

**GLOBE and “Young Soil Doctor” Project**  
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The use of unsuitable land for agriculture have been problematic to land degradation and impact to the farmer’s living-about 30 millions people which are the most of the people in Thailand. Land degradation caused to low yields and also to the farmer’s income . Comparing to the natural resources in Thailand, the problematic of land degradation covers as very large areas . The problem of land degradation for erosion and soil organic matter deficiency have occurred on 1.34 million rai or 30% of total areas in Thailand , respectively . Not only erosion and soil organic matter deficiency but also saline soil , acid soil , organic soil and sandy soil covered about 192 million rai . Land Development Department can not implement all over the problematic land due to lack of staffs which are now only 2000 people . So it is necessary for the farmers and people to participate and work together to take care of natural resources . They were trained by Land Development Department as “volunteer soil doctors” to be able to help scientifically diagnose soil illness, prescribe soil medicine and give soil treatment for curing soil illness. Now there are about 50,000 volunteer soil doctors in Thailand. There are a lot more in need. Being trained as effective “Young Environmental Scientist”, GLOBE student can work as “Young Soil Doctor” at the same time. They will work cooperatively and share experiences with local volunteer soil doctors , local university scientists , land Development Department scientists to gain local wisdom to help solve soil problems around their home scientifically and effectively. So the Institute for the Promotion of Teaching Science and Technology and the Land Development Department cooperatively set up the “Young Soil Doctor” project in 225 schools , 51 provinces in the year 2005



GLOBE rational inquiry in identifying scientific problems, proposing scientific explanations, predictions and searching for the answers, as well as scientific value of accurate and standardized based GLOBE soil measurements are relevant to be used as effective tools for “young soil doctor” in diagnosis and curing soil illness.

Working with farmers, volunteer soil doctors and scientists from Land Development Department in their local communities, GLOBE students can share their GLOBE experiences in using rational inquiry and standardized measurements of different soil protocols with communities’ expertise and local wisdom to identify soil problem, explain and predict soil phenomena and search for the answers of those soil problems on agriculture, natural resources, and environment focuses for the benefit of their communities.

The Institute for the Promotion of Teaching Science and Technology with the cooperation of Land Development Department create the “Young Soil Doctor” training project by student-teacher-scientists collaboration research approach. The expertise of local land development department scientists, farmers, volunteer soil doctors of all parts of Thailand are pooled. The major soil problems of each part of Thailand such as peat soil-acid soil in the southern part, saline soil in the northeastern and eastern part, soil erosion in the dry and sandy soil due to cultivation, compact clay, infertile soil and severe drought in the central part, the development and conservation of watershed areas for protection against flooding in the northern part, the cultivation of Vetiver grass which aims to control soil erosion and maintenance of soil moisture in every parts of Thailand, etc... are focused.

The “Young Soil Doctor” project will enable the students and teachers to be able to identify and help solving their local soil problems with their scientific thinking, be confident to learn by themselves, and be able to make some contributions concerning the environment to their own communities.

## **References :**

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