003, the DENR commissioned the PATLEPAM to prepare environmental modules for the NSTP law implementation, a six-unit program in higher education, that could be taken by college students in lieu of the R.O.T.C. requirement, under the Project ECO-CORPs (Environmental Conservation through Citizens'

(continued on page 6)



Former Director Grace Favila of the DENR Special Concerns Office welcomes the NSTP teachers-participants to the Trainers' Training under the Project ECO-CORPs.



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PHILIPPINE ASSOCIATION of TERTIARY LEVEL EDUCATIONAL  
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and MANAGEMENT

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The **PATLEPAM News** is published by the  
**Environmental Management Bureau**  
of the **Department of Environment and Natural Resources**  
for the **Philippine Association of Tertiary Level Educational  
Institutions in Environmental Protection and Management  
(PATLEPAM)**

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