

UPLAND HOLISTIC DEVELOPMENT PROJECT (UHDP), THAILAND

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1. 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 research-extension 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).



ECHO facilitated an assessment with UHDP staff.

2. Methodology

The data was collected by 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

understand 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 on and off center.

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 understand perceived extension effectiveness and its impact on farmers,

their livelihoods, and food security. These assessments utilized SWOT analysis, visits, brief interviews and systems modeling of perceived extension practices.

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



ECHO Asia facilitated an assessment with UHDP's stakeholders to evaluate the organization's effectiveness.

3. Findings

Background of Center

American missionaries Rick and Ellen Burnette began the Upland Holistic Development Project (UHDP) in 1996 with the aim of improving the livelihoods and nutritional status of hilltribe groups in northern Thailand. Basic needs assessments were conducted that first year using participatory approaches and survey trips, and identifying rare, neglected and underutilized plants and agricultural techniques among marginalized peoples. Much of the focus was on the Dara Ang (Palaung) people, who were recent immigrants from Burma, and later, on the Lahu and Kachin, many of whom were living in difficult situations as swidden-fallow agriculturists on the margins of national parks and national forests. The center was established in 1997 with the rental of 15 acres of land and subsequent purchase of that

sloping upland area in 1998. The first staff person was hired at the end of 1996, and the agricultural focus was on pig husbandry, backyard gardening, alley cropping and agroforestry. Throughout subsequent years, the center continued to expand, build infrastructure, hire staff members, raise animals, reclaim land through agroforestry and associated practices, and extend information, seedlings and practices to farmers through national staff members (Figure 2). This increase in infrastructure and outreach activities was all made possible by a growing budget (mostly international). It is estimated that the start-up costs associated with purchasing land and developing facilities over the first five years were approximately \$150,000.

Today, UHDP comprises 15 acres and about 20 buildings, including a meeting hall/kitchen, library/meeting room, office, staff houses (seven), a volunteer house, guest housing

(three houses for visitors/trainees, one dormitory, one guest house); nurseries, pig pens, animal rearing areas, a fish pond, a seedbank (operated by ECHO but rented from UHDP), numerous plant grow-out areas, agroforestry areas and common areas. UHDP has 15 full-time employees and is part of the Christian Service Foundation under the Church of Christ Thailand, with a board of trustees consisting of five members and one director. It is classified as a local NGO based in Thailand. Last year, UHDP had an operating budget of approximately 500,000 THB (\$17,030), which was sourced internally from training fees (120,000-200,000 THB), lodging at the guest house (100,000-200,000 THB), rental fees for the ECHO seedbank (100,000-150,000 THB), the sale of products sourced from the center (100,000-150,000 THB) and individual donations (100,000-150,000 THB).

upkeep, demonstrations, animal husbandry, research and development, and creation of outreach and administrative materials; the Program Department is tasked with village extension work, information dissemination, needs assessment, and project monitoring and evaluation. Some of the focus groups of the center include representatives of other organizations (local, national and international), students (Thai and international), farmers, schools, churches, ethnic peoples' networks, colleges and universities, and government entities. ECHO Asia is also a local stakeholder -- it uses the center as a seed production location and extends the outreach of UHDP beyond northern Thailand by integrating many of the proven UHDP techniques and methods into its global network of information dissemination.



A picture of the UHDP SFRC entrance.

The mission statement of the organization is: "UHDP seeks to provide an appropriate Christian response related to rural development among increasingly marginalized hilltribe people in the Golden Triangle region of Southeast Asia. Taking a participatory approach and emphasizing relational, community-based involvement, the UHDP aims to offer relevant and sustainable options that will empower hilltribe communities to rise above serious threats to their traditional rural livelihoods." The main purpose of having the center as part of the project is to demonstrate various appropriate techniques and methodologies of integrated upland farming and, at the same time, to provide a place for research and study of new techniques for farmers in northern Thailand and upland farmers in the Golden Triangle region of Southeast Asia.

The number of stakeholders with which UHDP works is staggering and includes beneficiaries that benefit from both center-based and outreach activities. Two primary stakeholders are represented by the organization's two departments: the Small Farm Agroforestry Center (SFAC) and the Program Department. They are complementary but work in different spheres. The SFAC is primarily tasked with



Some of UHDP's programs include appropriate technology, pig husbandry, and help for villages in acquiring legal/citizenship status.

Currently, staffing and resources are split between the Program Department, which mainly works with target villages (21), and the Small Farm Agroforestry Center (SFAC) Department, which runs and organizes the operations of the center. Bunsak Thongdi has directed the overall project since 2007. The SFAC Department consists of five staff members: a training program manager, who oversees the organization of the training programs for both target groups and groups from other organizations and countries; a center development manager, who oversees operations of the center's agricultural activities, training program, research projects and

volunteers; a small-scale livestock specialist, who answers to the center development manager; and an agroforestry specialist, who also answers to the center development manager and takes care of the agroforestry plots; and a temporary staff person, who helps with the overall activities at the center. The Program Department has seven staff members who speak Black Lahu, Yellow Lahu, Karen, Akha, Palaung and northern Thai and mainly work in the extension realm in the target villages.

The main beneficiaries of UHDP are the hilltribes in northern Thailand, such as the Dara Ang (Palaung), Lahu, Akha, Kachin, Karen and Shan. Secondary target groups include northern Thai farmers, farmers in other areas of Thailand and neighboring countries, and staff members from local, national and international NGOs, government departments and other organizations in Thailand and internationally. The SFRC exists to serve these beneficiaries by using a teaching methodology that is foremost empowering, seeking to build the capacity for farmers for decision making with the goal of fostering the adoption of techniques and methodologies of sustainable agriculture and appropriate technologies (Table 2). The center also benefits from this participatory approach by receiving suggestions and input from farmers about projects, research and experiments that should be conducted that will directly affect those farmers' lives and livelihoods.

Twenty out of 21 of the main target villages in which UHDP works have an average annual household income of less than \$1,000, and the majority earn that income from agricultural activities. Through these communities alone, UHDP has the potential to reach a population of 7,944 people.

The SFAC hosts trainings and workshops provided for farmers by the Program Department (those working in extension in the target communities) on agroforestry, backyard agriculture, integrated upland farming, organic methodologies and appropriate technology; provides demonstrations of agricultural methods and techniques; provides research and development of techniques for the extension team (Table 3); provides materials for the beneficiary communities such as tree seedlings, seeds, piglets, frogs, ducks and chickens; and allow other networks (the Dara Ang Network is one of the most notable) to use its meeting facilities. In addition to these village beneficiaries being supported by the SFAC, the center hosts approximately 2,000 to 3,000 additional visitors per year, including farmers from other countries, community leaders, local and international NGO staff members, government officials, students in Thailand and other countries, pastors and church leaders from Thailand and other countries, volunteers, and children from government schools, Christian organizations and orphanages.

The main thrust of UHDP extension happens through four key extension tools: demonstration at the village level with volunteers and farmers, trainings at the center for farmers

and interested groups, exposure trips for farmers to visit the center and other communities, and publications and websites. One of the major changes that the UHDP is considering is to become a registered Thai foundation, which would give it more flexibility and authority to issue work permits and visas for visitors and volunteers. It also hopes to become 100 percent self-supporting for the operational costs of the center and to be able to provide 20 percent of the extension work costs with income generated by the center.

Center Efficacy

Using SWOT, interviews and ranking, we measured and gauged center efficacy to assess relevance and impact. Eight staff members were in attendance: the office manager / accountant, the nursery manager, two livestock staff members, a research and technology staffer, a village program staffer, the UHDP director and the ECHO seedbank manager.

From answers to open-ended interview questions, several themes emerged related to what worked well and didn't work well when the center was established. When the center was established, the following worked well: keeping a focus on agroforestry, a need that was identified during village need assessments; focusing on the training of villagers via study tours to see other villagers practicing sustainable agriculture, other centers practicing sustainable agriculture and other organizations practicing sustainable agriculture; integrating a demonstration component into everything that the center conducted; encouraging strong social and community interaction and relationships between communities and the center staff; and fostering a research and technical development component and spirit at the center. If the UHDP staff members were able to establish a center all over again, they would: create their own registered Thai foundation, so as to not be dependent on other foundations; make sure the center has its own goals and purposes beyond the overarching goals of the entire project for outreach; choose a site with ample land and a paddy field with water access (a big problem for the center); choose personnel on the basis of their skills and gifts; include more economically important crops into the agroforestry focus, not just edible plants without market value (although see the next section for a cautionary tale); do a better job of documenting institutional knowledge; and continually monitor and evaluate the demonstration and extension work that happens at the center.

The input and output budget for the center is very impressive, and it appears that most of the systems and cycles are very tight. Very few economic and environmental inputs go into the center, yet the output in demonstrations and deliverables is significant (Figure 3).

SWOT analysis was quite comprehensive (Table 4) and led to very good past recollections and future directions. A few of the strengths that have led to the successful operation of the

center and its outreach include: skillful staff members; a clear and motivated leadership succession; multi-organizational work with interest in partnerships from the beginning to leverage knowledge and skill sharing; a holistic, multifaceted development approach to the project that has allowed it to continually evolve and change as needs change; the diversity of outreach (200+ approaches!), which reduces risk and allows projects to change and morph as needs change; good relationships with villages, which has created long-standing knowledge sharing and fostered communal development; and the fact that many of the UHDP center and project staff members come from similar ethnic and economic backgrounds and understand the needs of the communities with which they are working.

Weaknesses of the project include: the location for the center lacks consistent water, is far from Chiang Mai and has a poor road (but also exhibits many of the same challenges that the target communities face and must overcome); English language skills are lacking, and this is a challenge when hosting international groups; the center is in such demand that it can't handle the large number of visitors; the retention of institutional knowledge needs to be improved; and working with a target group (Palaung) that lacks legal/citizenship status is difficult because of the group's tenuous relationship with the government and land title, and hence their ability to practice sustainable agriculture.

Opportunities for UHDP include: its prime location in Thailand and near Myanmar could help UHDP become a regional hub for development in Southeast Asia; the center has a reputation and a good name that it can capitalize on for increased funding and outreach; UHDP has already been testing and promoting climate-change mitigation approaches and may become a leader as a demonstration center for these techniques and may pursue carbon crediting for these measures; there is increasing interest and need for UHDP to continue its outreach to other groups and tribes, not only in physical measures but also in culture conservation, literacy, and education; and there is potential for increased training and marketing to help cover the operational costs of the center, contingent upon capacity for improved staff English skills.

Although there are many opportunities for UHDP to continue to increase its outreach activities, threats do concurrently exist: policies and practices by the government of Thailand may make it difficult to continue the work (e.g., corruption, illegal economic practices, changing policies, and lack of legal representation and citizenship of target villages); changing community issues make it difficult to meet needs (sometimes physical needs -- water, food, shelter, etc. -- are easier to meet than other felt needs that are more deeply rooted in culture- gender issues, legal representation, eroding cultural values, migration, education, etc.); donor expectations don't always line up with the center's expectations and values; fundraising is competitive, and funding may not always be

available; and other organizations may hinder the overall efficacy of UHDP by creating dependency (e.g. UHDP does a 30/70 village/UHDP cost-share agreement when doing a village project, but other organizations may give projects free of charge, therefore undermining UHDP's approach). Among other threats are political and economic destabilization in Southeast Asia.

Extension Efficacy

Two villages that have been working with UHDP for various lengths of time were surveyed. The first village, Ban Huay Wai (BHW), located just 10 km from the center, is a Palaung village, which was settled in 1980 by five families lacking Thai citizenship or paperwork. These families originally worked with the Royal Forestry Department, making 30 THB per day. Because UHDP's earliest target beneficiaries were Palaung, the village was approached in 1995, along with other Palaung villages. The village did not begin working with UHDP until a crisis struck in 1999, when 11 of the 25 houses in the village burned down. UHDP's response was to help rebuild the homes and provide essential utensils to the villagers along with the construction of latrines, a water supply and the introduction of pig production. Infrastructure projects were on a cost-share basis, where the village provided 30 percent of the project costs and UHDP provided 70 percent; likewise, the livestock and pig production was on a pig-sharing basis -- villagers returned two piglets of every subsequent litter back to UHDP.

Since that time, the village has worked closely with UHDP in a variety of projects: agroforestry outreach (knowledge, seedlings, support), backyard gardening establishment, women's groups and handicrafts creation, an animal feed group to help purchase feed, citizenship and ID card procurement, green manure cover crop adoption, health checks and primary medical care, savings group establishment, alternative protein sources (frogs), alternative cook stoves, and involvement in the Dara Ang (Palaung) Community Network, among 15 identified accomplishments by the village.

UHDP has been able to facilitate the improvement of the livelihoods of this community through its outreach activities in various ways, including increased sanitation and hygiene in the village because of sanitation and water projects; increased tenure, market access and reduced fear because of the security that citizenship brings; greater self-sufficiency due to adoption of backyard agriculture and agroforestry, which in turn also provide a small income with very few inputs; and decreased expenses because of the appropriate, relevant cropping and techniques that UHDP promoted and the community adopted (Table 5).

The process of extension that UHDP uses in the village was explained to us as this: UHDP first has a training about a topic, such as pig husbandry; then, after gauging interest, UHDP provides a kick start of piglets in the village and

anything else needed by the villagers to raise the pigs; simultaneously, one of UHDP's extension agents begins individual follow-up with the farmers to provide support and expertise about pig rearing; and as part of UHDP's initial agreement with the farmers, the center receives two piglets back from every litter to use as capital in new projects. The villagers were very clear about the process and appreciated its simplicity and efficacy.

The particular resources and techniques that the villagers of Ban Huay Wai have found most helpful in contributing to improved livelihoods were: need- and village-based training on animal husbandry and nutrition; introduction of new ideas and methods (red beans, intercropping and frog protein, among others); UHDP meetings that three village representatives attend twice a year; regular consultations and village meetings with UHDP's designated extension agent, which give villagers a chance to discuss problems, walk fields and have specific trainings on techniques; and study tours, which were quite instrumental in allowing villagers to visit other villages and see successes being practiced by beneficiaries in similar situations.

Interestingly, when asked how UHDP's extension could better help their livelihoods, the predominant needs were not physical but social, such as the need to preserve their unique culture that they see slipping away as children grow up and become more like Thais; the need to learn to read and write Thai, which, they pointed out, will help their livelihoods because it will better tie them to markets and ensure they are not cheated on bills and formal documents; and the need for senior citizen cards, which will allow their elderly to access government medical and social security networks. It is clear that their needs have changed from merely physical to these higher order needs over the past 15 years as a result of UHDP's continued efforts on their behalf.

The second village interviewed for this project was the village of Ban Dang Nai (BDN), also a Palaung village but located in Chiang Dao district of Chiang Mai province. Villagers settled there in 1984 under similar conditions to the residents of Ban Huay Wai, but they began working with UHDP in 1997 without a crisis. The first practice that UHDP introduced was the introduction of SALT (sloping agricultural land technology) and use of pigeon pea for hedgerows to prevent soil erosion in the highly sloping hill fields located around the village. That involvement led to other development and livelihoods improvement projects such as water systems (1998), latrines and village hygiene, agroforestry, backyard gardening and approximately 18 other such projects very similar in scope to those at Ban Huay Wai (Table 5).

One of the key catalysts for the continued agricultural and livelihood development of the village was the introduction of a village extension agent (who also works with Ban Huay Wai) in 2003, providing a personal relationship and a trustworthy individual to whom the villagers could turn for ideas,

techniques, training and solutions to problems. Specific techniques that the villagers mentioned that UHDP had used for extension are: visiting and having meetings specifically related to PRA and needs assessment to give the community a voice of self-determination in choosing their development trajectory; offering advice and suggestions through the community extension agent; introducing new ideas; trainings at the UHDP center; trainings hosted by the village, and site visits to other similar communities that have adopted ideas and techniques that have improved livelihoods.

As in Ban Huay Wai, some of the accomplishments that Ban Dang Nai villagers were most proud of included not only tangibles such as water supply systems, reintroduction of important plants, and introduction of agroforestry and other agricultural techniques, but also intangibles such as savings groups to bolster the community's resiliency, Thai language study to empower the community, and the encouragement of the creation of the Dara Ang Network to aid Dara Ang communities in their livelihood and cultural struggles. It is the authors' opinion that UHDP has been providing for the well-being of people in all their multifaceted needs, and we encourage other SFRCs to do the same as an organic outgrowth of needs prioritization.

When asked what the villagers of Ban Dang Nai would like to see most from continued interaction with UHDP, their response was a very tangible need: they would like UHDP to help them develop and/or source a rattan splitter, much like a bamboo splitter, which reduces the workload of many communities depending upon bamboo as a building material

Overall results of polls from these two villages suggest that Ban Dang Nai has an overall greater esteem for how the work of UHDP has improved their livelihoods -- 4.5 versus 3.9, where 1=much worse and 5=much better. In all categories, however, both villages acknowledged that their lives were at least a little better to much better because of the work of UHDP, and both villages decidedly acknowledged that, overall, the center and its outreach activities had made their lives much better (4.6 for BHW and 4.8 for BDN) (Table 6). The difference in village perceptions may be due to the difference in the amount of time that UHDP has been working in those two communities, circumstances that led to a partnership with UHDP (BDN was one of the first villages involved, while BHW became involved in the work several years after the center was established), differences in the demographics of the villages or other factors. Conclusively, however, both communities strongly (4.6 for BHW and 5 for BDN) feel that UHDP's work should continue to increase its outreach among the communities.

4. Summary

Background of Center

- UHDP was begun in 1996 by American missionaries but is now nationally directed and run as a local NGO, with a

15-acre SFRC and outreach among 21 villages in northern Thailand

- The project was rooted in needs assessment to define the needs of the target population. This led to a deeper understanding of needs, local knowledge and skills, and cultural understandings, and, we feel, a better efficacy in meeting those needs. It is recommended that UHDP continue to employ PRA among its target beneficiaries to remain relevant and focused on their ever-changing needs.
- The project consists of two components: the Center Department, which maintains the SFRC, creates information and techniques, and refines information and techniques; and the Program Department, which works directly with communities in various capacities and projects demanded by the context of the community.
- From the beginning, extension and center activities have been linked and are interdependent. The center activities exist to create and refine knowledge, techniques, plant varieties and appropriate technology that have been born out of needs assessment from extension activities. Similarly, extension activities exist to extend the abovementioned deliverables to communities and seek to have communities adopt, adapt and refine those, sharing that information learned with the center. In effect, the two activities complement each other in a positive reinforcement loop.
- Currently, 12 UHDP staff members work on some 200 projects among 21 local communities, and host some 3,000 visitors to the center annually, which include representatives of local NGOs, international NGOs and local people movements.
- The center grew in relation to its available capital, the needs of the communities and the capacity of the staff.
- Although begun by an expatriate family, the center now is overseen by a local board, managed by a national director and staffed by people from many of the beneficiary ethnic groups and communities.

Center Efficacy

- The center is keenly aware of its unique position to benefit many marginalized and neglected hilltribes in northern Thailand as well as hosting many NGO and government officials from both Thailand and other countries, greatly increasing its outreach abilities and presence.
- The project maintains an integrated spirit, even though it has a clearly defined Program Department (tasked with outreach and extension) and Center Department (tasked with the upkeep of demonstrations and the center, and the conduct of new research). Both are utilized in a feedback loop cycle that ensures that information from the field flows into and shapes the priorities of the center while the center creates and tests knowledge that

flows back out to the communities, which test the techniques and information and provide feedback on improvements.

- Throughout the years, the focus of the center has changed to reflect changing economic and livelihood needs of its beneficiary communities, changing government intervention in Thailand and a changing context, which helps to keep the center and its extension relevant and beneficial.
- If the center was to be started again, a location with paddy field and ample water would be a key priority.
- Although weaknesses and threats do exist, many opportunities may present themselves. Among the most significant is the opportunity for UHDP to be a regional hub for knowledge creation and transmission throughout Southeast Asia because of its strategic location near Myanmar, China and Laos

Extension Efficacy

- One of the villages was initially reluctant to become a beneficiary of UHDP's outreach work; it was only after a crisis (village fire) struck that the village was ready to engage. Since that time, it has actively received, refined and used information and has engaged in around 15 projects with UHDP
- Most of the growth and engagement in UHDP's projects was organic and occurred over a time span of 15 years, and it continues to grow on the basis of the needs and input of the villages.
- One of the villages (Ban Dang Nai) made it a priority to tell us about the rattan plant and how it was going extinct in their area in the early 1990s, until Rick Burnette made it a priority to determine the needs of the community. Villagers identified rattan as one of their needs (cultural and edible), and then Rick began to search out rattan seeds and seedlings to help meet that need. In time, rattan was adopted again and grown by the community, and it has been heralded as one of their greatest accomplishments, made possible by an extension agent listening to them and focusing on meeting that need. If Rick had not rooted development in needs assessment, one of their greatest needs would have possibly remained unmet. Likewise, needs change, and therefore, needs assessments must continue to inform the work of the center and extension.
- It is apparent that the communities with which the project works are incredibly thankful to the project for its involvement in bettering their situation. Surveys showed that, because of the intervention of the project and its extension work, agricultural productivity, livelihoods, health and sanitation were improved in target communities, whose residents were impressed with the efficacy of the project.

- Overwhelmingly, communities desired to see the project continue to play a role in the communities to empower them and better their livelihoods, not only through physical interventions but also through cultural development, language skills acquisition and citizenship rights.
- It is increasingly clear that meeting higher order needs such as gender issues, citizenship, language, land tenure, etc., is often more difficult than meeting physical needs such as food, water, sanitation and housing. UHDP should strive to meet these higher order needs but realize that they are often harder to obtain and take more time to meet than physical needs.

5. Recommendations and Future Directions

- UHDP should stay within its means while growing its support base. It should grow organically in relation to the size of its budget and what it can realistically accomplish. Funding support must continue to be nurtured and diversified to weather periods of sporadic or destabilized giving.
 - UHDP should keep the center's priorities in line with the circumstances and needs of the specific focus groups by continuing to conduct needs assessments of its beneficiary communities. Needs constantly change and should be prioritized by each of the communities.
 - If there is a split focus between the center's activities and extension because of funding, UHDP should always focus on extension as the means to change people's lives.
 - UHDP should grow organically in the size of the operation. It should be sure that funding is available and that new projects are in keeping with the overall vision of the organization.
 - As the 15 years of engagement between UHDP and some of its beneficiary communities show, a long-term vision and outlook are essential for meaningful projects and outreach to occur.
 - Knowledgeable local staff members with working relationships with the communities are essential for continued efficacy.
 - UHDP should continue to nurture and develop a multifaceted project repertoire, including language skills, cultural identity and diversified income streams, which will all help to develop livelihoods.
- UHDP should continue to use a cost-sharing approach for village projects, even though other organizations may give away projects. The 30 percent buy-in by the village transfers ownership and accountability to the village without creating dependency.
 - If staff members are spread thin, UHDP should continue to hire knowledgeable, local people from beneficiary and target communities and similar ethnic groups.
 - UHDP's location in the crossroads of Asia -- between Laos, Myanmar and southern China -- is a strategic location for creating strong linkages with other organizations working among similar ethnic minority groups. UHDP should continue to bolster these partnerships and connections.
 - UHDP's relationship with the ECHO Asia seedbank is reciprocal and value-added because both organizations can share knowledge and techniques, germplasm and a common vision for improving the livelihoods of the poor. This relationship essentially extends UHDP's reach around the globe and brings a world of knowledge to UHDP.

6. References

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7. Tables and Figures

Table 1. The seven small farm resource centers (SFRCs), assessed as part of this MEAS case study series.

SFRC Name	Location	Director/Contact
Ntok Ntee	Mondulkiri, Cambodia	Ken Thompson
Farm Center Indochina, FCI	Indochina	Contact Authors
Sustainable Agriculture Training Center (SATC)	Hmawbi, Myanmar	Saw Hei Moo
Aloha House	Puerto Princessa, Philippines	Keith Mikkelsen
Center for the Uplift of Hilltribes (CUHT)	Chiang Mai, Thailand	Suwan Jantarayut
Thai Lahu Christian Churches (TLCC) Center	Doi Saket, Thailand	Marting Chaisuriya
Upland Holistic Development Project (UHDP)	Mae Ai, Thailand	Bunsak Thongdi



Figure 1. Locations of six of the small farm resource centers surveyed around Southeast Asia. The location of the Farm Center Indochina (FCI) is not disclosed.

Table 2. Techniques (blue), methodologies (red) and objectives (green) of UHDP by sector.

UHDP Techniques, Methodologies and Objectives
<p>Soil conservation and soil improvement</p> <ul style="list-style-type: none"> • Indigenous microorganisms (IMO) • Living barriers <ul style="list-style-type: none"> ○ Using grass (vetiver) ○ Using pineapple and Flemingia (<i>Flemingia macrophylla</i>) ○ Using native plants such as fishtail palm, papaya, lemon grass, etc. • Soil improvement <ul style="list-style-type: none"> ○ Reduction of land tillage ○ Reduction of field burning ○ Growing legumes <ul style="list-style-type: none"> ▪ Overlay cropping ▪ Relay cropping • Reduction of chemical usage <ul style="list-style-type: none"> ○ Training on safety of using chemicals and how to use less ○ Using alternative methodologies/technologies instead of chemicals • Making compost in upland fields <p>Objectives</p> <ul style="list-style-type: none"> • Farmers will be able to use the land for the long term. • Farmers will reduce their costs and continue to have good production for the long term. • Good health for farmers and the environment.
<p>Backyard agriculture</p> <ul style="list-style-type: none"> • Protein production <ul style="list-style-type: none"> ○ Raising chickens ○ Raising ducks ○ Raising frogs ○ Raising catfish ○ Growing mushrooms ○ Raising pigs • Vegetable production at the household level <ul style="list-style-type: none"> ○ Growing native plants ○ Making organic materials/fertilizers to grow vegetables <ul style="list-style-type: none"> ▪ Making and using compost ▪ Making and using IMO preparations ▪ Making and using natural pest controls ○ Using local species/plants <ul style="list-style-type: none"> ▪ Growing vegetables in limited space and containers <p>Objective</p> <ul style="list-style-type: none"> • To use limited space to grow/produce safe food.
<p>Agroforestry</p> <ul style="list-style-type: none"> • Establishing farmer groups • Growing Robusta coffee in agroforestry plots (at UHDP) • Growing bamboo in agroforestry plots (at UHDP) • Using living fences to protect agroforestry plots from livestock • Producing seedlings and establishing tree nurseries at family and village levels <p>Objectives</p> <ul style="list-style-type: none"> • To use degraded land to produce food and generate income. • To preserve local species and local knowledge. • To increase green areas for environmental preservation purposes.

UHDP Techniques, Methodologies and Objectives

Environment

- **Alternative energy**
 - High-efficiency stoves
 - Hydropower for electric generators
 - Biogas systems
- **Water management**
 - Checking water quality
 - Checking levels of creeks and rivers
 - Checking species diversity in water
- **Wildlife preservation**
 - Raising awareness among local peoples
 - Preserving local and forest species
- **Community forest management**
 - Replacing trees after cutting
 - Networking and cooperating with various parties in communities and areas
 - Making firebreaks
 - Mapping community forests
 - Establishing regulations and rules to manage natural resources at the community level
 - Establishing forest guardians
 - Establishing village tree nurseries

Objectives

- To increase the participation of local villagers for natural resources management for sustainability.
- To produce food and materials for local communities.
- To empower communities to select a suitable source of energy for their communities.
- To preserve local plant and animal species.

Health

- **Sanitation**
 - Building and using latrines
 - Making water filters
 - Building family water tanks
 - Constructing village water systems

Objectives

- To help communities access sufficient water throughout the year
- To prevent individuals from contracting water-borne diseases
- To provide the communities sufficient water for their backyard agriculture

Table 3. Research conducted by UHDP related to development solutions and current state of the research.

Technology or Topic	Status (continuing or finished)	Expectations
Use of hydropower generator	Continuing	Pursue when funding is available in communities
Rocket stove	Continuing	Understand design; estimate cost of construction
Wind power	Continuing	Understand design; estimate cost of construction
Gasifier stove without electric fan (Burmese)	Continuing	Make sure it works properly; make adjustments
Bamboo worm for consumption	Continuing	Replicate the process used by local NGOs and local farmers; refine design
Water filter -- gray water	Continuing	Determine effectiveness of filter; estimate cost for farmers
Cook stove/charcoal maker	Continuing	Determine that stove is effective; improve design
Snakehead fish production	Continuing	Replicate the process used by local farmers; refine design
Giant bamboo production	Continuing	Know scientific information on propagation
Fermented sinking catfish feed	Continuing	Know the suitable amount of feed that will not cause water problems; test EM (Effective Microorganisms) as water treatment added to feed
Forest frog production	Continuing	Understand the life cycle of the forest frog
Family biogas production	Continuing	Estimate stove cost and stove effectiveness
Makwaen -- seedling care	Continuing	Test direct seeding and other methods for germination; consult with farmers and NGOs on seedling care
Makwaen -- transplanting	Continuing	Calculate survival rate; learn how to manage transplanting
Biochar stove creation	Finished	
Potting soil mix creation	Finished	
High-efficiency stove creation	Finished	
Cricket production	Finished	
Fermented pig feed	Finished	
Small water filter creation	Finished	
Fermented chicken feed	Finished	
Worms for bird consumption	Finished	
Earthworm production	Finished	
200-liter charcoal maker	Finished	
Frog breeding	Finished	

Table 4. SWOT Analysis for UHDP. Answers in regular type were given by the interviewees; answers in bold are the opinions of the evaluators.

Strengths	Opportunities
<ul style="list-style-type: none"> – Good experience (15 years) related to activities – Skillful staff – Own land – Good buildings – Distinct target group that very few are working among – Holistic development approach -- open-ended issue – Good leadership succession (Rick Burnette – Bunsak Thongdi) and exit strategy – Clear mission statement and vision – Synergistic approach – four core areas supported with other organizations and partners – Multi-organizational – take advantage of its network connections – Knowledgeable and supportive governing board – Faith-based – Utilizes organic and low-input farming methods – Sense of community (inter-ethnic) at center – Staff members exhibit upright behavior -- good witness to outsiders and forms strong community – Sufficiency budget -- have just what they need – Solid foundation donors (confidence to keep the work going because not worried about funding being pulled) – Quiet and peaceful place – makes connection between people and the real thing when they visit – Good relationships with surrounding neighbors and outside communities – Free housing is good benefit for staff members – Many local staff members are local people with background and understanding of needs – Healthy biodiversity of center (forest, fish, animals) – Diversity of outreach (200+ focus areas) – Good relationships with villages in which they work – Based on relationships at the center – Open to other organizations sharing/renting space 	<ul style="list-style-type: none"> – International hub for holistic development to Burma, Laos, SE Asia.... – More donor interest in what UHDP does (more funding potentials, especially for holistic ministry) – Good name -- capitalize on the name and legacy – NGO-church networking idea -- networking of Christian NGOs in Thailand (study and learn from one another) – Staff English skills can improve with programs and teaching – Climate change mitigation approaches available at UHDP- can become a demonstration center for what they are already doing – Carbon credits -- tree bank; Corporate Social Responsibility (Agriculture and Cooperative Bank- government bank) – More visitors and guests come to center to learn, network, and increase UHDP's income – Continued outreach to other groups and tribes (literacy, culture, etc.) – Incredibly close (2.5km) to Myanmar – Increase training and make money off of training -- marketing

Weaknesses	Threats
<ul style="list-style-type: none"> – Some staff members lack English language communication skills – Communication is a challenge when 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); 	<ul style="list-style-type: none"> – 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 status -- makes it very difficult to help them sometimes – Fundraising is competitive – many organizations competing for the funds – Outreach approach and methods are competitive (UHDP)

Weaknesses	Threats
<p>inaccurate perception that it is a foreigner-owned center)</p> <ul style="list-style-type: none"> – Far away from main city – Low salary for employees (although with benefits, may be better than some government jobs) – Poor soil at center – Center can't handle large number of visitors (language, accommodation, limited number of staff members) – Target group (Palaung) lack legal status – Location can be hard to get to 	<p>provides 30/70 when giving a project to a village, but others give activities free of charge)</p> <ul style="list-style-type: none"> – Community issues are changing - hard 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 incursions – Staff institutional knowledge not passed along or staff members go back home – Lack of water and no access to stream or river – Center becomes irrelevant if it does not adapt to changing needs

Table 5. Perceptions of center and extension outreach by sector among surveyed communities.

Question	Community		Average	
	Ban Huay Wai	Ban Dang Nai		
<p>Since the community began working with UHDP, the following have become: (1=much worse/much less; 2=a little worse/a little less; 3=no change; 4=a little better/a little more; 5=much better/much more)</p>	1: Crop production	3.5	4.8	4.1
	2: Animal production	3.7	3.6	3.7
	3: Household income	4.0	4.8	4.4
	4: Household debt	3.7	4.6	4.2
	5: Health status	3.0	4.6	3.8
	6: Water availability	4.4	4.3	4.3
	7: Sanitation	3.4	4.1	3.8
<p>8: What is your overall perception of how effective the center and its extension outreach have been at affecting people's lives related to agriculture and development? (1=not at all helpful; 2=slightly helpful; 3=moderately helpful; 4=very helpful; 5=extremely helpful)</p>	4.6	4.8	4.7	
<p>9: In the future, do agriculture/development outreach activities of the center need to: (1=get much smaller; 2=get a little smaller; 3=stay the same; 4=grow a little bigger; 5=grow a lot bigger)</p>	4.6	5	4.8	

Table 6. Accomplishments and needs of surveyed communities working with UHDP.

Accomplishments of which villagers are most proud		Ways that UHDP can better improve agriculture and livelihoods	
Ban Huay Wai	Ban Dang Nai	Ban Huay Wai	Ban Dang Nai
Backyard gardening	Clean water	Preservation of Dara Ang culture	Bamboo splitter machine -- turned into rattan splitter machine
Pig production	Residency and resident cards	Villagers want to read and write Thai	
Fish	Rattan as a part of their culture -- reintroduced by Rick Burnette	Senior citizens cards – get assistance from Thai government for senior citizens	
Toilets	Snowflake tree introduction -- could no longer be found in the jungle		
Water supply	Dara Ang Network for solidarity and strength among the Dara Ang		
Pursuit of citizenship (some have it, some still don't)	They are grateful for everything that UHDP has provided to them		
Women's group	Agroforestry – connects many people to this place (ISDSI, Burma, Laos -- people come to see it, learn and be changed)		
Agroforestry	Weaving -- women		
Water storage for dry season	Sewing -- women		
Intercropping (have been practicing for 5 years)	Savings -- women		
Frog production	Thai study -- women		
Savings group			
Networks -- people know one another inside the network, and outside people come to know the Dara Ang			
Improved cook stoves			
Microfinance fund for use in the community by members			

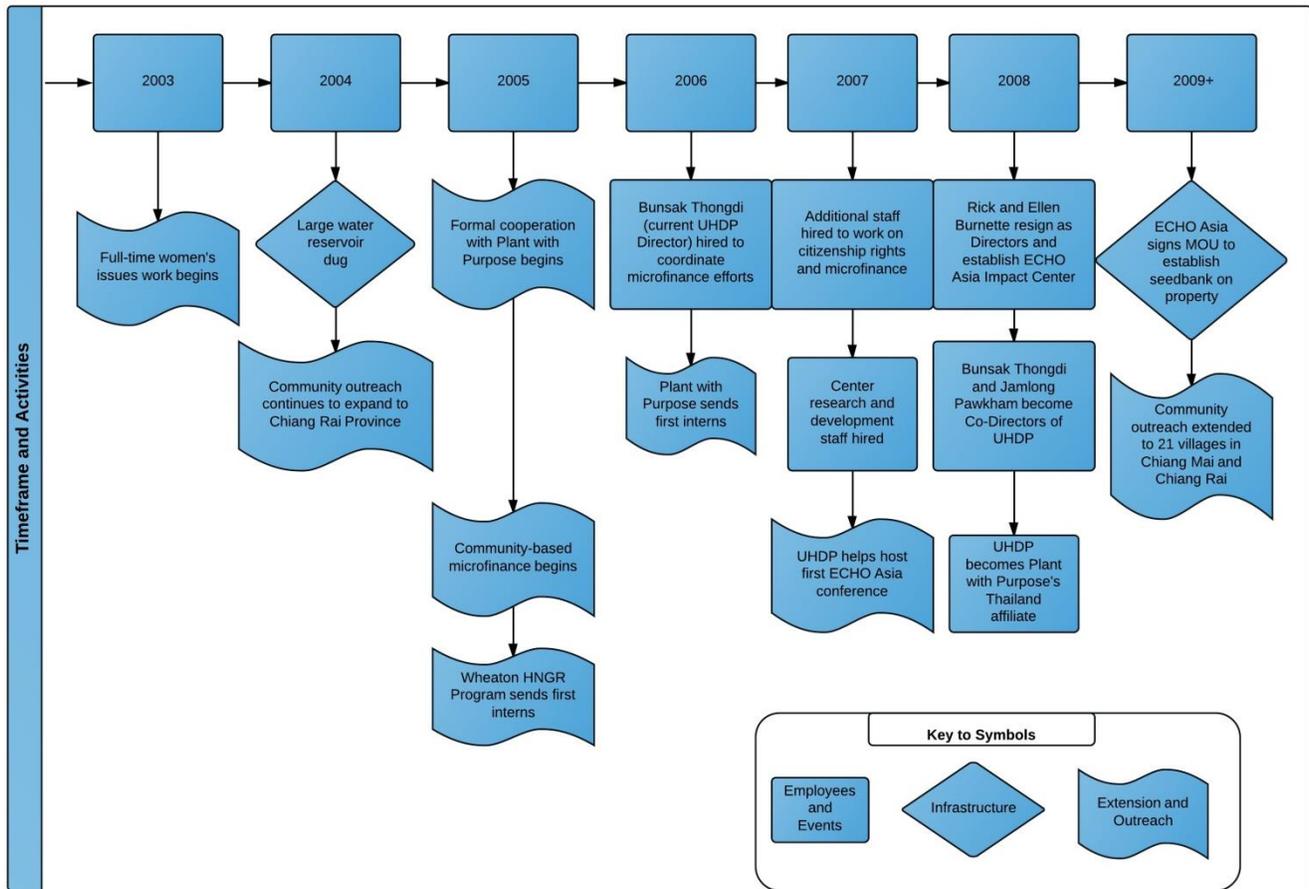


Figure 2. Timeline of key UHDP employee and event activities, infrastructure development, and extension and outreach.

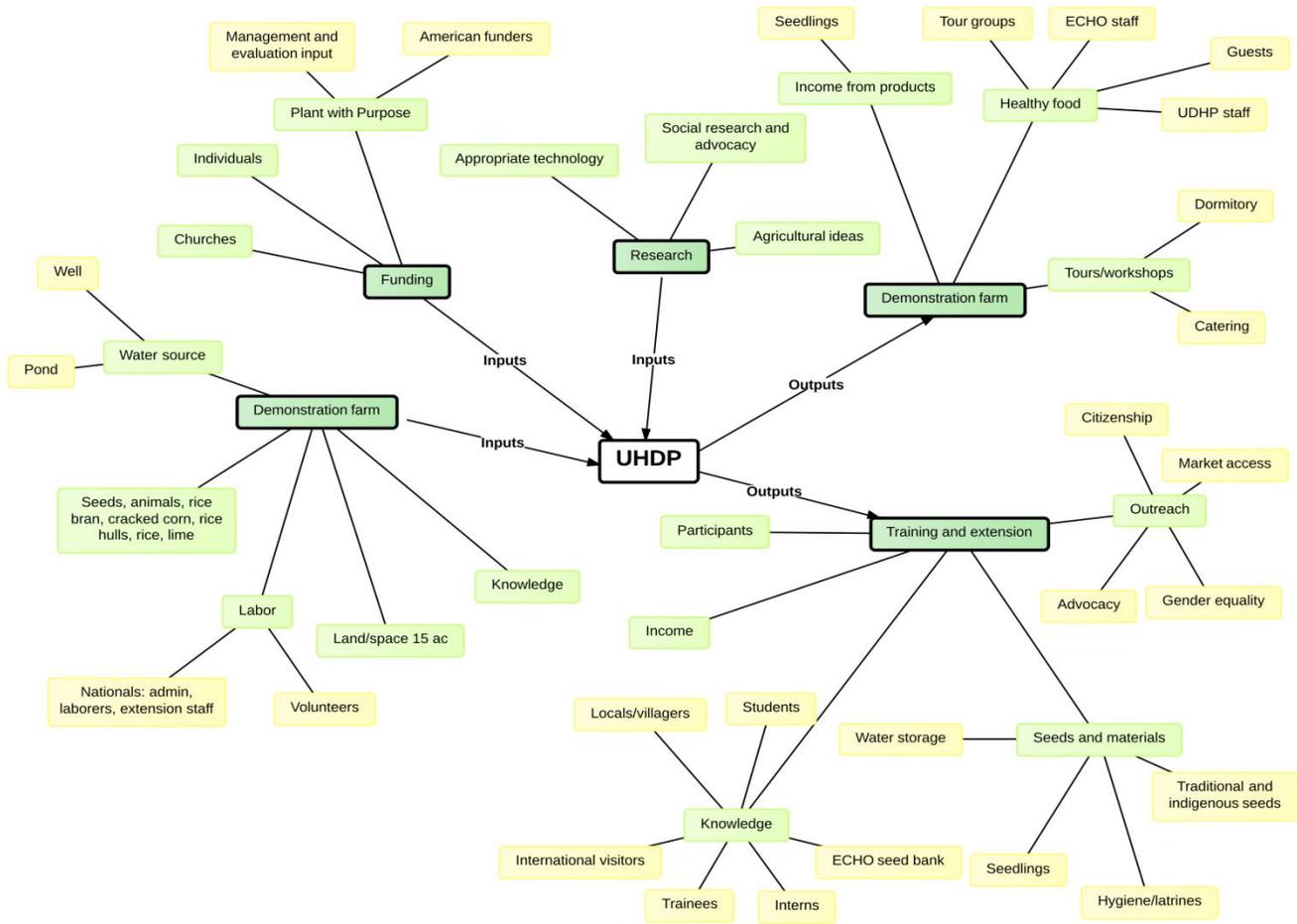


Figure 3. A sample of inputs and outputs of UHDP in relation to both center and outreach activities.

Disclaimer

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