



Social impact and social return on investment of the potential development project for elderly care service in Mae Mok subdistrict, Thoen district, Lampang province

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Abstract

This research study aimed to assess social impact and social return on investment of the potential development project for elderly care service, community enterprise of the exemplary community: Mae Mok subdistrict, Thoen district, Lampang province. This research was qualitative with a mixed data-collection methodology containing documentary research, focus group, and in-depth interview with the project's founders and stakeholders. The analyses conducted the social impact assessment (SIA) and social return on investment (SROI) using the theory of change, impact value chain, indicators, deadweight, attribution, drop-off, and financial proxy. The four essential informants of this research study were: (1) elderly caregivers; (2) elderly caregivers' families; (3) clients; and (4) villagers (members of the community, Mae Mok subdistrict). The study results showed that the social impact included the community's economic change - creating employment and raising incomes; social change—being more respected and feeling proud of becoming an elderly caregiver in one's hometown, and environmental change—utilizing the community's natural capital to benefit community's members. The SROI ratio was 1:5.83, which indicates that every 1 baht of investment delivers 5.83 baht of social value back to all stakeholders.

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Introduction

Currently, Thailand has an elderly population of about 18 percent or about 12 million elderly. In 2021, the

Office of National Economic and Social Development Council, NESDB, revealed that Thailand had entered a “Completely Aged Society,” with the population aged 60 years and over accounting for 20 percent or more of the total population. One of the concerns is the public health problem as the aging population increases. At the same time, there is a shortage of personnel caring for the elderly and coping with the changing demographic structure, especially the ratio of the elderly rising to 20 percent in 2022.

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According to a survey of the Thoen District Public Health Office, Lampang province, in 2017, Lampang entered the “Super Aged Society.” The elderly was 27.6 percent of the total population of 63,942 people. The data corresponds to the aging index of Lampang province, which indicates that Lampang has the second highest number of elderly in the country, second to only Lamphun Province. Mae Mok Sub district has elderly residents in the community accounting for more than 28 percent of the total population, as most of the working-age population of the community travels away from the area to study or work in the city. The decline in the childhood and working-age population in the community has increased the old-age dependency ratio. Presently, households in the Mae Mok sub-district have a heavy burden of caring for the elderly. To support their families, most working people often work outside the community. There are neither enough people nor time to care for bedridden parents. Therefore, the government needs to come and help solve the problem.

Although the government pays attention to the population structure that has shifted to an aging society and provides assistance in solving the problem, the government’s care for the elderly in the community is still limited. The government has set policies for the elderly to receive services thoroughly, especially the approach from the Ministry of Public Health to expand health services for the elderly at the community level by providing sub-district health promotion hospitals; home-based health promotion; and healthcare teams consisting of doctors, nurses, physical therapists, social workers, and village health volunteers to provide home-visiting services, advice, counseling, and basic health promotion for the elderly. Even with all these measures, the government cannot provide comprehensive services to all target groups. This is due to the limited number of health personnel.

Thus, the idea of training caregivers to care for the elderly in the community and creating additional earning jobs consistent with the community context was implemented. This was the beginning of the development of the Potential Development Project for Elderly Care Service in Mae Mok Subdistrict in 2017. The project uses the strengths of the villagers in Mae Mok Sub-district, which are social, cultural, and natural costs to integrate and work with government, academia, and civil society agencies to improve the care of the elderly in the community and help ease the burden of the government by training standard caregivers to take care of the elderly sustainably.

To study the outcomes of the Potential Development Project, we needed to use the Social Impact Assessment (SIA), a tool for studying community-improving projects.

SIA is based on the three pillars of sustainable development: economic, environmental, and social (Setkij, 2020). SIA was used with the Social Return on Investment assessment (SROI). SROI helped determine the social value generated by the project that matched the needs of the target audiences. And, SROI helped us recognize the positive impact that can lead to tangible change for us to communicate to stakeholders and people outside the community and make them aware of the changes in solving problems in the community.

Literature Review

Social impact assessment (SIA) is the process of measuring the potential social impacts of a project by using social impact indicators. To appropriately select the indicators, they had to be limited in number but comprehensive in their coverage of sustainable development. This study used the impact value chain as a framework for analysis. The impact value chain is a logical mapping process of related elements in the implementation of projects or social enterprises, which consists of 5 components: (1) Inputs: Project inputs mean resources or primary factors used to achieve project objectives. These resources are invested to generate results through various activities in the project, such as labor, expert, personnel, budget, capital, machinery, equipment, land, wisdom, and knowledge; (2) Activities: Project activities mean operations, procedures, processes, events, and actions that lead to products or results that meet project objectives by using resources to run the activities; (3) Outputs: Project outputs are the results created directly from the activities and fulfill the project’s objectives. It is the first result of the project, instantly noticeable, concrete, and countable. Outputs can be products and services. Quality outputs require users who accept, use, or adopt that particular product or service; (4) Outcomes: Project outcomes mean the utilization of project outputs by target groups or users. Outcomes are direct results of the activities or programs in the project. Outcomes make changes that are accepted by many people (adoption). They can change people’s behaviors, how the activities are related, and the actions of people involved in the project. The results of the project are such as behaviors, attitudes, and skills. Short-term outcomes are usually achieved within 1–3 years, while it will take 4–6 years to achieve long-term outcomes; and (5) Impacts: project impacts mean a broad change in 3 areas: economy, society, and environment. Impacts can be short-term and long-term (Earl et al., 2001).

Based on the White and Raitzer (2017). guidelines, we can measure the impact of an intervention by comparing a simulation without intervention (non-interventions) to an actual situation with intervention (interventions). Therefore, Impact evaluation is an approach to estimating the causal effects of interventions (treatment effect). Treatment refers to an intervention that changes outcomes due to the treatment. The steps for assessing social impact are as follows:

1. Collecting Data: Data were collected by interviews with stakeholders and searching for sources of relevant secondary data to analyze three things as follows: (1) economic impact: It is an interpretation of the impact of the project on the community into how much financial value it has as a financial proxy. A financial proxy can be calculated from the outcomes that have a market value (e.g., change in revenue, increased profits, etc.) and from the outcomes that have no market value. To determine a financial proxy from outcomes without a market value (e.g., the value of damage reduction, preventing the expected adverse effects, the value of time, etc.), we need to use a technique called ‘Technic Shadow Price’; (2) social impact: It is an analysis of the impact that causes social changes such as changing people’s attitudes, lifestyles, behaviors, and the concepts of life. The analysis of this social impact is qualitative and was mainly described descriptively; and (3) environmental impact: The analysis of this environmental impact is qualitative too. The story of environmental changes will be told descriptively by the stakeholders.

2. Analyzing Data: Based on White and Raitzer (2017). when a community-based tourism development program is supported in time t , the outcome of interest is Y_t , and over the period of $t+1$. After this support has been carried out for a while, in other words, after the intervention, the outcome of interest becomes Y_{t+1} , while it would have been only Y_0 $t+1$ without the support or intervention. The latter is the counterfactual value of Y . It can be stated algebraically as $\text{Impact} = Y_{t+1} - Y_0$ $t+1$ (Note: This is an explanation using econometrics to measure the degree of change) to indicate the degree of change occurring quantitatively (if there is sufficient and precise data to measure) and qualitatively in three areas: economic, social, and environmental.

Social return on investment (SROI) is a measurement tool that helps quantify the created social, environmental, and economic values and converts them into financial value. After finding the outcomes, the next step is measuring deadweight, displacement, attribution, and drop-off. Then we use the financial proxy to assign values to the net outcomes before calculating the SROI, which is

in ratio format showing the value of the social impact of the investment or budget required to achieve it. The SROI must consider stakeholders’ participation, expressing opinions to one another, scope determination, and concrete performance of the organization (Olsen & Nicholls, 2005).

The implementation of SROI to measure and assess the effectiveness of social investment projects requires understanding the seven fundamental principles of social return assessment which are: (1) identifying the stakeholders, their roles, and impacts; (2) understanding change on how change has occurred to the stakeholders according to Change Theory throughout an activity or program; (3) assigning financial proxies or monetary values to generated outcomes to objectively value the things that matter; (4) selecting specific information that changes the way stakeholders are impacted so that stakeholders can get a clearer picture and can accurately draw conclusions; (5) avoiding exaggeration of the number of impacts or outcomes that affect stakeholders, especially when estimation is required; (6) applying transparency across all aspects of the accounting process and informing or communicating with all stakeholders; and (7) verifying the results by a third-party service provider (SROI Network, 2012). From the seven principles mentioned above, it can be seen that Stakeholders play the most crucial role in providing information to calculate SROI.

There are two types of SROI analysis: calculating the SROI from historical and forecasting future values data. It is assumed that the business or unit has successfully implemented the activities as planned (SROI Network, 2012). The SROI allows stakeholders and investors to know the incurred or expected return on each baht of investment in projects or organizations that are socially and environmentally responsible to the community (Sony & Ferguson, 2017). The organization may successfully carry out many activities. But suppose the results of those activities cannot be measured as exact monetary value. In that case, the organization will be unable to communicate concretely to stakeholders, make them see the success of the activities, and continue their financial support. In addition, the SROI is helpful as a tool to review the effectiveness of an organization’s activities so that the information can be used to improve the organization’s operations in the future. However, measuring SROI has several limitations, such as being time-consuming and requiring many skills, including using Microsoft’s Excel software and basic accounting for SROI preparation and evaluation (SROI Network, 2012). In addition, calculating SROI requires being very careful and prudent in

configuring a financial proxy, a discount rate of return, capital, and outcomes for the project (Emerson, Wachowicz, & Chun, 2000).

Many studies in the past have shown that SROI was a widely used tool for evaluating a social investment. SROI is used by government agencies and non-profit organizations in public health, healthcare, education, science, and transportation. SROI has been implemented in many countries, such as the United Kingdom (Rotheroe & Richards, 2007), and Thailand (Jirarattanasopha et al., 2018). Thailand Research Fund, under the supervision of the Prime Minister's Office, has funded research projects that use SROI to analyze social returns. Adoption of SROI at both national and global levels gives researchers confidence in applying its seven principles and procedure for calculating the SROI according to the Social Outcomes Assessment Manual (SROI Network, 2012).

Methodology

This research employed a qualitative research methodology as follows:

Key Informants

The three criteria for selecting key informants or project stakeholders are as follows: (1) In case there are many stakeholders, at least 10–15 percent of the total number of stakeholders will be selected as key informants; (2) In case of a small number of project stakeholders (not more than 50), at least 5–10 stakeholders would be selected for the interview; and (3) Criteria for choosing the key informants are that: (1) They must be project stakeholders; (2) They must know the overview of the project very well. Importantly, if that person joins the project from the beginning, they will know the details and changes of the project well; (3) They must be a community leader or a group leader. It is more convenient when interviews with other stakeholders are needed, as the community leaders or group leaders can act as mediators to contact other community members; and (4) They must be willing to cooperate when the assessors need periodic follow-up or retrospective data collection.

The stakeholder analysis process is as follows: (1) Identify key relevant stakeholders as it is essential to know the importance and influence of stakeholders; (2) Design how to analyze all stakeholders in detail, the basis for the design of a risk analysis.; (3) Start analyzing different stakeholders; (4) Apply the information

obtained to reassure stakeholders who support the project while monitoring stakeholders who oppose or impede the project; and (5) Assess, review, and analyze different stakeholders in different activities.

After analyzing the project stakeholders, they were divided into four key informant groups: (1) 90 caregivers (data were collected from all caregivers who completed 420-hour care for the elderly courses); (2) families of the caregivers (18 families in which the caregivers live); (3) customers (17 cases of 10 individuals and heads of 7 government and private hospitals); and (4) villagers (15 villagers: 12 community members, and three community leaders).

Data Collection

Sequential steps in SIA and SROI processes of the potential development project for elderly care service, community enterprise, of the exemplary community: Mae Mok subdistrict, Thoen district, Lampang province are as follows.

1. Organizing a research assistant workshop that provides a practical training guide for research assistants on data collection for the project assessment.

2. Collecting data by using the following instruments.

- 1) Focus group - The number of participants or stakeholders in each group varies between 6–10. The researcher was the focus group moderator who ran a group discussion and introduced relevant issues and ideas for response by the group while the research assistant might sometimes help raise relevant issues, but also did the audio and tape recording and note-taking.

- 2) In-depth Interview—It was a semi-structured interview. The interviewer has a checklist of topic areas or questions based on the Three-pillar approach: social, economic, and environmental. The research assistants interviewed all key informants individually.

Data Analysis

1. Data analysis of the SIA outcomes was conducted using the Theory of Change and Impact Value Chain, which concerns Mapping Outcomes and the relationship between the inputs, activities, outputs, and outcomes or impact.

2. Data analysis of the SROI outcomes was conducted by calculating social return on a given investment in the form of a ratio that tells how many baht worth of social value was created per baht spent.

This research study uses two parts of data: (1) Primary Data, which are data collected from in-depth interviews

with key informants through semi-structured interviews; and (2) Secondary data, which are data obtained from academic documents, articles, documents, books, and data to be used for calculating the social return on investment of the project. There are three stages of the data analysis in this study as follows:

Stage 1: Planning: It includes understanding the goals, analyzing the social outcomes assessment (SIA), and calculating the social returns on investment (SROI). To design assessment goals that align with the project dynamics, identify the stakeholders of the assessing entity, define analytical scope, create an impact value chain, and select social indicators.

Stage 2: Action: This step comprises designing a questionnaire consistent with the indicators selected in the first step and collecting field data (interview) from 140 participants (caregivers and stakeholders) during 8–22 July 2021. The collected data must be related to the specified indicators. This project has indicators that influence SROI, invested money, increased income of caregivers who are self-employed or work in hospitals, career advancement, and improved family quality of life.

Stage 3: Data analysis and interpretation of the data: This step is done by converting the indicators into a monetary value which can be achieved through the use of stakeholders, market prices, economical methods used in cost-benefit analysis, income and expenditure analysis, or calculation of the social return on investment (SROI).

Results

After the data were collected, the following topics were determined as they are involved and needed in calculating the SROI: (1) Theory of Change, (2) Impact Value Chain, (3) Deadweight, and (4) Attribution.

The potential development project for elderly care service in Mae Mok Subdistrict arose from the impact of the crisis on older people. The community was trying to change the view about old people, that they are a problem, into an opportunity. The community saw that the elderly are valuable social and cultural capital. The community members joined together to form a volunteer group to train elderly caregivers for the communities in Mae Mok Sub-district, Thoen District, Lampang Province. Raising funds to create a vocational training course for elderly caregivers allowed people in the community to have additional jobs besides agriculture. Later on, the training was expanded and developed into a community enterprise for the care of the elderly. The management of the elderly care curriculum focuses on the convenience of accessing knowledge and providing elderly care services. This network integrates multidisciplinary collaboration of academia, government, and civil society sectors. The network is led by The HRH Princess Chulabhorn College of Medical Science, which is part of the Chulabhorn Royal Academy, and Faculty of Medicine Ramathibodi Hospital of Mahidol University, and public health networks in the area. During 2017–2020, they organized a 420-hour elderly care training course twice and met the standards of the Department of Health Service Support. So far, 90 caregivers have been trained and provide care for the elderly both on a round trip and monthly basis. Some of the elderly stay at a hospital while others remain at home. In addition, the caregivers voluntarily take care of the elderly in the community as well.

The project’s social outcomes result from the group’s continuous work from the beginning until the training group has become a Mae Mok Lan La Economy Community Enterprise to the needs of the target group and the project’s mission. The project’s immediate changes or social outcomes are shown in [Table 1](#).

Table 1 Theory of change of the project

Theory of Change			Outcomes
If	the community members become and work as elderly caregivers,	then	They will have more secure jobs.
If	the community has elderly caretakers and community care stations for the elderly,	then	The quality of life of community members as a whole will be improved.
If	the community has elderly caretakers and community care stations for the elderly,	then	The community environment will be improved.

Career advancement opportunities,
increase in income,
improving the quality of life of the caregivers’ families,
reducing labor migration,
the elderly being healthier,
solving critical community problems,
building up community unity and relationships, and working for the community with pride,
promoting historical landscape and traditional culture preservation,
preserve the community’s natural capital,
promote organic and agricultural production through using local herbal products and foods for elderly.

Theory of Change

The Theory of Change explains the process of change during a specific period that is believed will happen due to the intervention, or activity, to contribute to that change. The intervention here is, for example, that the community members become and work as elderly caregivers. The Theory of Change for the project is summarized in Table 1.

Impact Value Chain of the Project

The results of SIA, Figure 1, showed that the impact value chain of the project could be described as follows: (1) The caregivers got a stable job after being qualified as elderly caregivers. A stable job means a job with career advancement opportunities, an increase in income, and an improvement in their families’ quality of life; (2) Being employed as an elderly caregiver in the community reduces labor migration, solves critical community problems, builds up community unity and pride, promotes

historical landscape and traditional culture preservation; and (3) preserves community’s natural capital, and promotes organic and agricultural production.

Deadweight to the Outcome of the Elderly Care Service

Deadweight measures the amount of outcome that would have happened even if the activity had not been done. This deadweight could occur due to, for instance, the community problems being solved by the community members themselves or economic recovery after a recession, which results in improvement such as people being happier, having a better quality of life, getting a job in their community easier, and reducing labor migration. To calculate deadweight, reference is typically made to comparison groups or benchmarks best related to the population with which the organization is working. Even though estimation of the deadweight is challenging to measure, it must be done carefully to make it as accurate as possible. Attribution is the result of the operation of

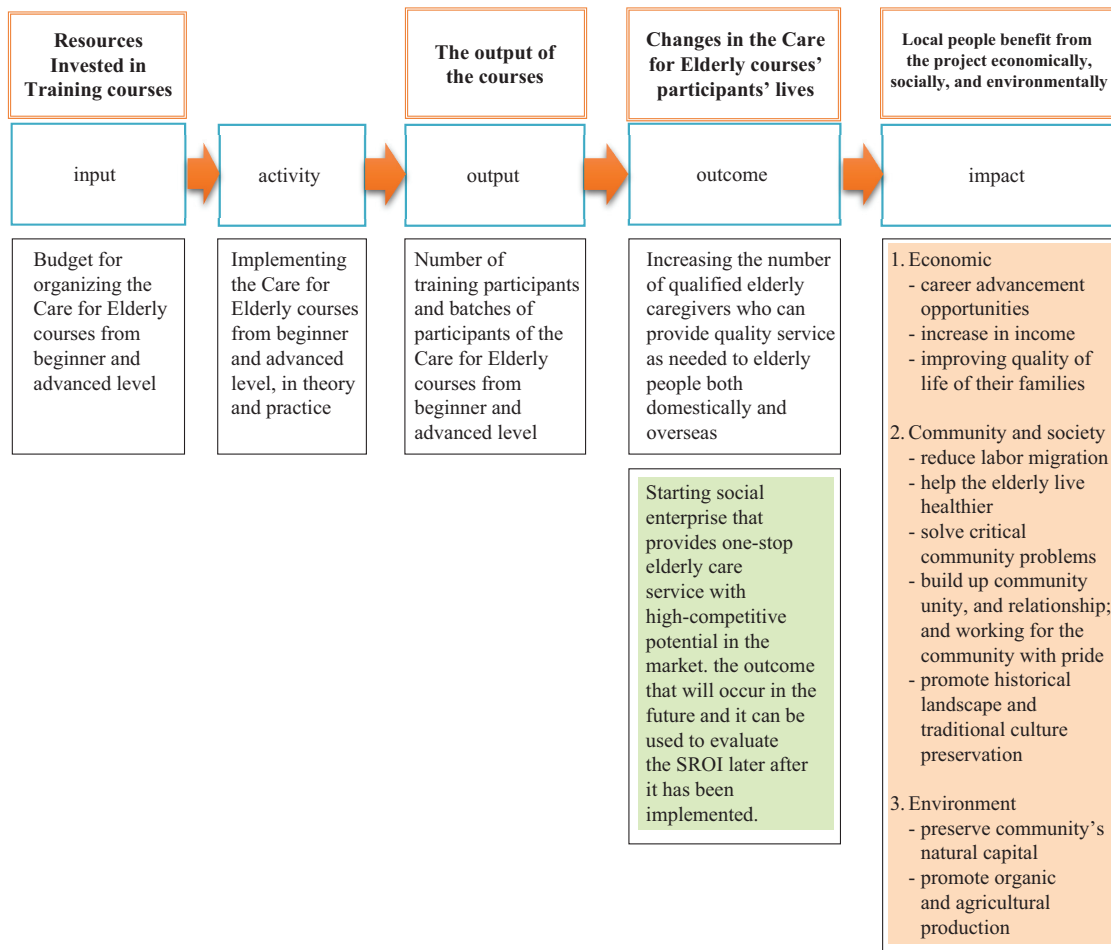


Figure 1 Impact Value Chain of the Project

another agency or project that contributes to the same outcome of this project. The overview of the deadweight and attribution to the outcome of the elderly care service are shown in Table 2.

Social Impact of the Elderly Care Project

A general formula used to calculate SROI (SROI Network, 2012) is the present social impact value generated by the project divided by the present value of the initial investment amount. To find out the actual social impact, the percentages for deadweight and attribution

are needed to be deducted from the total value of social impact. The social impact value of the Mae Mok subdistrict elderly care project was the net actual value, as its deadweight and attribution already deducted it. The calculation of net present value, using a discount rate of 6.2447 percent (Minimum Loan Rate: Average MLR, July 2021), from the data of July 2019 to July 2021, using 2019 as the base year, is shown in Tables 3 and 4

The social impact return on Investment of the care for the elderly courses from July 2019 to July 2021, using 2019 as the base year, was 5.83, which means that 5.83 of social value was created from an investment of 1 baht.

Table 2 Overview of the deadweight and attribution to the outcome of the elderly care service

Stakeholders/ environmental impact	Outcome	Deadweight	Attribution	Explanation
The elderly caregivers and their families	Career advancement opportunities,	0%	100%	The elderly care service has increased the caregivers' incomes from zero to steady and sufficient incomes for their living.
	increase in income,	0%	100%	
	improving the quality of life of the caregivers' families.	50%	50%	
Community/society	Reducing labor migration,	85%	15%	From the interviews with the stakeholders: government agencies, and community members, there were some other ongoing projects for improving the quality of the people's lives.
	solving critical community problems,	70%	30%	
	the elderly in the community gaining access to quality elderly care services and being healthier,	20%	80%	
Clients and community members (Mae Mok subdistrict)	building up community unity and relationship, and working for the community with pride.	0%	100%	From the stakeholders' interviews, all stakeholders are proud of the elderly caregivers, as many were once farm girls. Through elderly care training, they were trained and equipped with knowledge and skills for quality elderly care, and many of them have become good village, healthy volunteers.
	Promoting historical landscape and traditional culture preservation.	70%	30%	
Environmental impact	Preserve the community's natural capital.	90%	10%	From the interviews with the stakeholders: government agencies, and community members, other operating projects produced similar outcomes.

Note: ** Deadweight is the percentage of changes that would have happened anyway (SROI Network, 2012);

** Attribution is the percentage of how much of the outcome was caused by the contribution of other organizations or people. (SROI Network, 2012)

Table 3 The present value of capital expenditures on elderly care training courses amount in Thai baht

Activity	Year 0	Year 1 (Batch 1)	Year 2 (Batch 2)
80-hour care for the elderly courses		387,602.20	229,000.00
420-hour care for the elderly courses		422,655.54	772,239.00
total operating costs	-	810,257.74	1,001,239.00
discount rate	6.2447%		
present value of capital expenditures	1,759,982.57	762,632.87	997,347.71

Table 4 The present value of the social outcomes or benefits and the SROI of the Elderly Care Program Training Program amount in Thai baht

Activity	Year 0	Year 1	Year 2
Income generated from the elderly care service		4,215,000.00	6,323,272.00
total operating costs	-	4,215,000.00	6,323,272.00
discount rate	6.2447%		
present value of the social outcomes or benefits	10,265,966.10	3,967,256.72	6,298,709.38
value of capital expenditures	1,759,982.57		
	5.83		

Discussion and Conclusion

The assessment of the social impact of the project for elderly care service, community enterprise, of the exemplary community: Mae Mok subdistrict, Thoen district, Lampang province involves four primary key informants as follows:

1. Elderly caregivers: They directly impact changes caused by the project as they are members of the Mae Mok Lan La Economic Club and have an essential role in providing elderly care services to the community.

2. Elderly caregivers' families: They take direct impact from changes caused by the project. They keep supporting and are the people closest to the elderly caregivers.

3. Clients: They are general public or public health agencies who take direct impact from the project as they assign work and are employers of the caregivers. The clients are the primary source of the caregivers' incomes, directly and indirectly.

4. Villagers: The villagers are community members, Mae Mok subdistrict. They take direct impact from changes caused by the project as well. They play a significant role in connecting various activities. Some of the activities result from cooperation between the villagers who are members of the Mae Mok Lan La Economic Club enterprise and other villagers of different community enterprises such as Mae Mok Agricultural Herbal Cooperative Ltd. Some elderly caregivers use herbal poultice for knee pain in elderly osteoarthritis, and it works well.

The theory of change and impact value chain analyses showed that: (1) The caregivers got a stable job after being qualified as elderly caregivers. A stable job means a job with career advancement opportunities; an increase in income; and an improving quality of life for their families; (2) Being employed as an elderly caregiver in the community reduces labor migration; solves critical community problems; builds up community unity,

relationship, and pride; promotes historical landscape and traditional culture preservation; preserves the community's natural capital; and promotes organic and agricultural production; and (3) Having caregivers in the community will help to use abundant natural resources, such as organic farming products and herbal plants, to care for the elderly for their better health. This help preserves the natural capital of the community by connecting it to the service of caring for the elderly.

The social impact return on investment of the care for the elderly courses from July 2019 to July 2021, using 2019 as the base year, was 5.83, which means that 5.83 of social value was created from an investment of 1 baht. The number showed that the project and its activities greatly benefit the caregivers and the whole community by providing elderly care services and using local products, such as herbal poultice, in the service. The project generated income for the community enterprise, caregivers, farmers, and people living in the Mae Mok subdistrict and neighboring areas, which helped build community confidence in sustainable development for all stakeholders. The Mae Mok subdistrict became the exemplary community for a potential development project for elderly care service. This community enterprise can sustainably provide quality elderly care service to older adults domestically and overseas.

The results from the social impact assessment showed that project work had changed several areas of the community as follows: economy - creating vital employment opportunities and generating incomes; society—improving the elderly caregiver's wellbeing and quality of life and making them proud of being able to use what they have learned to benefit the elderly in their homeland, and the environment—preserving community's natural capital and promoting organic and agricultural products.

These results were in accordance with the findings of Sathueanprai (2017). The fundamental principles of

social impact assessment are that the existence of diversity between cultures, within cultures, and the variety of stakeholder interests need to be recognized and valued; SIA needs to involve stakeholders as much as possible in the assessment of social impacts, the analysis of alternatives, and monitoring of the planned intervention; and SIA is a proactive stance to development and better development outcomes, not just the identification of adverse outcomes. It assists communities and other stakeholders in identifying development goals and ensuring that positive outcomes are maximized. Therefore, SIA is critical for the success of the project and enterprise and the country's development into a new and knowledge-based economy for sustainable development of the economy, society, and environment.

The social impact return on investment of the care for the elderly courses from July 2019 to July 2021, using 2019 as the base year, was 5.83, which means that 5.83 of social value was created from an investment of 1 baht. The results of the SROI strongly suggested that investment in this community-based elderly care project will be necessary as the return was high and will directly benefit the community members: the caregivers, the caregivers' families, clients, and local people. These results were in accordance with the findings of Pasiphon, that a good project is one that all involved parties understand well; has a big enough social impact or value, both monetary and non-monetary values, to make the project worthwhile for the investment; and can sustainably be developed and contribute to the community (Pasiphon, 2018). Achavanuntakul stated that the return is not limited to monetary or financial value. It can also be intangible or non-monetary returns, such as social innovation that systematically solves the social and environmental problems of the community. Introducing the right innovation will improve the project's financial performance, investing more in the project in the future (Achavanuntakul, 2017).

Tanomsak Srichantra's study: The assessment of social impact and social return on investment for social services a case study of the Create Knowledge Project to career community promotion: Healthy Massage Nakhon Nayok and Srakaew Provinces were also in accordance with the findings above. Srichantra stated that SROI is a tool for measuring the present value of only measurable values. But intangible values are also not measurable, such as happiness, pride, warmth in family, and community acceptance (Srichantra, 2019). These intangible values should be taken into consideration to develop the project.

Recommendation

1. Social return on investment in this study was calculated and evaluated only on measurable data, a value obtained only at the time of the evaluation or present value. Other values from the project, such as being recognized by the community and community participation, cannot be measured. These values were not considered, including the value that will occur in the long-term future.

2. The same research should be conducted in different research areas. The findings of later examinations should be compared with the conclusions of this research. Comparing research results or findings can be helpful in the management, service, and investment development of similar projects under different conditions.

Conflicts of Interest

The authors declare that there is no conflict of interest.

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References

- Achavanuntakul, S. (2017). *A guide to assessing social outcomes and social return on investment*. Office of Research Support Fund (TRF) Sal Forest.
- Earl, S., Carden, R. & Smutylo, T. (2001). *Outcome mapping: Building learning and reflection into development programs*. International Development Research Centre 2001.
- Emerson, J., Wachowicz, J. & Chun, S. (2000). *Social return on investment: Exploring aspects of value creation in the Nonprofit sector*. The Robert Foundation, pp. 131–173. <https://redf.org/wp-content/uploads/REDF-Box-Set-Vol.-2-SROI-Paper-2000.pdf>
- Jirarattanasopha, V., Witvorapong, N. & Hanvoravongchai, P. (2018). Social return on investment for community-based alcohol consumption control program during Buddhist lent. *Journal of Health Research*, 32(6), 398–407. <https://doi.org/10.1108/jhr-11-2018-080> [in Thai]
- Olsen, S., & Nicholls, J. (2005). *A framework for approaches to SROI analysis*. University of California.
- Pasiphon, S. (2018). Open the issue of “issues raising” social return assessment social return on investment (SROI). *Education Journal*, 45(4), 343–353. <https://lib.edu.chula.ac.th/FILEROOM/>

- CU_FORMJOURNAL/DRAWER001/GENERAL/DATA0017/00017179.PDF [in Thai]
- Rotheroe, N. & Richards, A. (2007). Social return on investment and social enterprise: Transparent accountability for sustainable development. *Social Enterprise Journal*, 3(1), 31–48. <https://doi.org/10.1108/17508610780000720>
- Sathueanprai, T. (2017). Social impact assessment model for academic services to the society of institution of higher education. *Journal of the Association of Researchers*, 22(3). http://www.ar.or.th/ImageData/Magazine/10047/DL_10352.pdf?t=637181184617157944 [in Thai]
- Setkij, W. (2020). Sustainable community development in the context of national development. *Burapha Journal of Political Economy*, 8(1), 86. <https://so05.tci-thaijo.org/index.php/Phikun/article/view/260241/175253>. [in Thai]
- Sony, A. & Ferguson, D. (2017). Unlocking consumers' environmental value orientations and green lifestyle behaviors: A key for developing green offerings in Thailand. *Asia-Pacific Journal of Business Administration*, 9(1), 37–53. <https://doi.org/10.1108/apjba-03-2016-0030>.
- SROI Network. (2012). *A guide to social return on investment*. <http://www.socialvaluelab.org.uk/wp-content/uploads/2016/09/SROI-a-guide-to-social-return-on-investment.pdf>
- Srichantra, T. (2019). The assessment of outcomes and social return on investment for academic service work for community: A case study of the project to create a body of knowledge to promote professionalism in the community: Health massage in Nakhon Nayok and Sa Kaeo Provinces. *Journal of Modern Management*, 17(2), 118–125. <https://so04.tci-thaijo.org/index.php/stou-sms-pr/article/view/127427/162462> [in Thai]