

Rural Training Center-Thailand 2009 Program/Project Logos

The RTC-TH program and project logos developed over a span of 6-7 years. The RTC-TH began as a project in Earth Systems Science, Inc. (ESSI; a California non-profit education organization co-founded by G.K. Lee). The initial success of the RTC-TH resulted in the decision to spin it off as a separate entity but shifting focus to rural farming families and communities. The background on the original logo can be found at <http://www.neighborhoodlink.com> in the "Our Pages" section.

The RTC-TH evolved over time, and in 2009, we decided to systematically "standardize" the RTC-TH logos to for consistent "brand" identification, especially in the numerous presentations being shared and distributed via "teach backs."

This summary graphic groups the logos by their most direct relationship. The following pages give a brief descriptive paragraph of the activities represented by the logo. Please bear in mind that many of the RTC-TH programs and projects are highly integrated and may involve a number of interconnected activities.



	SOIL and PLANT are basics concepts for the RTC-TH. The natural link of soil to a plant is symbolic of the inherent nature of these RTC-TH programs. • SOIL (Save Our Independent Livelihood): The idea is to protect and sustain the independent small rural family farm lifestyle through ecologically sustainable farming practices. We accept the idea that there may be an upper limit to the food production of this smaller agricultural unit. We believe in and prefer self-sufficiency and sustainability to commercial agriculture. Soil is the growth medium for plants. So it is natural the PLANT be companion basic RTC-TH concept. • PLANT (Personal Learning And Natural Teaching): SOIL is developed through education. The RTC-TH community-based environmental education process focuses on individual self-learning and caring enough about others to share knowledge to develop skills. Teaching others is the sharing of knowledge. But in community-based education, functionally a “teacher” is any person with knowledge and skills who cares enough to share these with other who are interested and willing to learn. Mutual respect and mutual benefit are the foundation for this approach, as is the idea that it is better to network than to not work.
	FARMS (Family Administered Resource Management System) trains farmers to attain SOIL. It focuses on management training for small rural family farmers. Education levels are limited in many rural areas. The training consists of systematic planning and decision making geared toward self-sufficiency, sustainability, and community / social responsibility. It is unlikely any one family farm can be totally self-sufficient. Mutual respect, mutual benefit imbued with mutual assistance / self-help provides a degree of insurance in times of need.
	FUNDS (Farming Under a No Debt System) is the financial component of FARMS and consists of a series of programs enabling people to actively strive for SOIL. Basically, most small rural family farms need to reduce off farm expenses to more effectively manage their finances, avoid debt or pay off debt. (Servicing farm debt is a major budget item for many small rural family farms.) Specific lessons are implemented to reduce off farm expenses by integrated sustainable farming methods.
	SOW (Save Our Water): Water is essential to life, especially the life of a small rural family farm. SOW focuses on water conservation, effective water resources management, and rainwater harvesting. This involves the use of crops suitable for pending climate changes toward higher temperatures and lower precipitation. It links to SOS (Save Our Soil) via conscious efforts to improve soil moisture retention and ground water recharging.
	SOS (Save Our Soil): Soil is essential to crop production. Careful consideration of natural water flow by gravity is fundamental to effectively managing soil resources. SOS involves soil conservation, soil resources management, terracing, mulching, slope management/maintenance to reduce soil erosion. The natural soil making process is enhanced via the use of natural organic supplements in place of synthetic chemical fertilizers. Synthetic fertilizers are another major cost for small rural family farms.
	SAP (Sustainable Agricultural Practices): This is the “miscellaneous others” category for many and various practices that may not conveniently fit into the existing categories of RTC-TH programs and activities (e.g. no burning, recycling, etc.). Generally, the pattern is to reduce off farm expenses vs. barter/exchange, on-farm cycles for energy flow, waste reduction, and other conservation practices.
	COMPOST (Creating Our Most Precious Organic Soil Treatment): While compost is not a “fertilizer” it is a very useful soil additive that can significantly improve soil qualities that result in improved soil texture, soil structure, soil moisture retention, soil chemistry and ultimately crop production. It makes use of “waste” materials on the farm resulting in on-farm organic nutrient cycling / recycling.
	WORMS (Working on Restoring and Making Soil): Nature takes a fairly long time to make soil. Agriculture, especially commercial agriculture depletes soil faster than nature can make it. Various low tech/no tech methods can be used to “grow” soil at levels sufficient for sustainable agriculture which may not be suitable or practical for commercial agricultural production. The goal is to empower families to find a balance for their particular small rural farm.
	BUGS (Biodiversity Ultimately Gives Sustainability): Commercial agricultural operations are noted for a distinct lack of biodiversity. IPM (integrated pest management) approaches are used based on local biodiversity, natural pest controls, integrated “mixed” planting / intercropping. The goal is to significantly reduce the use of synthetic chemical pesticides (another major off farm expense). The added advantage in Thailand is that local Thais in our area consider certain “pest insects” as food delicacies. This dietary habit is a form on “non-toxic” pest control, and if insect quantities are sufficient, can also be a source of supplementary income as well as food for the family.
	IFS (Independent Fuel Systems): Energy costs are another off farm expense draining the family budget. Low tech/no tech alternative energy (e.g. non-fossil fuels and alternatives to wood burning) especially using existing on-farm resources are emphasized. Straight vegetable oil bio-fuels, biogas digesters, passive solar systems capable of use in existing machinery fit with the RTC-TH low tech/no tech approach. [Note: Passive solar can include solar PV—photo voltaic--- cells, which are hardly low tech, but solar PV is not a prime alternative.)
	GRASS (Getting Realistic Assessment StatisticS): Effective small family farm management requires recordkeeping and analyses. This is something most people might do in the heads or very informally. Without records and data is sometimes difficult or impossible to make effective decisions that result in sustainable performance. Most rural family farmers lack training in this area but have a wealth of experience. Many agricultural students have academic training but may lack practical experience. GRASS strives for a balance between theory and practice that is better suited for small rural family farms. Records of water, soil, and crop production are keys to GRASS.
	GROW (Getting Real On-farm Weather): Weather (especially rainfall) is highly variable from one place to another. Rainfall is the primary source of water for most farms. Accurate rainfall data for a farm are critical for estimating rainwater harvesting, soil erosion potential, soil moisture, and other farm operations. Climate change is a major concern, and having records to supplement regional weather/climate data helps local climate change impacts that can affect management plans for small rural family farms.

	PLANT is the umbrella for two series of programs: REEEPP and EmComm REEEPP (Rural Environmental Education Enhancement Pilot Program): This was conceived as a community “payback” effort in the home village of RTC-TH Co-Founder Saifon Lee. REEEPP is implemented at Ban Na Fa Elementary School. At the same time, it was a rural public education reform model demonstrating an innovative, non-traditional integration of basic math, science, English, geography and technology taught interactively outdoors. These lessons all connect to the community-based environmental education for the self-sufficiency and sustainability of small rural family farms. EmComm (Emergency Communications): This is a recent development and a “work in progress” effort to use amateur radio for emergency communications and preparedness. EmComm is a community service effort which effectively sustains a community in times of natural disaster.
	Green School: A basic environmental education awareness activity to instill the “reduce, re-use, recycle” mantra and the Geographic Systems Model to elementary school children. A “Trash Bank” uses the sale of recyclable materials to help students to learn applied math and money management skills on campus. Recyclables can be brought to school from home or village. This diffuses the lesson from classroom to the community providing students with “Teach back” opportunities, reducing waste bulk in local landfills and trash dumps.
	Habitat: Based on the National Wildlife Federation “Backyard” and “Schoolyard” programs adapted to northern Thailand. The lessons develop awareness of local ecology. This directly connects to the RTC-TH BUGS activities and lessons. It is a practical application of traditional math and science classes in public schools. Students created and maintain a Habitat pond and garden on campus. These are accessible to the public as a demonstration site and community education resource.
	NASA CERES S'COOL (National Aeronautics and Space Administration, Clouds and the Earth’s Radiant Energy System, Student Cloud Observations On-line): This is a free, voluntary ongoing international Earth-space research program from NASA in the US. It integrates math, science, English, geography, and technology lessons in school and directly links to RTC-TH GROW, and MEWS activities at the community level. Student cloud observations from the ground are coordinated with satellite “fly overs”. The relayed to NASA for use in calibrating operational CERES satellites.
	MULCH (More Useful Lessons Carried Home): This activity provides students practice in conducting Teach Backs, the fundamental practical non-traditional “proficiency test” of their mastery of REEEPP lessons. This is also the model to diffuse environmental lessons from classroom to home and community empowering students to learn and practice social responsibility and community service.
	WATER (Working At Teaching Environmental Responsibility): Teacher In-service workshops integrating hands-on interactive learning with community action / community service activities. This “learn by doing” approach serves to educate and complete tasks for the community as a whole. Past efforts involved setting up demonstration communal compost piles in a village common area, and group training in non-toxic pest control where participants made and took home non-toxic pest controls for rats and flies.
	SEEDS (Supporting Environmental Education Development and Sustainability): Curriculum development and Beta Testing for REEEPP and the original community-based environmental education lessons for self-sufficiency and sustainability of small rural family farms. This effort is largely an application of the Geographic Systems Model which integrates all life, physical, and social science knowledge bases combined with adaptive technology approaches for no tech / low tech field applications.
	EmComm (Emergency Communications) is a relatively new and ongoing effort in direct support of community service and sustainability of rural communities. The most common local natural disasters involve floods, flash floods, landslides, and severe storms that disrupt local infrastructure and services. We operate using the Thai amateur radio license HSØZHM and hope to recruit additional volunteer licensed radio operators.
	MEWS (Mobile Emergency Weather Station): This is a special EmComm activity combining weather lessons from REEEPP and GROWTH adapted to providing on-site/on-scene weather data in a disaster area. The observations are specifically annotated to support helicopter flight operations. The weather data can be used for planning relief operations (e.g. planning, logistics, supplies, etc.).
	“Sparky”, the Batt-mobile: This is the primary RTC-TH EmComm vehicle. Sparky is a 1000 amp hour, battery powered all electric vehicle. Originally planned as a “green alternative energy” demonstration vehicle for the IFS program. The battery power resources are ideal to support RTC-TH EmComm. Maximum range is ~80 km, but current operational plans limit 20 km to conserve battery power for radio use. Sparky can be outfitted with both VHF and HF radios and portable antennas.
	Samantha (“Sam”), the Volts-wagon (towed by “Sparky”): Is the RTC-TH portable EmComm field station. It has 250 amp hours of self-contained battery power (with an optional addition of 150 amp hours of external batteries) to support both VHF and HF radios. Larger portable masts for antennas can reach a height of 25 ft. Sam allows for 2 radio work stations, a bunk for one person, and supplies to support 2 people for 1-2 weeks.
	RTCC-TH LPFM Community Radio: This is a future planned activity to be integrated with the RTC-TH EmComm effort. The station is intended as a Low Power FM public education radio station broadcasting self-sufficient and sustainable agriculture and environmental education. However, in times of emergency, it could be operated in portable mode and deployed (in Sam) within the RTC-TH LPFM broadcast area to relay vital relief information to the public.