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<u>Abstract</u>

The Backyard Food Bank's project emerged from the ideas of individuals who had undergone training in Pheung Ton Pheu Chart Project. Wang Tako Sub-district, Lang Suan District, Chumphon Province. The food warehouse project located in Chomphon Province, covering an area of 31 rai (12 acres) which aimed to create a food reservoir and a refuge during crises. Therefore, this research aims to 1) assess the Social Return on Investment (SROI) and 2) evaluate the Social Impact Assessment (SIA) of the Backyard Food Bank's project covering 31 acres in the Lang Suan Subdistrict, Wang Tako District, Chumphon Province. The researchers collected data from three sample groups: project initiators, project participants, and community residents affected by the project, totaling 40 individuals. Data was gathered through interviews, and both SROI and SIA were calculated. The study revealed that the Backyard Food Bank's project in Lungsuan Sub-district, Wang Tako District, Chumphon Province, has an SROI of 1.25, indicating the project's social return on investment is worthwhile. This signifies that the social benefits derived from the investment are deemed worthwhile. The majority of the returns are attributed to participants gaining knowledge about various activities, enabling them to apply this knowledge in their daily lives. This has resulted in improved mental well-being. Moreover, the Social Impact Assessment (SIA) demonstrated that the project can provide a sustainable and safe food source for the community, fostering increased knowledge of natural farming practices. Additionally, during various crises, the project serves as a refuge. Furthermore, the project aligns with Sustainable Development Goals (SDGs) 1, 2, 3, and 6 and supports the National 20-Year Strategic Plan in two aspects: (1) creating social opportunities and equality, and (2) promoting growth with an environmentally friendly quality of life.

Keywords: Social Return on Investment (SROI), Social Impact Assessment (SIA), Sustainability, The Backyard Food Bank's project

Introduction

In the year 2020, Thailand experienced the outbreak of the Coronavirus Disease 2019, known as COVID-19, resulting in escalating severity. The Cabinet Ministers consequently passed resolutions to temporarily close educational institutions, tutorial centers, and entertainment venues. Additionally, various companies had to cease operations, leading to a significant increase in unemployment, reaching around 300,000 to 400,000 individuals in the first quarter and 700,000 to 800,000 individuals in the third quarter (Pornchaiwisetkul, 2021). Recognizing the profound impact of unemployment on individuals and families, and acknowledging the importance of self-reliance during crises, the Self-Reliance for the National Project, or known as "Pheung Ton Pheu Chart" Project was initiated under the leadership and initiative by Ms. Pannar Paholyothin the 3rd generation of Yoovidhya Family. It aimed to empower those affected by the COVID-19 pandemic to become self-reliant, appreciate their self-worth, and revive the intrinsic wisdom and good cultural values of the Thai people. The project was established with the collaboration of two key network partners, led by Mr. Wiwat Salyakamthorn, also known as "Ajarn Yak," and Arsom Silp Institute of the Arts, under the guidance of Ajarn Prapapat Niyom. The project aimed to impart knowledge, foster self-sustainability, and create new societal values. The targeted group for the project included those who had lost their jobs and were impacted by the COVID-19 crisis. The initiative sought to revive and guide people to return the roots of Thai wisdom, culture, and promote the principles of sustainable economy and modern agriculture, enabling individuals to become self-reliant (Arsom Silp Institute, 2020).

The Backyard Food Bank's project emerged from the ideas of individuals who had undergone training in Pheung Ton Pheu Chart Project. It is a practical activity originated in the Pannar Sufficiency Economic and Agriculture Learning Center, Khao Yai, Nakhon Ratchasima Province and Ban Khru Noi in the midst of the large forest in Wang Tako Sub-district, Lang Suan District, Chumphon Province. The project, covering an area of 31 rai (12 acres), aimed to create a food reservoir and a refuge during crises. Through its operations, the project was able to generate benefits for the local community and those impacted by various crises during pandemic. However, assessing the outcomes and social impacts of the project, especially in terms of a balanced evaluation considering economic, social, and environmental aspects, proved challenging. Therefore, the evaluation of SROI became an essential tool for assessing the social returns resulting from the project activities. The assessment aimed to provide a fair and clear evaluation of the economic, social, and environmental impacts of the activities, as well as to determine the value of the investment. Hence, evaluating the SROI from the Backyard Food Bank's project, covering 31 rai (12 acres), in Wang Tako Sub-district, Chumphon Province, is crucial. It will not only validate the social value of the project but also utilize the assessment data for decision-making regarding similar community activities in the future.

Literature Review

Social Return on Investment (SROI) is an approach used to analyze the benefits of various projects that contribute to societal and environmental well-being. SROI is a social concept employed to measure the economic returns on investment, assessing the social value added by business activities and reflecting the operational outcomes (Kim & Ji, 2020). The concept of SROI evolved from the Cost Benefit Analysis (CBA) tool, which was first utilized in the year 2000. Subsequently, in 2009, a guide was published, emphasizing the need to understand the value of social work and determine if the investment made by individuals working in the social sector could create meaningful changes. SROI indicates the social return generated for every one unit of currency invested, providing a measure of social impact (Buathong, Srakawee, & Phanitchareon, 2021). The SROI evaluation emphasizes Stakeholder Engagement and the analysis of the Theory of Change, illustrating the linkages between Inputs, Outputs, Outcomes, and Impacts. SROI is beneficial for improving various aspects of organizational operations in diverse contexts, such as understanding the creation of value for the organization, society, and the environment simultaneously. It fosters a positive perspective in operations by attempting to manage negative outcomes, ensuring sustained mutual care from both the organization and the community (Kanthiya, 2017).

Currently, SROI is widely popular in social projects as it involves the comprehensive assessment of all stakeholders, allowing organizations or projects to evaluate various dimensions of stakeholders' gains and losses (Cooney & Lynch-Cerullo, 2014). SROI is often utilized to assess the impact of public health projects (Banke-Thomas et al., 2015) and various social projects, including urban agriculture initiatives (Martin et al., 2022), especially in the context of food assistance. The SROI evaluation consists of six steps: (1) Identifying Stakeholders, (2) Creating a Results Map, (3) Assessing and Valuing Results, (4) Defining Impacts, (5) Calculating SROI, and (6) Reporting Results (Davies et al., 2016). Can be explain by the following (Nunsuphawat *et al.*, 2022):

The calculation of SROI involves aggregating the total value of benefits that occur for stakeholders and calculating the present value of the social return, using the following formula (Buathong, Srakawee, & Phanitchareon, 2021):

$SROI = \frac{Net Social Return}{Net Investment Cost}$

From the literature review, it is observed that the SROI calculation formula mentioned above is utilized in various research studies both within Thailand and internationally. Thai research studies include those by Srijantha & Satheunprai (2019), focusing on evaluating outcomes and social returns on investment in community academic service projects. Another study by Nunsuphawat et al (2025) analyzed the social return on knowledge dissemination projects promoting community health through massage in Nakhon Nayok and Sa Kaeo provinces. Additionally, Chaisong et al (2022) studied the social return on long-term care services for elderly individuals with disabilities in the Sa-ad subdistrict of Nampoung District, Khon Kaen Province.

Internationally, the SROI formula has been employed in research such as the study by Millar and Hall (2013), which investigated social returns on investment (SROI) and performance measurement, opportunities, and challenges for social enterprises in the health and social care sector. Gambhir et al. (2017) explored social returns on investment (SROI) for the corporate social responsibility (CSR) projects of Hindustan Unilever Limited (HUL) related to sustainable living. Refki et al. (2020) investigated the social returns from social investment in the assessment of the public art exhibition Refki et al. (2023) examined the impact measurement of food assistance by analyzing the social return on investment.

In summary, the literature review suggests that evaluating social returns on investment (SROI) is a means of measuring changes or outcomes affecting stakeholders impacted by operational activities. This approach reflects the value of investment, with the SROI formula predominantly used to calculate the present value of all benefits divided by the present value of the investment cost. Therefore, in this study, the researchers chose to utilize the aforementioned formula to assess the social returns on investment and applied it to evaluate the social impacts, both direct and indirect, of the food bank model covering 31 acres in Wangtako Sub-district, Lhangsuan District, Chumphon Province.

Research Methodology

This study employs an Evaluation Research approach, collecting data through interviews with stakeholders involved in the Backyard Food Bank's project covering 31 acres. The details are outlined as follows:

- 1. Stakeholders: Stakeholders from the Backyard Food Bank's project can be categorized into three groups: project initiators, participants, and community residents or those in nearby communities (within a distance of 1-5 kilometers from the activity). The total number of stakeholders involved is 40. The selection of stakeholders from all three groups is done through Purposive Sampling.
- 2. Research Tools: The research utilizes interviews as the primary tool for data collection, specifically conducting on-site interviews with the identified stakeholders.
- 3. Data Analysis: Data analysis is bifurcated into two parts: qualitative analysis, which assesses the impact of the social impact assessment (SIA) activities, and quantitative analysis, which evaluates the social return on investment (SROI) from the undertaken investments.

Results

1. Social Return on Investment (SROI) Evaluation:

The assessment of Social Return on Investment (SROI) from the implementation of the Backyard Food Bank's project on a 31-acre site in Wang Tako Sub-district, Lang Suan district, Chumphon province, with a budget allocation of 1,352,000 Baht, yielded the analysis of two benefit periods: (1) Net Present Value of Benefits and (2) Net Present Value of Benefits occurring over the next 10 years (2032), considering the project's initiation (Ex-ante Evaluation). Additionally, (3) the value of benefits derived from the dissemination of various knowledge to other areas (Spillover Effect). The calculation of the Net Present Value of Benefits and Social Return on Investment (SROI) can be described in the following table.

Social Impact	NPV	SROI	IRR
1. Total Net Profit Value	178,365.75	1.25	19 %
2. Total Net Profit Value in 10 years period	5,148,000.00	3.59	29 %
(2024-2032) value baseline from 2023			
3. Impact value where the practice and	6,448,000.00	4.30	32 %
knowledge apply to other areas			

Table 1: Net Present Value of Benefits and Spillover Effect from Knowledge Dissemination

Source: Derived from calculation

Remark: Limit the discount rate at 5 % by reference from the inflation rate in the 3rd Quarter of 2023

From Table 1, it is evident that the results of the Social Return on Investment (SROI) evaluation at present show a value of 1.25. This indicates that the social return on investment is 1.25 times the actual investment. In other words, an investment of 1 Baht results in a social return of 1.25 Baht. Moreover, over the course of the 10-year project duration until the year 2032., the SROI is calculated to be 3.59. This reflects the long-term viability and effectiveness of the project investment. If various knowledge entities can disseminate to other areas (Spillover Effect), starting from the year 2024., this situation can occur when the Backyard Food Bank's project drives knowledge adoption or when other organizations benefit from it. The adoption of knowledge results in an increased added value of 4.30 within the year 2032, indicating the direction or community action plan for future knowledge dissemination to external parties.

2. Social Impact Assessment (SIA)

From the Social Impact Assessment (SIA), it is found that the Backyard Food Bank's project, 31 Rai, has social impacts in four dimensions, namely social, economic, health, and environmental. The details are as follows:

2.1 Social Dimension

In the social dimension, the Backyard Food Bank's project contributes to increased agricultural knowledge in the community, providing a genuine learning space for those interested in farming. This development can guide future initiatives to create sustainable food sources for other areas. Moreover, the Backyard Food Bank's, 31 Rai, can serve as a refuge for individuals injured by urban society.

2.2 Economic Dimension

In the economic aspect, the Backyard Food Bank's, 31 Rai, establishes a safe and sustainable food source. The community can purchase products from this area at a lower cost than market prices. Additionally, an increase in visits for educational purposes or tourism will enhance local businesses, leading to increased income.

2.3 Health Dimension

The community benefits from having a safe food source, resulting in improved health among its residents. Participants in the activities also experience improved mental well-being and happiness.

2.4 Environmental Dimension

The environmental impact involves an increase in green spaces within the community, contributing to a more sustainable local ecosystem. However, challenges related to dust arise from soil excavation and relocation, which the model addresses by spraying water to control dust when soil is transported out of the area and through the community.

Conclusions

In evaluating the Social Return on Investment (SROI) from the investment in the Backyard Food Bank's project, 31 Rai, located in Wang Tako Subdistrict, Lang Suan District, Chumphon Province, it is found that the current SROI is 1.25. This signifies that the social benefits derived from the investment are deemed worthwhile. The majority of the returns are attributed to participants gaining knowledge about various activities, enabling them to apply this knowledge in their daily lives. This has resulted in improved mental well-being. Furthermore, the Social Impact Assessment (SIA) reveals that the Backyard Food Bank's project has social impacts in four dimensions: social, economic, health, and environmental. In the social dimension, the community gains increased knowledge in agriculture, potentially serving as a refuge for those injured by urban society. Economically, the model establishes a safe and sustainable food source, allowing the community to purchase products at lower costs. Health-wise, the community experiences improved health, and environmentally, there is an increase in green spaces, contributing to a sustainable local ecosystem. The Backyard Food Bank's project in Wang Tako Subdistrict, Lang Suan District, Chumphon Province, serves as a model aiming to create a sustainable water and food source for the community, acting as a refuge for those impacted by food crises. This aligns with Sustainable Development Goals (SDGs), particularly Goal 1: End poverty in all its forms everywhere, Goal 2: End hunger, achieve food security, and promote sustainable agriculture, Goal 3: Ensure healthy lives and promote well-being for all at all ages, and Goal 6: Ensure availability and sustainable management of water and sanitation for all. Additionally, it aligns with the national strategies focusing on creating opportunities, social equality, and sustainable growth in quality of life and environmental friendliness over the next 20 years.

Recommendations

National Policy Recommendations

The Backyard Food Bank's project in Wang Tako Sub-district, Lang Suan District, Chumphon Province, demonstrates its alignment with Sustainable Development Goals (SDGs) and the 20-year national strategies. It should be recognized as a prototype model that can be developed and expanded to other areas.

Future Study Recommendations

In future studies, it is recommended to include additional metrics such as Societal Readiness Level (SRL) and Technology Readiness Levels (TRLs) to measure the success factors of the project, including knowledge and technology readiness levels.

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