

Study of Social Entrepreneurship and Innovation Ecosystems in South East and East Asian Countries

Case Study: Doi Tung Development Project
(The Mae Fah Luang Foundation), Thailand

The Japan Research Institute

Office of the Multilateral
Investment Fund

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CASE STUDY

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Tomohiro Hamakawa, Co-founder & Managing Director of Earth Company

1. Introduction

Name: The Mae Fah Luang Foundation under Royal Patronage (MFLF)	
Description	Since 1988, MFLF has implemented its flagship project, Doi Tung Development Project (DTDP) that develops the skills and knowledge of the local communities to help them earn a stable and sustainable income. MFLF has been recognized as a forerunner of today's social enterprise landscape in Thailand.
Founded	1972
Legal format	Non-profit organization
Num. employees/volunteers	N/A
Geographical reach of MFLF	Thailand (Chiang Rai, Nan, Umphang), Myanmar Past: Indonesia (2006-2011) and Afghanistan (2006-2012)
Certifications/ awards	<ul style="list-style-type: none"> • "Social Entrepreneur of the Year 2009" from Schwab Foundation, • "The Nikkei Asia Prize" for "Outstanding Organization for Culture and Community" in 2014, • Since 2003, the DTDP has been recognized by the UN Office on Drugs and Crime (UNODC) as "one of the world's best examples of alternative development".
Social innovation variables of Doi Tung Development Project	
Innovation type	In DTDP, MFLF established its Doi Tung brand, developed value-added products and services, as well as designed the entire value chain. Its model has been internationally applauded and referred to in the UN universal guidelines.
Social impact	Since the beginning of DTDP in 1988, per capita income in the Doi Tung area has increased about 15 fold, while the forest area has expanded more than 3 fold through the recovery of areas once stripped for opium poppy cultivation.
Financial sustainability	While DTDP receives donations, the key driver of financial sustainability is secured through sales from its core business.
Key partners and Supporters	Partnerships with more than 50 organizations from multiple sectors including national and local government, financial institutions, private companies, and academic institutions.
Scalability and replicability	A total of 7 projects replicating the DTDP model have been implemented in the country to date. The model has also been replicated in Myanmar, Indonesia, and Afghanistan since 2002.
References	http://www.maefahluang.org/index.php

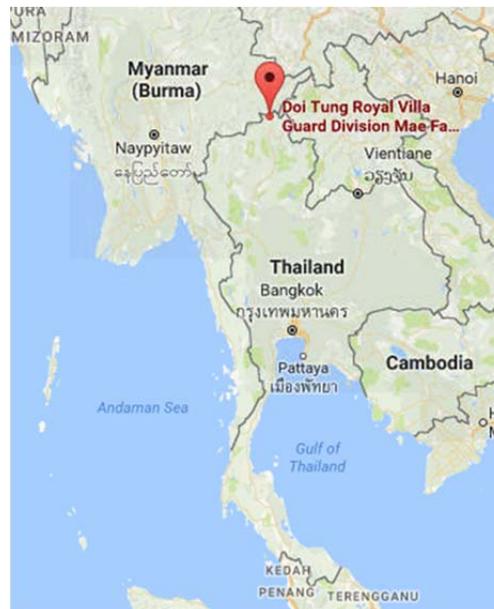
2. Local Social Issues and The Challenge

When Her Royal Highness the Princess Mother Srinagrindara, the founder of the Mae Fah Luang Foundation under Royal Patronage (MFLF), started the Doi Tung Development Project (DTDP) in 1988, the Doi Tung area faced various social challenges. Doi Tung is a remote area located in the northern hilly region of Thailand, sharing the border with Myanmar spanning 24 km.

(a) Challenge 1: Limited access to social services

While a total of six ethnic minorities, or hill tribes, reside in Doi Tung, only 30% of their population possessed the Thai nationality when DTDP was first initiated¹. This meant that the majority of residents could not access social services including healthcare offered by the government. The presence of armed groups headquartered in the border areas engaged in illicit sales of narcotics and weapons served as another reason why the public services were not delivered sufficiently in this area.

Figure1 Location of Doi Tung



(Source: Google Map)

¹ Ikujiro Nonaka, Kyuning Puang Diskul na Ayudhaya, Pimpan Diskul na Ayudhaya, Hideki Kawada and Ayano Hirose (2010). "Doi Tung Development Project (DTDP) in the Golden Triangle". Hitotsubashi University Graduate School of International Corporate Strategy

(b) Challenge 2: Reliance on opium poppy cultivation

Due to the lack of agricultural facilities including irrigation, local farmers used to rely on rainwater for farming activities, which naturally led to fluctuation in crop yield and unstable income stream for local people. Albeit being a watershed area, repeated shifts in cultivation induced soil sterility and poor crop yield; as a result, people began to turn to opium poppy for their main source of income. However, the majority of opium sales profit was taken by illicit dealers, thus the Doi Tung residents were unable to get out of poverty. Additionally, an increasing number of residents started to use opium in place of medicine, resulting in the surge of opium addicts.

(c) Challenge 3: Human trafficking and spread of HIV/AIDS

In order to assist the household economy, young women were forced into prostitution in urban areas, who often ended up contracting HIV/AIDS and other sexually transmitted diseases. Their visiting home increased the number of rural residents affected by HIV/AIDS.

3. Solution and Social Impact

Her Royal Highness the Princess Mother understood that the underlying problems in Doi Tung were poverty and lack of economic opportunities, therefore resolving these two would restore the living standard and the natural environment. To that end, DTDP first focused on empowering people to be self-reliant. The princess mother believed such empowerment was not only essential in securing the continuity of the project, but also important for the coexistence of people and the nature.

DTDP prioritized providing vocational training for people to build their skills and knowledge so that they can earn income in a stable manner. In addition, DTDP has developed a business model that involves locals and generates profit: DTDP manages the entire value chain from production, processing, distribution, to sales, and adds value to the end products by using innovative processing technologies and infusing design elements of the Doi Tung brand.

Table 1 DTDP Vision and Mission

Vision
To carry out the legacy of the Princess Mother by promoting the Sustainable Alternative Livelihood Development (SALD) model that can be applied to various situations to tackle poverty and lack of opportunities.
Mission
To ensure that the people of Doi Tung are economically self-reliant and able to continue the process of their own development as responsible citizens, amid an ever-evolving globalized world, without compromising the environment or their own cultural values.

(Source: Doi Tung website)

Today, DTDP manages four business streams, namely, (1) handicraft products, (2) food products, (3) agriculture, and (4) tourism. All these streams are mainly operated by local people who underwent trainings by DTDP. The main reason for developing multiple businesses is to diversify economic and social risks and to create as many jobs as possible.

Table 2 Outline of the Core Businesses

Handicraft products	<ul style="list-style-type: none"> Producing and selling hand-woven textile and carpets, mulberry paper, ceramics and tufted carpets.
Food products	<ul style="list-style-type: none"> Producing and selling coffee and macadamia nuts, and processed products (i.e. roasted coffee beans). Managing Doi Tung coffee shops in cities including Bangkok Providing barista training.
Agriculture	<ul style="list-style-type: none"> Producing orchid, pot plants and cut flowers and leaves. Providing landscape design service for celebration events and gardening events.
Tourism	<ul style="list-style-type: none"> Providing tourists leisure activities amidst the Mae Fah Luang Garden and Arboretum, with extensive facilities including the Doi Tung Lodge, restaurant and souvenir shops. Offering knowledge-based tourism with its own Living University and a real-life learning center.

DTDP covers an expansive area of 15,000 hectares and benefits approximately 11,000 people from 29 villages (details of social impact achievements are described in Section 6.1.1). DTDP ploughs profits back into improving the health and education of people as well as preserving the natural environment. Consolidating the effective interventions, DTDP established a Sustainable Alternative Livelihood Development (SALD) approach as a method to realize both development of unskilled people into independent skilled professionals and restoration of the

natural environment.

4. The Social Entrepreneur

Her Royal Highness the Princess Mother Srinagrindara, the late Princess Mother of Thailand is the founder of both the organization MFLF and its flagship project DTDP. After the current Thai king His Majesty King Bhumibol Adulyadej demised the crown, the princess mother led a life of spending half a year on developing projects including those to improve the quality of life of rural and disadvantaged people, especially of ethnic minorities in the hilly regions, and spending the rest of the year to recuperate in Switzerland. In addition to donations of food and clothing to the residents, the development projects provided basic healthcare and oral hygiene treatments taking advantage of volunteer doctors, dentists and nurses housed into the project team.

Figure 2 Her Royal Highness the Princess Mother Srinagrindara



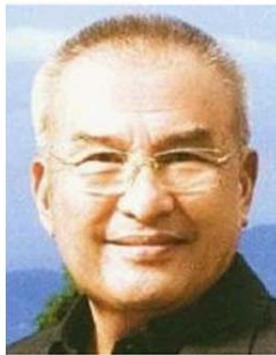
(Photo by Mae Fah Luang Foundation website)

Through numerous visits to rural regions the princess mother learnt that ethnic minorities in northern Thailand in particular were disenfranchised of various rights yet they possessed skills in traditional handicrafts that can serve as means to support their living. Focusing on their skills, MFLF began by providing marketing support for traditional handicraft products of the hill tribes. This initiative bore fruit, and handicrafts of ethnic minorities have gradually

gained a reputation inside and outside the country. Through this experience, the princess mother deeply understood that finding ways for people to become economically independent lies at the core of social development of local communities.

In 1987, when visiting Doi Tung for the first time at an age of 87, she decided to establish a royal residence as her final adobe at this place 500m above sea level and commit herself to improving the quality of life of people and reviving the natural environment in Doi Tung. By establishing the royal residence at a hilly place not easy to reach, the princess mother became “a strong symbolic statement that gave hope to the ethnic minorities”².

Figure 3 Mr. Khun Chai



(Photo by Schwab Foundation website)

The person who led DTDP along with the princess mother was Mr. Khun Chai. Khun Chai obtained a degree in Business Administration at the Indiana University (US), and received an honorary doctorate in Agricultural Science and Social Science at the Mahidol University (Thailand) and Mae Fah Luang University (Thailand), respectively. While working as the private secretary to the princess mother for 28 years, he formulated and implemented the business plans of DTDP to achieve both financial sustainability and social impact. Based on the vision of the princess mother, Khun Chai formulated a 30-year plan for DTDP in 1988, in which he predicted that all businesses launched for DTDP would reach a break-even point in 15-20 years. The year when DTDP actually achieved a status of financial self-sustainability was 2000, 12 years after the commencement of DTDP, which in hindsight was not far from the original prediction. Additionally, while promoting the businesses of DTDP, Khun Chai established the

² Ikujiro Nonaka, Kyuning Puang Diskul na Ayudhaya, Pimpan Diskul na Ayudhaya, Hideki Kawada and Ayano Hirose (2010). "Doi Tung Development Project (DTDP) in the Golden Triangle". Hitotsubashi University Graduate School of International Corporate Strategy

SALD approach. In appreciation of these achievements, Khun Chai was awarded the Social Entrepreneur of the Year by the Schwab Foundation in 2009.

Since the princess mother past away in 1995, His Majesty King Bhumibol Adulyadej has supervised DTDP to his daughter, Her Royal Highness Crown Princess Sirindhorn. In 2000, on the centenary of Her Royal Highness the Princess Mother's birth, the United Nations Educational, Scientific and Cultural Organization (UNESCO) gave a memorial address, referring to her as "a great personality in public service".

5. Business Model

5.1 Key Aspects

(a) Value-added and qualified products sold under the Doi Tung brand

DTDP has established a model to own the whole value chain from production to sales and to sell agricultural and traditional handicraft products by adding value to them, instead of simply putting them on the market. A specific example of DTDP's value addition approach is to recruit high-end designers with experiences working at famous apparel brands such as Prada and Isabel Marant and to have them develop products for MFLF designed to fit the contemporary fashion trends while utilizing traditional handicraft techniques and natural raw materials. For branding purposes, its coffee beans receive not only quality assurance by the Specialty Coffee Association of America (SCAA) but also a Geographical Indication (GI) certification from the Department of Intellectual Property of the Ministry of Commerce. The GI certification requires that the only beans that can be sold under the Doi Tung brand are the ones grown in the Doi Tung area no less than 1,000 m above sea level³.

(b) Plough-back model

DTDP ploughs profit made by its four core businesses (handcrafted products, food products, agriculture, and tourism) back to benefit the community or invest in business development. MFLF set up the Social Development Department (SDD) within the organization that is responsible for managing the reinvestment of profits into community development while maintaining close communication with relevant communities.

³ Mae Fah Luang Foundation under Royal Patronage. "Doi Tung Development Project: A Model Beyond Social Entrepreneurship" (Doi Tung Development Project Brochure).

(c) Gradual transfer of ownership

In their initial stages, all businesses of DTDP directly employ local residents but gradually shift the ownership and operation management to community leaders. By 2017, DTDP plans to complete the transfer of all business operation rights to the local community and to make the community a “responsible taxpayer” instead of the “beneficiary” of DTDP. To realize future business expansion and community development involving the next generations, the social enterprise also provides training for necessary skills while establishing opportunities to dialogue with the community.

5.2 Business Model

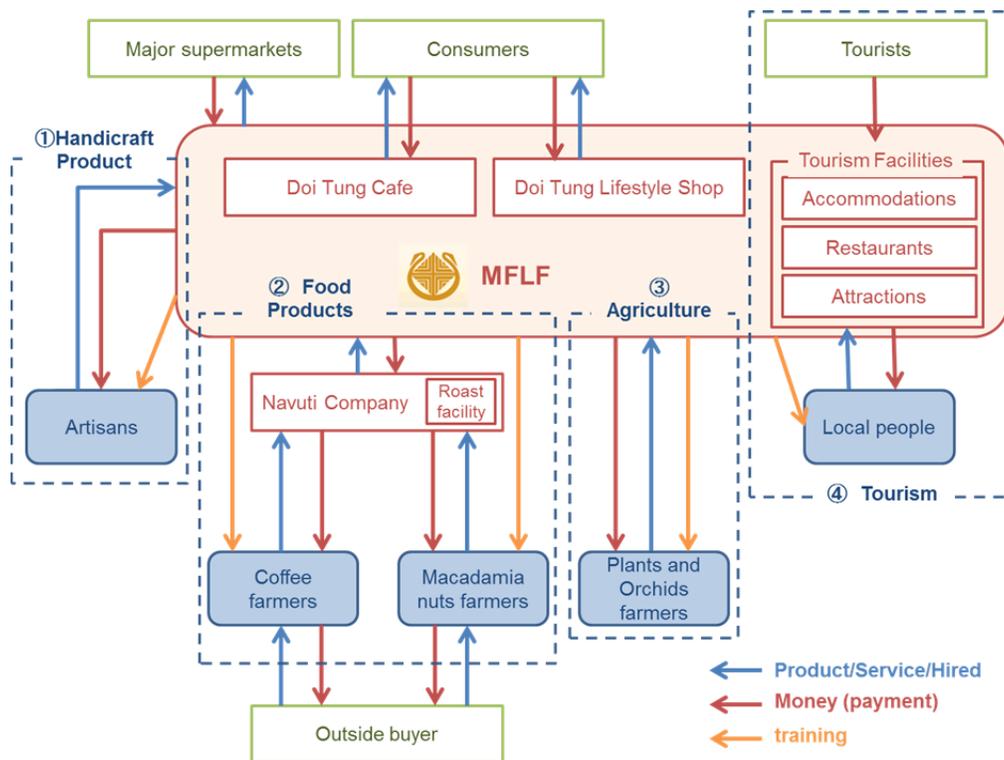
DTDP stands on a business model to comprehensively operate the entire value chain from production to retail by MFLF (a) providing vocational training to local people, (b) employing the trained people, and (c) securing profit by wholesaling products in the market, especially to direct sales stores and cafés owned by MFLF.

(a) Handicraft products

Handicraft products currently being manufactured include hand-woven textiles and carpets, mulberry paper, ceramics and tufted carpets. DTDP specifically values the use of natural ingredients. For example, dyes used for textiles are extracted from locally available plants such as coffee cherry pulp and the ash of macadamia nut shells. Products are sold mainly at the 16 Doi Tung Lifestyle Shops⁴ in Thailand and department stores in Bangkok. Recently, the furniture giant, IKEA, also started to sell DTDP products.

⁴ http://www.doitung.org/lifestyle_our.php [Accessed 20 April 2016]

Figure 4 Whole picture of DTDP Business



(b) Food products

For its food products business, DTDP comprehensively manages the value chain from production, processing, to sales of coffee beans and macadamia nuts. These products are grown at the economic forest of Doi Tung and have been recognized as products that improve the quality of life of people as well as achieve reforestation. Since it takes 3 years and 7 years for coffee and macadamia to bear fruit after planting, respectively, the food product business requires long-term commitment. In order to secure funds needed for the business, in 1989, MFLF established the Navuti Company under DTDP as its food products business company, for which MFLF raised the start-up capital totaling USD 900,000 (30 million baht) from 6 companies in the form of grants⁵.

Navuti loans coffee and macadamia trees to farmers in order to foster a sense of responsibility and motivation among them to grow trees under proper management. Trees are loaned to

⁵ Ikujiro Nonaka, Kyuning Puang Diskul na Ayudhaya, Pimpan Diskul na Ayudhaya, Hideki Kawada and Ayano Hirose (2010). "Doi Tung Development Project (DTDP) in the Golden Triangle". Hitotsubashi University Graduate School of International Corporate Strategy

farmers at an annual fee of about USD 0.03 (1 baht) per tree, of which MFLF covers 50% of fee farmers pay to Navuti⁶. This activity bore fruit; farmers gradually started to look after the trees with more care. Additionally, in order to reduce fertilizer cost, Navuti bulk purchases necessary fertilizers and hands them to farmers, and subtracts the price of fertilizers from the price of coffee cherries it purchases from the farmers. Navuti preferentially allocates trees to farmers with high yield, and yield and sale figures of such farmers serve as benchmarks for other farmers to pursue. In principle, Navuti purchases the produced coffee cherries, yet farmers can sell their harvests to other companies or intermediary agents if they desire to.

As the production volume of coffee beans at Doi Tung has increased to several hundred tons per year, Navuti opened its own processing facilities and started roasting its own coffee beans in 1994. Comparing both ends of the spectrum, the value of coffee cherries increases about 195 fold through the numerous steps involved.

Figure 5 DTDP Coffee Value Adding



(Source: MFLF)

As described above, MFLF's coffee beans receive quality assurance by the Specialty Coffee Association of America (SCAA) and Geographical Indication (GI) certifications, and are marketed as products with the added value of the Doi Tung brand. Currently, these coffee beans are sold at Doi Tung Lifestyle Shops and major supermarkets as well as provided as coffee at one of the 12 Café DoiTung⁷.

(c) Agriculture products

The agricultural products business takes almost the same business model as the handicraft business. After providing vocational training, MFLF employs the trainees as commercial flower production staff or research and development (R&D) facilities staff. Commercial flowers and ornamental plants are sold mainly at Doi Tung Lifestyle Shop as cut flower or potted plants.

⁶ IBID
⁷ http://www.doitung.org/cafe_our.php [Accessed 20 April 2016]

DTDP has conducted various kinds of R&D for its agricultural products, including technical guidance methods to teach opium poppy farmers how to cultivate commercial flowers and conduct research into species that can be efficiently cultivated even on wasteland. Nowadays, skills of production staff have improved so much that they can cultivate difficult-to-grow plants to a level of receiving awards at flower shows. Staff with specifically high technical skills are made responsible of managing small-scale seed beds and participating in Landscape Design services. DTDP also owns a tissue culture laboratory, which promotes initiatives for efficient production of commercial flowers as well as for preserving rare species in an attempt of returning them to the natural habitat of Doi Tung.

(d) Tourism

DTDP's tourism business mainly provides two services: leisure activities for tourists and knowledge-based tourism. Knowledge-based tourism serves visitors to learn about sustainable alternative livelihood development and poverty alleviation, including the traditional life and customs of ethnic minorities at Doi Tung, how people have escaped opium cultivation and established current lifestyles, and achieve coexistence with the nature. More than 700 groups from universities, government agencies and other organizations inside and outside the country visit Doi Tung and experience the knowledge-based tourism each year⁸. Today, Doi Tung has become recognized as a "Living University". Currently, Doi Tung, as the most popular tourism destination in northern Thailand, attracts over 1 million people visit every year⁹.

⁸ Mae Fah Luang Foundation under Royal Patronage. "Doi Tung Development Project: A Model Beyond Social Entrepreneurship" (Doi Tung Development Project Brochure).

⁹ IBID

Figure 6 Doi Tung Flower Garden



(Photo by thailandfortravelagents.com)

Staff members for accommodations, restaurants and souvenir shops established in Doi Tung are employed from the local community, and similar to other businesses DTDP provides necessary employment training (e.g., customer services, accounting and hospitality). Especially for young generations, the DTDP's tourism business is giving excellent opportunities of employment near their home with favorable working conditions.

6. Social Impact and Financial Performance

6.1 Social Impact

6.1.1 Social impact achievements

DTDP has achieved substantial social impact through its four main social businesses, as described below.

(a) Handicraft products

The handicraft business has contributed to improving the income for more than 200 craftsman, while the consolidated annual income of all workers in total involved has reached USD 3.77 million. DTDP handicraft workers earn 7 times of an income earnable from a similar occupation at a local handicraft company which is not related to DTDP¹⁰.

¹⁰ Mae Fah Luang Foundation under Royal Patronage. "Doi Tung Development Project: A Model Beyond Social Entrepreneurship" (Doi Tung Development Project Brochure).

(b) Food products

The food business has created jobs for about 300 people throughout the value chain, while the consolidated annual income of all workers in total involved is USD 6.76 million¹¹. DTDP food products workers earn about 16 times of income earnable from a similar occupation at a local company.

(c) Agricultural products

As a result of R&D efforts, more than 100,000 types of plants are currently grown and making a major contribution to the restoration of the natural environment. In terms of the agricultural products business, more than 100 farmers have received vocational training and secured jobs, for instance at the Doi Tung Flower Garden. The consolidated annual income of all workers in total involved is approximately USD 0.48 million.

(d) Tourism

The tourism business provides income not only to staff at restaurants and accommodation facilities but also to the entire community through its homestay program. The latter motivates the younger generations to learn languages in particular. The consolidated annual income of the community earned from the tourism business is USD 3.14 million, which is about 10 times of an income obtainable from a similar occupation at a local company¹².

(e) Other social impact

Through all the initiatives of DTDP, average per capita income of the community has improved from USD 125.7 in 1988 to USD 2,290 in 2014¹³. Accordingly, the number of children receiving formal education has expanded; the number of children attending secondary school (aged between 12 and 15) surged from 625 in 1993 to 2,819 in 2011¹⁴.

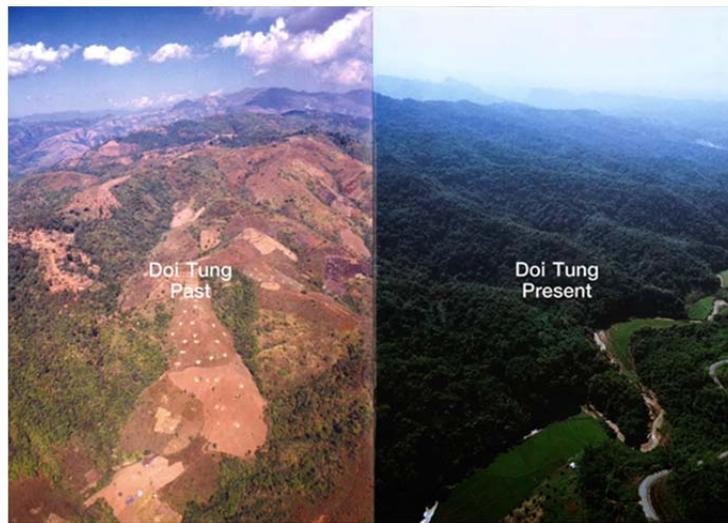
¹¹ Mae Fah Luang Foundation under Royal Patronage (2015) "Annual Report"

¹² IBID

¹³ IBID

¹⁴ Mae Fah Luang Foundation under Royal Patronage Brochure

Figure 7 Reforestation of Doi Tung area



(Photo by: MFLF booklet)

As for reforestation, one of the core missions of DTDP, the forest area is estimated to have expanded from 4,220 ha in 1989 to 12,780 ha in 2011¹⁵. In line with that trend, the area of shifting cultivation has been reduced from 8,058 ha in 1989 to 0 ha in 2011, and cultivation area re-developed is 1,170 ha¹⁶.

6.1.2 Social impact measurement

DTDP monitors improvement in the quality of life of people and the degree of reforestation and publishes the results in an annual report and its official website. Social impact measurement is directly carried out by MFLF staff.

6.2 Financial Performance

6.2.1 Revenue and expense Trend

Revenues and expenses of MFLF for fiscal years 2014 and 2015 are summarized in the table below. Since MFLF commenced initiatives outside Thailand such as Myanmar and Afghanistan in 2012, the figures below are for the entire MFLF operations, not for only DTDP. DTDP deployed in the Doi Tung district has successfully turned its business income into the positive in 2002 and has since been retaining financial self-sustainability through its business income.

¹⁵ Conservation Forest: 11,548 ha, Sustenance Forest: 640 ha, Economic Forest: 583 ha (source: Mae Fah Luang Foundation under Royal Patronage Brochure)

¹⁶ IBID

Table 3 MFLF's Statement of Income and Expenses (USD)

	2014	2015
Revenues	25,166,849	22,349,370
Sales and service revenues	13,955,012	14,224,679
Donation income	1,101,272	2,034,918
Investment income	778,996	965,185
Insurance compensation	20,987	16,163
Other income	9,310,582	5,108,425
Expenses	18,588,584	20,861,011
Cost of goods and services	6,374,528	6,280,703
Sales and service expense	4,607,675	5,123,747
Administrative expense	7,606,382	9,456,561
Profit	6,578,265	1,488,360

(Source: MFLF)

7. Business Development and Ecosystem Evolution¹⁷

The evolution of the DTDP can be divided as follows; the Startup Stage (1987 to 1988), the Early Stage (1989 to 2001) and the Growth Stage (2002 to present).

Table 4 A summary of DTDP business development milestones from 1987 – present

Stage	Year	Event
Start-up	1987	Her Royal Highness the Princess Mother visited Doi Tung in January and decided to conduct development to achieving improvement in the quality of life of people and reforestation.
		Khun Chai carried out ground surveys and investigated needs of local people and local issues. Based on the results, he formulated the DTDP Master Plan.
	1988	DTDP launched, with reforestation initiatives as its kick-off activities.
Early	1989	A separate company called Navuti was established, which became responsible for the Economic Forestry Project.
	1990	Opened the first Doi Tung Lifestyle Shop in Doi Tung.

¹⁷ **Start-up stage:** a preparation period for setting up a business or an enterprise. An entrepreneur's team develops a business idea and a business model. In some cases, they have product/service prototypes which are not fully developed or tested. **Early stage:** A period from business initiation until business scale-up. An entrepreneur's team may first deliver its products/ services in a test market to examine its business model. Also, the team may file patents or obtain licenses, if necessary. Once the business model is consolidated, it starts its business. However, the business remains quite small due to lack of capacity and resources. It may reach a breakeven point at the end of this period. **Growth stage:** A period after scaling up the business. The business exceeds the breakeven point and increases its sales, number of beneficiaries, the market share etc. The team revises the business model in order to sustain and/or expand the business, if necessary. In some cases, the team starts to investigate new products/services.

		Launched the Cottage Industry and Training Center for producing needlework, hand-woven textiles and mulberry paper.
	1991	Opened the Plant Tissue Culture Laboratory for productivity expansion and species research for the agricultural products business.
	1992	Harvested the first lot of coffee berries.
		The Japan International Cooperation Agency (JICA) disbursed a loan of USD 840,000.
		Opened the Doi Tung Flower Garden to the public as part of the tourism business
		Shifted the business model from directly employing coffee farmers to loaning coffee trees to farmers to foster ownership and motivation in improving productivity.
	1994	Opened and started operations of the coffee roasting facility and mulberry paper factory.
	1995	Harvested the first lot of macadamia nuts; opened and started operations of the macadamia processing facility.
		Opened the first Doi Tung Coffee Shop in Doi Tung.
		Her Royal Highness the Princess Mother passed away.
	1996	His Majesty the King took over MFLF.
		Opened and started operations of the ceramics production facility.
	1997	Thai baht plummeted due to the Asian Financial Crisis. Given the financial loss, Navuti raised an additional USD 900,000.
	1999	In accordance with the wishes of His Majesty the King, the Doi Tung Royal Villa was opened to the public.
	2001	DTDP achieved financial self-sustainability, i.e. able to cover the operating costs by the profits of the four businesses.
Growth	2002	The first foreign project applied DTDP model by MFLF, Doi Tung II Project started in Myanmar.
		Opened the first Doi Tung Coffee Shop in Bangkok.
	2003	Opened a pilot school in student-centered learning that provides alternative education for children in particular and characterizes in courses designed for self-directed education.
	2005	As its CSR project, the Siam Commercial Bank Foundation started the Pang Mahan Reforestation for Poverty Alleviation Project in Terd Thai District, Chiang Rai, in collaboration with MFLF. This marked the first domestic outreach project for DTDP.
	2006	The Belgian government and MFLF signed an agreement to conduct a project using the DTDP approach in Afghanistan. Named Doi Tung III, the initiative became the second foreign project applied DTDP model.
		Launched the Mae Fah Luang's Centre for Social Entrepreneurship (CSE) to provide support for organizations that engage in regional development and social businesses using the DTDP approach.
	2007	Initiated the third foreign project, Doi Tung IV, in Aceh province, Indonesia.
	2008	MFLF was approved to use the logo of GI (Geographic Indicators) as the producer and operator of Doi Tung Coffee.
	2009	Khun Chai was awarded "Social Entrepreneur of the Year 2009" from the Schwab Foundation for Social Entrepreneurship.
	2011	Initiated a new project, Doi Tung V, in Myanmar.
		Completed the repayment for the JICA loan.

	2013	UN General Assembly adopts the DTDP approach as a model of the United Nations Guiding Principle on Alternative Development (UNGPs on AD). Initiated a new project, Doi Tung VI, in Myanmar.
	2014	MFLF received the “Outstanding Organization for Culture and Community” as part of the 19 th Nikkei Asia Prize.

7.1 Start-up Stage (1987-1988)

7.1.1 Business milestones

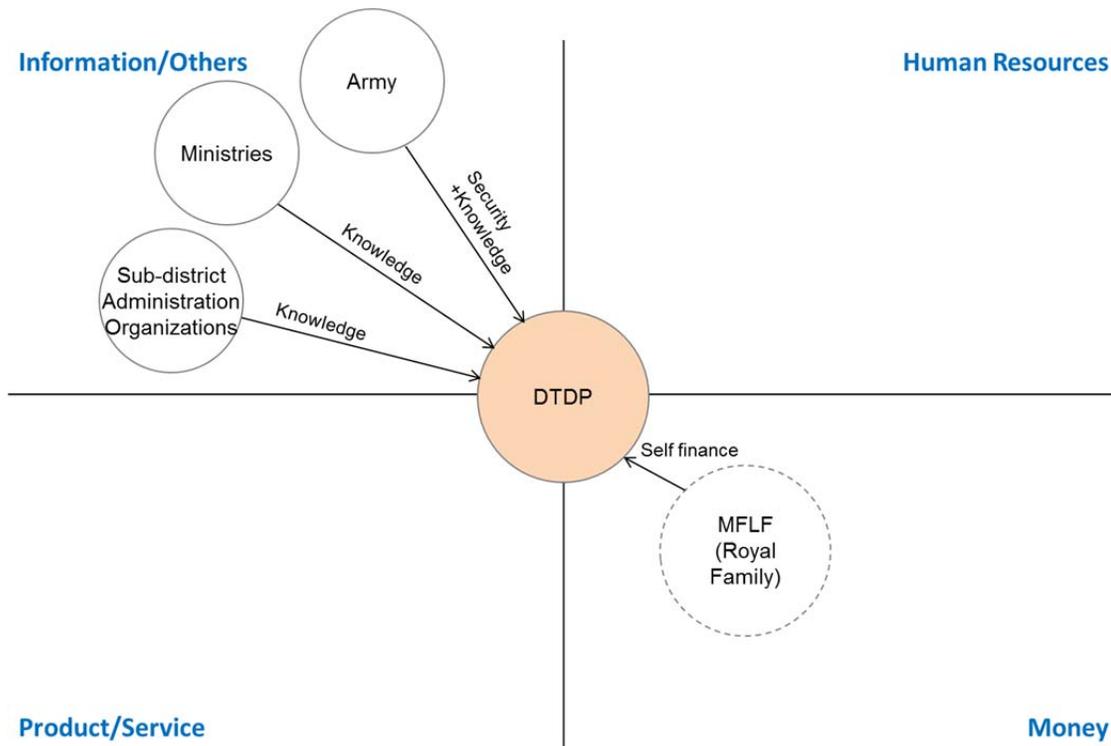
When the DTDP was founded, the Royal Thai Army, relevant government offices, sub-district administration organizations and MFLF had numerous discussions about the project plan. According to MFLF, it was critical that the princess mother facilitated numerous discussions and shared the main objectives of DTDP with administrative agencies. At the same time, Khun Chai conducted ground surveys to understand the needs of and issues faced by local people and then reflected the survey results in the master plan.¹⁸

Incorporating the intentions of the princess mother, the DTDP Master Plan formulated in 1987 set forth initiatives to realize self-reliant development and well-being of the local people. Specifically, the plan aimed for the social businesses to achieve financial self-sustainability and set a goal for all businesses to reach a break-even point in 15-20 years.

7.1.2 Key ecosystem players

¹⁸ Though forest areas are officially under the management of the Royal Forest Department, back then armed groups were rampant and the Royal Thai Army held jurisdiction over the Doi Tung district. When DTDP was started, the jurisdiction was transferred from the Royal Thai Army to MFLF.

Figure 8 DTDP's key supporter mapping in its Start-up stage (Before 1988)¹⁹



7.2 Early Stage (1988-2000)

7.2.1 Business milestones

In the first several months of DTDP, MFLF carried out reforestation initiatives by directly employing community members according to the Master Plan. It was a "quick win" to swiftly raise the earnings of locals as well as to obtain trust from community members. However, MFLF realized the danger in thoughtlessly expanding afforestation areas and encroaching on arable land. Thus, MFLF decided to establish economic forest sections and to develop them differently from the conservation-oriented forests. By growing commercial agricultural products such as nuts and fruit, economic forests were expected to form the foundation of sustainable economic growth. Arabica coffee beans and macadamia nuts were selected as core products for the economic forests due to market demand and their monetary value.

¹⁹ How to look at this key supporter map:

- The name inside the circle represents the key supporters.
- Depending on the kind of support they provide (HR, Product/ services, money, information), the circles are located in respective zones.
- The brief descriptions of the support are written on the arrows.
- The size of the circle expresses the level of impact (high, medium, low).

Back in the late 1980s in Thailand, cultivation of Arabica coffee beans and macadamia nuts at a commercial scale was unheard of. Making this a stable business for economic forests required a long-term perspective, and MFLF decided to do so by establishing a new company. Using his own personal connections, Khun Chai visited companies in Thailand and raised capital for the start-up. For the establishment of the company to be named "Navuti", he managed to raise USD 900,000 (30 million Baht) from six companies in 1989, namely, the Crown Property Bureau, the Siam Commercial Bank, Mitsui Co. (Thailand) Ltd., the Sumitomo Mitsui Banking Corporation, the Bank of Asia, and the Euchukiet Company²⁰. Navuti does not pay dividends to investors but channel all its profits to MFLF as a donation. This donation is "ploughed back" for the development of new social businesses and charitable projects.

At the time of establishing Navuti, the interest on the loans was very high at a rate of 12-15%, potentially becoming a hindrance to its business operation. To that end, Khun Chai became interested in the loan scheme by the Japan International Cooperation Agency (JICA) which offered a stunningly low interest rate of 0.72%; the overall annual rate did not exceed 1.3% even when carrying costs were included. Furthermore, JICA loans are long-term mechanisms with a grace period of 5 years and options to repay over 20 years, which was ideal for the context of the economic forest business. In 1992, Mitsui Co. (Thailand) Ltd. decided to provide guarantee support and Navuti succeeded in receiving a loan of about USD 840,000 (28 million baht)²¹ from JICA.

In the beginning, the Thai Department of Agriculture provided farmers with technical knowledge and know-how in coffee cultivation. Cultivation did not achieve optimal results, however: the initial harvest in 1992 totaled only about half of the expected yield. Investigations into the causes revealed that, although coffee farmers had enough knowledge and know-how, they were not motivated enough to carry out pruning and fertilizing according to the growth status of trees. To address this issue, Navuti changed its system to loan coffee trees to coffee farmers. As a result, the yield jumped from 0.5 kg per coffee tree to 1.6 kg per coffee tree within a year²².

²⁰ Ikujiro Nonaka, Kyuning Puang Diskul na Ayudhaya, Pimpan Diskul na Ayudhaya, Hideki Kawada and Ayano Hirose "Doi Tung Development Project (DTDP) in the Golden Triangle", Hitotsubashi University Graduate School of International Corporate Strategy, 2010

²¹ IBID

²² IBID

Furthermore, in 1992, the transnational food and drink giant, Nestle opened a demonstration plot and offered cooperation in researching coffee species suitable for the Doi Tung highlands. Nestle also dispatched American coffee specialists from Kona, Hawaii, to provide local staff with training on coffee cherry cultivation, processing, bean roasting and packaging. Later, managers and supervisors of Navuti were sent to Kona for 1.5 months to acquire skills and know-how necessary for the coffee business. As a result of these efforts, the yield of coffee beans increased from several dozen of tons to several hundred tons. In order to further increase the product value of coffee beans, Navuti built a on-site coffee roasting facility in 1994 and started in-house roasting of coffee beans utilizing the knowledge acquired in Kona. By opening the Doi Tung Coffee Shop in 1995, DTDP established a business model that covers the entire value chain and thereby brings incremental income to the local community.

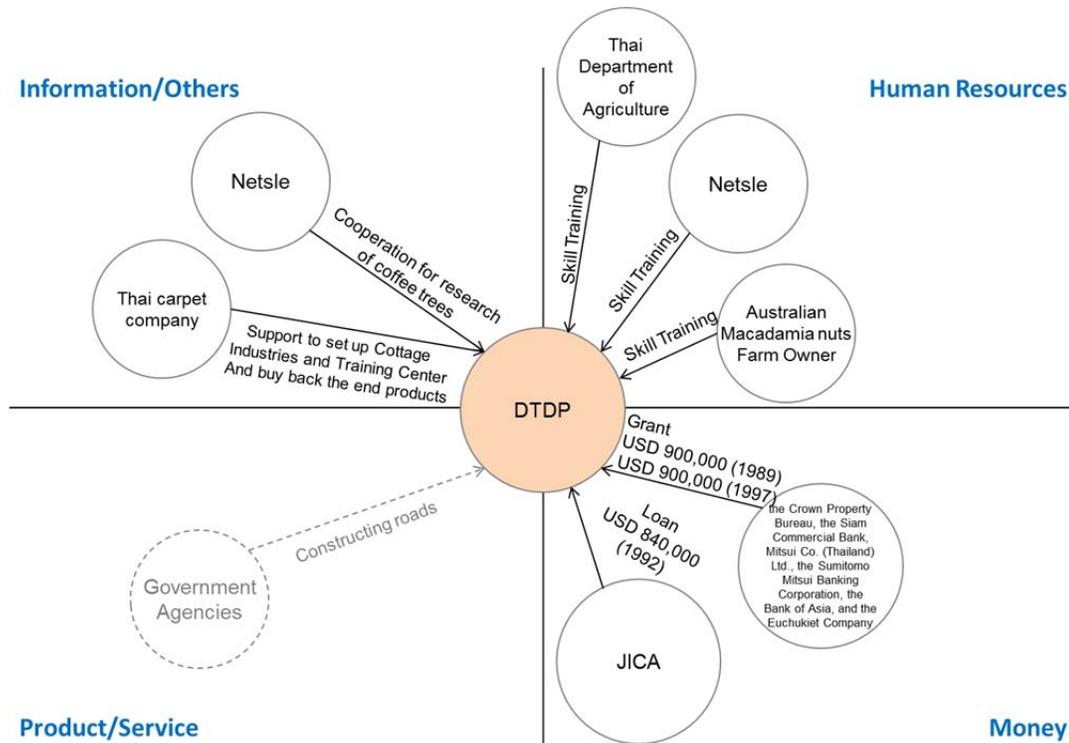
Meanwhile, regarding the production of macadamia nuts, DTDP actively made investments into improving the production skills of farmers. In 1992, Navuti invited specialists from the U.S. and held a training session based on cultivation theories. In addition, Navuti staff were sent to a macadamia farm in Australia for a month to receive guidance on cultivation methods and quality control directly from the farm owner, who later became a technical advisor to Navuti and decided to visit Doi Tung twice a year to provide technical guidance. On top of that, in 1995, to coincide with the first harvesting of macadamia nuts, Navuti built a macadamia processing facility and began manufacturing processed products. DTDP has developed other businesses in handicrafts, agriculture and tourism in a similar manner – providing people with skill training and managing the entire value chain.

Associated with the massive fall in the Thai baht in 1997 due to the Asian Financial Crisis, Navuti's ability to repay JICA took a substantial blow. To cope with this damage, Navuti raised an additional round of funding of USD 900,000 from investors²³. Navuti cleared off its debts from JICA in 2011, partly thanks to the steady growth of its business.

²³ Ikujiro Nonaka, Kyuning Puang Diskul na Ayudhaya, Pimpan Diskul na Ayudhaya, Hideki Kawada and Ayano Hirose "Doi Tung Development Project (DTDP) in the Golden Triangle", Hitotsubashi University Graduate School of International Corporate Strategy, 2010

7.2.2 Key ecosystem players

Figure 9 DTDP's key supporter mapping in its early stage (1988-2000)



During this period the government invested in building roads to the Doi Tung District that improved access to nearby markets. Although the infrastructure development was not intended to provide specific support to DTDP, it contributed to the influx of tourists and procurement of necessary materials. Given this background, road construction is included in the ecosystem player map above.

7.3 Growth Stage (2000-present)

7.3.1 Business milestones

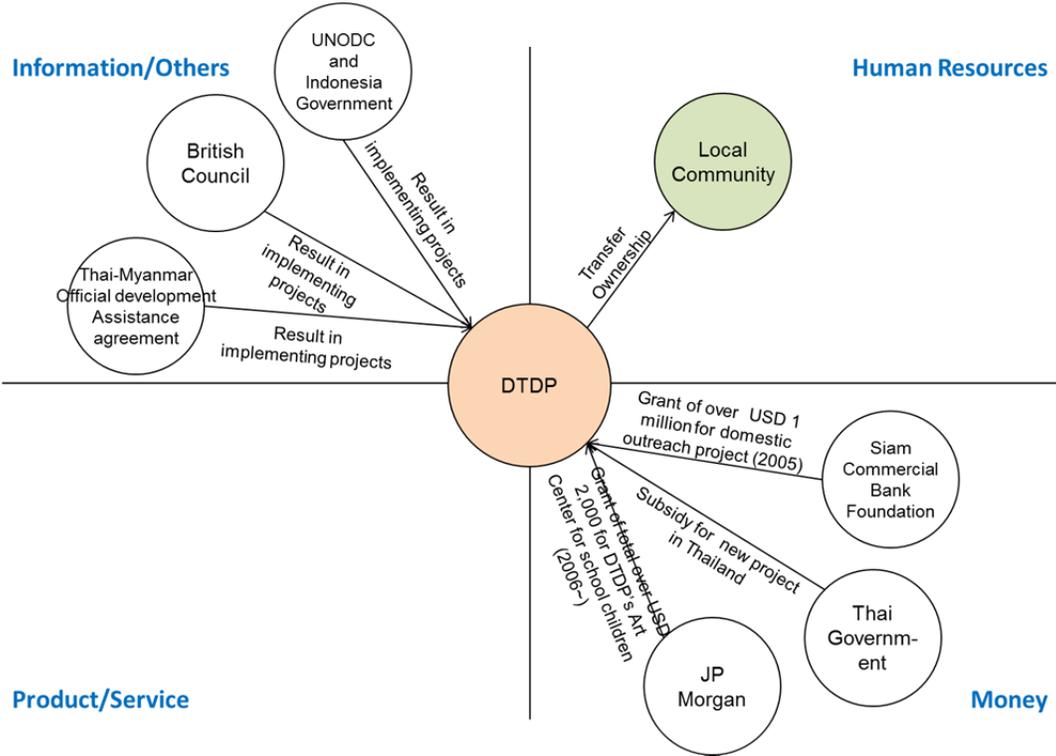
In 2002, DTDP achieved financial self-sustainability through the profits from its four major businesses and shifted to the business expansion phase. DTDP has expanded the sales network of handicraft and food products as well as focused on transferring of business ownership to the local community.

MFLF also began to disseminate its knowledge acquired through DTDP - packaged as Sustainable Alternative Livelihood Development (SALD) - inside and outside the country in this phase. The replication of DTDP to Myanmar in 2002 was realized by a cooperation

agreement between the Thai and Burmese governments. Additionally, in 2002, at the invitation of the British Council, the Secretary General of MFLF delivered a lecture at a counter narcotics conference held in Kabul, the capital of Afghanistan, which led to the development of a new project in Afghanistan in 2006. In the same year, the Secretary General of MFLF was also invited by the United Nations Office on Drugs and Crime (UNODC) and the Indonesian government as an investigation advisor for a project in Aceh province, which again resulted in a new initiative in Aceh. These initiatives were highly valued by the international community, and SALD became part of the model of the United Nations Guiding Principle on Alternative Development (UNGPs on AD) adopted by the UN General Assembly held in 2013. UNGPs on AD refers to a set of universal guidelines that effectively addresses the issue of cultivating plants as raw materials for narcotics through realizing sustainable development. This recognition, therefore, served as evidence that DTDP became a pioneer of social innovation.

7.3.2 Key ecosystem players

Figure 10 DTDP’s key supporter mapping in its growth stage (2000-present)



While not directly related to the business of DTDP, JP Morgan started to donate to DTDP’s Art Center for school children in 2006 as part of its CSR activities. DTDP also receives subsidies

from the Thai government when it develops new projects in the country.

8. Scalability and Replicability

Since 2002, MFLF has domestically and internationally deployed the SALD approach based on the experiences acquired through DTDP and successfully launched numerous social businesses under various projects similar to DTDP. While this expansion can be regarded as achieving scalability through securing new sources of income, for MFLF the priority lies in spreading the SALD model and therefore the social enterprise sees it more as replication. Additionally, the tourism business of DTDP has served a place to learn the SALD approach to tourists and has been recognized as “Living University”. According to MFLF, “Even if people understand SALD, it is not easy to practice it, let alone mobilize communities. However, we are positive about spreading SALD”. With the SALD approach incorporated as part of the universal guidelines adopted by the UN, DTDP has become recognized not only as the frontrunner of social businesses in Thailand but also as an example of social innovation originating from Thailand.

In recent years, many youths desire to become interns at MFLF. And MFLF is proud that “new social entrepreneurs are being born from youths who experienced our model as interns”. In that sense, MFLF has become a key ecosystem player that creates social entrepreneurship and social innovation in Thailand.

9. Final Reflections

9.1 Key Milestones for DTDP and MFLF

For DTDP and MFLF, the key milestones included the following four events:

- (a) Substantial improvement in the productivity of the food business by handing the ownership of trees to farmers;
- (b) Realization of financial self-sustainability through the four core businesses, proving the rationale of its business model;
- (c) Replication of the DTDP model outside the country; and,
- (d) The business model adopted by the UN General Principles on Alternative Development.

Milestone A was a major learning experience for DTDP and constitutes the main element of

the SALD approach. Milestone B not only proved the effectiveness of the SALD approach but also facilitated wide acceptance of the approach by Thai society as a model of successful social business. In other words, DTDP brought a major impact on the social business landscape in Thailand. Milestone B then led to Milestone C, MFLF's foreign deployment. The foreign projects proved the effectiveness of the SALD approach in international contexts, which contributed to Milestone D.

Interestingly, most of milestones did not call for major changes to the business model. Instead, they assisted in further refining DTDP's community-centered approach. The solid backing by the Thai Royal Family must have had a lot to do with this approach, yet the arduous efforts by MFLF staff in taking the first steps and taking risks should also be recognized as drivers of MFLF and DTDP's success.

9.2 Key Challenges for Growth

For MFLF, securing local sustainability is more important than expanding its business further. From this perspective, the major challenges would be: a) whether MFLF can transfer management of all its businesses to the local communities; b) whether the local communities can operate the businesses sustainably after the transfer; and, c) whether initiatives that contribute to the future of the community can be developed by local people.

Despite the uncertainties, MFLF remains confident about what it has achieved in Doi Tung: "We have evidence that, even if we leave Doi Tung, the local community can sustain the social businesses by keeping healthy cash flow and high savings. Also, we know they will continue to invest in education for the next generations." Thirty years have passed since DTDP was first started. It's now time to see the benefits of all their work in human resource development.