



ESSI: Background

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A California non-profit
educational organization

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Community-based Environmental Education for Families and Sustainable Communities

Earth Systems Science, Inc. (ESSI) is a California educational non-profit corporation. It was co-founded by Gregory Lee (a college Geography professor and former geo-technical consultant) and Patrick McCullough (a printer and community advocate). ESSI provides community-based environmental education for families and sustainable communities. This is accomplished through integrated programs of curriculum / program development and training trainers using outdoor, hands-on, interactive learning to create demonstration units for future community training.

Due to the current global trends related to “peak oil”, ESSI is intensifying its efforts to create a viable model for sustainable small rural family farms. This involves making small family farms self-sufficient through ecologically / environmentally sustainable practices to achieve and maintain economic sustainability while reinforcing / rebuilding basic family / village life. In summer 2005, ESSI commenced the formation of the Rural Training Center (RTC) in Nan Province in northern Thailand. The plan calls for establishing a demonstration farm to implement these ideas, methods, and practices.

ESSI CORE CONCEPTS:

- **Community-based Education**: This is a non-traditional educational approach integrating academics, job skills, cultural diversity, and environmental awareness / education, outdoor leadership skills and personal development. The family or a core community group of is the basic education unit. A brief history of ESSI's educational approach is chronicled in an article [The Origins of ESSI Community-based Education](#). This is not a theoretical concept. It is, in fact, a tried and proven, a time-tested effective educational approach that gets results.
- **The Geographic Systems Model**: This is the central concept used in Mr. Lee's college Geography courses (GEOG 1: Physical Geography, GEOG 10: Human Impact on the Environment, and GEOG 30: Field Methods in Geography).
- **Environmental Awareness and Education**: Modern life, especially in urban and suburban America, is largely detached from nature. This disconnect makes it easy to damage and destroy the natural environment due to basic ignorance. Key lessons focus on reducing pollution (especially pollution involving synthetic chemicals), introducing bio-intensive farming methods with environmental conservation practices.
- **Y.E.S.--Youth, Environment, Sustainability**: This is the long-term ESSI approach to developing environmental stewardship and sustainable, self-sufficient communities. The process is ongoing in order to produce generation after generation of environmental stewards.

- **P.A.L.--Practical Applied Lessons**: This is the nuts and bolts approach we take to education---hands-on, interactive, often outdoors, job skills-related---in order to aim the community-based training for self-sufficiency and sustainability. People need practical skills to earn a living in order to live and make their community sustainable. In many rural areas, people must go to cities to earn money to support the family farm. A lack of education limits their earnings, sets them up for exploitation, and erodes the farm family structure and farm community.
- **Teach Backs**: This is the key ESSI approach to dissemination. It is also a pragmatic way to deal with the “teacher shortage” so common in rural settings. ESSI aims to empower people to become their own “best teacher”. In the ESSI community-based education approach, a “teacher” is anyone who has knowledge and skill that cares to share with others. It does not require a diploma or certificate. The proof is self-evident when the “student” can get the work done. This dissemination method is more effective than traditional schools in serving a greater number of people in a shorter time span by taking the “school” to the farm rather than bringing the farmers to a school.

THE ESSI INTERNATIONAL PROGRAM

- **1999**: The roots of the ESSI international efforts began in Thailand. Mr. Lee first applied the core concepts in a community project in northern Thailand in the summer of 1999 (before ESSI was founded) under the auspices of the Los Angeles Geographical Society. After the second summer field effort, the project was reported in a slide presentation at the National Council for Geographic Education (NCGE) in Chicago, IL: [Community-based Education in Northern Thailand](#)
- **2004, REEEPP (The Rural Environmental Education Enhancement Pilot Project)**: The current project is in a different province in Thailand and was started last year (summer 2004) when my wife went home to visit her family. The 1999 project focused on composting and non-toxic pest control. The 2004 project is aimed at helping teachers and students to improve education in small rural schools by integrating math, science, geography, environmental awareness, English language training, and technology into a cohesive program to prepare the next generation of environmental stewards. [Planting Seeds Today to REEEPP Benefits Tomorrow](#) (You could say SEEDS stand for Supporting Environmental Education Development and Sustainability.)
- **2005, REEEPP**: The current effort for summer 2005 is to combine the sustainable agricultural training and home stays with REEEPP. A special emphasis was placed on the school library. Funds were raised to help buy new English language books. A series of project reports were filed from the field.
 - [ESSI Summer 2005 Volunteers Ready for Thailand](#)
 - [Thailand Volunteers: Heads Up!](#)
 - [Thailand Summer 2005 Situation Report](#)
 - [Thailand Summer 2005 Field Report #1](#)
 - [Thailand Summer 2005 Field Report #2](#)
 - [Thailand Summer 2005 Field Report #3](#)
 - [Thailand Summer 2005 Field Report #4](#)

- [Thailand Summer 2005 Field Report #5](#)
- [Thailand Summer 2005 Photo Summary Report](#)

PAST ESSI ACTIVITIES

- **2002; ESSI founded:** [Earth Systems Science Focuses on Neighborhoods](#)
- **2002; ESSI and the NPCA/LACP in Los Angeles, CA:** The ESSI core concepts were applied locally in the Los Angeles area through the National Parks Conservation Association and their local affiliate, the Los Angeles Community Partners. ESSI developed the curriculum for the Junior Ranger Pilot Program integrated cultural diversity, outdoor leadership, academic and job skills preparation for urban youth. This effort culminated in presenting a slide talk to a national conference.
 - [Joint Ventures 2003 Conference Success](#)
 - [ESSI Gives Technical Support to Expo Rangers Manzanar Project](#)
 - [Public Land Corp Grants Awarded to Expo Neighbors](#)
 - [Test Run at Manzanar](#)
 - [Expo Rangers Hit the Trail for SAMO NRA PLC](#)
 - [SAMO Follow-on Training at Rocky Oaks](#)
 - [MANZANAR PLC Call Up](#)
 - [NPCA-LACP: ESSI-Expo Volunteers in Death Valley](#)
 - [GPS Surveys and Water Color Artists](#)
 - [ESSI Supports Expo Rangers at Manzanar NHS](#)
 - [Building Bridges from National Parks to Communities](#)
 - [Santa Monica Mtns & Manzanar PLCs to be Featured in Conference](#)
 - [Expo Rangers in the 'News'](#)
 - [Call for Volunteers at Manzanar](#)
 - [Manzanar Volunteers Help Prepare for Grand Opening](#)
 - [Manzanar PLC On Track for Spring 2005](#)
 - [Second ESSI-EcoAcademy Manzanar PLC Trip A Success](#)
- **2003 & 2004, ESSI and the NWF in Los Angeles, CA:** Association with the National Wildlife Federation (NWF) came in Summer 2003 when the selected ESSI as an effective grassroots community organization to introduce the NWF wildlife habitat programs to the Los Angeles area. LA is recognized as being one of the largest urban areas in the US with the least amount of “green space” (parks). By Fall 2003, Mr. Lee was certified as an NWF Habitat Host. In Spring and Fall 2004, ESSI held the first two NWF Habitat Steward™ training workshops in the LA area. These efforts led to cooperating with the NWF on an EPA (Environmental Protection Agency) grant to hold a local community event called the Workday for Wildlife.
 - [Networking Rather Than Notworking](#)
 - [Re-Connecting with the National Wildlife Federation](#)
 - [Education Happenings: First Habitat Stewards Trained in L.A.](#)
 - [Fall 2004 Habitat Steward™ Volunteer Training](#)
 - [Second Baldwin Hills Scenic Overlook Trail Planting Effort](#)
 - [Habit Stewards Volunteer at Native Plant Walk Area](#)
 - [Workday for Wildlife: Celebrating the Expo Greenway](#)

- [Workday for Wildlife Follow-Up Continues](#)
- **2003 - 2005, ESSI and TreePeople in Los Angeles, CA:** Another community networking relationship with TreePeople enables ESSI to provide free fruit trees to urban residents. ESSI assisted in the 2003 – 2005 Expo Neighbors Environmental Group Free Fruit Tree Distribution. In 2004 & 2005, ESSI conducted its own Free Fruit Tree Distribution event at Wat Thai – Los Angeles. The 2005 event featured fund raising for the Thai Tsunami Relief and the Na Fa Elementary REEEPP School Library project.
 - [Successful Fruit Tree Distribution at Wat Thai Los Angeles](#)
 - [2nd Annual Free Fruit Tree Distribution At Wat Thai-Los Angeles](#)

FUTURE ACTIVITIES

ESSI will be shifting its focus from the southern California region to the international level.

- **Manzanar National Historic Site Public Land Corps Grant:** Activities on this project will give priority to training Los Angeles Conservation Corps and EcoAcademy staff / students to handle all aspects of this project. ESSI would phase out its active / onsite role by the end of Spring 2006.
- **National Wildlife Federation Habitat Activities:** ESSI focus will move from the Los Angeles region to northern Thailand by the end of Spring 2006. For the 2005-2006 academic year, the primary emphasis will support the community service efforts in Mr. Lee's Geography classes.
- **REEEPP:** ESSI plans to continue the REEEPP effort with Ban Na Fa Elementary School via the internet during the 2005 – 2006 academic year. Future volunteer trips / projects are being planned for Jan 2007, and possibly beyond. Discussions are underway with representatives from Cambodia and Cameroon concerning adapting / modifying and introducing REEEPP in those countries. Toward that effort, some training of representatives will begin soon. [Note: To follow the progress of REEEPP, visit the RTC-TH (www.neighborhoodlink.com/org/rtcth) which has sole responsibility for this project. ESSI maintains a networking relationship with the RTC-TH.
- **Rural Training Center-Thailand (RTC-TH):** 2005 – 2006 will be the transition year with a distinct shift in priority to fully developing the RTC (Rural Training Center). The RTC-TH maintains a networking relationship with ESSI. [Note: To learn more about the RTC-TH visit www.neighborhoodlink.com/org/rtcth.]

Note: As of Jan 2006, Gregory Lee and Saifon Lee left ESSI to be Co-Directors of the Rural Training Center-Thailand.