

The Current and Future Roles of Small Farm Resource Centers in Extension and Advisory Services

Synthesis report from seven case studies in Southeast Asia

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Contents

Overview and Executive Summary

Small Farm Resource Center Concept	3
The MEAS SFRC Study	3
Snapshot of Seven Southeast Asia Small Farm Resource Centers	4
Lessons Learned	7
Conclusions	7
Ntok Ntee	12
Farm Center Indochina (FCI)	12
Sustainable Agriculture Training Center (SATC)	13
Aloha House (AH)	13
The Siloam Karen Baptist Life Development Center (CUHT)	14
Thai Lahu Christian Churches (TLCC) Bi-Vocational School	14
Upland Holistic Development Project (UHDP)	15
Extension and advisory components in this model:	16

Sustainability of the SFRC Model and Lessons Learned

What is the clientele being served, and how are they being served?	18
What kinds of technologies or practices are being adopted as a result of the extension services provided through this model?	19
How is the model being financed?	20
What are the challenges/shortcomings/limitations of the model?	20
How can this type of service be sustained beyond a defined project period?	22
How can this model be scaled up or be applied in other contexts/countries?	22
Best fit practices and lessons learned	23



The Current and Future Roles of Small Farm Resource Centers in Extension and Advisory Services

Synthesis Report from Seven Case Studies in Southeast Asia

Overview and Executive Summary

Small Farm Resource Center Concept

Small Farm Resource Centers (SFRCs) coordinate trials on a central site as well as on fields of individual farmers. Any new ideas, techniques, or crops are first evaluated at the SFRC, and then often tested via on-farm trials in the community. The purpose of the SFRC is to evaluate, within the community, ideas that have been proven elsewhere and that show promise. The best of these ideas are adapted to become the backbone of the SFRC's agricultural outreach and community development efforts, and are developed into a variety of educational and training formats, outreach projects and poverty alleviation initiatives. Thus, SFRCs have two distinct functions. First, the experimental component tests and adapts new ideas that have potential to aid in the development of the community. These adaptive experiments make sure that what has worked elsewhere (local or distant) can reliably be expected to work in a particular community with similar environmental conditions (e.g., climatic, topographic, soil) as the SFRC. Secondly, the demonstration and training component uses the center and on-farm trials as teaching tools. The demonstrations and trainings can be a base from which promising results are shown to extension staff of the sponsoring organization, interested government officials, development groups, or farmers in the community.

The MEAS SFRC Study

The SFRC model is not a new approach to agricultural outreach. Extension variations on this theme have been in operation in many parts of the world for years, yet thorough assessment of the regional efficacy of SFRCs is lacking. There exists the need to evaluate and document the impact of SFRCs as an alternative model of providing extension and advisory services. The purpose of this project was to identify a suite of existing SFRCs in Southeast Asia to illustrate and classify the concept of the SFRC, evaluate their outreach efficacy, and provide recommendations to amplify their extension services. A total of seven Southeast Asian SFRCs were utilized as a lens with which to determine: 1) if the concept of the SFRC is antiquated or adaptable and 2) if the SFRC is able to remain relevant as a development tool. Data was collected from December 2012 to March 2013 using a combination of questionnaires, surveys, site visits, PRA, and one- or two-day assessments with stakeholders.



Snapshot of Seven Southeast Asia Small Farm Resource Centers

Ntok Ntee: Ntok Ntee was founded in 2006 as an agricultural outreach project of the Church Missionary Society of Australia (CMS). In its original form, the center utilized several small trial sites, but moved to a single long-term site on the outskirts of Sen Monorom, Mondulkiri Province, Cambodia in 2012. The mission of Ntok Ntee is to positively impact the lives of minority Bunong farmers through on-farm trialing and demonstrating locally adapted plant and livestock species. These programs serve as the basis for training at the center, as well as outreach to target



communities. The center evaluates and introduces appropriate technology, develops and conducts a variety of agricultural training and education programs, and is actively engaged with local smallholder farmers. Ntok Ntee also operates agriculture enterprises on the farm, producing and marketing a range of commodities, and offers a variety of locally adapted plant varieties and livestock for projects and for sale as a supplemental source of income. Ntok Ntee extends its reach to all districts of Mondulkiri and Ratanakiri provinces via partner NGOs and development organizations working in the region.



Farm Center Indochina (FCI): FCI is an SFRC located in an undisclosed country in Indochina. Unlike other SFRCs, the primary role of FCI is to be a business that sells quality organic produce to people in the country's capital city while providing positive social outreach for the betterment of its communities. employees and surrounding Founded in 2009, the center has hosted diverse stakeholders and works among local communities. Besides the organic market vegetable production, the center currently offers dormitory-accommodation for up to 75 people, a meeting room, ample space for growth, and is located on a major waterway. The dream of FCI is to become a center for demonstrations, teaching,

and training for locals and visitors alike with the goal of improved livelihoods.

Sustainable Agriculture Training Center (SATC): SATC is located near Yangon, Myanmar, and was started in 2005 as an outreach program of the Myanmar Baptist Convention. The mission of SATC is poverty alleviation among its target communities through the promotion of sustainable agriculture systems. They accomplish this goal by disseminating skills and knowledge on farming technologies and through training and demonstration of appropriate farming technology. SATC consists of over 34 hectares (ha)





and has expanded to include a training center, dormitory, kitchen and dining room, staff housing, demonstration plots, research plots and livestock and crop production facilities. SATC has a broad group of stakeholders across Myanmar and realizes an extended impact via training of regional and international development workers. SATC has been engaged in an ambitious program to develop agriculture enterprises on the farm, producing and marketing a wide range of commodities as a supplemental source of income.

Aloha House (AH): Aloha House is an orphanage in Palawan, Philippines, which houses children for adoption and includes a sustainable agriculture farm. The farm has been an integral part of the orphanage from the beginning, originally conceived in 1999 by its American and Filipina husband and wife directors. The farm covers an area of 2.8 ha, with 2,800 m² comprised of major permanent infrastructure, the remainder being cropland rented from neighbors. The main purpose of the farm is to use sustainable and microbial farming



techniques to provide nutrient-dense food to the children in the orphanage. In addition to the creation of sustainable farm products, the farm serves a diverse stakeholder group through its use as a demonstration, teaching, researching, and mentoring center.

Siloam Karen Baptist Life Development Center (CUHT): CUHT began as a Bible School in 1957 to serve Thailand's Karen Baptists in the remote Samoeng District of Chiang Mai Province. The small institution was relocated three years later to its current location on 3.7 ha of land on the outskirts of the city of Chiang Mai. The new facility included an agricultural education component to supplement religious education. Besides training students, the agricultural facility also attracted many visitors, including Thai royalty. By the 1990s, with greater emphasis on religious instruction, the agricultural component of Siloam/CUHT was in



decline; the formal agricultural instruction ended in 1993. Since then, the center has continued to host the Thailand Karen Baptist Convention's Rural Development Project (RDP), which offers agricultural and community development outreach to over 200 Thai Karen communities. The Integrated Tribal Development Project also rents part of the Siloam/CUHT facility to process and store organic coffee grown in dozens of hill tribe villages in the region.





Thai Lahu Christian Churches (TLCC) Bi-Vocational School: As an institution affiliated with the Thai Lahu Christian Churches, the TLCC Bi-Vocational School was established outside of Chiang Mai, Thailand in 2001 with the purchase of land on which to construct a Bible School. Over the next several years, a total of 2.7 ha were purchased on which the current agricultural component of the center was established, including rice paddy fields, a fishpond, a rice mill, gardens and a piggery. The center's agricultural focus was intended to provide the institution with a degree of food self-sufficiency and to provide agricultural vocational training for the students. Besides offering religious and vocational training for students from TLCC churches, the institution has significant partnerships with the Church of Christ in Thailand and Reach Global.

Upland Holistic Development **Project (UHDP):** UHDP began in 1996 in Mae Ai, Thailand, as the outgrowth of needs assessment by Western missionaries working among the minority Palaung people, who were facing land tenure issues, decreased agricultural productivity, cultural loss, and health and sanitation issues. UHDP was formed as an SFRC in order to research techniques and appropriate responses in agroforestry, animal integration, backyard gardening,



water systems, and myriad other topics in order to extend knowledge and information to Palaung and other hill tribes living in northern Thailand. The center has grown to 20 buildings spread among 6.07 ha with 15 full-time employees and outreach to 21 villages. The center has a diverse array of stakeholders including local villagers, local NGOs, national NGOs, international NGOs, international students, churches, and farmers from across Southeast Asia.



Lessons Learned

Whereas the SFRCs evaluated for this project were each unique and diverse, certain common characteristics emerged that influenced and contributed to their ultimate efficacy. These themes related to the SFRCs as well as the programs they implemented.

Successful SFRC *projects*:

- involve little or no risk to local farmers,
- focus on approaches and/or enterprises that farmers are not already doing,
- make such a major difference that farmers will readily adopt the innovation,
- have a ready market if it involves sale of a product or local acceptance if it is to be used by the farmer.

Successful SFRCs:

- focus on local farming communities, but find ways to extend their reach and impact to distant locations and beneficiaries,
- strive to become active and evolving centers of innovation by engaging in a dynamic appropriate technology evaluation and demonstration process,
- develop diversified, stable income streams and critically evaluate them to maintain profitability and to utilize them as training tools,
- are not islands; they develop and maintain strong, vital connections to other centers of innovation such as universities, research centers, NGOs, and institutes,
- grow in accordance to their resources, as well as their human and institutional capacities,
- develop and nurture a multifaceted project repertoire focused on improving beneficiary livelihoods,
- constantly conduct needs assessments of beneficiaries to remain relevant and effective,
- realize that effective project management and evaluation is essential to ensure that goals and objectives are being met,
- possess a toolkit of extension approaches and methodologies, and apply them wisely,
- work within the existing legal and nation-state frameworks,
- identify and invest in appropriate "champions" to advocate on the behalf of the SFRC,
- maintain regular financial audits and provide related reports for donors and other partners.

Conclusions

In the absence of a strong governmental or university-based extension system, SFRCs play a substantial role in smallholder farmer education and community development, particularly in reaching neglected or marginalized populations. Successful SFRCs establish proven extension and outreach activities such as demonstrations and farmer-led cooperative research, while also embracing new approaches for dealing with the unique constraints and opportunities of the locality. SFRCs represent an effective and successful agriculture and community development tool, particularly when they improve the link between local farmers and markets. The MEAS-funded assessment of seven small farm resource centers in Southeast Asia revealed a range of attributes and activities that contribute to the success of this particular outreach model. To be effective, SFRCs should be sensitive to the local environment in which they operate and reflect the particular needs of the local communities. Appropriate funding mechanisms need to be considered because one size does not fit all. Overall, it is our opinion that SFRCs are not antiquated, but adaptable to meet the changing needs of the clientele to whom they aspire to serve.



Introduction and Project Background

Small farm resource centers (SFRCs) have played a strong role in strengthening the relevance and role of their sponsoring organizations (e.g., missions organizations, development organizations) and were popular as an outreach and development tool from 1920 to 1980. In the late 1980s, the advent of participatory rapid appraisal (PRA) and farmer field schools (Van den Berg, 2004) emphasized the importance of farmer-led extension, causing many extension and development experts to question the role of traditional agricultural centers. Though many SFRCs are still in existence, the benefit and efficacy of SFRCs on local livelihoods have never been measured or evaluated comprehensively, perhaps because of their multifarious foci, differences in extension techniques, their secondary role to other institutional priorities, lack of understanding or interest in extension best practices, and lack of institutional vision or sustainability.

There is a need to document, evaluate and empower these existing SFRCs as a useful researchextension tool in South and Southeast Asia operating outside the formal government/academic extension model. It is our perception that SFRCs have a continued role to reach neglected segments of populations, particularly communities on the margins. To justify their continued existence, however, important questions about their efficacy need to be answered, such as: what is their capability to engage a particular focus group on the basis of that group's felt needs; what is their extension strategy and its ability to catalyze documentable and felt changes related to sustained improved livelihood and food security; how adaptable to change are they in a rapidly developing Asia; and what can the SFRC do to amplify its extension impact?

The purpose of this research was to explore a suite of SFRCs in Southeast Asia to illustrate and classify the concept of the SFRC, evaluate their outreach efficacy, and provide recommendations to amplify their extension services. Seven SFRCs were utilized to answer our set of research questions and determine if the concept of the SFRC is antiquated or adaptable and if the SFRC can remain relevant as a development tool (Table 1; Figure 1).

Methodology and Approach

The data was collected through a combination of questionnaires, surveys, and PRAs. Initial data collection was conducted via questionnaires emailed to SFRC directors in December 2012. The questionnaire consisted of 47 questions on topics, including the history and mission of the center, staffing, institutional affiliations, demographics of stakeholders and beneficiaries served, budget and financing mechanisms, monitoring and evaluation procedures, on-center and extension work, and long-term/exit strategies. This background information was intended to help identify and classify each SFRC's approach to extension and livelihoods improvement.

Once preliminary questionnaires were distributed and returned, we conducted a one-day assessment, including a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, brief interviews, and organizational/systems modeling with the SFRC directors and staff members. This assessment took place from January to March 2013 to provide understanding of the perceived operation and services of the SFRCs. This daylong process identified how extension happens, the form extension takes, and who is involved in extension activities both on and off the property of the SFRC.

In addition, a one- or two-day assessment was conducted with stakeholders – which we defined as anyone who had a vested interest in the success and functioning of the center and its work



(Businessdictionary.com 2012) – to provide understanding of the perceived extension effectiveness and its impact on farmers/livelihoods/food security. These assessments utilized SWOT analysis, visits, brief interviews, and systems modeling of perceived extension practices.



ECHO Asia facilitated assessments with stakeholders to evaluate each of the organizations' effectiveness.

All data was entered into Excel worksheets during and upon return from the field. When necessary, data was coded to calculate percentages and ratios. Abram Bicksler, with the ECHO Asia Impact Center, analyzed and interpreted the data using a combination of Excel functions and Excel macros.

The Origins of the SFRC Model

Some of the oldest known references to Asian agricultural extension date back to sixth century B.C. imperial China. The improvement of agriculture via landowners and their tenants was a matter of importance to the state that had begun to rely upon land taxes for revenues. *Essential Techniques for the Peasantry* was written in 535 B.C. to enable landowners to improve their estate management through advising tenants. During the Sung and Yuan Dynasties (960-1368), local government administrations were involved with organizing and promoting agricultural research as well as extension work and teaching. Such efforts continued through the Ming (1368-1644) and Chi'ing (1644-1912) Dynasties (Jones and Garforth 1998).

Agricultural extension has not been confined by national boundaries. Particularly since the 20th century, non-governmental organizations (NGOs) have played a key role in humanitarian and development work worldwide. Even earlier, the involvement of missionaries in development activities coincided with European colonialism. Their activities often included "prototypical NGO initiatives" attempting to address concerns related to education, health services, women's rights, and agricultural development (Lewis and Kanji 2009).



Perhaps the earliest example of agricultural missionary work is that of William Carey (1761-1834), a pioneering British Baptist missionary. Carey served in India from the late 1770s through the early 1800s and engaged in typical missionary efforts of the day, including Bible translation into Bengali and other languages. However, he was also involved in agricultural development, using a site-based approach to study and evaluate crops in order to improve production methods for the benefit of local poor farmers (Gnanakan 2011).

On five acres of land near Calcutta, Carey planted new types of tree crops for the region, including mahogany, deodar, teak, tamarind, carob and eucalyptus. Striving for a scientific foundation, he also introduced Linnaean classification to India so as to record and classify local plants. He also founded the Indian Agriculture and Horticultural Society.

During the early 20th century, a growing number of missionaries were engaged in serving the poor through agriculture, including Sam Higginbottom (1874-1958), an English missionary who served with the North India Mission of the Presbyterian Church. Higginbottom was convinced that intervention was needed to address India's staggering rural poverty and low farm productivity. Having studied agriculture in the US, he was inspired by American efforts to assist the poor in the rural South through agricultural institutions such as Tuskegee (Higginbottom 1926). Higginbottom envisioned such a school for India through which to "educate the village boys, introduce improved agricultural methods and co-operate with the local farmers in solving their practical agriculture related problems" (SHIATS 2013).

His agricultural institute was established in Allahabad in 1910 and incorporated a range of modern farming implements and techniques as well as improved crops and livestock breeds that were suited to the region. Besides offering instruction at the school, he also extended teaching and consulting efforts to other parts of India, including agricultural outreach to leper colonies (Higginbottom 1926). By 1943, the institution had grown to the extent of being first in Asia to offer an Agricultural Engineering degree. The Sam Higginbottom Institute of Agriculture, Technology and Sciences continues to provide both undergraduate and graduate level instruction related to agricultural sciences and technology (SHIATS 2013).

Brayton Case (1887-1944), a second-generation American Baptist Missionary in Burma, was inspired by Higginbottom's efforts in India. He was also convinced that modern farming practices and agricultural education were the answer to Burma's poverty and low farm production. In response, he founded the Pyinmana Agricultural School in 1923 to provide a quality agricultural education for the young Burmese and to offer outreach to farm communities. He also introduced improved breeds of livestock and crop varieties including a cowpea variety, a namesake that remains popular in Burma (Myanmar). His institution was eventually nationalized by the Burmese Government during the 1960s and renamed the Naypyidaw State Agricultural Institute. The school remains in operation.

Following World War II, the role of NGOs and agricultural missionaries throughout Asia grew. However, with the growth and modernization of agricultural education provided by governments throughout the region, there was less need for large agricultural schools like those established by Higginbottom and Case. In contrast, smaller agricultural development centers, often associated with religious institutions such as Bible schools, were established with financial support from churches and mission agencies abroad. Better aligning with the SFRCs provided by ECHO's Dr. Martin Price (Price 2003), these smaller agricultural institutions tended to focus on rural groups too marginalized to benefit from formal institutions.



One notable SFRC is the Mindanao Baptist Rural Life Center (MBRLC) established by Harold Watson in the southern Philippines in 1971. The MBRLC was responsible for the development of the widely acclaimed Sloping Agricultural Land Technology (SALT) approach to upland farm management. Another Asian SFRC, the Udorn Patina Farm, was established in 1974 in northeast Thailand to promote sustainable agriculture, including combinations of fishpond, ducks and fish (Gustafson 1999). Both centers evaluated, taught and promoted integrated agricultural technical deemed suitable for their contexts. They also attracted a considerable number of visitors.



Photos 1-4. Various SFRCs throughout Southeast Asia. Clockwise, starting in the top left corner: (1) Ntok Ntee in Cambodia, (2) Aloha House in the Philippines, (3) Farm Center Indochina, and (4) CUHT in Thailand.

However, by the 1980s, support for centers as vehicles for agricultural development was declining, while community-focused approaches such as Farmer Field Schools, Farmer-Led Extension, and Participatory Rapid Appraisal (PRA) were gaining influence. One criticism of agricultural development centers was the cost to develop and maintain such facilities, especially as states were better able to provide agricultural education and extension. Additionally, field-based farmer experimentation and farmer-to-farmer extension became widely accepted vehicles for agriculture and community development.

Despite criticisms and funding challenges, the SFRC approach remains popular, especially among those seeking to work with underserved and marginalized populations. NGOs and institutions, including schools and children's home, continue to incorporate agricultural components into their facilities so as to: 1) achieve a degree of food and/or financial self-sufficiency, 2) teach



their clientele how to produce food or improve incomes via agriculture, and 3) extend appropriate agricultural approaches and resources to nearby focus communities and beyond.

The SFRC Model in Practice

Ntok Ntee

Ntok Ntee was founded in 2006 as an agricultural outreach project of the Church Missionary Society of Australia (CMS). In its original form, the center utilized several small trial sites, but moved to a single long-term site on the outskirts of Sen Monorom, Mondulkiri Province, Cambodia in 2012 (Table 2). The mission of Ntok Ntee is to positively impact the lives of Bunong (a minority group in Cambodia) farmers through on-farm trials and demonstrating locally adapted plant and livestock species. These programs serve as the basis for training at the center, as well as outreach to target communities. The center evaluates and introduces appropriate technology, develops and conducts a variety of agricultural training and education programs, and is actively engaged with local smallholder farmers. In addition to their outreach, demonstration and research projects, Ntok Ntee operates agriculture enterprises on the farm, producing and marketing a range of commodities and offering a range of locally adapted plant varieties and livestock for projects and for sale as a supplemental source of income. Ntok Ntee extends its reach to all districts of Mondulkiri and Ratanakiri provinces via unofficial connections to several other NGOs and development organizations working in the region, most notably International Cooperation Cambodia, which plans to use Ntok Ntee in its training and extension work.

Stakeholders cited that Ntok Ntee strengths include the background, training and experience of the farm directors, and the farm facilities and attributes which make it a valuable research and outreach facility. Community leaders highly valued Ntok Ntee's effort to introduce new crops and livestock species previously unknown to the region. The farm serves an important function by first testing and evaluating many of these varieties and species before promoting them, thus reducing the risk borne by the farmers, and improving the odds of acceptable on-farm performance. Bunong farmers acknowledged improved practices based on knowledge gained from Ntok Ntee training and they shared concrete evidence of changed practices, which subsequently translated into real increased income or other indirect benefits.

Farm Center Indochina (FCI)

FCI is an SFRC located in an undisclosed country in Indochina. Unlike other SFRCs, the primary role of FCI is to be a business that sells quality organic produce to people in the capital city of the country while providing positive social outreach for the betterment of its employees and surrounding communities. Though still in its infancy (founded in 2009), and located in a difficult country in which to work as a business, the center has hosted diverse stakeholders (at least four groups) and works among local communities for their betterment (Table 2). Besides the organic market vegetable production, the current center offers dormitory-style accommodation for up to 75 people, a meeting room, ample space for growth, and is located on a major waterway in this country.

The dream of FCI is to become a center for demonstrations, teaching, and training for locals and visitors alike with the goal of improved livelihoods. Strengths of the center include its funding, which is derived from a business, ample space for growth, being situated in a very poor province of the country, and national workers who desire to better their and other's lives in the



surrounding communities. Although the center works with a group of organic rice growers (with 10 villages and 400 households represented) to improve their yields and agricultural sustainability, outreach and extension is currently lacking. Much of that is not due to a lack of vision of the leaders of FCI, but rather to the imposing nature of the government.

Sustainable Agriculture Training Center (SATC)

The Sustainable Agriculture Training Center is located in Hmawbi Township, near Yangon, Myanmar, and was started in 2005 as an outreach program of the Christian Social Service and Development Department of the Myanmar Baptist Convention (Table 2). The mission of SATC is poverty alleviation among its target communities through the promotion of sustainable agriculture systems. They accomplish this goal by disseminating skills and knowledge on farming technologies and through training, and demonstration of appropriate farming technology. SATC

has doubled from its original size and now consists of over 32 ha and has expanded to include a training center, dormitory, kitchen and dining room, staff housing, demonstration plots, research plots and livestock and crop production facilities. SATC has a broad group of stakeholders across Myanmar including a presence within local smallholder farming communities, as well as an extended impact via training of regional and international development workers.

SATC has been engaged in an ambitious program to develop agricultural enterprises on the farm, producing and marketing a wide range of commodities as a supplemental source of income. An additional strength of SATC is their infrastructure and capacity to expand on-farm training. An ever-increasing number of nongovernmental organizations and other groups are involved in agricultural and community development projects in Myanmar, and many of these organizations bring with them a broad range of training needs. Intensive on-farm training has been a key vehicle for human capacity building by SATC and programs have expanded over time to include a wide palette of topics identified by local stakeholders. SATC's investment in forming strong relationships with local stakeholders is a key strength of the Center, and is in part responsible for the high adoption rates of many of the practices they promote.

Aloha House

One of the strengths of Aloha House is its use of a profit-sharing system with its employees. In addition to providing 75% of the requirements of food the orphanage, the sustainable farm produces plant animal and resources for sale, with a profit margin of 10%. Every employee receives one share of the farm, except for the farm manager, who receives two farm shares. The employee share pool is eligible to receive up to 50% of the farm profits each quarter (the other 50% of the profits are used to help subsidize the orphanage – helping to cover 25% of the total operating costs). The employee share percent (up to 100% of one share) is determined by employee assessments that lead to quarterly bonuses and ownership of the success of the farm.

Aloha House (AH)

Aloha House is an orphanage in Palawan, Philippines, which houses children for adoption and includes a sustainable agriculture farm. The farm has been an integral part of the orphanage from the beginning, conceived in 1999 by its American and Filipina husband and wife directors. The farm covers an area of 2.8 ha, with 2,800 m2 of it comprised of major permanent infrastructure, with the remainder of it cropland rented from neighbors. The main purpose of the farm is to use sustainable and microbial farming techniques to provide nutrient-dense food



to the children in the orphanage. Currently, the farm supplies 75% of the food needs of the orphanage; the extra farm products are sold directly to consumers or through local markets. The profit of the farm is split 50/50 between the farm workers (as a yearly bonus) and the orphanage, and currently offsets 25% of the annual operating costs of the orphanage.

In addition to the creation of sustainable farm products, the farm serves a diverse stakeholder group through its use as a demonstration, teaching, researching, and mentoring center. The director has created copious materials (presentations, videos, books) that are available for free online, and the farm also has an apprenticeship program. Although there is little in the way of community-based extension, the farm is a demonstration center attraction in its own right, hosting people for tours and trainings annually. Strengths of the center include a dedicated and hard-working director with a heart for helping people, a tight nutrient and water cycling loop (75% of the water needs of the farm come from on-farm processes and storage), excellent demonstrations, and a competent and confident group of local staff with profit-sharing buy-in to the success of the center. Of all the centers, none rivaled the complexity and interworking of Aloha House to turn outputs into inputs, and to act as a living-learning laboratory.

The Siloam Karen Baptist Life Development Center (CUHT)

The Siloam Karen Baptist Life Development Center (formerly the Center for the Uplift of the Hill Tribes) was inaugurated as a Bible school in 1957 to serve Thailand's Karen Baptists in the remote Samoeng District of Chiang Mai Province. The small institution was relocated three years later to its current location on 3.7 ha of land on the outskirts of the city of Chiang Mai. The newer facility included an agricultural education component to supplement religious education. Besides training students, the agricultural facility also attracted many visitors, including Thai royalty. With greater emphasis on religious instruction, by the 1990s the agricultural component of Siloam/CUHT was in decline, with formal agricultural instruction ending in 1993. Since then, the center has continued to host the Thailand Karen Baptist Convention's Rural Development Project (RDP), which offers agricultural and community development outreach to over 200 Thai Karen communities. The Tabitha Project, also based at Siloam/CUHT, promotes community-based handicraft enterprises for Karen women. Additionally, the Integrated Tribal Development Project rents part of the Siloam/CUHT facility to process and store organic coffee grown in dozens of hill tribe villages in the region.

Various Siloam/CUHT stakeholders stated that the strengths of the center include the involvement and commitment of KBC churches, its physical facilities, the institution's heritage, and its international partners. However, the diminishment of the agricultural component of the center, as well as surrounding urban encroachment,, were chief among various stated weaknesses. Despite the loss of agricultural education at the Siloam/CUHT facility, even with limited funding and a very small staff, RDP's outreach has continued over five decades. The project has offered a wide range of agricultural and community development services and extension to remote Karen communities, including the establishment of cooperatives which enable marginalized families to access credit for agricultural enterprises and small village businesses (e.g., stores, gas pumps) as well as livestock improvement and conservation agriculture.

Thai Lahu Christian Churches (TLCC) Bi-Vocational School

As an institution affiliated with the Thai Lahu Christian Churches, the TLCC Bi-Vocational School was established outside of Chiang Mai, Thailand in 2001 with the purchase of land on which to



construct a Bible School. Between 2002 and 2004, the main educational/administration building and chapel were constructed and dedicated. Over the next several years, a total of 2.7 ha was purchased on which the current agricultural component of the center was established, including rice paddy fields, a fish pond, a rice mill, gardens and a piggery. The center's agricultural focus was intended to provide the institution with a degree of food self-sufficiency and to provide agricultural vocational training for the students. Besides offering religious and vocational training for students from TLCC churches (representing approximately 40 Thai Lahu hill tribe communities), the institution has significant partnerships with the Church of Christ in Thailand (a denomination of Thai Protestant Churches) and Reach Global (representing the Evangelical Free Churches of America). In addition, GoEd Mekong, a US-based study abroad program, has based its regional facility at the TLCC Bi-Vocational School.

Strengths of the TLCC Bi-Vocational School facility include access to rice production land and water, which allows for self-sufficiency in rice and pork as well as significant production of vegetables. Other strengths include qualified Lahu and foreign instructors, strong support from TLCC churches, a diverse range of partners, and the inclusion of Lahu farmer knowledge in its agricultural programming. The institution's community-based stakeholders often visit the farm and show interest in the agricultural component. The resident students also value their agricultural training and exposure at the center's farm and express intentions to transfer what they have learned to their own communities. However, TLCC has yet to offer dedicated agricultural extension to its partnering church communities, although stakeholders in one key village expressed significant interest in extension activities. Ultimately, such interest could serve as the basis for TLCC to use its center to support requested community-based agricultural extension efforts.

Upland Holistic Development Project (UHDP)

UHDP was begun in 1996 in Mae Ai, Thailand, as the outgrowth of needs assessment by Western missionaries working among the minority Palaung people who were facing land tenure issues, decreased agricultural productivity, cultural loss, and health and sanitation issues. UHDP was formed as an SFRC in order to research appropriate techniques and responses in agroforestry, animal integration, backyard gardening, water systems, and myriad other topics in order to extend knowledge and information to Palaung and other hill tribes living in northern Thailand. Over the years, the center has grown to its present size of 20 buildings spread among 6.07 ha with 15 full-time employees, with work in over 200 diverse areas, and its outreach has increased to 21 villages. The center has an array of stakeholders including local villagers, local NGOs, national NGOs, international NGOs, international students, churches, farmers from across Southeast Asia, and a host of others.

Some of the key strengths of this center are: its constant needs assessments conducted with communities, which functions to design outreach and extension that are relevant and contribute to a positive feedback loop of refinement both on and off-center; a very tight input-output loop that utilizes many of the environmental and cultural resources of the center (Figure 2); a diverse palate of demonstrations, trainings, and research conducted at the center and in communities; a diverse funding stream; and local staff comprised of many of the minority people groups with whom the center works. The efficacy of the center was evident in community surveys, and it became apparent that the center was using its extension model to impact broad swaths of communities with whom it worked. A unique finding was that over the course of the 15 years the SFRC has been in existence, needs have changed in the communities from tangible (food,



shelter, clothing, water) to more intangible needs (literacy, land tenure, cultural preservation), which were being met by the SFRC because it was in tune to the changing needs of its clientele.

Sustainability of the SFRC Model and Lessons Learned

Extension and advisory components in this model:

All SFRCs included in this assessment engaged in a variety of on-farm crop, livestock and appropriate technology demonstrations. These served as the basis for on-farm training, as well as outreach to target communities. In most cases, the demonstrations grew out of local stakeholder interaction and addressed priority local needs. Usually the SFRC staff had a presence within the local farming communities and there existed a mutually beneficial relationship between the SFRCs and the community they served. The SFRCs also created and distributed a variety of agriculture and community development resources and training materials locally and to an extended audience beyond the regions in which they operate. In fact, most of the SFRCs in this study conducted on-farm training programs for regional and international development workers coming from distant locations.

The extension and advisory components encountered could generally be classified into three categories: On-farm and offfarm demonstrations, on-farm and off-farm trainings, and offfarm extension outreach for communities.

CUHT in the Community

Whereas the agricultural component of CUHT/Siloam had experienced several decades of decline, the agriculture and community development agency based at the facility has played a significant support role in helping church communities to set up cooperatives that enable improved savings and provide access to credit for farming and other community-based enterprises. Additionally, the project promotes livestock production, such as cattle and pigs, as well the construction of backvard biogas units that produce energy from

On-farm and off-farm demonstrations

The quality and occurrence of SFRC on-farm and off-farm demonstrations was mixed. Most of the SFRCs' focus was related to on-farm demonstrations, but the extent of related off-farm efforts varied by the SFRC.

In the case of CUHT/Siloam, due to various factors, center-based demonstrations have declined significantly over the past 50 years, whereas the more recently established TLCC facility has very adequate working demonstrations related to paddy rice and livestock production and gardening. However, the Rural Development Project (RDP), which extends from CUHT/Siloam, has a significant program of active, community-based demonstrations and other activities.

Center	Demonstrations					
Upland Holistic Development Project (UHDP)	agroforestry; underutilized crop promotion; animal integration; organic cropping systems; nursery production					
Aloha House	aquaponics; animal integration; mushrooms; value-added products					
Sustainable Agriculture Training Center (SATC)	animal integration; renewable energy; organic production					
Ntok Ntee	underutilized crop promotion; plant breeding; water supply;					

Centers that stood out for the quality and a quantity of their on-farm demonstrations:



organic production

Additionally, FCI, almost exclusively offered on-farm demonstrations, except for extension work with an existing Helvetas rice growers' group in the area.



On farm demonstration at the SATC, Myanmar (left) and the Aloha House, Philippines (right).

On-farm and off-farm trainings

Similarly, the quality and effectiveness of on- and off-farm trainings via SFRCs varied. Most of the institutions that we examined offered center-based trainings to their communities in order to provide convenient and accessible opportunities at the center. When offering center-based training, many SFRCs tended to offer accommodations and food services for visitors and provide a limited income stream for the center.

Those centers that did provide off-farm trainings tended to do so less often than on-farm trainings and often did not charge for the trainings. UHDP and SATC were two of the centers which, although concentrating on on-farm trainings, also conducted a significant number of off-farm trainings.

One exception in Thailand is Baptist Convention's Rural Development Project (RDP). Based at Siloam/CUHT where its agricultural training facilities having been in a decades-long decline, RDP has offered a wide offering of community-based trainings throughout its multi-provincial focus area related to cooperatives, livestock production and sustainable agriculture. In contrast, nearby TLCC, offers very little community-based training and extension, with most of its agricultural emphasis based at the Bible school.

Off-farm extension outreach for communities

The performance of SFRC varied by the center and the center's priorities when offering various forms of community-based agricultural extension. Several centers offered very little extension whereby agents from the center actually traveled to communities to extend support (TLCC, FCI, Aloha House, Ntok Ntee), focusing mainly on demonstrations and trainings. Other SFRCS like UHDP, SATC, and CUHT were very actively engaged in the communities through an extension role, helping to refine information and techniques that the center pioneered and/or evaluated, but the communities adopted and adapted. It appears that this link is vital to helping SFRCs remain relevant in the face of evolving needs. As the felt needs are researched by the center,



from which techniques and ideas can be pioneered and then extended to the community for possible adoption and adaptation, eventual feedback can be given back to the SFRC, thereby strengthening the technique to better meet needs (Figure 3). Although not all SFRCS had an outreach extension budget for this type of work, it is highly encouraged in order to better help communities and help to keep the SFRCs rooted in the changing dynamics of needs.



An ECHO and Aloha House training and seed swap hosted at the Aloha House farm in the Philippines.

What is the clientele being served, and how are they being served?

The SFRCs seek to widely disseminate pro-poor farming technologies and education. However, they initially focused resources on the local smallholder farmer community and local marginalized ethnic groups, such as the Karen in Myanmar and the Bunong of northeast Cambodia. While this emphasis on resource-poor farmers continued, in most cases SFRCs actively reached out to and engaged the regional and international development community, offering a variety of training opportunities.

Many SFRC's were established by church-related institutions to provide religious education and other services, often to particular ethnic/religious focus communities As many contemporary governmental institutions in SE Asia are able to offer agricultural education and extension services to at least the dominant (i.e., most accessible) populations/ethnic groups within those countries, many SFRCs play a role in providing outreach to more marginalized ethnic and religious minority groups.

Being faith-based, the theological components of TLCC and CUHT/Siloam offer religious training for tribal young people: notably for the Lahu and Karen people groups. Although both institutions also offer agricultural programming, it is almost exclusively community-based for CUHT/Siloam (through RDP, the TKBC agriculture and community development agency) and center-based for TLCC.





Huay Hawm, a village in Mae La Noi, Thailand. CUHT SFRC worked with this village through ITDP and RDP. Pictures include the village's agroforestry plots, which include a productive coffee-growing project, and sheep raising. The village uses wool for its woven products.

What kinds of technologies or practices are being adopted as a result of the extension services provided through this model?

In this assessment, most SFRCs studied had significant local impact related to adoption of new/appropriate technologies and farming practices such as low-input, lowland paddy rice production (TLCC, FCI), organic vegetable production (TLCC, AH, FCI, UHDP), organic coffee production and marketing (CUHT, UHDP), and natural farming using beneficial microbes (TLCC, AH, FCI, UHDP, SATC). Alternative energy technologies such as the use of biogas and improved cook stoves were commonly seen in target communities, particularly where this had been a priority outreach effort by the SFRC. It was also common to see local adoption and cultivation of new and underutilized crops and the use of improved animal breeds where these technologies were a component of the SFRC program. In some cases, the new species were not only adopted and grown by local farmers, but had also begun to appear and create demand in local markets. There was also evidence of local impact resulting from a diverse mix of SFRC projects, including vermiculture (worm composting system), sustainable farming techniques (i.e. organic crop production), seed saving and seed enterprises, and market development.

In addition, for many years, RDP (based at CUHT/Siloam) has promoted community-based cooperatives that enable the establishment of small local businesses and access to microloans in support of small farm enterprises. Tabitha, the TKBC women's agency based at CUHT/Siloam,



also taught rural women how to produce traditional natural dyes that add value to tribal textiles that the agency helps to market.

The high adoption rates witnessed in this study were clearly linked to the on-farm demonstrations and relatively easy accessibility to the technology provided by the local SFRCs. As a group, poor smallholder farmers are extremely risk-adverse and more positively engage and adopt new technology when they can see it in operation first. Results from this study reaffirm the idea that these farmers are quick to adopt new technology and innovations when: (1) they have access to such, (2) the technology and innovations are affordable and appear to be a good value, and (3) they trust the organization or individual promoting the practice or technology.

How is the model being financed?

The SFRCs in this study were generally financed by a combination of:

- Cash infusions of supporting organizations (TLCC, CUHT, UHDP, SATC, FCI)
- International donors (SATC, UHDP, AH, NN)
- Sale of SFRC products and services (farm products and training costs) (AH, UHDP, SATC, NN, FCI)

Parent organizations generally provided the majority of start-up costs and continued to contribute significantly to yearly operating costs, at least during the initial years of the SFRC's establishment. While it is possible to generate a portion of operating costs via grant funding, this endeavor is time-consuming and requires a certain amount of expertise in order to become consistently successful. One SFRC in this study was reasonably successful in acquiring grants and felt that it was worthwhile to pursue. Most SFRCs were engaged in some type of on-farm activity, which generated an income stream to supplement other sources of support. Typically, these enterprises involved producing a commodity for sale, but increasingly the SFRCs were developing and conducting 'for-fee' training programs to clients seeking this service. Generally, the SFRCs in the study were not receiving government funding.

The religious components of the faith-based TLCC and CUHT/Siloam were supported by a combination of tuition from students, giving from local churches (denominational) and support from international church/mission agencies. The agricultural training and extension efforts are also supported by a degree of local church/denominational giving with considerable financial support from international partner churches and organizations. For TLCC and CUHT/Siloam, very little funding was derived from farm sales, though TLCC produces most of the rice and pork needed for resident students and faculty.

What are the challenges/shortcomings/limitations of the model?

The challenges or shortcomings of the SFRCs are:

- Rooted in a physical place and context
- Constant need to adapt to dynamism of changing community needs
- Leadership challenges, especially after the founding stage (lack of vision, feeling of defeat, leadership sustainability)
- Difficulty of transitioning from physical needs to more intangible needs
- See Table 4 for a representative SWOT analysis of one of the SFRCs



By definition, SFRCs rely on a physical location/farm that serves as the basis for the research, education and training activities. It is expensive to resource such centers and organizations tend to be hesitant to develop new SFRCs. While several SFRCs studied in this project demonstrate that SFRCs can generate income to cover a substantial portion of their expenses (SATC, AH, UHDP), many are far less successful in this regard and rely on support solely from а parent organization. This reality can be a barrier regarding 'scale-up' or duplicating SFRCs in other locations.

Finding qualified staff to operate SFRCs can also be

Training the Trainer: SATC's Sustainable Solution for Meeting AET (Agricultural Education & Training) Needs in Myanmar

As Myanmar opens up there is a large influx of NGOs, businesses and other development organizations, many of which focus on agriculture. Most of these organizations have limited experience with Myanmar's agricultural system/landscape, and so the need exists for short, focused trainings on a variety of Myanmar-specific agricultural topics. SATC, which has been working in Myanmar through the Myanmar Baptist Convention for many years, has a new agricultural training center and the needed experience to conduct such training. They have begun to utilize the SATC facilities to offer a variety of short and longer-term on-site, on-farm training for a variety of groups and organizations. In a win-win situation, the organizations receive valuable, appropriate training, while the SATC receives an important income stream that can ensure their continued sustainability.



challenging, as expertise is required in a range of disciplines including extension methods and farming practices. Additionally, to function optimally the SFRC director or management team should possess or acquire some level of training or experience in applied research methods. A skill set of this nature is often difficult to find in the local population. Compounding the problem is the recent increase in NGOs conducting agricultural projects in developing countries, thus increasing the competition for skilled staff. When a foreigner is involved in the creation of an SFRC, it is especially important to build local capacity and have a clearly defined succession strategy for when the foreigner is no longer around.

Stakeholders for both Chiang Mai based SFRCs expressed concerns about church/ denominational bureaucracies and/or related politics hindering overall efficiency and efforts. Additionally, it appears that among religious institutions, despite expressed intentions related to taking a holistic approach, agricultural training and extension components often take a budgetary and strategic backseat to the "main" religious activities related to theological education and church services. In such multi-activity institutions, the agricultural component (e.g. demonstration, training, extension) must be a real priority; otherwise such work is likely to be neglected. Any effective agricultural component will require competent management along with adequate funding and manpower.

Another concern is that SFRCs may be merely center-based in focus and work, with poorly defined target clientele and beneficiaries that results in little if any effective outreach. The dynamism between changing community needs, especially as needs change from tangible (food, water, shelter) to important intangible needs (e.g. citizenship, literacy, market access, cultural



preservation) requires that the SFRC constantly morph to meet the needs of the clientele or be left behind as an irrelevant.

How can this type of service be sustained beyond a defined project period?

To become sustainable, it is important for SFRCs to develop diverse funding mechanisms beyond sole support from the parent organization. Some have been successful in attracting competitive grant funding, developing income streams from products derived on their farm, and in recent years offering fee-based on-site training programs to agriculture development workers. As a result, a significant measure of outside investment is necessary. Harnessing a committed core patron (e.g., local and international church support, charitable foundation, international NGO, etc.) is one approach for accessing long-term funding in addition to attracting a diverse pool of additional donor partners with compatible interests. Unfortunately, many institutions lack the ability to connect with potential funding partners (i.e., limited English skills) and have little capacity to maintain essential responsibilities with regard to carrying out internal financial audits, providing necessary reports as well as developing compelling budget proposals that would satisfy potential donors.

Staff is often the most expensive component of SFRC yearly operating costs. Managers may need to be creative in their use of labor and consider alternative approaches for developing and implementing projects. This might involve placing greater emphasis on developing collaborative efforts with local farmers, whereby certain activities shift from the SFRC to the cooperating farm. Moreover, SFRCs might engage volunteers in a new way and tap into recent trends such as the "travel with a purpose" movement.

Long-term, flexible plans including succession and exit strategies must be thought out and applied with regard to key actors. These include parties who will play a role in the establishment of such institutions and those that will play a long-term role in managing the land, facilities and other assets and their appropriate use.

How can this model be scaled up or be applied in other contexts/countries?

The MEAS-funded assessment of these seven SFRCs in Southeast Asia revealed a range of attributes and activities that contribute to the success of this particular outreach model. To be effective, SFRCs should be sensitive to the local environment in which they operate and reflect the particular needs of these local communities. Additionally, appropriate funding mechanisms need to be considered. One size does not fit all, nor can an SFRC survive if it is "trying to be all things to all people." Rather, an SFRC should try to be "a few things to some people," and do those things with excellence.

Due to the complexity of the model (e.g., land requirements and related legal issues, funding, management skills), SFRCs may not be the first choice with regard to agricultural extension best practices. They should be incorporated as needed and under a particular set of circumstances, such as when the government extension model is non-existent, or when incapable, marginalized peoples are neglected from services, when a competing voice in agricultural development is needed for smallholders (i.e., a focus on improving the productivity of subsistence farming over commoditized cropping), and/or community needs are being unmet by traditional extension methodologies and services.



Best fit practices and lessons learned

- 1) Successful SFRCs focus on local farming communities but take advantage of appropriate opportunities to extend their reach and impact beyond their own locations and primary focus groups.
- 2) Successful SFRCs engage in a dynamic evaluation and demonstration process: SFRCs are not museums; they are dynamic, active and evolving centers of innovation.
- 3) Successful SFRCs develop stable income streams and critically evaluate them to maintain profitability, and to utilize them as training tools.
- Successful SFRCs are not islands. Instead, these institutions develop and maintain strong, vital connections to other centers of innovation such as universities, NGOs (ECHO), CGIAR Centers, etc.
- 5) Successful SFRCs grow organically in relation to funding as well as the capacity of the staff, capacity of the center, ability of the management, and relevance of the needs assessment of beneficiaries.
- 6) Successful SFRCs acquire the right amount and type of land for the center for a long-range goal. For example, AA bought too much land; UHDP wishes it had bought more paddy land along a river. Additionally, buildings and other physical facilities must be appropriate for the budget, activities, local environment, focus groups and other stakeholders.
- 7) Successful SFRCs always think about the long-term goal for the center and the extension work – are then commensurable? Incommensurable? Do they complement or compete against each other?
- Successful SFRCS continue to nurture and develop a multifaceted project repertoire, including language skills, cultural identity, and diversified income streams, which will all ultimately help to develop livelihoods.
- 9) Successful SFRCs constantly conduct needs assessments of the beneficiaries to remain relevant and ensure that their outreach methodologies are working. They also empower beneficiaries to share needs, prioritize needs, create solutions, and prioritize solutions and approaches to ensure that the center and extension is targeting the most important needs of the beneficiaries
- 10) Successful SFRCs realize that project management and evaluation is essential to ensure that goals and objectives are being met, finances are being used wisely, and livelihoods are being improved; they sometime use outside consulting services, if need be, to avoid being blinded by their successes and failures
- 11) Successful SFRCs realize that some of the most successful center and extension methodologies include a combination of approaches. These regularly include trainings and large group gatherings as well as site visits to see the success of similar farmer groups who have adopted relevant techniques and ideas. Overwhelmingly, approaches must include the routine interaction of designated extension agents with whom beneficiaries have built a relationship and repertoire. We feel that the importance of extension agents who are



connected with the center and its development of ideas and techniques and also with beneficiaries through personal relationships cannot be overvalued.

- 12) It is increasingly clear that meeting higher-order needs, such as gender issues, citizenship, language and land tenure can be more difficult than meeting basic physical needs like food, water, sanitation and housing. However, addressing such higher-order needs is often necessary to affect change related to the food security issues of groups such as stateless, marginalized communities. As appropriate, these centers should strive to meet such higher order needs. SFRCs should also realize that such needs and responses might require a degree of legal expertise and assistance that general agricultural and community development staff may lack.
- 13) Successful SFRCs realize that working within the existing legal and nation-state frameworks is often difficult, and may limit the scope and efficacy of the center. However, working within such frameworks is important for building legitimacy. In time, some of the hinderers may become advocates.
- 14) Successful SFRCs look for appropriate champions to advocate on behalf of the center. Ultimately, the fate of centers can rise or fall on the shoulders of these champions.
- 15) Successful SFRCs realize that profit sharing (if the SFRC has an income component) is important and leads to greater efficacy for all involved.

Conclusions

In our opinion, the seven SFRCS that we observed for this case study were filling an important need in bringing information, techniques, ideas, and material help to neglected communities. Although a diverse pool of seven farms was studied, several key themes emerged from the aggregation of the data, regardless if the farms were started for social or business purposes, the locations of the farms, and the diverse stakeholders the farms served.

All of the farms studied for the purpose of this project were affiliated with religious organizations; it is the opinion of the authors that the proud history of the SFRC as a religious institution in Asia for the meeting of physical needs has much to do with this fact. All of the farms were also serving underserved and/or marginalized populations on the fringes, even while farm products and trainings were utilized by diverse better-off stakeholders at the same time. It is our opinion that the model of the SFRC serves a valuable purpose in acting as a stopgap for these vulnerable populations that the established and/or formal extension sector might overlook (whether purposely or unintentionally).

The broad range of topics/services offered, and extension methodologies as uncovered by this survey were impressive. A combined 72,500 beneficiaries, averaging 10,357 per SFRC, are believed to be benefitting through the efforts of the 7 SFRCs (Table 2) in areas as diverse as: water and sanitation outreach, backyard gardening, livestock integration, container gardening, seed saving, renewable and bio-energy initiatives, appropriate technologies, education, school programs, citizenship and land rights, irrigation, underutilized plant identification and production, and agroforestry, among others. Some of the diverse extension methods used



included: on-center demonstrations, in-community demonstration, on-center trainings, incommunity trainings, study tours, conferences, and personalized extension agent visits.

These seven SFRCs are serving a vital and important role in collecting, verifying, and disseminating useful livelihood information to underserved and/or marginalized populations in Asia. Moreover, many of these centers are doing good work at a very effective and efficient scale of operation (Table 3). Although they receive funding from diverse income streams and many would thus not look "sustainable"- if sustainable is purely measured by the origin of the funding streams, many are looking to diversify their income streams and derive more income from on-farm origins and by training for services offered.

One of the hallmarks of the SFRCs studied was their ability to gauge needs of partner communities and shape their agendas and foci to those needs. As the SFRCs met community needs, extending information and materials to those communities, one of the derived benefits was the verification and adaptation of those materials by the community, helping to further strengthen the expertise and relevance of the SFRC in a positive feedback loop (Figure 3). And, as community needs are often complex and dynamic (as seen with UHDP, in which objectives changed from merely addressing tangible needs (food, water, shelter) to including more intangible (but still important) needs (citizenship, land tenure, education, cultural preservation), the ability of an SFRC to remain relevant rested upon its continued ability to conduct and respond to needs assessments. This is a lesson that many government and official extension agents would do well to learn from their not-for-profit counterpoints.

Overall, it is our opinion that SFRCs are not antiquated, but adaptable to meet the changing needs of the clientele to whom they aspire to serve.



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Tables and Figures

Table 1. Seven Small Farm Resource Centers (SFRCs) participating in the MEASassessment project by location.

SFRC Name	Location	Director/Contact
Ntok Ntee	Mondulkiri, Cambodia	Ken Thompson
FCI	Indochina	Contact Authors
Sustainable Agriculture Training Center (SATC)	Hmawbi, Myanmar	Saw Hei Moo
Aloha House	Puerto Princessa, Philippines	Keith Mikkelsson
Siloam Karen Baptist Life Development Center (CUHT)	Chiang Mai, Thailand	Suwan Jantarayut
Thai Lahu Christian Churches (TLCC) Bi-Vocational School	Doi Saket, Thailand	Marting Chaisuriya
Upland Holistic Development Project (UHDP)	Mae Ai, Thailand	Bunsak Thongdi



Figure 1: Locations of seven surveyed Small Farm Resource Centers (SFRCs) around Southeast Asia.



Name of SFRC	Location	Year Founded	Size of Farm	Registration Status (NGO, Dev.Org., etc.)	Cost to Build	Yearly Operating Costs	Income Streams (General) and breakdown %
CUHT	Chiang Mai, Thailand	1960	9.1 acres/ 3.7 ha	Christian Service Foundation	Not reported	Not reported	Donations from TKBC churches, American Baptist Churches and other international church organizations; student tuition, handicraft sales and ITDP rent
TLCC	Doi Saket, Thailand	2001	6.72 acres/ 2.72 ha	Rural Care Foundation	\$428,571 USD	Not reported	Donations from TLBC churches and Reach Global (EVFUSA Churches), student tuition, rent from Go-Ed,
Aloha House	Puerto Princessa, Philippines	1999	6.9 acres/ 2.8 ha	Non-stock, non-profit NGO	\$40,000 USD	Net profit of 15%	Provides 75% of food needs for orphanage and offsets 25% of operating costs; Income from farm products, trainings, events, catering, consulting
FCI	Indochina	2009	111.2 acres/ 45 ha	Registered business	\$350,000 USD	\$40,000 USD	Sale of organic produce to largest town in the country, 1.5 hours away; trainings
UHDP	Mae Ai, Thailand	1996	15 acres/ 6.1 ha	Registered Thai NGO	\$150,000 USD	\$17,030 USD	Training fees, lodging fees, ECHO Asia Seed Bank rental, sale of SFRC products, donations
SATC	Hmawbi, Myanmar	2005	79 acres/ 32 ha	Registered Myanmar NGO	Not reported	Not reported	Training fees, lodging fees, sale of SFRC products such as seed, plants, educational literature, consulting, donations
Ntok Nee	Mondulkiri, Cambodia	2012	7.5 acres/ 3 ha	Registered Cambodian NGO	Not reported	Not reported	Fruit plants, hardwood seedlings and livestock sales, donations
Average		16 years	33.6 acres/ 13.6 ha		\$242,123 USD	\$28,515 USD	

Table 2: A comparison of the 7 SFRCs and their average costs, stakeholders, beneficiaries, and notable approaches.

Table 2a: A comparison of the 7 SFRCs and their average costs, number of on-center activities, and outreach per unit of cost.

Name of SFRC	Cost to Build	Yearly Operating Costs	Number of On- Center Activities (Approximate)	Initial Cost Per On- Center Activity	Cost Per On-Center Activity Over Years of Operation	Initial Cost Per Beneficiary Served in 1 Year	Initial Cost Per Beneficiary Served Over Years of Operation	Operating Cost Per Beneficiary Served
СИНТ	Not reported	Not reported	20	NA	NA	NA	NA	NA
TLCC	\$428,571 USD	Not reported	10	\$42,857 USD	\$3,571 USD	\$35.7 USD	\$2.9 USD	NA
Aloha House	\$40,000 USD	Net profit of 15%	50	\$800 USD	\$57 USD	\$2.0 USD	\$0.14 USD	NA
FCI	\$350,000 USD	\$40,000 USD	15	\$23,333 USD	\$5,833 USD	\$116.7 USD	\$29.2 USD	\$13.3 USD
UHDP	\$150,000 USD	\$17,030 USD	200+ combined	\$750 USD	\$44 USD	\$21.4 USD	\$1.3 USD	\$2.4 USD
SATC	Not reported	Not reported	6	NA	NA	NA	NA	NA
Ntok Nee	Not reported	Not reported	5	NA	NA	NA	NA	NA
Average	\$242,123 USD	\$28,515 USD	44	\$16,935 USD	\$9,505 USD	\$43.9 USD	\$8.4 USD	\$7.9 USD

Name of SFRC	# of Staff	Number of On- Center Activities (Approximate)	Number of Off-Center Activities (Approximate)	# of Stake- holders	# of Beneficiaries Served	Notable Activities or Unique Approaches
СИНТ	~ 20 combined	20	NA	5	17,500 people	Religious education, agriculture and community development, handicrafts and organic coffee processing
TLCC	~ 10 combined	10	NA	5	12,000/ 40 congregations	Religious, agricultural and vocational training as well as offering support to TLCC churches
Aloha House	~ 14	50	5	~25	20,000 people	orphanage and sustainable farm created simultaneously; profit sharing with employees; farm supplies 75% of food needs of orphanage and 25% of operating costs; only own 10% of land
FCI	~14	15	3	5	3,000 people	Surviving in a difficult country as a business with a positive social and environmental presence provides challenges
UHDP	~15	200+ combined		~15	7,000 people	Over 200 on and off-farm demonstrations, approaches and techniques used; uses a 70/30 village cost share system for large projects
SATC	~6	6	2	~25	10,000 people	Agricultural and vocational training and outreach to marginalized communities, diverse mix of income streams
Ntok Nee	~5	5	NA	~10	3,000 people	Well-developed plant and livestock demonstration, evaluation and introduction program
Average	~12	44	3.3	12.9	10,357 people	

Table 2b: A comparison of the 7 SFRCs and number of on- vs. off center activities, reach, and notable activities

Table 3: Representative SWOT analysis from one of the SFRCs

(Answers in regular text were given by the interviewees while answers in bold are the opinions of the evaluators)



Weaknesses	Threats
 Some staff lack English language communication skills 	 Government policies can change and hinder work
 Weaknesses Some staff lack English language communication skills Communication is a challenge when other groups from other countries show up Documentation of what works and sharing that information (retaining institutional knowledge) Vehicles (not enough) Not enough water for the center Road could be improved (neglect by local government; inaccurate perceptions that it is a foreigner owned center) Far away from main city Low salary for employees (although with benefits, may be better than some government jobs) Poor soil at center Can't handle large number of visitors (language, accommodation, limited number of staff) Target group (Palaung) lack legal representation Location can be hard to get to 	 Government policies can change and hinder work Thai state corruption can hinder work Thai state illegal economic practices / black market and businesses hinder work and progress of focus groups Target group (Palaung) lack legal representation- makes it very difficult to help them sometimes Fundraising is competitive –many organizations competing for the funds Outreach approach and methods are competitive (UHDP provides 30/70 when giving a project to a village, but others give activities free of charge) Community issues are changing- harder to meet needs Donors have their own expectations (don't always line up with mission of UHDP) Global economic crisis Staff capabilities not increased Thailand seen as "middle income" country – less money to Thailand organizations Funding could be pulled at any time Burma border skirmishes / Wah State Army incrusion
	 Staff institutional knowledge not passed
	Incursions – Staff institutional knowledge not passed
	along or staff go back home
	 Lack of water and no access to stream or river





Figure 2: Representative input-output loop from one of the SFRCs.



Figure 3: Cycle of extension knowledge refinement between communities and an SFRC



