EDUCATION FOR SUSTAINABLE DEVELOPMENT IMPLEMENTATION IN INDONESIA

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Education ought to cultivate men and women with noble character who are blessing for nature. Such persons fulfill their needs by concerning current as well as the needs of the future generations. This paradigm invite us to think about the sustainability of the planet.

Education must (i) cultivate the importance of sustainability and eco-system balance, understanding that man is part of the eco-system, and (ii) provide understanding on values of social & natural responsibilities.

Students must understand that as (i) part of the social system they have to sinergize with other human being and (ii) part of system of the nature they must synergize with the nature.
SCOPE OF ESD PROGRAM

ESD values

Environment: Adiwiyata
Waste Treatment

Social: Boy & Girl Scout
Honesty Canteen

Economy: Entrepreneurship

Health: School Health Services

Outcome:
Environment
Responsible
Attitude and aptitude
National Coordinator for ESD Implementation

- The National Coordinator for ESD Implementation Office is located at and coordinated by the Office of Indonesian National Commission for UNESCO (KNIU) in Jakarta.
- The Office was established in the end of 2009, and started to coordinate the ESD implementation in all levels of education in Indonesia in 2010.
• The establishment of National Coordinator Office of ESD has been being considered to be effective to integrate the needs and beneficiaries in the design stages of ESD implementation across institutional boundaries.

• The establishment of National Coordinator Office of ESD is effective to integratively plan, monitor, evaluate, and improve the established programs as well as to construct contextual programs related to the implementation of ESD.
Since 2009, the responsibility for planning and implementation of EfSD in Indonesia has been transferred from the Ministry of Environment to the Ministry of National Education. A National Coordinator of ESD Implementation (NC-ESDI) was appointed.

Four Directorate Generals of:
- Non Formal and Informal Education
- Management and Education of Primary and Secondary Schools
- Quality Improvement of Teachers and Education Personnel
- Higher Education

have actively involved on the introduction, development and implementation of ESD related Programs.

Some Ministries and Research Institutions have also joined to implement some ESD Programs.
Regular ESD Coordination Meeting between NCESDI and Ministries of: National Education, Health, Environment, Agriculture, Forestry, Marine and Fishery, Research and Technology, Home Affairs, Industry, State Ministry of Women Empowerment, State Ministry of Remote Regions, and Foreign Affairs, as well as Indonesia Institute for Science and some NGOs.
ESD IN HIGHER EDUCATION

- Establishment and Implementation of ESD-based SCS – CEL Program and ESD based Research in HE at National Level
- Conducting ESD Workshops and Disseminations
- Nurturing Local Government on ESD Implementation
In Indonesia, all HE Institutions must conduct **Tridharma → the HE’s Main Tasks of Education, Research, and Community Service.**

In 1971, **GMU** established a **Student’s Community Service (SCS) Program**, which in 2005-2006 the program was improved to be a very special and unique student activity based program, namely **SCS-CEL Program** (**Student Community Service – Community Empowerment Learning Program**).

Since 2007, the SCS-CEL program has been adopted by the Directorate of Research and Community Service, DGHE to be implemented to HE in Indonesia, and **GMU has been appointed as the coordinator** of SCS-CEL implementation.

Since 2009, the DGHE together with GMU have been initiating on implementation of EfSD based SCS-CEL Programs → The DGHE and NC-ESDI have been working together in introducing, developing and implementing **Sustainability** to the Education, Research and **Community Service** programs and activities in HE.

In 2010, initiating grants for ESD-based research at national level
SCS – CEL Program of GMU
(ISO 9001:2008)

✓ A compulsory subject for the college students, and GMU sends about 7000/year SCS-CEL students to the fields

✓ The Program is based on **Empowerment paradigm** → Objective: to raise the student’s empathy and care for poor and environmental problems as well as economy and social issues

✓ Conducted through principles of:
  - Win-win solution
  - Flexible
  - Co-creation
  - Sustainable
  - Co-financing
  - Transparent and Accountable

✓ **Research based** program, using **multidisciplinary approached method**.

✓ The output and outcome are **measurable** in order to ensure the **improvement sustainability**

✓ The program should be supported by a **collaboration** or **partnership** between GMU and local government, industry, or other institutions, either nationally or internationally.
• Establishing some programs related to ESD, e.g. Green School or Adiwiyata, School Health Services (Usaha Kesehatan Sekolah) in which the success of the programs are measured periodically among elementary and high schools.

• Establishing “Shadow Teacher” wherein parents are trained to be 24 hours teacher who are ready to advice them 24 hours to build students` characters.
The Base for ESD Cultivation at Primary & Secondary Ed

- Content analysis of the National Education Standard: all aspects of ESD are included in the National Standard of Educational Contents

Model Development of ESD Cultivation

- Curricular activities*: ESD cultivation is integrated in regular lessons, such as Civics, Social Sciences, Natural Sciences, etc.
- Extra-curricular activities*: boys/girls scouting, youth Red Cross, student leadership course, school health activities, art and science clubs, etc.
- Supporting activities: Green School Initiatives

*STATUS: DRAFT READY TO BE FIELD TESTED
Preliminary study of the inclusion of ESD aspect in the curricular activities of various lessons at primary schools: all ESD aspects have been integrated.

→ Empirical proof of the possibility of integration of ESD aspects to various lessons
Initiating a competitive grant to select ESD-based community learning at national level in October 2009

Increasing awareness of teachers and educators towards ESD-Implementation, in every training programs held by the Directorate, NCESDI always sent its experts to disseminate the concept and implementations of ESD to strengthen on going programs as well as to create ESD-based innovative programs.
Various **learning models of ESD cultivation through NFE** are started to be developed in the early 2010 at 12 regional centers for NFE R&D.

**NFIE-entrepreneurship-education-based ESD** is an education program run through the non-formal stream aiming for developing the courage, excellence and strength of learners in accomplishing and solving life problems by their own potentials, based on developing concepts of economy, socio-culture and ecology.
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SCHOOL EDUCATION: Various training for school masters and teachers through 30 regional education quality assurance centers.

NFE: Socialization and training on various aspects of ESD in 2009 to NFE personnels (sporadic approach, no integration toward ESD yet)
LESSONS & BEST PRACTICES in Non Formal Education

Development of Vocational Village Based on Empowerment Paradigm and Environmentally Friendly Approach in Gemawang Village, Jambu, Semarang, Central Jawa:

By this activity, community have been trained to understand the potentials of the village and designed ESD-based business plans. The community is now running some small enterprises such as indigo dye productions, batik industry center, coffee industry, etc.
• Development of Vocational Village Based on Empowerment Paradigm and Environmentally Friendly Approach in Reksosari Village, Suruh, Semarang, Central Jawa:

By this activity, community have been trained to understand the potentials of the village and designed ESD-based business plans. The community is now running some small enterprises such as crystal sugar productions, rabbit husbandry, etc.
NFIE-entrepreneurship-education-based ESD is an education program run through the non-formal stream aiming for developing the courage, excellence and strength of learners in accomplishing and solving life problems by their own potentials, based on developing concepts of economy, socio-culture and ecology.
Basic Concepts

- Entrepreneurship attitude must be developed since childhood through habitual activities and behavioral models.

- Entrepreneurship skills can be trained by intense guidance and management.

- Compact entrepreneurship concept must be developed based on local potentials, which are nationally, regionally and globally competitive.

- Compact entrepreneurship concept must be sensitive to all issues, such as economy, environment, culture, social and technological dynamics.
Purposes

1. To grow entrepreneurship spirit for children
2. To manure insights, skills and attitude of learners of Package A, B, and C, in perceiving their self-potentials and surrounding.
3. To develop entrepreneurship attitude, spirit, ethics, and behavior through learning process, directly involving learners participation in practices.
4. To improve empowerment of the illiterate people through autonomy-led skills and knowledge development.
5. To grow active participation and autonomy-led skills of women so they are able to work and support their lives and families independently.
Coverage of NFIE Programs

1. Entrepreneurial learning and cultural introductory for children through playing and games
2. Entrepreneurship education for unemployed/drop-out/out-of-school youth
3. Local-potential-based integrated equivalency vocational program for learners of Package A, B and C.
4. Literacy of autonomous business program for illiterate people
5. Women empowerment program through entrepreneurship education
Implementation:
Attitude, knowledge and skills are introduced in learning activities through playing and forming habits.
Literacy of Autonomous Business Education
Local-potential-based Entrepreneurship Education
IMPLEMENTATION

Processing waste of shuttlecocks into souvenirs of Ondel-ondel

Various courses: Turning waste into rupiahs
Community Based Landslide Early Warning System

Indonesia is located in the multi-disaster area, especially landslide disaster.

GMU landslide researchers together with SCS – CEL program have implemented Community Based Landslide Early Warning System in some places within Java Island since 2003 up to now.

The GMU landslide group has been a member of the International Consortium on Landslides Board of Representative since 2008.

Installing landslide early warning system equipments together with local people, to train the community to operate and maintain the equipments, to acknowledge the sound of alarm as well as to simulate landslide evacuation procedure.
Zero Waste Integrated Farming

Most people in a village named Banyakan, Piyungan, Bantul District, are cattle farmers and they just care for the cattle but not the animal waste.

In 2006, SCS-CEL students came to the village and introduced animal waste recycling method to produce biogas and bio-fertilizer. Previously, GMU researchers have developed a simple, low-cost, and portable bio-digester which can convert animal waste into biogas and the rest becomes bio-fertilizer.

Based on this research results, then GMU through SCS – CEL Program planned to develop community based self-sufficiency energy village by implementing the portable biogas digester.

The resulted biogas is used for daily cooking energy source and the fertilizer is used in their paddy fields.
Coastal Revegation in Kebumen District

Along the coastal area of Kebumen, Central Java, Indonesia was very wide but sandy and had no vegetation. This coastal area is crowdedly inhabited and vulnerable towards tsunami. Therefore, the area needs much vegetation to protect the inhabitants from tsunami and abrasion. Observation and research were conducted by GMU researchers to find out plants which are suitably grown in the area.

Stakeholders/participants that have involved in this program are: GMU’s students and lecturers, the 4 village-communities, local government, Ministry of Forestry, Forestry Office of Kebumen District.
Clean Water Exploitation using Solar Energy in Gunung Kidul District

• Gunungkidul is a district in Yogyakarta which consists of very dry areas with no consistent clean water supply. During the dry season, the only water resources are rainy and muddy water ponds that are used for washing, cooking, and drinking either for human and animals.

• SCS – CEL students found water supply problem in Giricahyo, Gunungkidul.

• They made focus group discussion among them by multidisciplinary approach and also had community sharing. By having collaboration with the local community and local government, they decided to run a project to explore underground river located 107 meter under the ground and enlarge the collaboration with Center for Energy Studies of GMU, DGHE-Ministry of National Education, Ministry of Public Work dan Water Supply Company, BPP Teknologi (Agency for the Assessment and Application of Technology), and States Bank Association.
Illiteracy Eradication Using Mother Tongue Languages

- GMU produced literacy modules using some local languages (Javanese, Sundanese, Bugise, and Maduranese) to accelerate the illiteracy eradication.

- The choice of the local languages applied in the modules was based on the data that those languages are used by people living in the highest illiteracy rate areas.

- The reason why these modules can accelerate the eradication program is because illiterate people were very poor, uneducated, and located in very remote areas who were not speaking Indonesian. In fact the national modules provided for illiteracy eradication are in Indonesian, so that the program participants need at least 6 (six) months to finish the program and get the literacy certificate.
ProSPER Net Program

- Integrating ESD into all aspects of academic life at Master of Business Administration Program Universitas Gadjah Mada.
- As an initial step, the project focuses on efforts to integrate ESD into the curricula. The project will involve series of workshop, seminar, and training to develop curricula, syllabus, cases, handouts, and modules.
- Since the goal is to integrate ESD into all aspects of academic life of MM UGM, we also plan to adopt the concept of ESD in building our new campus in Jakarta. This program will involve efforts to integrate ESD in the process of planning, designing, and building the new campus.
Regional Centre of Expertise

- UGM is the proponent of Yogyakarta Regional Center for Expertise on the Education for Sustainable Development (EfSD)
- Acknowledgement from UNU Rector, August 31st, 2007
- Main thematic focuses:
  - Provision of basic education and access to (formal and informal) education system
  - Promoting sustainable development of SME
  - Incorporating global climate change education for local community
  - Mainstreaming disaster management into sustainable development practices
- Implemented by Student Community Services-Community Empowerment Learning (SCS-CEL)
International Youth Conference in Banten, West Java, Indonesia with the topic “The Role of Education in the Establishment of Peace through Sustainable Development: SCS-CEL Program, A Good Practice in UGM”.

APEID Conference, Bangkok, Thailand, with topic: Implementing Student Outreach Program in the Community.

International Conference on ESD for Higher Education, Okayama, Japan, with topic The Role of HE for ESD Implementation through Community Service Program
PARTICIPATION
in ESD International Workshops and Symposiums

- World Conference on ESD in Bonn, Germany on 31\textsuperscript{th} March to 2\textsuperscript{nd} April, 2009.
- Advanced International Training Program on ESD in Higher Education 2009 in Stockholm, Sweden on 27\textsuperscript{th} April to 15\textsuperscript{th} May, 2009.
- Asia Pacific Conference for ESD Educator and Facilitator in Tokyo, Japan, on 8\textsuperscript{th} – 11\textsuperscript{th} August 2009
- Advanced International Training Program on ESD in Higher Education 2009 (Asian Regional Forum) in Pathum Thani, Thailand, on 3\textsuperscript{rd} – 14\textsuperscript{th} August, 2009.
- International Conference on University – Community Engagement in Penang, Malaysia, in November 2009.
Thank You

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