



# **Education for Sustainable Development: Challenges and Opportunities for UP**

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[ UNIVERSITY OF THE PHILIPPINES NATIONAL INSTITUTE FOR SCIENCE AND MATHEMATICS EDUCATION DEVELOPMENT ]

**UP NISMED**

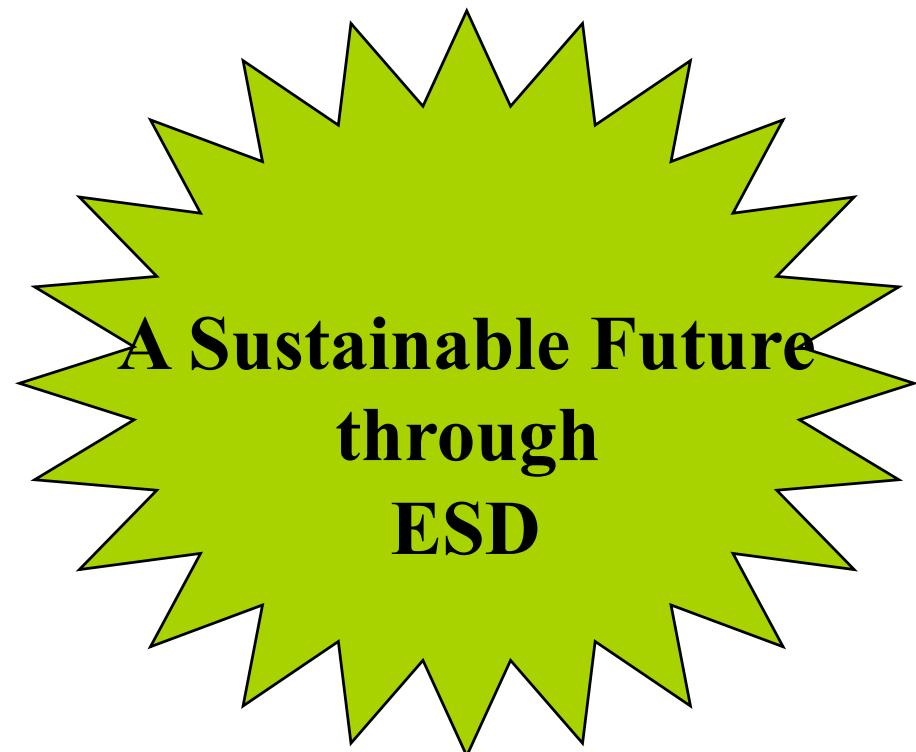


## **Focus of this presentation**

- Education, environment, and sustainability
- Strategies on how UP can serve as a role model in promoting ESD
- An educational program that can enhance 'communities of practice' to build a sustainable future



**2005 to 2014:  
Decade of Education for Sustainable  
Development (DESD)**





- The aim of ESD is to reorient educational policies, programs and practices so that education plays its part in building capacities of all members of society to work together to build a sustainable future.
- The DESD recognizes, respects and accepts the limits of the life support systems in economic decision making.



- ESD requires continuous review and update of research that could serve as inputs into programs, curricula, and teaching materials.
- UNESCO-ACCU launched the search for Centers of Excellence on ESD across the Asia-Pacific Region



## **Our Strategy**

**Make UP a Center of  
Excellence on ESD**



**To become a  
Center of Excellence on ESD,**

**UP must play a lead role  
in education, research,  
policy development,  
information exchange, and  
community outreach  
to help create  
an equitable  
and sustainable future.**



- UP can play a lead role in addressing population, environment, and sustainability concerns
- The university is a microcosm of the larger community.
- The manner in which a university carries out its daily activities is an important demonstration of ways to achieve environmentally responsible living.



- UP has the expertise necessary to develop the intellectual and conceptual framework to promote ESD.
- Many UP Alumni develop and manage society's institutions.
- UP is educating future leaders of society.
- UP has beautiful and green campuses; we model a well-managed environment.



**Our Action:**

**Think Green,  
Act Green  
Program\***

**\* Presented during the Alumni Association Meeting  
June 2006, UP Diliman**



## Think Green, Act Green Program

- **Thinking Green** is making a commitment to help create a sustainable economy - one that doesn't use up resources at the expense of future generations.
- **Thinking Green** means being aware of our interconnectedness with the world and reflecting on the unintended damage we cause nature in the daily course of our lives.
- Hopefully, **thinking green** leads to **acting green**, particularly, taking corrective action to make environmental responsibility and stewardship a reality.



## For UP, thinking green and acting green means

- that we embrace the tremendous responsibility as leaders ... in every field to use our expertise, resources, and technologies to better the communities we serve.
- for us to understand that the world is a finite place with finite resources, and that the next generation's products and processes must be designed within the framework of this complex system.
- being mindful of, and sensitive to, the natural environment in our daily life.



## Specific Recommendations

- Create a **Think Green, Act Green** Program Committee or Task Force
- Organize the **Think Green, Act Green** partners
- Conduct a baseline green audit (GA) across UP Campuses



## On Curricular Programs

- Establish multidisciplinary and interdisciplinary courses/programs that promote understanding of the relationship between population, human activities, and the environment.
- Encourage multidisciplinary thinking with the use of internships, capstone and integrating seminars, work study, and case studies.



## On Research

- Seek increases in the funding of interdisciplinary environmental research.
- Increase or focus research on environmentally sound technologies, strategies towards establishment of a new ethos to stabilize population, anticipatory research to identify future threats to a sustainable society, and develop solutions to circumvent these threats.
- Give incentives to outstanding scholars who engage in research and teaching on environmental topics.



## On Capacity Building and Training

- Develop collaborative programs with universities abroad to promote faculty and student exchanges, research, and multidisciplinary and interdisciplinary education programs.
- Engage faculty, staff, administration, and students in activities such as energy and water conservation, recycling and waste management.



## On Networking and Partnership

- Link with local government units (LGUs) who have high degree of environmental awareness and sustainable practices.
- Bridge the gap between scientists/ engineers and science educators/ teachers by establishing partnerships with primary and secondary schools.



## On Advocacy

- Use every opportunity to raise awareness by publicly speaking out on the importance of environmental concerns and the problems posed by a rapidly growing population.
- Do an environmental literacy assessment across sectors in the university.



## The Green Audit In Focus

The GA is on **policy, operations, and academic programs.**

- It serves as guide in determining where our colleges, institutes, and UP in general stands in terms of environmental protection and sustainable development practices.
- It is a checklist which can reveal which areas can be improved.
- No ratings or scores are required. What matters is that change can be instituted particularly concerning practices which, often without realizing it, do harm to the environment.



## I. Policy

### General

- Is ESD a part of our vision/mission statement?
- Is there an environmental policy related to sustainability?
- Are there committees or persons responsible for environmental projects and programs in the university?



## **Personnel**

- Are environmental considerations part of the performance appraisal system of faculty, deans, support staff?
- Are personnel required to practice environment oriented activities such as waste reduction, use of nontoxic materials, involvement in community-based projects?



## Purchasing

- Are purchases based on policies that reject products harmful to the environment in its production and/or disposal?



## II. Operations

- Are buildings designed to maximize natural lighting and ventilation, and covers practices in electricity, water and paper use, as well as wastes disposal strategies?
- Is there policy on non use of biodegradable and/or recyclable materials in canteens, restaurants, and commercial centers?



### **III. Academic Programs**

- Is ESD integration done in different subjects/programs?
- Are there opportunities in the learning process: to get involved in environmental debates or similar activities?
- Do our libraries have updated environmental data and sufficient reading materials on relevant issues?



## **Five steps along the green path**

- Commitment
- Staff involvement
- The environmental audit
- The action plan
- Monitoring and communication

**The green path can be practiced at home, in the community, and everywhere else.**



## **UP NISMED Initiatives Related to ESD**

### **Curriculum and Professional Development Programs**

- Integration of ESD into the K to 12 and curriculum and instructional materials
- Integration of ESD in the Teacher Education Program
- Integration of ESD in Professional Development activities for Science and Math teachers.



## UP NISMED Initiatives Related to ESD

### Research

- Science technology and Environmental Literacy Study (2005)
- Impact of Audio-Based Materials on Knowledge and Skills of Selected Communities in Palawan and Mindoro on Biodiversity and Climate Change (2011)
- River Watch Project



## UP NISMED Initiatives Related to ESD

### Advocacy

- Radio:
  - DZUP- Go, Teacher Go!
  - DZMM- Kalusugan Kapaligiran, Kaligtasan, at Kabuhayan
- TV: Science Serving People, Channel 4
- VCDs
- Print Modules



# Advocacy Theme: ESD









## In Closing

***“Every person  
is the right person to act.  
Every moment  
is the right moment to begin”***

Jonathan Schell, author,  
*"Fate of the Earth"*



*Let's reflect on our behaviors  
Let's create a global vision of a  
sustainable future*

*Let's act Locally  
to achieve this vision*

*Let's  
Think Green and Act Green  
while there is still time!.*



Thank you!!!