



FARM CENTER INDOCHINA, FCI

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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 Asia facilitated an assessment with FCI to evaluate the organization's effectiveness.

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 / livelihoods / 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.



Greenhouse units and goat production.



Some of the farm's vegetable and herb production areas.

3. Findings

Background of Center

Farm Center Indochina (FCI [name has been changed to protect the company's identity]) is different from the other SFRCs because of its primary role as a business, albeit a positive social enterprise. FCI was begun in June 2009 with a board of five directors (one Australian, one French, one American, one Canadian and one local person). FCI's mission is to: "Produce and sell organic products to the market while providing organic agriculture training and a positive sustainable business model in the district." Perched on the banks of a major river in the 26th poorest district of the country in which it is located, the farm began with 5 ha but has since expanded to 45 ha. Problems plaguing the district include endemic poverty; the uncertainties and risks of rain-fed agriculture; youth unemployment, boredom, drug smuggling and drug use; poor business infrastructure; and

youth migration to surrounding countries to work as day laborers.

The company was founded with the intention of business development, demonstration and education for the betterment of the people of its country. The long-term strategic plan of the company is to "develop an ecologically and financially viable system of agriculture that uses market mechanisms to support farm and family production."

The farm owns 50 ha of land across the four villages in the district where it is located. The primary ethnic group of the surrounding villages (where many of the farm employees originate from) is a major ethnic group in the country, but approximately 10 percent of the population is a predominantly landless minority group that makes up 90 percent of the business's workforce. Because land-owning groups depend on subsistence rice production, many cannot work full-time for the farm but can work as contract laborers during the non-rice growing seasons.

It was in this context of poverty and despair that FCI positioned itself in 2009 to begin organic vegetable production to sell to markets, restaurants, cafés and individuals (via a store and a Community Supported Agriculture [CSA] approach) in a city 1.5 hours away from the farm by dirt road (Figure 2). Local majority and minority peoples are employed on the farm, and the farm operates as a business enterprise under a 15-year business license through the country's government. There are two managers on-site as well as 10 local laborers, who are given a fair and decent wage. Following up on its pledge to be a socially responsible business, FCI built a training center (with three dormitories with accommodation for 25 people in each, a bath house and a meeting room with kitchen) in 2011 to begin a more outreach-oriented approach to benefit the business, local communities, farmers, school children and volunteers. Although the vision for continued on-site training persists, the company must be careful because the country's government is very wary of businesses and NGOs that operate outside of their registered domains (e.g., "agritourism" would fall under the Ministry of Agriculture, and trainings at the center would fall under the Ministry of Education, and neither of these should be done as a business).



Dormitories at the FCI.



A training session at the farm.

The company employs 14 staff members, of whom 10 full-time employees (two managers and eight farm workers) work on the farm. Four additional staff members work in the retail shop in the nearby city; two (retail manager and accountant) are full-time, and two are part-time employees.

Start-up costs were quite high, amounting to \$350,000 US over the first four years, annual cash injections of \$30,000 US for farm-based operating costs and additional investments of \$10,000 US for extension and outreach activities split between on-farm costs and off-center activities. The start-up costs and yearly cash injections come directly from the directors. Currently, in its fifth year of operation, FCI sales cover 50 percent of expenses; the additional 50 percent are covered by the directors' investment.

Now that the center and its infrastructure are in place and organic agriculture is successfully being practiced, FCI hopes to continue to expand its reach and influence through trainings, working directly with a cooperative of organic rice growers and serving as a living/learning center for a city-based drug rehabilitation halfway house.

Center Efficacy

FCI is only four years old, but there is much to be learned from its early years. After four years, it's obvious that several things worked well when the center was established, including: the center is located in an ideal location, only 1.5 hours outside of the capital city on a dirt road that will become the main road to a very tourist-driven district; the poverty of the district provides a ready workforce for the farm and also an agrarian base of communities that want to improve their agronomic output and their livelihoods, as evidenced by a willingness to learn about new techniques for improved agriculture and to form cooperatives for crop production (see organic rice growers group below); the farm is a safe, healthy place to work and learn and has been aided by the farm manager and his wife, who have been with the

operation since its inception and have caught the larger vision for the good that a business with social responsibility can be among their own people; the farm is located on a major river with fertile soil, no major pest infestation problems and access to plentiful water; and, from the beginning, the farm has sought to include, promote cooperation and foster transparency among the district, local and village-level officials and offices of government.

If FCI had to start another farm again, it would: complete market research to know the market before investing in land; invest in only 5 ha instead of 45 ha and grow with the demand and the capacity of the local management (scale up at an appropriate rate); ensure that all infrastructure was in place (water, electricity, crop protection and infrastructure) before beginning production so that the staff would have more energy to spend on raising food, creating information and engaging the local community; focus on capacity building of middle management; and use less local materials (bamboo, eucalyptus) for building materials, which decay and have to be replaced every two to three years, and invest at an appropriate rate in more durable infrastructure materials.

Inputs to keep the center running include large cash infusions from the directors (with the hope that the agricultural production will eventually be able to sustain the business), local knowledge, land, labor, water, seeds and agricultural supplies, local and scientific knowledge, good management practices and technology. The outputs include produce sold through various retail and direct sale channels, knowledge development, trainings, formation of cooperatives and skilled workers (Figure 3).

SWOT analysis of the center was conducted to understand internal and external pressures that could hinder and advance the center (Table 2). The analysis showed the following strengths of the center and its operation: four years of experience to learn from; an educated, English-speaking local manager who lives on-site and believes in the vision of the company; the farm location -- only 1.5 hours outside of a city on a rough road that is scheduled to be repaired; promotion of ecological agriculture and increasing respect from local farmers, government agents, ex-pats and NGOs; sale of 90 percent of what the farm grows; positive impacts on workers -- better health, nutrition, job skills and employment; and built infrastructure, plentiful water, available electricity and an ample workforce.

Weaknesses exist, however: the staff members and directors feel that they are spread too thin and can't adequately address business and social needs concurrently; perceptions exist among locals that the company is just a rich "foreigner" company and therefore look to profit from the company by handouts, bribes, etc.; employees and farmers attending trainings/working in the co-op are traditionally from marginalized, unskilled and illiterate sectors of society that have the most need for extension and education, which often

leads to longevity issues and a lack of middle management and capacity; there is no cold chain to get fresh produce from the farm to local, national and international markets, often resulting in up to 30 percent postharvest loss; and, in our opinion, the farm places too much emphasis on outside, expensive high technology and mechanization without proper local support/knowledge of this technology.

Opportunities for the center include: increased work and cooperation with government officials; as the nutritional and social benefits of organic food become known, increased demand could position FCI as a leader in healthy food production; an increased capacity for outreach to smallholder farmers in the area building upon four years of practicing ecological agriculture, use of the training center and time already spent in local schools; an increased potential to become a regional training center for other local and international NGOs and networking organizations; and increased reach to tourists via agritourism.

Threats that could imperil the work of FCI include: market instability that could lead to an unsustainable future; loss of focus on priorities by trying to “be all things to all people”; political instability leading to closure of the center; and lack of institutional capacity and knowledge retention.

regulations, a diverse number of stakeholders benefit from the existence of the company and its programs related to agriculture and livelihoods betterment. Some of the preeminent stakeholders who have benefited in the past and could benefit in the future include: secondary school children from Singapore, who stay at the farm, learn about organic gardening through hands-on experiences and partner with a local school to train students; the organic rice growers group, which was begun by Helvetas (a Swiss association for international cooperation) and consists of growers from 10 villages and 400 households. This group is benefiting from attending trainings in organic rice production at the center, by the on-site extension visits by the center’s Australian agronomist, who works with the growers to improve their production techniques (e.g., crop rotation basics, cover crop basics, pest management), and by the fair trade pricing they receive through contract agreements; the workers, who benefit from on-the-job organic production trainings and who receive managerial experience, a fair wage, hygiene and sanitation education, and small loans for family health needs; and the country’s Fair Trade and Organic Certification groups, which seek advice from FCI about organic contract farming as a means to a better future for poor farmers, have received training about marketing, and use FCI for feedback and help in guiding policy for the organizations.



Organic vegetables being grown at FCI.



Farm workers prepare produce and take produce to market.

Extension Efficacy

Although the company is only four years old and is registered as a business and hence needs to make a profit both to stay viable and to satisfy government

One asset of FCI has been its local manager, who has been with the company since its inception. A young man, he and his family live on the site and believe in the power of organic agriculture to have positive impacts on the environment and society. Although there is a trained, paid Australian agronomist on staff, locals (including a mining company) have sought out the manager for advice on what crops grow well and how to grow crops organically. His knowledge has been built over the past four years by working at the farm, and if the farm continues to pursue extension, he will become a key player in extending agronomic advice and conveying the merits of sustainable agriculture to the surrounding communities.

A difficulty that the company has faced has been the existential question “Should a company be all things to all people?” In striving to make a profit in a socially and environmentally just way, the directors desire to positively promote social and environmental change in the country, but the company also needs to maintain a bottom line (profit) and walk a tightrope within the governmental establishment. The government welcomes FCI’s positive social impacts (improved health of workers, trainings for farmers, engagement of educators, medical teams who provide free healthcare in the local clinics) but also doesn’t want to disturb the jurisdiction of power split between the various ministries in the upper echelons. If the company oversteps its sanctioned boundaries and causes government officials to lose face, this will be seen as a threat to the government or the company will be seen as a seditious actor. Either way, the entire operation could be jeopardized.

Another outlet for present and future extension activities can build on the work of Helvetas in the district. Through Helvetas, FCI has engaged local rice farmers to grow organic niche fair trade rice. The staff agronomist has worked with the farmers to ensure that export-quality rice is produced in the region organically with the aim of increasing farmers’ self-determination and improving their livelihoods through this premium product. Another outlet is the future formation of cooperatives in the district, which can exist to support farmers, prices and livelihoods initiatives.

4. Summary

Background of Center

- The center is well-positioned, with convenient access to markets in the capital city.
- The district in which the farm is located is an inherently poor agrarian district that can benefit greatly from interaction with the company and its outreach activities.
- The farm is well-suited to increasingly hosting visitors, farmers, NGO workers and government officials for extension work. Housing, dining and meeting facilities available on the property provide a good setting for hands-on ecological agriculture training.
- It appears that the farm is too dependent on high technology that only a company can afford but is not always useful in the specific context and setting (e.g., machinery often suffers from breakdowns, difficulty of parts replacement, apathy on the part of staff members to fully utilize the capacity of the technology, etc.).
- The initial investment into the farm/center was quite high, amounting to \$350,000 US, and the center requires a continual cash infusion of \$30,000 US per year.
- Sale of produce and goods covers 50 percent of the farm’s operating costs.
- Extension activities require a \$10,000 US cash infusion each year.
- A dedicated staff composed of two managers who live on-site supported by eight permanent farm employees maintains the operation.

Center Efficacy

- Knowledge and techniques are created at the center but not often spread beyond the center’s staff and workers.
- The center is currently underutilized for extension and outreach activities but has the potential to blossom into a very effective SFRC.
- Groups from Singapore, the local government, schools and village cooperatives have used the center for meetings and trainings.
- The location of the center (1.5 hours outside the city along a major river) offers visibility and potential for future work with local groups, tourists and international gatherings.
- The center incorporates elements of an organic farm, a training/meeting center and housing, and is well-poised to be utilized more fully.

Extension Efficacy

- Although desired, extension activities have traditionally been hindered by the government and the narrow scope within which FCI must work as a business.
- Some extension has taken place, however, in the form of cross-cultural exchanges between a Singaporean high school and local schools in the area. Students learned about soil and environmental science using hands-on activities at the center and in the classroom.
- Extension stakeholders include Ministry of Agriculture personnel, organic groups, local NGOs, medical groups, and villagers and workers who benefit from diverse trainings.
- FCI has worked quite closely with local affiliates working in fair trade, organic agriculture, commerce and development to elicit change.

- One of the greatest opportunities for agricultural extension work has come through a local organic growers group, which was started by Helvetas and trained local farmers in organic rice production. FCI has joined with the growers group (made up of 400 households in 10 villages) to purchase, at a fair trade price, premium organic rice on contract. To ensure organic production practices, FCI's staff agronomist has led trainings with the growers and makes field visits to follow up and extend knowledge and information.
- Tremendous potential exists for FCI to become a hub of extension networking and knowledge creation in its own country and in surrounding countries.

5. Recommendations and Future Directions

- Perhaps instead of trying to "be all things to all people," the company should strive to be "some things to some people" -- meaning that it looks for relevant opportunities to make positive impacts on its beneficiaries in a capacity that the government recognizes and appreciates.
- Work more closely with the government to continue to further educational and extension causes while showing the authorities that they have nothing to fear from FCI's presence in the district.
- Continue to engage the rice growers group and the fair trade association and make it a priority to determine how best to link farmers to domestic and international markets.
- Rely less on expensive technology (large-scale irrigation, expensive machinery, etc.) and look for practical, locally produced technologies that farm managers and laborers alike can use, repair and maintain without need for expensive imports and inputs.
- Seek buy-in from the employees by offering production shares based on sub-yearly reviews. (See Aloha House operations. There, a set percentage of profits from the farm is earmarked for employee shares. Each farm laborer can have a maximum of one share, and farm managers can earn a maximum of two shares. Quarterly

employee evaluations are conducted to create a percentage on the basis of work success and overall benefit to the farm, which is used as a multiplier for the shares and creates bonuses. For example, if FCI profit amounts to \$10,000 US, employee shares are earmarked as \$5,000 US, and the farm employs five farmhands, the potential bonus amounts to five shares and a \$1,000 US maximum bonus per employee. If an employee scores 80 percent on the evaluation, the bonus equals 80 percent times one share times US\$1,000, or US\$800.)

- Capitalize on the existing facilities and infrastructure to create more on-farm learning opportunities for local people and internationals. Collaborate with the government to seek its approval of these activities and to further the cause of extension in the district.
- A seedbank at the center could become a regional innovation and extension piece for helping farmers preserve biodiversity. The seedbank would have the benefit of acting as a repository for the farm's seeds as well as becoming an educational component for visitors and villagers.
- Continued work with key stakeholders and partners may have the benefit of promoting FCI to the forefront of organic agriculture and related development in the country.

6. References

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- Van den Berg, H. 2004. IPM farmer field schools: A synthesis of 25 impact evaluations. FAO Corporate Document Repository. Available at www.fao.org/docrep/006/ad487e/ad487e00.htm#TopOfPage. Accessed June 1, 2012.

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. SWOT analysis for FCI. Answers in regular type were given by the interviewees; answers in bold are the opinions of the evaluators.

Strengths (Present)	Opportunities (Future)
<ul style="list-style-type: none"> – Ecological sustainability -- good practices for agriculture – Improved health for workers and their families (through improved nutrition and hygiene) – Nutritional benefits of organic food – Shop in the city can sell directly to consumers and fill a niche market -- gives ability to expand extension outreach – Four years of experience – Know what to grow and have the seed (locally saved) available – Plenty of needs in the country – Distinct worldview – Existing infrastructure – Beautiful location on a river – Only 1.5 hours outside of the city – Capable farm manager who speaks English fluently 	<ul style="list-style-type: none"> – Nutritional benefits of organic food become known and diffused to consumers and villagers – Work with district officials (want help in developing the district) – Increased retail market – Partnership opportunities abound for extension and advisory work -- e.g., Ministry of Agriculture, local farmers, seed producers and external organizations, such as ECHO – TV has profiled FCI and may do so again in the future – Top three products: tomatoes; greenhouse asparagus production; and Moringa could all increase marketability – Increased capacity for more outreach to farmers – Agrotourism – Overnight stays hosted for groups
Weaknesses (Present)	Threats (Future)
<ul style="list-style-type: none"> – Existing perceptions by government that this is just a rich foreign-owned project – Locals always asking for goods/handouts – Attendees of trainings and employees are traditionally marginalized, illiterate, unskilled -- difficult for longevity and business – 90% of consumers are ex-pats (longevity issues) – Markets for organic food are stagnant (predominantly ex-pats -- population not growing) – No audit for costs (e.g., unknown how much it costs to grow 1 kg of tomatoes) – No cold chain to get food from farm to local, national international markets – Staff spread too thin – Too much emphasis on mechanization and high technology – 1.5 hours outside of city 	<ul style="list-style-type: none"> – Market sustainability – Trying to be all things to all people (lose focus) – Governmental compartmentalization -- you can do only what you are specified to do -- agronomy, tourism, health – No profit – bottom drops out – No money for investment – Stagnant ex-pat market – Christian worldview -- could be detrimental if government steps in – Lack of institutional capacity – Other NGO/business takes farm manager

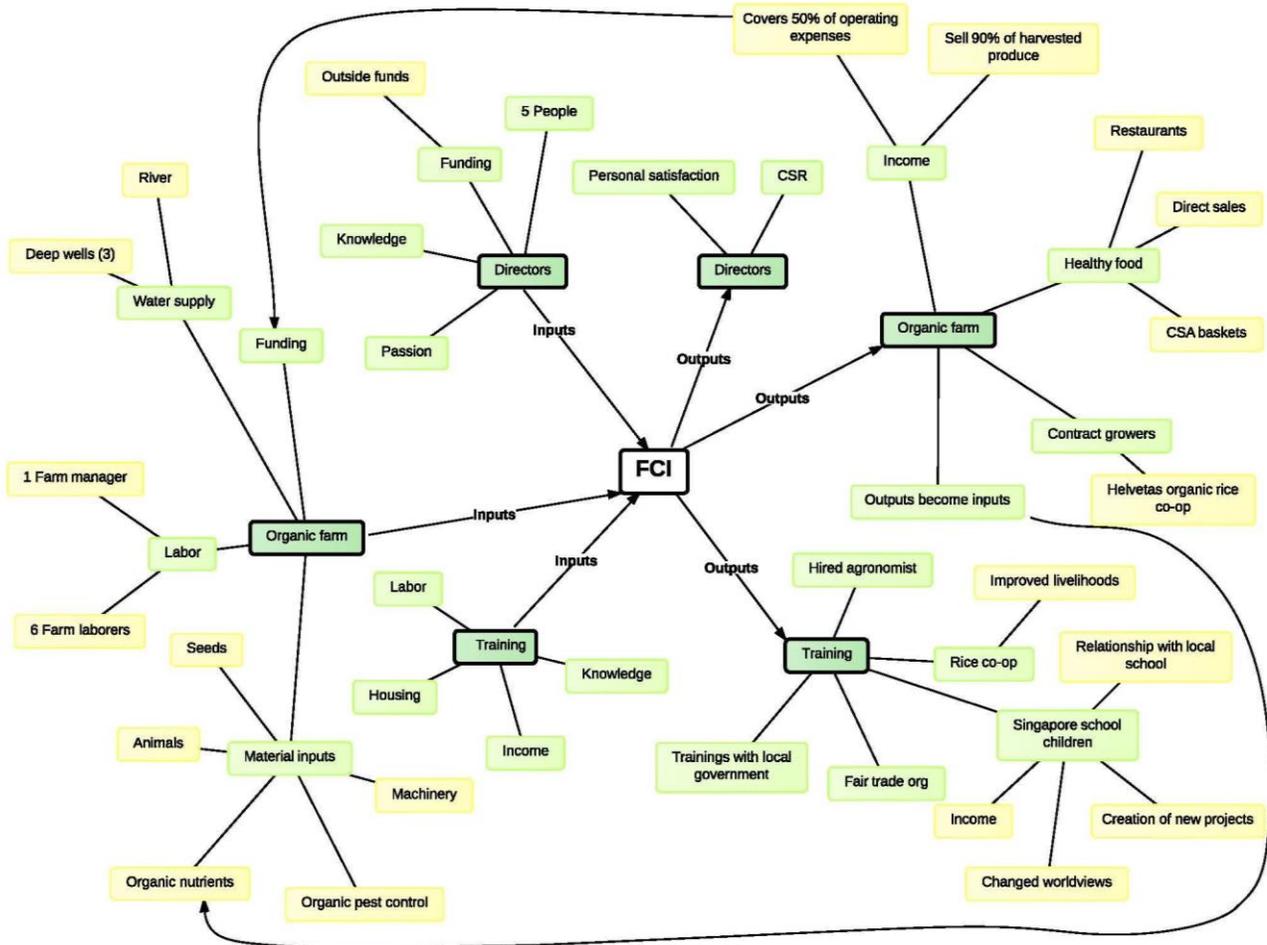


Figure 2. A sample of inputs and outputs of the FCI in relation to the center and its outreach activities.

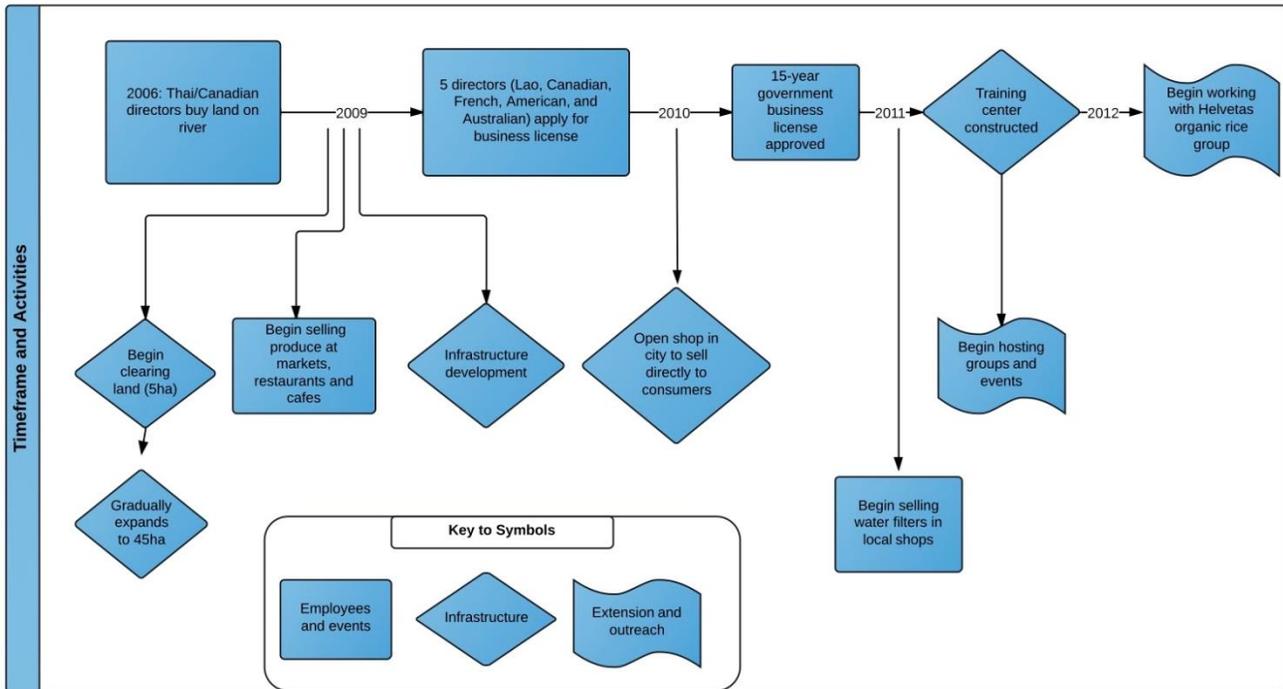


Figure 3. Timeline of key FCI employee and event activities, infrastructure development, as well as extension and outreach.

Disclaimer

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