ISSUES OF EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD)
IN TEACHER EDUCATION CURRICULUM IN INDONESIA:
PROGRESS AND CHALLENGES

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Introduction:

• No specific policy from the government regarding the implementation of ESD in the current curriculum,

• ESD concepts are already included in some courses, such as environmental chemistry and biology.

• Issues of ESD implicitly included in school-science teaching, especially when prospective teachers are carrying out teaching practices at schools and through lesson study activities implemented collaboratively between faculty members, prospective teachers, and school-science teachers.
Progress and Challenge Regarding the Implementation of ESD:

Indonesia Mathematics and Science Teacher Education Program (IMSTEP) has set up a triangular approach as illustrated in the following figure.

Faculty members at pre-service teacher training program needs feedback on school reality and contemporary teachers’ needs to produce good prospective teachers.

On the other hand, both piloting teachers (on-service teacher training) and Teacher Association (MGMP-teachers) (in-service teacher training) need consultancy to intervene students and to develop teachers’
Enhancements of Quality in Teaching and Learning

Procedures of piloting activities include a cyclical scheme of plan, do, and see.

**PLAN**

- Piloting teachers and teacher educators conducted several workshops: (1) to identify teaching and learning problems at piloting schools; (2) to design and develop teaching models (lesson plan, student worksheet, teaching materials, and evaluation method); and (3) to try out developed teaching materials.

**DO**

- A piloting teacher conducted a lesson by applying the developed teaching model at a class. While teacher educators, other teachers and prospective teachers observed the lesson. Some time, JICA experts attended the lesson. The focus of the observation was student activities, such as interaction of student-student, student-teaching materials, and student-teacher. Observers may take pictures for further analysis.

**SEE**

- Right after the lesson, the teacher and observers got together for post-class discussion to reflect the lesson. Observers gave comments and suggestion regarding student activities to improve the next lesson.
Lesson study activities could effectively change the **schools culture** as indicate in the following aspects:

• Through discussion of reflection session, teachers became accustom to accepting inputs and recommendations from others, expressing the weakness and the strength of their lessons, sharing ideas for developing better classroom practices, and pointing out the essentials or the important points of classroom activities observed.

• Although many observers came inside the classrooms while implementation of the lessons, the activities are running well as if the observers are not there.

• As an effect of implementation of the lesson, students tend to actively involve in classroom activities such as discussing problems within small group and classroom activities, asking and answering questions, proposing argumentations, and explaining results of group discussion.
An Alternative Strategy to implement the concepts of ESD:

Lesson study activities starting by developing lesson plan collaboratively, implementing an open lesson by inviting some observers and reflecting the lesson observed to find out better quality of the lesson in the future. It is possible that reflection on the lesson touch upon fundamental aspects of ESD.

Through implementation of school-based lesson study the values of ESD that relate to economical, social, and environmental aspects will be actualized.

This program can be carry out in term of piloting at school level implemented collaboratively among school principle, all teachers of one school, supervisor, educational authority, and faculty members from university.