The 16-Year Experiences of Poverty Reduction Fund in Community - Driven Development in Rural Laos;

Community-Driven Development in Laos: Dilemma and Hope of Saemaul Undong and Poverty Reduction Fund Approaches;

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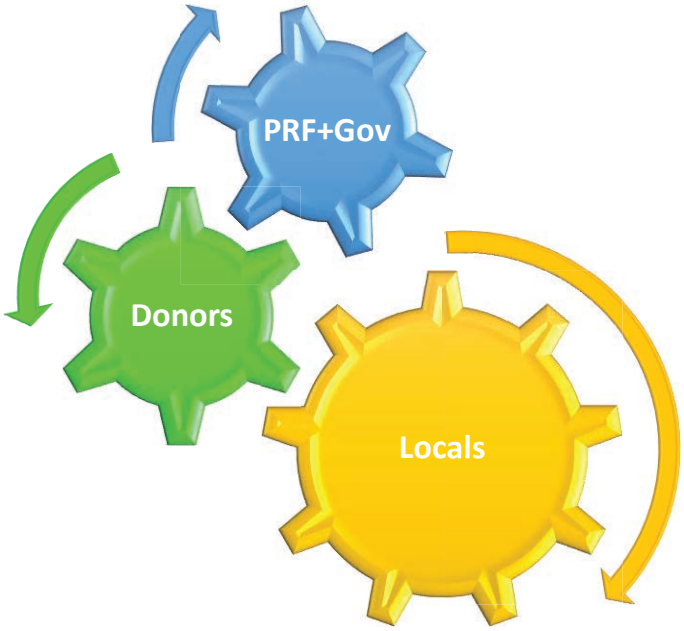
The 16-Year Experiences of Poverty Reduction Fund in Community Driven Development in Rural Laos



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Abstract

This paper critically analyzes the 16-year experiences of the Poverty Reduction Fund in community driven development in rural Laos. Two case reviews of PRF CDD approaches namely Community-Force Account (CFA) and Self Help Group (SHG) were examined and analyzed. A case study of SHG Sakok village, Hiem district, Houaphan province is further conducted to reflect on the achievements of the PRF CDD approaches. The main objectives of this research are to examine how local ownership, which is a key principle of local sustainability, is developed and what are the impacts of PRF CDD approaches on women empowerment and local sustainability. Mixed research methods are applied. While the qualitative method focused on conducting life historical experiences of the SHG Sakok villagers as well as to review the CFA and SHG evaluation reports, the quantitative method was applied to analyze survey data of 57 households. Rating scale 1-5 (1=strongly disagree, 2=disagree, 3= neither disagree nor agree 4=agree and 5= strongly agree) was applied for the result interpretation. This research found that:

The CFA and SHG approaches have applied the local ownership principle through collective actions, and process-based learning approaches and funding is managed by locals. While the main role of PRF is given a facilitator, local communities play their role as project designers, and implementers, and manager and take control of all development processes. As result, their sense of belonging is developed and their ownership is significantly high. Furthermore, CFA and SHG approaches have significantly contributed to promoting women's leadership empowerment ($\bar{X}$= 4.38, SD=0.75) regarding self-decision making, financial and market access, and leadership. This empowerment is likely to contribute to the shifting roles of females from being traditionally considered as a housewife to be a key income earner and community leaders. This shifting role explains that gender role is tangible and it can be changed when women are empowered through market access.

The success, however, comes with many challenges for PRF to sustain the projects after ending support from donors including the difference of financial policy support for small-scale projects, which is not applicable for current Lao government financial policies. Moving from a learning group of SHG to be a production group or cooperative is challenging. However, this movement is very important for local sustainability how they can have better access to markets.

Based on research results, this study suggests PRF to search for additional budgets for monitoring and supervising local communities (either from PRF and/or from the government) for specific needs and assistance after ending financial support from donors. PRF should also have a serious consultation meeting with the Lao government bodies regarding how to incorporate PRF financial policies for the small-scale project into the Lao government finance system. Otherwise, the PRF CFA and SHG models are meaningless and cannot be practical when donors are unavailable.

Keywords: Community Driven Development, Poverty Reduction Fund, Local ownership Principle, Women Empowerment, and Financial Access.

Executive Summery

Introduction

Since 1986, the Lao government has introduced New Economic Mechanisms (NEWs) reform which focuses on the transition from natural and half-natural economy to market-based economy orientation and the NEWs was identified as one of the significant national development policies in the 2nd National Social and Economic Development Plan 1986-1990 of the Lao PDR (Ministry of Planning and Investment, 2015). Within this policy reform, the country has been widely opened to the eyes of global investors focusing on large scale industries (Fullbrook, 2010). However, many rural communities are still facing many challenges regarding creating jobs for the poor, poor infrastructure development, an access to market and credit services, and gender inequality.

In response to the challenges, the Lao government has opened the country to receive foreign aid through donor agencies and a poverty reduction fund (PRF) has been established to play this role since 2002. One of the main roles of the PRF is to provide small grants supported by government and donors' funding resources to local poor communities and to work closely with local communities aiming to reduce poverty issues in remote areas. The grants are given to different local development projects including infrastructure development, vocational and capacity building, administration and project management, livelihood, and nutrition improvement (Poverty Reduction Fund, 2019).

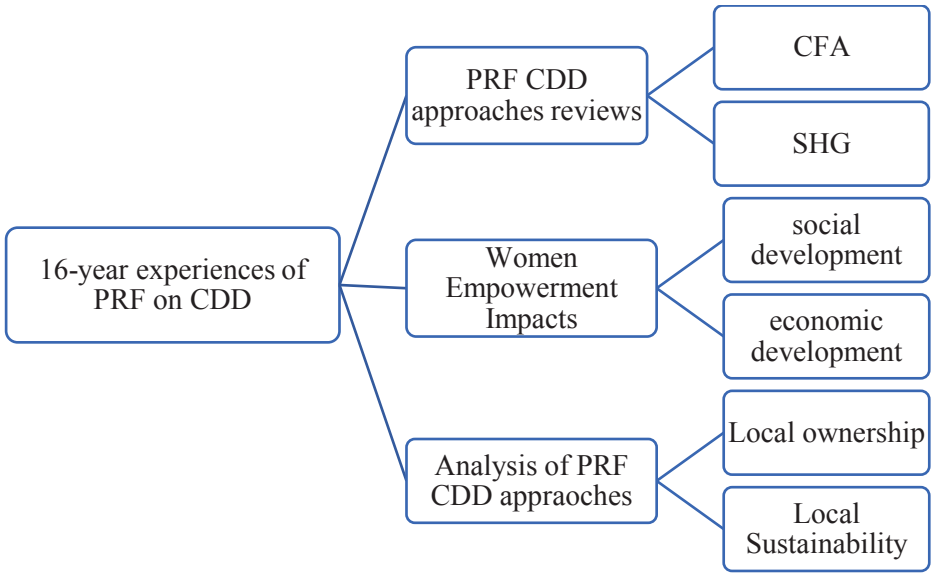
The implication of the donor-based orientation, however, many scholars claim that donor-based development agencies or INGOs play significant roles in social development in Laos and tend to take control of social development scene (Mukasa, 1999; Owen, 2010; McWha, 2011) so this often leads social development dimension into dependency on expert lead and foreign aid assistance. Thus, local ownership, which is a key principle of local sustainability, becomes a caution.

Like other development agencies in Laos, the PRF's premise "give a man a fish you feed him for a day but teach a man to fish you feed him for the lifetime" (Poverty Reduction Fund, 2019). This infers that the remaining grant assistance in Lao rural areas forever might not be the main objective of the PRF but aim to strengthen village leadership so that locals can step forwards with their own development journey.

Therefore, it is significant to examine how local ownership is developed and what are the impacts on women empowerment, social, and economic development concepts of the case study. It is also significant to understand the strengths and challenges of the PRF CDD approaches based on statistics, local views, and research results so that PRF can apply them in actions and negotiation with different stakeholders both for short and long-term plans.

Research Objectives: the central objectives of this research are to examine how local ownership, which is key principle of local sustainability, is developed and what are the impacts of PRF CDD approaches on women empowerment and local sustainability.

Conceptual framework



Methodology

Mixed research methods were applied. The qualitative method focused on conducting life historical experiences of local communities. Two case reviews: Community-Force Account (CFA) and Self Help Group (SHG) were examined and analyzed and a case study of SHG Sakok village, Hiem district, Houaphan province is further to reflect on the achievements of the PRF CDD approaches. The quantitative method was applied to analyze a survey data of 57 households. Rating scale 1-5 (1=strongly disagree, 2=disagree, 3= neither disagree nor agree, 4=agree and 5= strongly agree) was applied for the result interpretation.

Findings, discussion and analysis

Overview analysis of the PRF approach

From a financial perspective, it is cleared that PRF has received funding mainly from INGOs and some contributed funding from the Lao government. Statistics show that since 2003 to 2019, the PRF has received USD 187 million and this financial resources mainly come from INGOs, and less than 10% contributed by the Lao government (Poverty Reduction Fund, 2019). The coming of these financial resources create concerns for many CDD scholars arguing that donor-based development agencies or INGOs play significant roles in social development in Laos and tend to take control of social development scene (Mukasa, 1999; Owen, 2010; McWha, 2011).

However, this research found that even though the PRF's funding has been supported by many INGOs, the PRF is unlikely influenced by donors in terms of expert lead dependency. Rather the PRF collaboratively and directly works with the local community based on the philosophy of "*from the people, by the people and for the people", and "peer to peer leaning method*" (Poverty Reduction Fund, 2019, p. 3).

Based on the given PRF philosophy, Community-Force Account (CFA) and Self-Help Group (SHG) are considered as the best practices of the PRF CDD approaches. These CDD approaches have considered core CDD principles including local ownership, collective action, process-based learning, women empowerment and local sustainability

Local ownership

PRF has considered the significance of local-lead solution. Therefore, all CFA and SHG projects are discovered, developed and managed by local members. Considering this role from the Tagore's theory of dialogue found that the facilitation role encourages PRF to understand and find facts of what and why is happening through listening and paying attention to local experiences.

This collective agreement is termed as **collective practice** meaning that to work as a group and giving a trust to each other. When a feeling of trust is established, this will then create open space or a safe environment for discussion and enhance a communication and co-operation more effectively. It encourages participants to share more about their concerns and problem solving ideas (Westoby & Dowling, 2013). Within this facilitation role, the PRF can "*see what people*" (Buber, 1958) and this is crucial from community development perspectives.

The CFA and SHG projects have considered the importance of **process-based learning approach** rather than **outcome-based development approach**. Ife (2013) highlights the distinction journey between these two principles. The outcome focuses on a destination, so plans are created and they are put in place as a linear progress. The process, in contrast, is a journey of discovery. During the journey, a number of either expected or unexpected experiences are encountered, and this discovery journey becomes more significant than the end of the journey itself (Ife, 2013). In addition, the process is crucial because it can determine the outcome and these two principles reflect on each other (Gandhi cited in Ife, 2013).

Gender empowerment

Both CFA and SHG projects open spaces for women's participation in public. Results show that perfections on women has been changed. Traditionally, textile work is given to females rather than males in the Sakok community. However, this mindset has been significantly changed and males strongly participate in textile activities.

The shifting **gender roles** creates open spaces for social inclusion as well as financial accessibility regardless gender and ethnicity differences. When females can access to the financial capital, they enable to **access to markets** (Alkire et al., 2013). This argument is convincing as more poor families enable to access to not only market but also health services when they earn more income.

Local sustainability

CFA approach opens for locals to enable to manage the subproject projects' funding by themselves. During 2012-2019 the funding cost of a CFA sub-project was between US$ 30.000-50.000. However, this funding experience was likely appropriated technical projects that required skillful expertise rather than local villagers. Since 2020, a CFA sub-project is set for 14.500 USD with the aim to benefit all local skill workers at community level. Local communities learn how to manage the funding as well as project tasks implementation so their sense of belonging is significantly developed. Therefore, local ownership is fully developed since the beginning of the CFA activities. Like CFA, this research findings reveal that SHG approach also emphasizes on strengthening local capabilities through encouraging on self-reflection and discovery of their local wisdom as well as local resource potentials. In addition, both CFA and SHG approaches provide small funding for local communities and encourage them to enable to come up with simple and small-scale projects. However, this kind of funding assistance, which is managed by locals, is currently not applicable for the Lao government policy.

These research findings are supported by Ife's theory (2013, p. 270) arguing the importance of accepting the philosophy of "*small is beautiful*". Ife explains that it is not easy to apply this theory into practice because it means to minimize the growth concept while nature of human needs is likely to emphasize on growth and growth concepts. Even though, limiting growth is challenging, it is a significant concept for sustainable principle (Ife, 2013). This in turn can bring in the notions of **self-reliance** which is very important for community driven development (Ife, 2013).

In short summary, the findings present many positive impacts of the CFA and SHG projects on women, social and economic empowerment and development. However, both CFA and SHG approaches are currently active with PRF projects due to the fact that PRF has not only financial capability but also specific financial policy supports that allow local communities to access to funding and to enable to control all development process and implementation of the CFA and SHG projects. If these financial policies are integrated and fully applied by the Lao government policies, both CFA and SHG approaches are potentially sustainable with considering other factors such as educational levels and strong local leaderships. If not, sustainably becomes a question when PRF is inactive. Therefore, PRF CFA and SHG approaches still face many challenges

Challenges

Firstly, the PRF CDD approaches are mainly based on donor-based assistance regarding financial assistance. The question remains who will continue the work (follow up and monitoring) when ending financial support. Secondly, the PRF CFA and SHG models are only applicable to PRF financial policies but it is not applicable in current Lao government finance policies. Thirdly, despite the fact that PRF has implemented more than a thousand of SHG and CFA projects, arguing for a right CDD model that can be applied across the rural Laos is also questionable due to different

local contexts need specific attention and assistance. Finally, moving from a learning group of SHG to be a production group or cooperative is challenging. However, this movement is very important for local sustainability the way in which they can have better access to markets.

Recommendations

Based on research results, this research suggests PRF to:

1) continue to apply the CDD approaches in order to improve the quality of life of locals as to help the country to achieve the goal of graduating from the list of Least Developed Countries. However, the promotion of CDD approaches should focus on quality rather than quantities;
2) continue to promote those local communities successfully applied the CDD approaches as well as to encourage and support them to next levels of community organizing such as a production group and cooperative so that they can access diverse markets and have more power control market price;
3) having additional budgets for monitoring and supervising local communities (either from PRF and/or from the government) for specific needs and assistance after ending financial support from donors are also important in order to ensure that issues are properly addressed;
4) have a serious consultation meeting with the Lao government bodies regarding roles and responsibilities of PRF in rural development. There is a need of having permanent institutional and financial assistance from the Lao government in order to fully apply CDD approach;
5) integrate financial policies for small-scale projects between the PRF and the Lao government. The policy should be connected and interchangeable. Otherwise, the PRF CFA and SHG models are meaningless and cannot be practical after ending financial support from donors.

1. Contextual Background and Research interest

Lao People's Democratic Republic (Lao PDR or Laos) is a landlocked country surrounded by Vietnam in the East, Cambodia in the South, Thailand and Burma in the West, and China in the North. The country's status has been listed as one of the least developed countries (LDC) amongst the other ASEAN Nations. In terms of social and economic development in Laos, the country has faced many difficulties in different periods of time. Before 1975, Laos had been fighting diverse wars and people were suffering from hunger, loneliness, and safety concerns. They were not given a chance to think about how to have better living conditions rather forcing them to think about how to survive from wars. Therefore, social and economic living conditions at that time were so poor and GPD per capita was below USD 100 (Poverty Reduction Fund, 2016)

After 1975, at the time Laos became independent, the government of Laos has issued two significant national strategies. The first is to preserve national sovereignty and to build upon the national social and economic development dimensions (Poverty Reduction Fund, 2016). The second is to solve the poverty issues of all Lao ethnic groups in order to bring the country to graduate from LDC. For a decade (1975-1985) that the Lao government had been emphasizing these initiative strategic plans by keeping a closed relationship with the former the Union of Soviet Socialist Republics or the Soviet Union. With the assistance of the Soviet Union, cooperative production systems were introduced and applied as the first Lao National Social and Economic Development Plans. However, unlike the great achievement of the cooperative production system in the Soviet Union at that time, the Lao government failed to apply this policy system effectively in the Lao social and economic context.

Since 1986, the Lao government has introduced New Economic Mechanisms (NEWs) reform which focuses on the transition from natural and half-natural economy to market-based economy orientation and the NEWs was identified as one of the significant national development policies in the 2nd National Social and Economic Development Plan 1986-1990 of the Lao PDR (Ministry of Planning and Investment, 2015). Within this policy reform, the country has been widely opened to the eyes of global investors. Therefore, more partnership and large investment projects have been taken into Lao communities such as mining, infrastructure construction, and hydropower projects.

According to Fullbrook (2010), there are concerns of social costs on the environment and local livelihoods as the result of a big-push development paradigm with a focus on the extraction of natural energy resources. The concerns are commonly related to the loss of land, gender inequality, low quality of life of local livelihoods, food insecurity, social and economic disparities, dependency on foreign aid, and lack of local leadership empowerment (World Bank, 2013). Moreover, research suggests that despite impressive GDP growth, vulnerable communities are still remaining high and there is changing one form of poverty to another (Chamberlain, 2007). These concerns undermine national resilience and security (Fullbrook, 2010)

In response to this challenge, the Lao government has opened the country to receive foreign aid through donor agencies and a poverty reduction fund (PRF) has been established to play this role by the Lao government since 2002. One of the main roles of the PRF is to provide small grants supported by government and donors' funding resources to local poor communities and to work closely with local communities aiming

to reduce poverty issues in remote areas. The grants are given to different local development projects including infrastructure development, vocational and capacity building, administration and project management, livelihood, and nutrition improvement (Poverty Reduction Fund, 2019). In terms of funding resources, the PRF has received USD 187 million from 2003 to 2019 and this financial resources came from World Bank 54% (33% is loan capital), Swiss Agency for Development and Cooperation (SDC) 23%, AusAIDS 9%, Government of Laos 9%, Lao Uplands Food Security Improvement Project 4%, and the Japan Social Development Fund 1% (Poverty Reduction Fund, 2019). Through this grant, 11 provinces of Laos have been advantaged. Sakok village, Hiem district is the first PRF community-driven development pilot project in Huaphanh province and it has been claimed as a successful case by the PRF (Poverty Reduction Fund, 2016).

The implication of the donor-based orientation or in other words this development trend is called the 'localization' concept (McWha, 2011), however, many scholars claim that donor-based development agencies or INGOs play significant roles in social development in Laos and tend to take control of social development scene (Mukasa, 1999; Owen, 2010; McWha, 2011). The INGOs primary provides development resources, and ask the participation of the Lao government agencies to take a partner role including PRF. Often roles of many local government agencies are considered as having the low capacity to run social and economic development activities or projects so floors are given to external experts to take charge of development processes (Mukasa, 1999; Owen, 2010). Furthermore, donors often provide grants with specific: objectives, indicators, or development criteria and ask local partners to follow rather than encourage them to be creative thinkers and initiators (Mukasa, 1999) so it often leads social development dimension into dependency on expert lead and foreign aid assistance. Thus, local ownership, which is a key principle of local sustainability, becomes a caution.

Like other development agencies in Laos, the PRF's premise "give a man a fish you feed him for a day but teach a man to fish you feed him for the lifetime" (Poverty Reduction Fund, 2019). This infers that the remaining grant assistance in Lao rural areas forever might not be the main objective of the PRF but aim to strengthen village leadership so that locals can step forwards with their own development journey. Within this aim, one of the crucial tasks for the PRF is to develop local ownership through a community-driven development approach (CDD). The local ownership concept is widely discussed by scholars in diverse terms such as a) empowerment: a process of giving power to another (Pigg, 2002), b) people-centered: participatory, right-based and transformative development processes (Eade & Rowlands 2003; Chambers, 1981).

This ownership concept is considered a key element of the bottom-up development approach or developmental approach (Westoby, 2013). The bottom-up approach can be an alternative to tackle the limitations of the top-down or service delivery approach (Westoby, 2013) to community and social development. Although the PRF itself has claimed the many great achievements of the CDD pilot projects, the lack of scientific research findings becomes the gap of this research interest. The fact that there is no scientific research on to what extend whether or not the PRF has fully acknowledged the CDD principles and applied them in actions. Therefore, it is significant to examine how local ownership is developed and what are the impacts on women empowerment, social, and economic development concepts of the case study. It is also significant to understand the strengths and challenges of the PRF CDD approaches based on statistics, local views,

and research results so that PRF can apply them in actions and negotiation with different stakeholders both for short and long-term plans.

2. Research Objectives

The main objective of this research is to review the 16-year experiences of PRF for CDD development in Northern rural Laos and to examine the sustainability of the PRF CDD projects. This objective has come with two sub-objectives including:

1) To review the CDD approaches of the PRF;
2) To examine the impact of CFA and SHG approaches on women empowerment with a focus social and economic development;
3) To critically analyze PRF CDD approaches through local ownership and sustainable CDD principles.

3. Literature Review

3.1. Understanding CDD principles

It is acknowledged that there are many CDD principles. However, according to Ife (2016) & Westoby (2016) who are well-known experts in community development, the key principle of the CDD is "local ownership". These authors explain that local ownership means that the process of development is owned and controlled by locals and the ownership is developed when dialogue, process-based, collective, and sustainability principles are applied at the initial stages of development processes. These three principles are following discussed.

Dialogue principle

It is a flow conversation that participants feel free to share and build upon a friendship among the group, which is much more significant than holding a position. This, therefore, opens a space of thinking, exchanging, and discovering any thought that can be creatively created and reestablished by group members (Bohm & Peat cited Smith, 2001). These authors elaborated that it is a speech that comes across, between, or through two persons. It is not a specific form of communication that requires a particular question and answer but it is a relationship and social interaction that create a good environment for participation.

Nobel Prize, Rabindranath Tagore, who theorizes dialogue as 'see what people' explains that the concept of this theory is to try to understand and find a fact of what and why is happening by listening and paying attention to the sharing of dwellers' experiences. Tagore's theory gives an important lesson to learn to readers because it encourages readers to reflect on the question of what are the major issues against community practitioners seeing what other people see. The common answers would be a lack of time to understand, a lack of experience, a culture difference yet the crucial answer to this writer is expertise. The higher qualifications may prevent a community practitioner from perceiving a fact because practitioners may work with a feeling of expertise that is filled by professional literature and experts; therefore, an assumption, often, could be made even before they listen to others.

This concerning also happens to a lecturer, an author, and a community expert who urges masters of development students about the danger of studying is that people tend to apply

service-delivery approaches rather than developmental approaches (Westoby, 2013). This means that community practitioners often come with a processional analysis when they work with a community instead of listening to residents. This move often results in reducing the ability of practitioners to listen and learn from people (Westoby, 2013).

Process versus outcome principle

The potential tensions between the process and outcomes have been one of the major concerns in community work (Westoby and Dowling, 2013; Ife, 2013). According to Alinsky (1971 cited in Westoby and Dowling, 2013), the results can be more significant than how they are achieved. Alinsky claims that the ends are more critically significant than the means. His view has been the basis of controversial discussions in the community development field. A well-known alternative to Alinsky's point of view is the Gandhian approach. This approach contends that the process and the outcomes are integrated. The process is crucial since it can determine the outcome and these two principles reflect on each other (Gandhi cited in Ife, 2013).

Also, Ife (2013) highlights the distinction journey between these two principles. The outcome focuses on a destination, so plans are created and they are put in place as linear progress. The process, in contrast, is a journey of discovery. During the journey, a number of either expected or unexpected experiences are encountered, and this discovery journey becomes more significant than the end of the journey itself (Ife, 2013). While the former type of journey is regarded as being more popular for government and internal development agencies, the latter journey is popular among community experts (Ife, 2013). This means that from a community development perspective, the process of community development cannot be owned by external factors such as external experts, the private sector, or a government sector. It has to be owned and be managed by a local community (Ife, 2013).

Collective Principle

Community is also seen as a collective practice. This practice means working as a group and giving trust in each other. A group, together, works and collaborates to build upon development with a common purpose. The collective practice is further explained that it is a trust given to group members that would enhance communication and co-operation more effectively. When a feeling of trust is established, this will then create an open space or a safe environment for discussion. This would encourage participants to share more about their concerns and problem-solving ideas (Westoby & Dowling, 2013).

Furthermore, the more people share, the better suggestions or solutions can be made and these can be addressed in strategic plans. As result, policies for collective social change can be then created (Henderson and Thomas cited in Westoby, 2013; Westoby & Dowling, 2013). This understanding has been further confirmed by a co-winner of the 2009 Nobel Prize Elinor Ostrom and her colleagues researched Working Together: Collective Action, the Commons, and Multiple Methods in Practice (Poteete et al. 2010 cited in Westoby & Dowling, 2013). Their findings revealed that 'under certain conditions, people can work co-operatively' (Westoby & Dowling, 2013, p.8). Therefore, a community in the lens of collective practice is the collaborative work that focuses on participation, opening to listen to different viewpoints and respecting on a group decision making.

Local Sustainability

Limiting growth is a significant concept for this principle (Ife, 2013). Even though minimizing the growth component is a major challenge, community practitioners must encourage communities to accept a philosophy of "small is beautiful" (Ife, 2013, p. 270). This, in turn, can bring in the notions of independence, self-reliance, balance, and harmony, which are very important for community development (Ife, 2013). The sustainability principle, moreover, is based on the discipline of local empowerment (Ife, 2013). The basic rule of this empowerment discipline is to work with people and for all work to begin with a bottom-up approach (Ife, 2013; Pawar, 2010). This approach creates an open space (Power Cube, 2016), where local communities feel free to share their concerns through dialogue (Westoby & Dowling, 2013; Buber, 958). It encourages participants to share and exchange their concerns with individuals or a group, and this practice is known as a move from 'I to We' (Buber 1958). The groups established a purposeful agreement on action, and this is known as a move from private concerns to public action (Daveson, 2000). Therefore, the sustainability principle is more than participation. It builds on the strength of a community and encourages participants to manage the process of development by themselves (Ife, 2013; Pawar, 2010).

3.2. Women Empowerment

Women empowerment is one of the popular terms discussed amongst scholars. In general, it is understood as a CDD principle that empowers women's capabilities of having access to resources, financial capital, market and public services in order to reduce poverty and inequality gaps (Narayan, 2005). The access can be determined by different women empowerment indexes and Women's Empowerment in Agriculture Index (WEAI) is one of the well-known women empowerment approaches (Alkire, et al., 2012). These authors present two main parts of the WEAI. The first is to introduce five domains: (1) decisions about agricultural production, (2) access to land and decision making power over productive resources, (3) control over the use of household income, (4) leadership in the community, and (5) time allocation. The second is sub-index that emphasizes on measuring percentage of women's achievement in household activities comparison to men (Alkire et al., 2012, 2013). The key principle of the WEAI is about decision making power and its nature is for quantitative measurement. Therefore, this research applied WEAI index for quantitative measurement by paying attention to women leadership empowerment; household income management empowerment and decision making empowerment.

4. The conceptual framework research design

Based on the theoretical debate discussed, three main themes are drawn into this conceptual framework research design:

1) Reviewing on PRF CDD approaches. This builds up on understanding PRF background, roles and responsibilities. The reviews also illustrate the outcomes of the PRF CDD projects with a particular focus on the cases of Community-Force Account (CFA) and Self-Help Group pilot projects.
2) Focusing on examination the impacts of the PRF CFA and SHG projects on women leadership empowerment. For example, how has CDD approach engaged women in development and what are the significant impacts on women leadership empowerment are the two main questions. Impacts also focuses on social and economic development dimensions.

The social development dimension is to analyze the impacts of CDD on social inclusion under the question of how are poor, disadvantaged and ethnic minority groups included in the development processes. What are the changes in the local community context and what are the impacts on decision making empowerment for women and local governance?

In terms of economic development dimension, the analysis will focus on job opportunities and income generating activities. To what extent the impacts of small-scale development projects/activities on local well-being.

3) The final is to analyze the sustainability of the PRF CDD approaches.
The analysis is examined through CDD local ownership principle order to able to explain how CDD approaches were introduced into local communities. It is then drawn on sustainability principle in order to explain whether or not the CDD approach can be sustained before inserting some policies recommendations

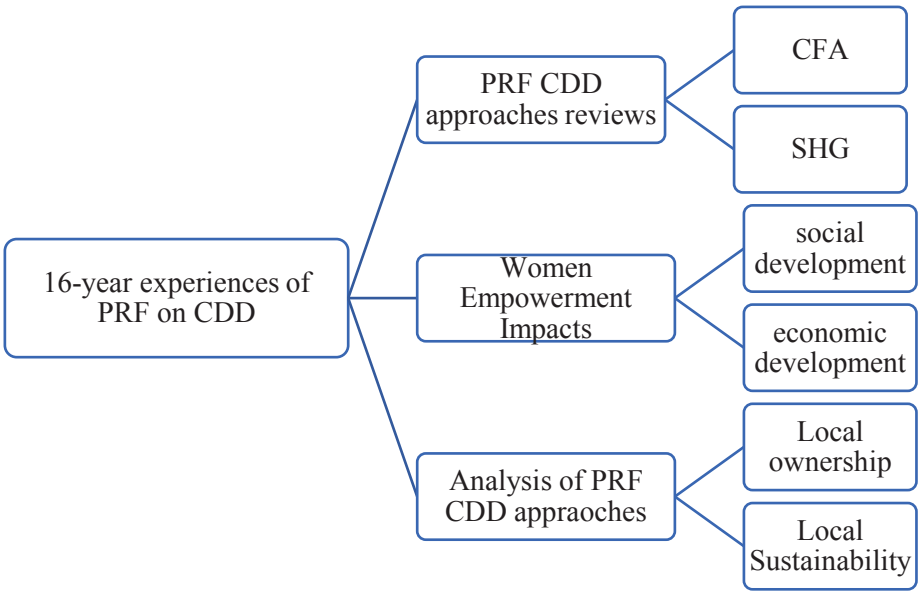


Figure 1: Conceptual framework (illustrated by authors)

5. Research Methodology

This research applies both qualitative and quantitative research methods. The former method focuses on conducting life historical experiences (Mason, 2002) of the rural communities in relation to how did PRF introduce the CDD to this community and what are the implications. Therefore, desktop and ethnographic studies were selected as research methodologies. The desktop study was mainly designed for searching secondary data such as reports, policies and research findings related to CDD through PRF website and google scholars. This information gives conceptual framework of the CDD. The desktop study approach was also used to review the case studies of CFA and SHG reports. Ethnographic study, on the other hand, allows researcher to enable to immerse ourselves into fieldwork study sites to understand the culture of a field studies through practical experiences, observations and semi-structure interview

The later method is more interested in receiving local views on the PRF CDD projects through questionnaire forms. Therefore, survey study of the Sakok community was selected as research methodology. This methodology allows researchers to prepare set of the questions in advance before entering to the fieldwork and conducting the survey.

Researchers applied this methodology in order to capture the overview of the local comment for CDD projects through rating scales.

5.1. Population sampling and sample methods

Research population and sample size

Sakok village is the main research population sampling. There are 68 households with two main ethnic groups (*Lao and Khmu).* The majority of the Sakok population is Khmu.

Apart from the Sakok village, PRF senior staffs are also targeted research population. The PRF seniors are someone who have practical experiences in supervising and implementing the CDD projects in Sakok village. These staffs are either employed at the central PRF office based in Vientiane capital as well as staffs are based in Hiem district PRF office, Houaphanh province. Other PRF staffs are excluded from this research population sampling.

Regarding the quantitative sample size, all of the households (68 households) were the sample size for quantitative sampling with considering the available time of the respondents during the fieldwork visit. For the qualitative sample size, purposive sampling by selecting key informants suggested by (Mason, 2002) is applied. Considering this sampling technique, three key informant groups with considering different gender's voice and members of the CDD groups were considered and selected namely Sakok authorities, Sakok villagers and PRF staffs who have practical experiences of a CDD project implementation in the case study. The interviewees are:

No	Key informant groups	No. of interviewees
1	**Sakok Authorities** - Two current village authorities (1 male and 1 female) - Another one is the former head of the village	3
2	**Sakok Villagers** - 8 Member of the 4 CDD groups (2 people with different gender from each CDD group) - 2 villagers who are not the member of any CDD groups	10
3	**PRF staffs** - A Current PRF Director - 1 senior PRF staff - 1 PRF staff based in Hiem district, Houaphanh province	3
Total		**16**

Sampling methods

- *Quantitative sampling*

Random sampling method suggested by Richtmyer (1958) is used. This sampling method explains that researchers can randomly ask participants who are interested in participating the research taken. By applying this sampling method, research team discussed with Sakok village authorities about the possibility for inviting a representative of each household to come to the village meeting hall. The representative can be either husband or wife, research team added. Before the actual survey day (the day before), in the evening

the village administrative authorities made announcement for inviting a representative of each household to participate in the meeting in the next morning.

Thanks to the effective cooperation of the Sakok villagers, 60 participants out of the 68 households could participate in the meeting. All of the village participants were introduced the purpose of the research conducting with clear explanation that they were welcomed to participate in the survey through answering the question form. Every participant was given a sheet of questionnaire form paper with a pen to fill up the questionnaire by themselves through a facilitator (one of the research team) but it was so complicated in practice with loud and noise discussion amongst the participants. In fact, some of them were illiterate so they asked the assistance from others.

Due to the plagiarism concerns, the researcher team discussed with the participants to change the survey approach. For those who were confident to fill up the questionnaires, please kept going without copying and sharing answer to others. For those who were not confident to complete the questionnaire form for any reason, research team could assist them to understand and answer each question. Specifically, with those who are illiterate, the research team used interview technique by explaining each question and marked their answer on questionnaire form. The researchers kept going with this survey approach until reaching 57 respondents.

- *Qualitative Sampling*

Differently sampling strategies were applied in order to select the interviews of the three mentioned key informant groups. For searching the right key informants of the Sakok authorities in terms of gender different was not complicated. The current head of the village is female and the first deputy head is male. The former head of the village, who initially participates in CDD projects is also a female. Therefore, three of them were selected.

For the group of villagers, after completing the survey at the village meeting hall, research team with assistance of the village authorities initially selected two participants from the textile group. Different gender was not considered in this case due to the fact that the members are only females. After that snowballing sampling strategies suggested by Goodman (1961) is used. This author explains that after being able to find the first key informant, researchers can ask his or her assistance to introduce other key informants who may have same interest in participating in the research. By applying this sampling strategy, 10 interviewees (8 of them are from four mentioned main CDD groups and other two are not a member of the CDD groups) were finally interviewed.

Regarding the PRF key informants, the current PRF director who has actively participated in national and regional CDD seminars regarding policies. Therefore, he becomes key selected informant. Another senior PRF staff based Vientiane capital was considered. The main criterial of selection is mainly based on having practical experiences of implementing CDD projects in the Sakok village as well as an expereice with CFA projects. This selected key informant, in addition, is an initiator CDD projects with Sakok villagers so that he can explain explicitly about the CDD process initiated as well as the implications of the CDD projects in the Sakok community. For the PRF staff based in Hiem district, the fact that there is only one PRF employee at the time of the research taken so he was automatically selected to participate in the research.

5.2. Research tools

Semi-structure interview

This methodology allows researchers to prepare set of the questionnaires before and to be able to adjust the questions during the fieldwork conducting (Van den Hoonaard 2012). Based on this research too, researchers prepared questions for two groups. The first was for the local authorities. This group could explain: how did PRF introduce the CDD into the Sakok community, what were the reactions of villagers, how women were engaged in the CDD development process and what are the implication, what are the impacts of CDD on social and economic development of the Sakok village.

The second group is the villagers both who are the member/s and not a member of CDD groups. This group explained reasons for being and not being the member of the CDD groups, and group structure management. The members also could share their historical experiences with the CDD group/s regarding income generation, women empowerment, diverse perceptions gender roles and leadership, social inclusion in particular with the questions of how poor people are encouraged in CDD projects, what are the social implications, how would they carry on the CDD platforms after ending the PRF assistance, and what are their concerned about their future CDD.

Apart from this two main groups, senior PRF officials were also interviewed. The interviews were related to the question of how did PRF introduce the CDD to the Sakok village. This question is exactly the same question when asking the village interviewees. The main purpose of this questioning is to respond to what extend local ownership, which is key CDD principle is considered in actions of the PRF.

Focus group discussion

The focus group discussion (FGD) opens spaces for sharing experiential stories of participants (Van den Hoonaard 2012) in relation to Sakok community development, local leadership empowerment, gender promotion and social and economic development through the support of PRF CDD. The FDG focuses on PRF CDD groups so that members are equally given opportunities to exchange experiences.

Observation

For the observation, before entering the field, "foreshadowed problems" technique was applied for having a preparation some of the "problems or set of issues" (Martyn & Paul, 2007, p. 21) that would guide researchers to observe during the observation period. Two different observation methods were used. The first was a complete observer, which means that researchers do not interact with the members of the Sakok villagers and researchers' roles were undisclosed (Van den Hoonaard 2012). This approach was used in order to get some initial experiences of what was going on at Sakok community.

The second was an observer as participant, which means that researchers introduce their roles of doing research to the setting members (Van den Hoonaard 2012). In this observation, researchers played a role as a villager joining with villagers' daily activities as much as can such as cooking, cleaning house, gardening activities, drinking with locals, café talks (informal discussion with a group of man or women who like sharing stories happening within or outside of the Sakok community, the discussion can be any topic and everyone is welcomed to share or to start with a story).This kind of participation gives

more opportunities for researchers to get more undiscovered stories, to recheck and to confirm some information with villagers through the discussion.

5.3. Data collection and analysis

Qualitative Data

This data collection is from semi-structure interviews, focus group discussions and observations. After the interviews, the recording information is transcribed and saved it as a separated file. Regarding the observations, the researchers make a note a day and type all notes in a word document file each day. By transcribing this information into the different world files, it assists researchers to go back and check the needed information quickly and effectively. When it comes to the analysis, "coding and thematic analysis with sensitizing concepts" is selected that allows to synthesize themes from my data together (Van den Hoonaard 2012, p 119-123)

Quantitative Data

The questionnaires aimed to receive overviews as well as specific perceptions of Sakok villagers on CCD programs introduced by PRF regarding gender, social and economic development. Therefore, the targeted respondents are head of the family, local authorities, members of CCD groups, different groups of age and gender differences with respect that every respondent has different point of view on each specific question.

After receiving the questionnaires from the respondents, all information was daily checked with research team and got back to respondents if it was possible to fill out the blank in order to minimize the missing information. The information is then coded and analyzed by using SPSS program. Statistical analysis including frequency, and cross tabs are applied.

5.4. Interpretation

Rating Scale suggested by Likert (1932) is used for the interpretation of the quantitative data. The rating scale is rated from 1-5 (1=strongly disagree, 2=disagree, 3= neither disagree nor agree, 4=agree and 5= strongly agree) with consistent of gap between the numbers. Based on Likert's suggestion, consistent gap number was calculated:

$$\text{Rating Scale} = \frac{\text{Highest scale number} - \text{Lowest scale number}}{\text{Total scale numbers}} = \frac{5 - 1}{5} = 0{,}8$$

The consistent gap number between each scale number was 0.8. Thus, the data interpretation was interpreted in this way.

Level of opinions	Interpretation
1.0-1.80	Strongly disagree
1.81-2.60	Disagree
2.61-3.40	Undecided
3.41-4.20	Agree
4.21-5.00	Strongly Agree

In term of results presentation, diagrams and tables with percentage, average, and or Standard Deviation (SD) were considered.

Regarding qualitative data interpretation, main themes are generated into "subthemes" (Van den Hoonaard 2012, p. 135) and they are described in relation to the main themes from one to another. This builds up on cohesion and flow of the findings and analysis discussion. Therefore, direct narrative quotes (Taylor and Ussher, 2001) is applied for the result presentation and literature review is inserted into the analysis discussion where appreciate (Xiao & Smith, 2006)

Moreover, SWOT analysis suggested by Emet & Merba (2017) is used analysis discussion of research findings. This approach helps to interpret and explain the strengths, weaknesses, opportunities and threats of PRF CDD approach. While the examine of strong and weak aspects is based on its inside environment of the PRF, opportunities and threats are identified by examining the outside factors of the PRF.

6. Research Findings

6.1. Overview of the PRF CDD approaches

Understanding the background of PRF

Having explained in the introduction part that PRF was officially established in may 2002 by Lao prime ministerial decree 073/PM. In terms of administration roles, since the establishment, the PRF has been supervised by three different government bodies. At first phase (2003-2011) was initially supervised by Ministry of Planning and Investment. At the end of this phase until the end of the second phase (2007-2016), however, the PRF was belonged to Rural Development and Poverty Eradication Fund that was directly supervised by Prime Minister Office. From 2017 up to present time (2020), the PRF is supervised by Ministry of Agriculture and Forestry and its main role is to mitigate and to eradicate poverty issues in rural areas. The PRF's main aim is to upgrade the infrastructure and public services at the village level in order to open more accessible opportunities for the poor aligned with the Lao government's social and economic development plans (Poverty Reduction Fund , 2019).

The PRF is considered as independent organization regarding financial management so it has received diverse financial resources. Within the 16 years (2003-2019), the PRF has received USD 187 million. This funding came from World Bank 54% (32.59% is loan capital), Swiss Agency for Development (SAD) and Cooperation (SDC) 22.74%, AusAIDS 9.04%, Government of Laos 8.57%, Lao Uplands Food Security Improvement Project (LUFSIP) 4.06%, the Japan Social Development Fund (JSDF) 1.04%, and Global Facility for Disaster Reduction and Recovery (GFDRR) 0.22% (Poverty Reduction Fund, 2019). The use of the funding between the year 2003-2020 was divided into three phases (see the table 1)

Resources	Phase I	Phase II	Phase III	Grand Total	Percentage
World Bank(Loan)	19,340,000	11,600,000	30,000,000	60,940,000	32.59%
World Bank (Grand)	15,000,000	25,000,000	-	40,000,000	21.39%
SAD	7,270,000	17,256,000	18,000,000	42,526,000	22.74%

AusAIDS	-	16,900,000	-	16,900,000	9.04%
Lao Government	20,000	10,000,000	6,000,000	16,020,000	8.57%
LUFSIP	-	7,600,000	-	7,600,000	4.06%
JSDF	-	2,621,500	-	2,621,500	1.40%
GFDRR	410,000	-	-	410,000	0.22%
Total	42,040,000	90,977,500	54,000,000	187,017,500	100.00%

Table 1. Summary of total grant resources (USD) for PRF (2003-2020)

Source: The 16-year report of the PRF project (adopted from PRF, 2018).

Organization of the PRF CDD Approach

The PRF has applied a participatory development approach as the PRF CDD approach by considering four fundamental participatory principles. The first is to ensure all working plans are developed from village level. The second is to establish small production groups to ensure that everyone is equally given opportunities to exchange comments and to consult with group members. The third is to strengthen local capacity building so that they can manage all CDD tasks by themselves and avoiding the use of expert lead solutions. The final is to build up a platform of "peer to peer leaning method" (Poverty Reduction Fund, 2019, p.9). With considering this development approach or bottom up approach, in another word the PRF has also acknowledged the importance of decentralized development approach. Therefore, these two approaches are interconnected and applied for all CDD projects (Poverty Reduction Fund , 2019).
Within decentralized approach, there are five key actors (see figure 2) for PRF CDD program beginning from village to PRF national office and administrative board. These actors are interconnected and each of them has specific responsibilities, which are following discussed.

The village level is considered as an implementation unit so villagers become key implementers of the CDD projects. In practice, a PRF village implementation team is established and this team works and collaborate with PRF districts and other concerned local government authorities. The team is assigned to work hand in hand with village members through participatory and consultation meeting and planning by receiving trainings from PRF authorities in terms of project implementation, financial management, procurement, operation and maintenance (Poverty Reduction Fund, 2019)

The PRF district level is considered as key coordinator and integrated unit making connection between villages and concerned government authorities in order to confirm that local concerns and needs are effectively considered and addressed. This PRF CDD level, therefore, plays significant roles not only for designing CDD projects based on their community priority needs but also making a trust for local communities to ensure that their voices are fully integrated before CDD project plans are submitted to the PRF provincial level (Poverty Reduction Fund, 2019).

At provincial level, the PRF CDD is considered as a strategic unit integrating all district CDD plans. This CDD level has responsibilities for making budget and annual work plans in collaboration with district PRF authorities. It also plays the role and a provincial coordinator within concerned provincial sectors and between PRF national office (Poverty Reduction Fund, 2019).

The PRF national level as well as the administrative board are the central service providers

for both financial budgets and working activities. Their roles are to ensure that all budget and working plans are interconnected and effectively utilized with considering the best interest for the poor including gender from different ethnic group minorities in remote areas across the country (Poverty Reduction Fund, 2019).

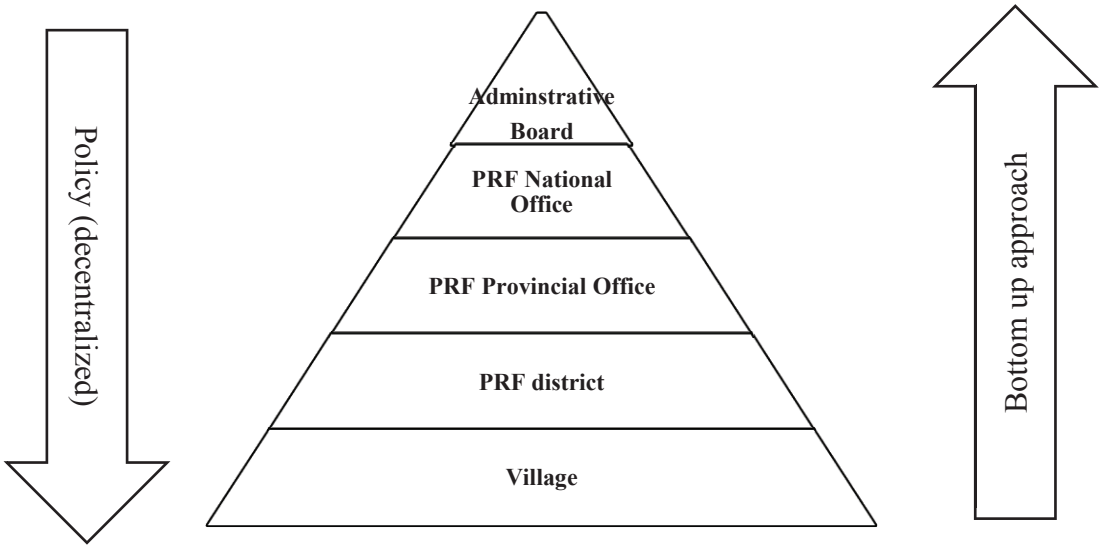


Figure 2. Community Driven Development Approach (adopted from PRF, 2019)

Within these five actors, roles are generally outlined in following sub-headings. While the PRF actors (from district level to PRF national level) are grouped as the roles of PRF, the village level is called the roles of local communities

The Roles of the PRF and local communities

The PRF has clearly distinguished roles between PRF and the local communities. For the PRF (Poverty Reduction Fund, 2019), their main role is as service provider with four sub-roles. At first, it is considered itself as a facilitator but not implementer. The role is to encourage and to empower local communities to enable drive and to implement project activities by themselves aligned with project policies and principles. Secondly, the PRF plays the role as capacity building trainer for local communities regarding their development priorities. Thirdly, the PRF plays the role as a community broker making connection between local communities and other development agencies either government, private and INGOs in order to assist local communities to meet their needs.

For the *local communities* (Poverty Reduction Fund, 2019), their given main role is as a project implementer owning and controlling all of the development processes. Based on this role, therefore, local communities become: owner of their CDD projects, planners planning for their local development priorities, implementer taking responsibilities for CDD projects in their own community, and manager monitoring and evaluating all project activities in their local communities.

PRF CDD principles

The PRF has applied six principles for CDD projects according to PRF's CDD approach (Poverty Reduction Fund, 2019):

1) Simplicity principle. This explains that villagers can take control and manage any kind of CDD projects that require budget below USD 50,000;
2) Community participation and sustainability principle. It emphasizes on the

participation of villagers in all processes of planning, implementing and utilizing management;

3) Transparency and accountability principle. It means spaces for local voices and inspection are opened and considered at the village level;

4) Wise investment principle. This principle considers and compares the beneficiary in order to consider the best participation of local communities;

5) Social inclusion and gender equality principle. The PRF acknowledges that there are diverse groups within a village who may face different problems, and may have different needs regarding social and economic development conditions.

6) Siding with the poorest. The most remote and poor communities are prioritized for CDD projects.

6.2. Overview of the PRF's outcomes

The PRF has set its development objective as to improve the access to and the utilization of basic infrastructure and services for the project's targeted poor communities in a sustainable manner through the participation of inclusive community and local development processes (Poverty Reduction Fund, 2019). Within this objective, four main core development components have been considered and implemented by the PRF projects. These core components include: 1) basic infrastructure development, 2) Capacity building, 3) Livelihood Upgrading Development and Nutrition, 4) Social and Environmental Safeguards (see table 2).

By turning these core development projects into practice, the PRF projects have contributed to improving local infrastructure as well as social and economic development for 55 districts from 11 provinces across the country. The contribution has covered 37% of the total district numbers (148 districts) of the country during the 16 years. Within the 55 districts, 47 of them are poor and poorest (Poverty Reduction Fund, 2019).

Table 2. Core development components of the PRF projects

Main components	Detail of the components	% budget
Phase I (2003-2011)		
Component 1	Infrastructure development and project planning	75.5%
Component 2	Capacity building for locals and communities	11.2%
Component 3	Administration and project management	11.3%
Phase II (2012-2016)		
Component 1	Infrastructure development and project planning	79.0%
Component 2	Capacity building for locals and communities	12.0%
Component 3	Administration and project management	15.0%
Component 4	Livelihood upgrading development and nutrition	3.0%
Phase I (2017-2020)		
Component 1	Infrastructure development and project planning	73.3%
Component 2	Capacity building for locals and communities	9.2%
Component 3	Administration and project management	15.0%
Component 4	Livelihood upgrading development and nutrition	2.5%

Source: The 16-year report of the PRF projects (adopted from PRF, 2019)

The table 2 demonstrates the different use of the budgets for the PRF projects. While the highest proportion of the budgets goes to the infrastructure development and project planning, which covers more than 70% of the total budget plans, capacity building, and livelihood upgrading for the locals are shared the low and lowest proportion, about 10% and 3% in average. To details the achievements of these core development components and their connection to the CCD manners, this research findings are grouped into two main areas namely infrastructure development and livelihood upgrading, which are explained in following subheadings.

6.2.1. Infrastructure development

Regarding infrastructure development, the PRF has focused on five main development areas such as education promotion, transport system upgrading, public health promotion, agriculture, and electricity. During its16-year experience, the PRF has achieved 6,434 small-scale development projects. In terms of completion proportion of the projects, education promotion was shared the highest percentage (30.5%), following with the promotion of public health promotion and transportation, 27.8% & 19% respectively. The promotion of agriculture development was about five times lower (almost 7%) in comparison to the education promotion (Poverty Reduction Fund , 2019). These achievements are demonstrated in table 3.

Table 3. total small-scale projects of the PRF (2003-2019)

Development Areas	**Small-scale projects**			**Total**	**Percentage**
	Phase I	Phase II	Phase III		
Education	814	714	432	1,960	30.5%
Transportation	643	304	283	1,230	19%
Public Health	818	626	342	1,786	27.8%
Agriculture	874	137	96	419	6.5%
Electricity	0	149	16	165	2.6%
Trainings	874	0	0	874	13.6%
Total	3,335	1,930	1,169	6,434	100%

Source: The 16-year report of the PRF projects (adopted from PRF, 2019)

When considering the total budget used within the three phases of PRF projects, about 955 billion kips were used for infrastructure development. The promotion of education is still received the highest proportion about one-third (39%) of the total budget. Transportation prom is the second (28%), which is 4% higher comparison to the public health sector (24%) despite the total completion project numbers of the transportation promotion is about 8% lower than public health (see table 4)

Table 4. Total budget used for the infrastructure development (2003-2019)

Development Areas	**PRF's Budget**		**Local Contribution**	
	PRF's budget (LAK)	Percentage	Local Contribution (LAK)	Percentage
Education	376,656,216,305	39%	32,428,692,704	9%
Transportation	266,201,847,996	28%	37,669,475,661	14%
Public Health	227,690,996,641	24%	32,436,300,506	14%
Agriculture	53,954,304,008	6%	8,391,432,538	16%
Electricity	9,338,715,944	1%	405,837,000	4%

Trainings	21,777,642,000	2%	585,863,000	3%
Total	955,619,722,894	100%	111,917,601,409	12%

Source: The 16-year report of the PRF projects (adopted from PRF, 2019)

The table 4 also shows the contribution of local communities, which more than 111 billion kips or 12% percent of the total PRF budget. The contribution from the locals, in fact, is not in a form of sharing money. Rather, it shared as labor, as well as food, drink, and equipment assistance, which can be found in the local communities such as land, sand, construction wood, and others. These contributions were then calculated as financial contribution from the local communities. The PRF, on the other hand, has contributed some necessary equipment that beyond the contribution of local capability such as cement, concretes, steel lines, nails, zinc roof and others (Poverty Reduction Fund , 2019).

The question why PRF has considered the importance of local contribution or participation? Research findings found that PRF believes that through local contribution and participation, sense of local ownership principle can be developed so they can act as "*the owner of the project development*" with the feeling of sense of belonging, claimed by Executive Director of the PRF, Mr. Chit Thavisay (Poverty Reduction Fund , 2019). Through this principle, therefore, many small-scale infrastructure development projects are managed by locals under a CDD approach called: "Community Force Account: CFA" (Dissel, 2019) as well as the livelihood upgrading project called: Self-Help Group: SHG (Poverty Reduction Fund , 2019). These two approaches are discussed in following.

Case review of the CFA

The PRF names the CFA, which is also known as Community Managed Subprojects: CFA, as a community driven development approach that encourages and advocates local skilled and unskilled workers to carry out small-scale projects or subproject activities by village implementation team (VIT). The VIT is given authority to manage PRF subprojects that have a maximum budget of USD 50,000. The PRF has developed and established the VIT that consists of 9 committees. These committees are divided into three teams. The VIT 01 is the finance team, the VIT 02 is procurement team, and the VIT 03 is construction team. Each team has different roles and responsibilities and they are trained by PRF (see table 5).

Table 5. Roles and responsibilities of the VIT

VIT	Roles and responsibilities
VIT 01 (finance team)	• Keep casebook and report expenditure • Present financial statement • Make payment to contractor and supplier as well as local skill and unskilled workers
VIT 02 is procurement team	• Sign contract with PRF • Prepare bidding documents and award contracts with contractors/suppliers • Direct recruitment of skilled/unskilled workers-recruitment guideline

VIT 03 is construction team	• Support PRF in surveys, designs and cost estimates • Check quality and volumes of supplied materials • Supervise works implementation • Support the preparation of the Operation and Maintenance Plan • Setting out tasks for unskilled workers and verifying completion • Check quality and volumes of locally collected materials

Source: The case study of CFA presentation (adopted from PRF, 2019)

– ***Overall outcomes of the CFA***

In practice, the CFA pilot projects began in three provinces: Luangprabang (Nambak and Chomphet districts), Oudomxay (Namor and Xai districts), and Savannakhet (Nong district). It was claimed that results are very satisfied both by locals and the PRF (Poverty Reduction Fund , 2019) for a number of reasons:

a) Local communities can directly implement the subprojects by themselves without waiting an assistance from outsiders;
b) Locals can use their own potential resources including human and collaboratively work together in order to achieve their goals;
c) It builds up on local ownership development so sense of belonging is significantly developed. This is crucial and people can effectively manage the projects with their responsive manners;
d) Finally, it creates better conditions for long-term development achievement or sustainable development and locals will fully project their property.

Based on these achievements, the CFA pilot projects have been expanded into other provinces during the PRF phase III since 2019. There are 13 pilot infrastructure development projects targeted in three provinces such as Oudomxay, Louangnamtha, and Salavanh (see table 6)

Table 6. CFA pilot projects since 2019

No	**Subprojects**	**Budget (LAK million)**	**Location**	**District/Province**
1	ປັບປຸງເສັ້ນທາງຊຶມນະບົດເປັນຈຸດ Spot improvement road	379.6	Ban Houaychai	La, Oudomxay
2	ປັບປຸງເສັ້ນທາງຊຶມນະບົດເປັນຈຸດ Spot improvement road	306.9	Ban Poum	Beng, Oudomxay
3	ປັບປຸງເສັ້ນທາງຊຶມນະບົດເປັນຈຸດ Spot improvement road	332.8	Chom Saen	Namor, Oudomxay
4	ສ້ອມແປງລະບົບນ້ຳລິນ Gravity water repair	48.1	Nok Phou	Nga, Oudomxay
5	ກໍ່ສ້າງລະບົບນ້ຳລິນ Gravity water construction	281.3	Katangya	Hoon, Oudomxay

6	ສ້ອມແປງລະບົບນ້ຳລິນ Gravity water repair	68.6	Chomlengyai	Pakbeng, Oudomxay
7	ກໍ່ສ້າງສະຖານທີ່ລ້ຽງສັດນອກບ້ານ Animal fencing	136.3	Nambo	Long, Louangnamtha
8	ກໍ່ສ້າງຝາຍນ້ຳລິ້ນ Irrigation weir construction	182.7	Talong	Viengphouka, Louangnamtha
9	ກໍ່ສ້າງສະຖານທີ່ລ້ຽງສັດນອກບ້ານ Animal fencing	130.3	Namsing	Viengphouka, Louangnamtha
10	ປັບປຸງເສັ້ນທາງຊິ່ນນະບົດເປັນຈຸດ Spot improvement road	124.4	Nakacherm	Toulan, Louangnamtha
11	ກໍ່ສ້າງລະບົບນ້ຳລິນ Gravity water construction	117.3	Kape	Taoy, Salavanh
12	ກໍ່ສ້າງລະບົບນ້ຳລິນ Gravity water construction	140.0	Asingtai	Samoy, Salavanh
13	ກໍ່ສ້າງລະບົບຊິ່ນລະປະທານ Irrigation construction	112.7	Kaleng	Samoy, Salavanh

Source: Community managed subprojects (adopted from Dissel, 2019)

The table 6 demonstrates millions (LAK) of budget that has been implemented in local communities. Research findings revealed that the CFA approach has significant impacts on local communities. It creates employment opportunities and income generations for both skillful labor and unskilled workers as well as to strengthen project management skills for locals. It is also confirmed that the subproject cost is likely lower than other contracting firms due the fact that taxes are excluded for the CFA projects (Dissel, 2019).

- ***Employment and income generation opportunities***

Having explained that villagers are strongly engaged in CFA pilot projects and this in turn creates both employment and income generation opportunities. It is reported that approximately 12% of the total subproject budget is spent on local worker while other 4% is expended on the VIT authorities (Dissel, 2019). The PRF has also considered the importance of local labor-based technologies rather than heavy equipment. Thus, local employment and generated income opportunities are opened to not only the skillful local labor but also the poor and poorest households who are considered as unskilled labor by increasing the use of collected local materials (Poverty Reduction Fund , 2019)

- ***Skills development***

Through the CFA pilot projects, technical skill development for local communities are significantly developed. The VIT teams are first group receiving trainings. These VIT committees are fundamentally trained for project management and administration skills regarding finance, procurement and construction work. The VIT takes responsibilities to select and to train local skilled and unskilled labor. For the skilled labor, two experienced workers per subproject are selected and they are received a vocational training on basic concrete and carpenter work for two weeks at a Technical and Vocational School. For the unskilled labor selection, poorest families are given opportunities, which is about 10-15 people whose age more than 18 are selected for a subproject. The selected people are trained for safety in construction work and First AID training before singing contract and work for CFA pilots.

In addition, the unskilled workers work alongside with skilled workers so they learn practical techniques from those skillful workers as well as on-job training from the community PRF staffs and community leaders (Dissel, 2019). Through their collaboration together with skill development, these workers enable to manage their community development projects and to become essential human resources to gain better access to future employment opportunities (Dissel, 2019).

- ***Subproject costs***

According to the CFA evaluation report conducted by Dissel (2029), research findings revealed that the CFA subproject costs were significant lower in comparison to other subprojects that are managed through contractors. This research finding is supported by the assessment results carried out by the PRF, which is reported that the CFA approach enable to save cost about (sometimes) 27% than subprojects implemented by contractors, mainly because of the exception of tax payment (10%) for CFA subprojects.

Despite many great achievements of the CFA approach, challenges are discussed in following subheading.

- ***Challenges***

Quality is the key challenge for the CFA implementation. CFA pilot has acknowledged the lack of qualified and skilled technical workers become quality concerns for the implementation of the CFA pilot. To address this concerns, PRF has provided additional technical trainings for both skilled workers and community supervisors or VIT team at the start of the subprojects. With this assistance, it is argued that local workers enable to manage and complete CFA subprojects with lower costs, which is a good result (Poverty Reduction Fund , 2019). However, research findings reveal that even though the cost reduction is an advantage for CFA pilot, it is not a central objective of the CFA subprojects. In addition, quality is also claimed to be adequate for many CFA subprojects (Poverty Reduction Fund , 2019), research findings also found that the quality of the CFA pilot is lower than the subprojects that are implemented by contractors (Dissel, 2019).

When the quality becomes concerns, intensive supervisions and monitoring including "*e.g. checking material volumes during concrete mixing, checking reinforcement and formwork before concrete pouring, checking ditch excavation before pipe laying and filling up, etc*." (Dissel, 2019, p. 4) are required. Although higher quality technical trainings and supervisions can be increased, this will lead to having high expenditure of the CFA budget on technical skills improvement and this may result in "*leaving in sufficient funds*" for subprojects' completion (Dissel, 2019, p. 4).

6.2.2. Case study of the Self-Help Group (SHG)

1) Overview of the SHG

Alongside with the CFA, the SHG is strongly promoted by the PRF. The SHG pilot projects began in 2012 with 7 districts from two provinces such as four districts Houaphanh Province (Houameuang, Hiem, Xon, Xiengkor); and three districts from Savannakhet Province (Sephonh, Nong and Thapangthong). It is reported that 915 SHGs were officially established. There are 9850 members in total, 87% of them (8593 people) are females, and 82% (8081 members) are from ethnic minority groups (Phimphanthavong, 2019). A central aim of the SHG is to promote better rural livelihoods through capacity building on small-scale business activities as well as nutrition promotions at the household level. The promotion is to assist the poor who have less

opportunities and no financial capability to enable to access financial capital from their SHGs.

Within the SHG approach, **three main capacity building components** are focused. The first to build up on local governance and social networks. The SHG committees are elected and established and these committees work as group leaders and frequent meetings are made with SHG members. The meetings aim to reflect on and to share their own successful and unsuccessful stories and to open learning opportunities through **a peer to peer learning approach**. The second is to build up on financial management skills by setting up a **saving group** for each SHG so SHG members can access to financial loans. The last capacity building is to focus on producing group activities with considering local potential resources as well as the demand from markets. It is hoped that within this assistance, local villagers enable to sell their products and additional income is generated (Phimphanthavong, 2019).

2) Review on evaluation results of the SHGs

Having mentioned that there are 915 SHGs in total. According to the evaluation results of the PRF (see figure 3), overall the results were at very good and good levels, 41% (372 groups) and 29% (264 groups) respectively. About 19% or 178 SHGs were considered as the excellent group while 11% or 101 SHGs were unsatisfactory (Phimphanthavong, 2019).

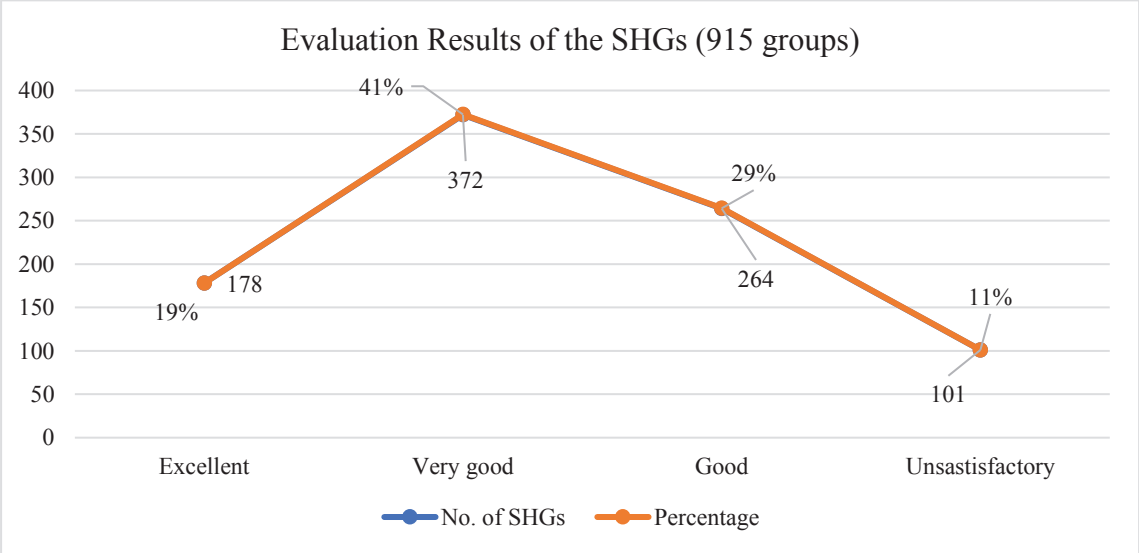


Figure 3. Evaluation results of the SHGs (adopted from Phimphanthavong, 2019)

For those unsatisfactory SHGs mean that their SHG performance was not passed the PRF evaluation criteria and some of them failed to apply the SHG approach so they gave up. The reasons govern to the SHG failure were related to having low or none educational background (Phimphanthavong, 2019).

In order to understand the impacts of SHG approach on women empowerment and local sustainability, a fieldwork case study is carried and its findings are discussed in following.

3) Case study of SHG Sakok village, Hiem District, Houaphanh Province

The presentation of this research findings begins with introducing background information of the respondents (status, belief, education and occupation) of the

respondents. This information helps researchers to capture the relationship between the background of the respondents and the development of the SHGs. After that general information of the SHGs including types of SHGs, members and capital each SHG is presented. Finally, the presentation focused on the impacts of SHGs on women empowerment with focusing on social and economic impacts.

- ***Status and belief of the respondents***

According this research survey, results show that married group was the majority surveyed participants. It covered 91% or 52 numbers of the total surveyed participants. The rest proportion was shared by widow and divorce, 5% and 4% respectively. When considering the belief of the surveyed participants, research findings reveal that 88% was the group of people who believed in Ghost (see figure 4), which are Khmu people. The Lao shared only 12% percent. Even though there are not many Lao families live in this community, this study found that they were initiative of SHG group establishment. The Khmu were encouraged and persuaded by the Lao group to become textile members.

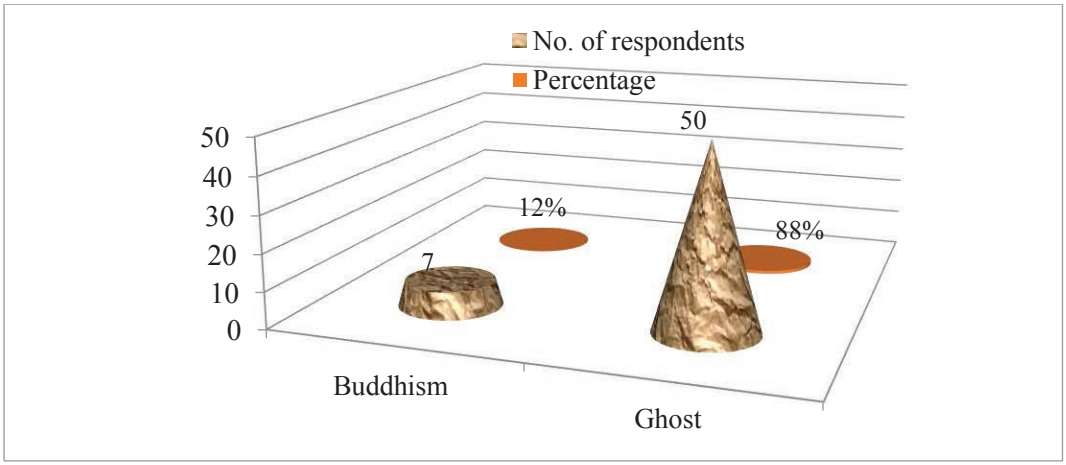


Figure 4. The belief of the respondents (illustrated by authors)

- ***Education Level of the respondents***

Illiteracy rate can be considered as one of other concern factors for the Sakok population. The diagram (see figure 5) explains that there were 14 surveyed participants or 24% that were identified with no education background. It is noted that in fact, more than two-third surveyed proportion was identified with having an education background. Yet, the majority of them only completed primary level, which covered 51% percent of the total proportion. When this discussion is specified into the religion, results show that none of the Lao surveyed populations are classified with no educational background. Moreover, those who hold a decree of vocational and diploma levels are only Lao respondents.

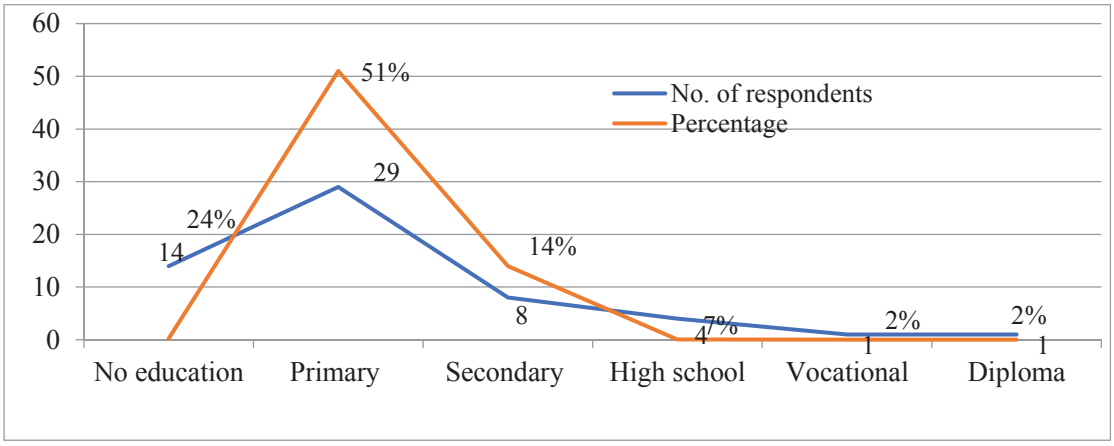


Figure 5. Education Level of the respondents (illustrated by authors)

- ***Occupations of the respondents***

In terms of the occupation, most of the surveyed population were classified into two main groups. The first is farmer that covered that majority proportion of 96% or 55 respondents. The second is the trader with 4% or two respondents. In terms of the trading group, there are two-female initiators, who are Lao. The first is a former head of the Sakok village, Mrs Phonchan who is also a former teacher and another one is current village chief, Mrs. Soung. These two-female initiators become the main key players driving the SHG programs in the village.

- ***General information of the SHG Sakok***

The PRF introduced the SHG approach into this community in 2012 by providing the SHG capital for 17 million Kips with conditions if the Skakok village can form a SHG group of 17 members (1 million kip each) and the members were only interested in initiating the textile. Mrs. Soung and Mrs. Phonechanh wanted to give that opportunity so they tried very hard to convince villagers to become SHG members because of felling with "*uncertain market access and customers*" as well as with the fact that the majority females are Khmu, who had no textile background so they were not interested (interview on 12 March, 2020). To save this given opportunity, the two-females initiated with themselves and tried to persuade other Lao females through their connection and their kinships. Eventually, they could find 17 members and the textile SHG became the first pilot SHG program in the Sakok community.

Regarding the development of the SHG program, from the start of 2012 up to 2018, both members and saving capitals increase significantly. From 17 members with 17 million Kips as the capital to be 100 members with 92 million kips as the total capital (see table 7). In terms of the group expansion, it has increased from 1 group (textile group) to 8 groups (2 textile groups, 4 chicken raising groups, 1 fish raising group and 1 bamboo craftsmen group). The 8 SHGs are formed by locals who have a similar interest. Each SHG and within the SHG have different saving roles and roles are made by the members. For example, the textile SHG has two groups. While the first group (the first pilot SHG in the village) is agreed with 5000 kip for each member to pay for group saving monthly, the second group sets for 3000 kip for each. Other SHGs like fish and chicken raising are likely to set between 2000-3000 kips. The Bamboo craftsmen group has, unfortunately,

no saving capital due to having less members and they are inactive despite having higher demand of bamboo products from markets.

Table 7. Information of the SHGs

No	Textile		Chicken Raising		Fish raising		Bamboo Craftsmen	
	No. Group (members)	Capital/Profit (Million: LAK)	No. Group (members)	Capital/Profit (Million: LAK)	No. Group (members)	Capital/Profit (Million: LAK)	No. Group (members)	Capital/Profit (Million: LAK)
2012	01(17)	17						
2018	01(14)	229/200	01 (18)	146/128	01(17)	185/168	01(5)	17/11
	02 (17)	113/96	02 (18)	152/134				
	-	-	03 (05)	54/46				
	-	-	04 (06)	65/58				

Source: illustrated by authors

During the survey, this study has noted that amongst the 55 participants, 6 of them or 10% of the respondents are not SHG memberships. The reasons given for not being a membership are related to health issues and debt concerns. For the health issue, a 45 years old interviewee (interview on 13 march 2020) explained that *"I used to be a member of the textile CDD group and I have loaned 2 million kips from the group but my current health condition does not support. My eyes are not good and I also have back pain so I quit the textile group"*

Regarding to the debt concern, it is explained by village authorities claiming that "*a few families are very concerned with debt so they are not convinced to be member of a CDD family. In fact, none of CDD members have faced with debt issues because groups were actually established to help members and we think they are more reliant on their own living styles so they are not brave enough to make some changes"*

The debt concern is also mentioned by a female interviewee saying that *"I stay alone. I am not being a member of any CDD program because I am very old. I have a small garden and also raise chickens at my home. I have never loaned money from anyone. I am afraid of being able to returned the money back to the group and becoming debtor".*

In short summary, despite having different saving rules of the SHGs, which can be argued to create a comparative though between and within SHG, this study found that the different saving rules open more space for poor to enable to enable to access to financial capital through being a membership based on individual financial capacity. Next heading explains the impacts of SHG projects on Sakok livelihoods.

- **Impacts of SHG projects on Local Livelihood Improvement**
  - ***Overall perceptions on SHG projects***

Research results (table 8) show that overall the respondents strongly agree that the PRF SHG projects play significant roles for gender, social and economic development of the Sakok community ($\bar{X}$= 4.60, SD=0.85). When considering at specific question, economic development section had highest mean with lowest SD ($\bar{X}$= 4.74, SD=0.69). This means that the answers of the respondents for the economic development were not spread out from another or they were closed to one another in other words. Gender

empowerment, however, received lowest mean with highest SD ($\bar{X}$= 4.46, SD=1.03). This means that the given answers from the respondents were slightly different from one another between the lowest and the highest given marks.

Table 8. Overall perceptions of the respondents on CDD projects

No	Questionnaires	Mean ($\bar{X}$)	Standard Deviation (SD)	Result Interpretation
1	PRF SHG projects play significant roles for initiative promotion of women advancement and empowerment	4.46	1.03	Strongly agree
2	PRF SHG projects play significant roles in terms of building up potential conditions for economic development for the village (job and income resources)	4.74	0.69	Strongly agree
3	PRF SHG projects play significant roles in terms of social development	4.60	0.82	Strongly agree
Total average		4.60	0.85	Strongly agree

Source: illustrated by authors

- ***Women Leadership Empowerment***

There six questionnaires to address the question of what are impacts of PRF SHG projects on women leadership empowerment. The questions included the promotion of PRF SHG projects have significantly contributed to women empowerment regarding raising their voice in the public; strong participation in family economic development activities; self-decision making; financial capacity management; and strong leadership. The last question focused on whether or not the promotion of women leadership empowerment is a good consideration and it should be promoted.

The results show that overall, the respondents strongly agreed that the PRF SHG projects have significantly contributed to promoting women leadership empowerment ($\bar{X}$= 4.38, SD=0.75). When looking at specific questionnaire, it is interesting to note that when considering the highest average, the questionnaire of women leadership empowerment as a good consideration and it should be promoted became the first ($\bar{X}$= 4.53, SD=0.63) and following with financial management ($\bar{X}$= 4.49, SD=0.75). Other results can further be viewed in table 9.

Table 9. The respondents' views on women leadership empowerment

No	Questionnaires	Mean ($\bar{X}$)	Standard Deviation (SD)	Result Interpretation
1	PRF SHG projects promote raising women's voice in the public	4.44	0.84	Strongly agree

2	PRF SHG projects promote strong participation of women in family economic development activities	4.26	0.61	Strongly agree
3	PRF SHG projects promote self-decision making for women to solve problems	4.32	0.84	Strongly agree
4	PRF SHG projects contribute to promoting women's capacity for financial management	4.49	0.75	Strongly agree
5	PRF SHG projects strongly participate in women leadership empowerment	4.26	0.81	Strongly agree
6	Promotion of women leadership empowerment is a good consideration and it should be promoted	4.53	0.63	Strongly agree
Total average		4.38	0.75	Strongly agree

Source: illustrated by authors

These statistics are convincing when arguments given by male and female interviewees are considered. A 45-year-old male interviewee said women sometimes do their job better than males. For example, the current female village head has "*strong power*" to encourage the village members to participate in village development activities so every time she calls for a meeting and other village activities, village members including teenagers actively participate in. This phenomenon "*was unlikely happened during former male village head"* (Interview on 12 March 2020).

This argument was also noted by the research team during the fieldwork conducting. We experienced that villagers gathered in the village meeting hall during the survey and some of the interviewees saying that females are good leaderships because they "*can do what they promised"* (FGD, 13 March 2020). They are not only good at encouragement and keeping relationships but also being an active leader leading the work. Unlike female leaders, male leaders tend to "*show off power"* so sometimes villagers felt to be controlled*,* a 40-year man added.". A female's FGD added to this discussion claiming that in the past women' voices were unlikely *"considered by public so they did not actively participate in formal meetings"* and meetings' roles were considered for *"males only"* (FGD, 13 March 2020). Thanks to the PRF SHG projects, women are brave enough to participate in the public and to answer questions and they can even more to become "*village leaders"* (FGD, 13 March 2020).

These positive results can be argued with the fact that the majority of respondents are women, which two times higher than male respondents. However, this claim is not convincing when considering the results comparing gender's views on to what extend do the respondents agree or disagree with the question "promotion of women leadership empowerment is a good consideration and it should be promoted". The results explain that despite the sharing Mean of the female respondents was slightly higher with lower standard deviation ($\bar{X}$= 4.63, SD=0.48) than male respondents ($\bar{X}$= 4.32, SD=0.82), these results are still considered as strongly agree (see table 10).

Table 10. Views from males and females on gender empowerment

Questionnaire	Gender	No. of respondent	Mean ($\bar{X}$)	Standard Deviation (SD)	Result Interpretation
Promotion of women leadership empowerment is a good consideration and it should be promoted	Female	38	4.63	0.48	Strongly agree
	Male	19	4.32	0.82	Strongly agree

Source: illustrated by authors

– ***Social Development Dimension***

The social development dimension was examined with focusing on four main questionnaires namely the CDD programs contribute to opening spaces for the poor to participate in and to significantly develop their living conditions; the CDD programs open equal opportunities for everyone in the village; the CDD programs significantly contribute to increasing more opportunities for village members to become unity regardless ethnic difference; and the CDD programs significantly contribute to improving the village governance.

Research findings reveal that overall the respondents strongly agreed that the CDD programs have significantly participated in social development dimension regarding increasing more equal spaces for all village members regardless different religious practices and individual economic conditions ($\bar{X}$=4.66, SD=0.53). When looking at specific questionnaire, the respondents confirmed with strongly agree for all of them by giving at similar Mean. The perceptions on CDD projects' contrition to village unity and governance shared the exactly same Mean ($\bar{X}$=4.77). The lowest proportion Mean was regarding the open spaces for the poor to join the CDD projects in order to develop their living conditions ($\bar{X}$=4.44, SD=0.75). More details of these statistics are available at table 7.

Table 11. The views of respondents on social development

No	Questionnaires	Mean ($\bar{X}$)	Standard Deviation (SD)	Result Interpretation
1	PRF SHG projects open spaces for the poor to participate in and to develop their living conditions	4.44	0.75	Strongly agree
2	PRF SHG projects open equal opportunities for everyone in the village regardless ethnic difference	4.68	0.50	Strongly agree
3	PRF SHG projects significantly contribute to increasing more opportunities for village members to become unity regardless ethnic difference	4.77	0.46	Strongly agree

4	PRF SHG projects significantly contribute to improving the village governance	4.77	0.42	Strongly agree
Total average		4.66	0.53	Strongly agree

Source: illustrated by authors

Considering the point of opening spaces for the poor to join the PRF SHG projects, this study found that even though poor communities are targeted for the PRF SHG projects, the PRF SHG approach is not interested in investing with those poor and inactive villagers. Reasons given to this claim was explained by PRF director saying that the PRF's strategy for PRF SHG is to begin with *"poor and active villages that willing to participate in and to initiate the SHG projects. Never start with the poor but not willing to participate in and to become a starter. We need to present good project results to those inactive poor villages that can inspire them and later, they will learn from those successful cases and become a starter. The PRF applies this strategy to convince the poor and inactive villagers within a village as well*" (Thavisay, 2020)

The given views of the PRF Executive Director are confirmed by Sakok authority interviewees saying that PRF SHGs began with *"active and interested members. We present the outcomes to other villagers and they can become the member when they are ready"* (Interview on 13 March 2020). A local interviewee confirmed the claims by PRF and village authorities by explaining that "*...myself just become a textile member after I learned the success from my relatives so decided to become a member,* a 36 years old female interviewee added*"*

Finding the right members with specific criteria, however, it is sometimes so complicated. The complication is happened due to the fact that there are many factors influencing selection processes. The textile group leader explained "*...It was not easy to be able to find the 17 members at the beginning not even think about the selection of active participants. In fact, most of the villagers had no textile background so they were not confident enough to participate in*". This complication is also noted from an interviewee saying that *"...at first I was not convinced that textile products could generate good income because our village is not located in the city so no buyers. Thus, I did not allow my wife to participate in the project due to the debt concerns. After years, I am convinced enough,* claimed by a 46-male interviewee*"*

- ***Economic Development Dimension***

Research findings reveal that overall the respondents' view is at strongly agree level ($\bar{X}$=4.44, SD=0.69). This means that the CDD projects has significantly contributed to creating more job opportunities, generating higher income and having better living conditions. When considering the specific answer, results show that generating higher income has highest Mean ($\bar{X}$=4.47, SD=0.75) while the lowest Mean is for the perceptions having better living condition with lower SD ($\bar{X}$=4.39, SD=0.67). These statistics are presented in table 12.

Table 12. The views of respondents on economic development dimension

No	Questionnaires	Mean ($\bar{X}$)	Standard Deviation (S.D)	Result Interpretation
1	PRF SHG projects create more job opportunities for villagers	4.44	0.62	Strongly agree
2	PRF SHG projects contribute having higher income generation for villagers	4.47	0.75	Strongly agree
3	Villagers have better living conditions because of the support from PRF SHG projects	4.39	0.67	Strongly agree
4	Base on your experiences, the PRF SHG projects create a sustainable job for villagers	4.46	0.73	Strongly agree
Total average		4.44	0.69	Strongly agree

Source: illustrated by authors

Regarding job creation opportunities, about 100 people have become SHG members and they can access to different income resources. The capability of income generation is mainly based on individual capacity. For example, while some members of SHG mainly raise chicken for eat and sell a few sometimes, some others raise chickens for income so they can earn approximately 5-10 million kips per year. Like the chicken raising group, the capability of income generation for individuals of the textile members is also diverse based on the producing capability as well as their business mindset. While some members can produce a Lao skirt within three days, some others enable to produce 3 Lao skirts per month. The price of Lao skirt varies from simple to complicated textile skills, which is about 80,000-400,000 kips per skirt.

A few women in the village has become a textile business initiators and a community broker. Mrs. Soung, the current head of the Sakok village, for instance. A part from being the group leader of the textile group in the village, she has also expanded her own business textile into the nearby villages by encouraging the villagers become her textile members. She designs textile styles, provides textile cottons to the members, and she buys textile products from locals. The locals prepare the needed equipment and materials for weaving (see the figure 6).

Figure 6. An example of community brokering (Illustrated by authors, 2020)

In short summary, the community broker is formed by the textile group. The community broker plays the role as a textile designer and local trader, who designs textile products based on market needs and buys textile products from members. The local broker also

plays the role as market connector, who brings local textile products to market consumers. Unlike the textile SHG, none of the other SHGs do have the broker and they are likely to apply the philosophy of self-sufficiency of raising or producing for eat rather than for sale. Therefore, the textile SHG is more active than other SHGs. In fact, the textile SHG has active female leaders, one is current village head and another is former head of the villager. These two leaders are leading and managing the textile groups.

6.3. Discussion and Analysis of the Research Findings

- *Overview analysis of the PRF approach*

From a financial perspective, it is cleared that PRF has received funding mainly from INGOs and some contributed funding from the Lao government. Statistics show that since 2003 to 2019, the PRF has received USD 187 million and this financial resources mainly come from INGOs, and less than 10% contributed by the Lao government (Poverty Reduction Fund, 2019). The coming of these financial resources create concerns for many CDD scholars arguing that donor-based development agencies or INGOs play significant roles in social development in Laos and tend to take control of social development scene (Mukasa, 1999; Owen, 2010; McWha, 2011). It can be argued that The INGOs primary can provide development resources including human experts, and ask the participation of the Lao government agencies to take a partner role. Often roles of many local government agencies are considered as having low capacity to run community development projects so floors are given into external experts to take in charge of development processes (Mukasa, 1999, Owen, 2010). This implication often leads local communities into dependency on expert lead and foreign aid assistance. Therefore, local ownership, which is key principle of local sustainability, becomes a caution (Ife, 2013).

Considering this concern through the PRF CFA and SHG projects, however, this research found that even though the PRF's funding has been supported by many INGOs, the PRF is unlikely influenced by donors in terms of expert lead dependency. Rather the PRF collaboratively and directly works with the local community based on the philosophy of "from the people, by the people and for the people", and "peer to peer leaning method" (Poverty Reduction Fund, 2019, p. 3). The interpretation of the PRF philosophy means that all local development plans are prioritized and developed by the locals with technical assistance and facilitation of the PRF. In other words, the PRF does not the play the role as an expert making all CFA and SHG plans for the local communities. All development processes were taken and controlled by the local communities. Research results illustrate and confirm with strongly agree ($\bar{X}$=4.35, SD=0.83) that the PRF played their role as a facilitator insisting on village dialogues to enable to come up with SHG development plans.

This research finding was aligned with the given roles of the PRF that are clearly described with four responsibilities. Firstly, it is considered itself as a facilitator but not implementer. The role is to encourage and to empower local communities to be able drive and to implement project activities by themselves aligned with project policies and principles. Secondly, the PRF plays the role as capacity building trainer for local communities regarding their development priorities. Thirdly, the PRF plays the role as a community broker making connection between local communities and other development agencies either government, private and INGOs in order to assist local communities to meet their needs. Finally, the PRF plays the role as monitor and supporter for all CDD activities in order to ensure that assistance is provided according to local needs (Poverty Reduction Fund, 2019).

Analysis of Local ownership

Having explained that the main role of PRF in the case review of CFA and the case study of SHG Sakok village is considered as a facilitator not implementer. Within the role given, the PRF has carefully considered the unnecessary of the expert lead solution for the CFA and SHG projects. Rather it has considered the significance of local-lead solution. Therefore, all CFA and SHG projects are discovered, developed and managed by local members. Considering this role from the Tagore's **theory of dialogue** found that the facilitation role encourages PRF to understand and find facts of what and why is happening through listening and paying attention to local experiences. This is true the fact that the PRF started the CFA and SHG projects with inviting villagers to have a consultation and to prioritized their needs. For example, the SHG Sakok village, male and female representatives from village households were invited to the meeting and they were separated into two groups to discussed and came up with priority needs for their village development. While male group "*asked for a project of raising buffalos and cows, women group was interested with textile as an initiative SHG project. Eventually villagers collectively considered and agreed that textile was an initiative SHG group",* added by Sakok village head.

This collective agreement is termed as **collective practice** meaning that to work as a group and giving a trust to each other. When a feeling of trust is established, this will then create open space or a safe environment for discussion and enhance a communication and co-operation more effectively. It encourages participants to share more about their concerns and problem solving ideas (Westoby & Dowling, 2013). This understanding is further confirmed by a co- winner of 2009 Nobel Prize Elinor Ostrom and her colleagues conducted the research on *Working Together: Collective action, the Commons, and Multiple Methods in Practice* (Poteete et al. cited in Westoby & Dowling, 2013*).* Their findings revealed that 'under certain conditions, people are able to work co-operatively' (Poteete et al. cited in Westoby & Dowling, 2013, p.8).

Within this facilitation role, the PRF can "see what people" (Buber, 1958) and this is crucial from community development perspectives. Often community practitioners may not see what locals see and argue for the lack of understanding of the locals when come to actions. The higher qualifications, moreover, may prevent a community practitioner perceiving an actual fact because practitioners may work with a feeling of expertise that is full filled by professional literatures and experts; therefore, an assumption, often, can be made even before they carefully listen to others (Westoby, 2013).

The PRF's role as the facilitator, furthermore, encourages local communities to have actual experiences, to study and reflect on their own experiences, to discover new development journey and to enable to manage all issues by themselves. A convincing example is a reflective journal of the textile group. It was explained that *"at first the textile group had no idea where to sell their textile products. Textile group leader asked for help from the PRF to bring textile products into PRF' meetings or national seminars. Reflecting on those experiences, the textile leader further explored new markets and gave a try to sell their products to local traders within and between cities. From times to times, the textile leader knows more buyers and has more connections. Therefore, the textile products are now sold to many provinces such as Vientiane capital, Xayyabouly, and Borkeo provinces*, the female textile leader explained (interview on 12 March 2020).

This reflective journal of the textile group clearly demonstrates **process-based learning approach** rather than **outcome-based development approach**. Ife (2013)

highlights the distinction journey between these two principles. The outcome focuses on a destination, so plans are created and they are put in place as a linear progress. The process, in contrast, is a journey of discovery. During the journey, a number of either expected or unexpected experiences are encountered, and this discovery journey becomes more significant than the end of the journey itself (Ife, 2013). In addition, the process is crucial because it can determine the outcome and these two principles reflect on each other (Gandhi cited in Ife, 2013).

Furthermore, the process-based approach encourages local communities to enable to reflect on their local issues and to be brave to come up with a creative problem solving strategy. For example, one of the ongoing problems in the Sakok community is seasonal diseases that often kill buffalos and cows. When it happens, the villagers only wait an assistance from district hospital and many times, the assistance was failed due to lack of the medical support and the support was inconsistent and delayed sometimes. To deal with this issue, the members of SHG Sakok gathered with local authorities and village members with facilitation of the Hiem district authorities had consistently discussed and seek for a long-term solution. Eventually, a funding group for seasonal animal treatment was established in 2019. Despite the fact that this funding group establishment was organized and funded by the SHG members, all villagers whose animals face with seasonal diseases are welcomed for free treatment because the seasonal diseases are viewed as "*a village issue not for individuals*" and it rarely happens (FGD, 13 March 2020).

This demonstrates the process-based learning can create an open space (Power Cube, 2016), where local communities feel free to share their concerns through dialogue (Westoby & Dowling, 2013; Buber, 958). It encourages participants to share and exchange their concerns with individuals or the Sakok village group. Therefore, the issues were moved from 'I toWe' (Buber 1958) and when a purposeful agreement on action is made, this is known as a move from private concerns to public action (Daveson, 2000). This funding group discovery confirms and reflect on strong local ownership of the Sakok community with their spirits and harmony. It illustrates how the local ownership is developed and reasons the importance of local ownership establishment. The following heading critically analyzes whether or not the CDD projects are sustainable

- ***Analysis of Local sustainability and gender empowerment***

This research findings clearly explain that the CFA approach focuses on infrastructure development and asks for participation as well as the contribution from locals such as labor and local assets. The locals also take controls of all the development and implementation processes of the CFA activities. More importantly, the CFA approach opens for locals to enable to manage the subproject projects' funding by themselves if the project cost is not over USD 50.000, which is not applicable for current financial policies of the Lao government. Local communities learn how to manage the funding as well as project tasks implementation so their sense of belonging is significantly developed. Therefore, local ownership is fully developed since the beginning of the CFA activities. Like CFA, this research findings reveal that SHG approach also emphasizes on strengthening local capabilities through encouraging on self-reflection and discovery of their local wisdom as well as local resource potentials. In addition, both CFA and SHG approaches provide small funding for local communities and encourage them to enable to come up with simple and small-scale projects.

These research findings are supported by Ife's theory (2013, p. 270) arguing the importance of accepting the philosophy of "*small is beautiful*". Ife explains that it is not

easy to apply this theory into practice because it means to minimize the growth concept while nature of human needs is likely to emphasize on growth and growth concepts. Even though, limiting growth is challenging, it is a significant concept for sustainable principle (Ife, 2013). This in turn can bring in the notions of **self-reliance** which is very important for community driven development (Ife, 2013).

The case study of the SHG Sakok truly reflects on the notions of self-reliance. Despite ending financial assistance from PRF in March 2020, the respondents confirmed with strongly agree ($\bar{X}$=4.46 and SD=0.73) that SHG groups can be sustainable. This strongly confirmation, in addition, has almost no difference regarding religion and gender differences with ($\bar{X}$=4.44, SD=0.76), and ($\bar{X}$=4.43, SD=0.75) respectively. The sustainability principle is based on the discipline of local empowerment (Ife, 2013) so that the Sakok villagers can change their mindset. They can now aware of the danger of deforestation through connection with SHG activities. For example, the head of the Sakok village argued (interview on 13 march 2020) that the SHG projects have significantly contributed to "*protecting forest and biodiversity"* of the Sakok community. When villagers have a job at home, they can earn more income and can buy more variety food so they "*stop destroying forest*" so deforestation issue is significantly reduced".

Furthermore, through the contribution of the SHG and CFA activities, local communities enable to promote their child education; have better access to hospital; and shift gender roles. For the child education, it was reasoned that SHG creates more job opportunities at home. when parents have more time to stay at home, they potentially have more time to follow up their child education, to stay with their child, to talk and understand their child education circumstances and to be able to prepare better food for child nutrition. This kind of communication and assistance between parents and children were unlikely happened in their past (before the intervention of the SHG projects) due to the fact that parents went to work in early morning and spent almost their working time in planting areas. When they came back from work, parents felt exhausted and needed some rests. Therefore, parents did not have much time to prepare food for their child as well as to follow up their child education (FDG interview on 13 march 2020).

Regarding the **access to hospital**, reasons were given that CFA and SHG projects created more income generating opportunities. When villagers have more income, or enable to access financial services, they have more opportunities to gain better access to medicines as well as to hospital services. For instance, Mrs. Bua, age 34 years old (interview on 13 march 2020), explained that she loaned money with interest rate of 2% from the textile group. The purpose of loaning was for family health care treatment for two times. The first loan was in 2016 with 500,000 kips and she already returned the capital to the textile group. The second loan was in 2018 with 600,000 kips for her child treatment and this time she was given support from the textile group with free interest rate for one month. Another interviewee who was a former textile members also shared loaning experiences. She loaned 2 million kips from the textile for the house' roof renovation, which was huge lose, after hitting by heavy storm, which was nightmares for her. The textile group considered this loan as urgent assistance so she was given free interests rate for 4 months. This kind of assistance is truly returned with "*warm and trustworthy"* that the SHG members could take care one another, particularly when life is struggling.

Shifting **gender roles** are also clearly demonstrated. Both CFA and SHG projects open more spaces for women to participate in public and to change perfections on women.

For example, it was told that textile job was traditionally given to females rather than males in the Sakok community and males as strong gender were traditionally not expected to play the textile roles. However, this mindset has been significantly changed. Currently, many male interviewees activity participate in preparing some textile materials for their wife through learning by doing. Furthermore, males considered textile work as family business so family members gave hands to each other. A good example is a reflection shared by the current female head of Sakok village. She said (interview on 13 march 2020) "*before the textile group establishment, my husband never gave hands for household chores and textile work was only considered as females' work. However, recently he tried to give me hands when I was so busy with textile work. He went to kitchen for learning how to cook foods and got angry sometimes. From times to times, he now becomes a good cook. He sometimes helps me to prepare some textile materials".* The changing mindset of males were also mentioned during a male-focus group discussion. It was claimed that "*it was great that females can earn money and sometimes they earn more than us. They can earn income from textiles unlike males. We are happy to give hands for textile work because it is a family business".*

The shifting **gender roles**, moreover, creates open spaces for social inclusion. Having mentioned that the textile group was initiative by a group of Lao females. This does not mean that Khmu females were unconsidered and excluded. The fact that all of the Khmu women did not have textile experiences so they did not join the textile group at the beginning. Later, many of the Khmu women were aware of the economic benefits from being a textile member and interested in applying to be the SHG members. They were given hands and trained by senior textile leaders and eventually many of the Khmu females become not only SHG members but also an expert for textile work. Additionally, many of the females from both religions are given more public spaces so they can play their roles in public. This can be noted from not only the observations taken during fieldwork visit of the researchers but also discussion of village members saying that *"it is the right time to promote gender equality so often females participate in official meetings, sometimes than males,* claimed by male FDG*"* The social inclusion, additionally, many of the poor village members were given more financial access opportunities through the saving groups either being a member or not a member.

When females can access to the financial capital, they enable to access to markets (Alkire et al., 2013) and earn more income to their family so females' voice is being heard and considered. The PRF experience confirms this discussion explaining that in many remote areas, women' participation in public is less promoted. The participation is rather considered as men' roles and responsibilities. However, gender roles can be changed and women' voice can be heard when women can access to markets and become part of or key driver for earning income resources and well-being of the family (Poverty Reduction Fund , 2019). Research results confirm with strongly agree that SHG projects have significantly contributed to raising females' voice in public with $\bar{X}$= 4.44 and SD=0.84. The confirmation, in addition, is not only by statistics but also by interviewees (interview on 13 march 2020) saying that "*in the past welcoming visitors and answering questions were considered as males' responsibility. Unlike in the past, women now can answer any questions like male do"*, claimed by a lady interviewee. A 45 years old male interviewee also inserted to this point by claiming that *"gender equality promotion is good thing and we should promote. I am very glad that women can earn money, some women can earn more money than males*".

Moreover, the change of gender roles can contribute to not only promoting gender equality but also reducing gaps of gender equity. This contribution is noted during fieldwork observation and the interviews. Through the observations, particularly during the meeting at the Sakok village hall, research found that two third of the participants were women. This phenomenon was "*unlikely happened before the intervention of the PRF SHG projects*", claimed by the current Sakok village president. Male interviewees are likely to accept this change arguing that "*many women came to the meeting because they are practically dealing with SHG projects. Men give hands for their wife regarding household chores such as cooking and preparing textile materials*", claimed by the male FGD.

In short summary, the findings present many positive impacts of the CFA and SHG projects on women, social and economic empowerment and development. However, both CFA and SHG approaches are currently active with PRF projects due to the fact that PRF has not only financial capability but also specific financial policy supports that allow local communities to access to funding and to enable to control all development process and implementation of the CFA and SHG projects. If these financial policies are integrated and fully applied by the Lao government policies, both CFA and SHG approaches are potentially sustainable with considering other factors such as educational levels and strong local leaderships. If not, sustainably becomes a question when PRF is inactive. Therefore, there are many challenges for PRF CFA and SHG approaches and these are detailed in the conclusion headings.

6.4. Conclusion and Recommendations

Conclusion

The CFA and SHG approach applied fundamental CDD principles including collective actions, local ownerships, and process-based leaning approach. Therefore, it can conclude that PRF has considered the CDD principles into actions. Regarding key research findings, women empowerment, local ownership, and local sustainability are discussed and analyzed.

Results explain that through PRF SHG projects, women's voice is significantly considered both at the family and public level. Furthermore, more females enable to access financial capital through their SHG saving group membership as well as to have access to markets. Therefore, in many cases, women have earned better income than males and this has shifted the roles and responsibilities of females from being a household care keeper to be a key income earner for the families. Through the recognition of economic benefits from SHG and CFA activities, males are likely to participate in taking care of household tasks and to give hands to their wives. This shifting role, moreover, explains that gender role is tangible and can be changed when women are empowered.

For the local ownership, results conclude that both CFA and SHG projects applied a participatory approach for the pilot projects. While villagers' roles are given as project designer and implementer, and manager, the main role of PRF is given as a facilitator facilitating the process of CFA and SGH project development. Based on the given roles, actions are also clearly taken in place. The local communities actively participate in, initiate, and take control of all development processes. As result, their sense of belonging is developed and their ownership is significantly high. When local ownership is

developed, local communities likely enable to keep on their small-scale business activities despite ending technical and financial support from the PRF, particularly in the case study of Sakok community.

These achievements truly connected to the current decentralized governance policies as well as the three builds directive policies of the Lao government how local communities are given rights and responsibilities for being an initiator, developer, and implementer so they are empowered and can make the right decision. For instance, a Chinese investment company is interested to explore mining in the Sakok community and to establish a mining company. Despite being told that the Chinese investing group had been approved for the mining exploration by local government bodies, the Sakok authorities rejected to sign the approval documents for the Chinese mining company as well as the local government. The locals are aware of the huge impacts on their livelihoods and their rich environment, particularly the rivers and biodiversity that they consume daily life. This example strongly confirms that local empowerment is important so the PRF CDD approach is well connected to this example achievement. More importantly, when local people are empowered, their reliance on the government's hands significantly decreases and this can help the government. Neither government nor international development agencies "enable to give hands for all issues in all villages of the country daily due to having the limitation of human and financial resources" (Thavisay, 2020).

More importantly, the CFA and SHG approaches are well connected to the agreement 0837/MAF of the Ministry of Agriculture and Forestry on building good household model of agricultural development and sustainability. The example of Sakok village is a good SHG approach that can improve local livelihoods with local ownership manners and sustainable ways.

The achievements of the PRF CFA and SHG approaches are, in fact, based on many strength and opportunity factors but the approaches also have a weakness and come with many challenges (see figure 7).

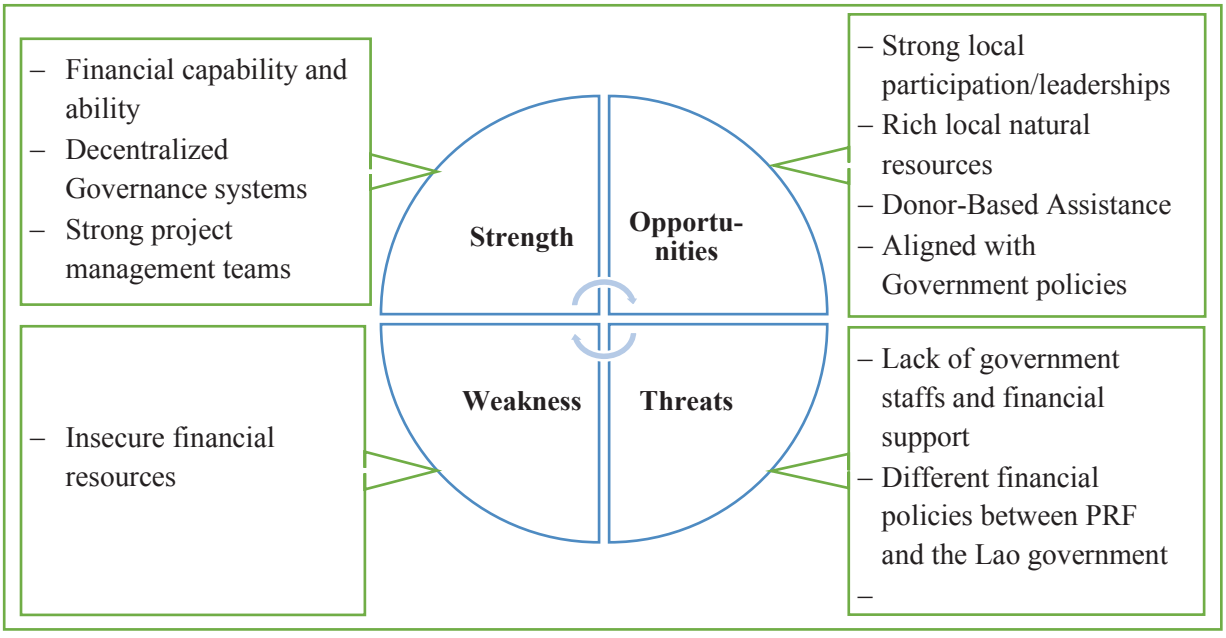


Figure 7: SWOT analysis summary (illustrated by authors)

Regarding the strength factors, firstly, the PRF can access diverse financial resources and the PRF is given the authorization to manage and utilize its budget independently. All budget plans are directly managed and taken in place based on PRF financial policies in conjunction with donor-based financial policies so decision making is more effective. Secondly, the PRF utilizes its decentralized power to manage PRF's main projects and subprojects. This can happen because PRF is a representative of the Lao government and it works in conjunction with official government bodies through its PRF offices across the country. Thus, decentralized power or top-down approach is effectively taken in place. Finally, a project-based management approach is applied so PRF staff are specifically assigned to manage specific projects as teamwork. The project-based management approach, furthermore, opens spaces for PRF to enable to select and hire a qualified expert for the specific tasks with timeframe limitation.

The success of the PRF CDD approaches is also because of the opportunities given. The first is the strong participation and ownership of the local communities so many of CFA and SHG projects have a great achievement. Secondly, local communities contribute to the PRF projects not only as labor share but the use of local natural resources. Thirdly, the PRF has been strongly supported by the Lao government in both policies and actions to open green lights for the PRF to work with and to receive grants from international development agencies. Finally, strong local leadership is vital. The current success of the Sakok SHG, for example, is due to having good and strong local leaders who act as active participants and leaders driving the projects.

However, there are some weaknesses and threats to the PRF CDD approach. The weakness is related to the fact that the PRF CDD approach is donor-based financial assistance, of which 92% of the total PRF budget is supported by donors. When grants are over, the financial and technical supports for targeted projects in the local communities are also ended at the same time. Even though an argument is made that government authorities can take responsibility to follow up. However, in practice, the follow up is likely active with those donor-based projects that are still active.

The PRF CDD approach also faces many challenges. Firstly, the PRF CFA and SHG models are only applicable to PRF financial policies, in which the PRF allows to transfer of a budget plan of less than USD 50,000 into local accounts and to be managed by local communities. This financial policy is not applicable in current Lao government financial policies. Secondly, even though PRF has implemented about 1000 SHG and CFA projects, arguing for a right CDD model that can be applied across rural Laos is also questionable due to different local contexts need specific attention and assistance. Thirdly, the approach requires not only active participation from local communities but also local ownership. This only happens when local communities open their mindsets to learn and to discover new journeys of life but usually take time. Fourthly, having the low educational background of local communities is also an issue and this concern has been argued by PRF that those local communities that failed to apply the SHG projects were illiterate. Fifthly, having strong local leaders who are active, diligent, responsive, creative, cooperative, and trustworthy for locals are the key to success for the CDD approach. Yet, it is not an easy job to enable them to find this kind of leadership person. Finally, moving from a learning group of SHG to be a production group or cooperative is challenging.

However, this movement is very important for local sustainability how they can have better access to markets.

Recommendations

Based on research results, this research suggests PRF to:

1) continue to apply the CDD approaches in order to improve the quality of life of locals as to help the country to achieve the goal of graduating from the list of Least Developed Countries. However, the promotion of CDD approaches should focus on quality rather than quantities;
2) continue to promote those local communities successfully applied the CDD approaches as well as to encourage and support them to next levels of community organizing such as a production group and cooperative so that they can access diverse markets and have more power control market price;
3) having additional budgets for monitoring and supervising local communities (either from PRF and/or from the government) for specific needs and assistance after ending financial support from donors are also important in order to ensure that issues are properly addressed;
4) have a serious consultation meeting with the Lao government bodies regarding roles and responsibilities of PRF in rural development. There is a need of having permanent institutional and financial assistance from the Lao government in order to fully apply CDD approach;
5) integrate financial policies for small-scale projects between the PRF and the Lao government. The policy should be connected and interchangeable. Otherwise, the PRF CFA and SHG models are meaningless and cannot be practical for the government bodies when donors are unavailable.

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Community-Driven Development in Laos: Dilemma and Hope of Saemaul Undong and Poverty Reduction Fund Approaches

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Contents

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It is our great honor to be selected as a research team for the CDD in Lao PDR on behalf of the Faculty of Architecture, National University of Laos. As our team have been experienced diverse research themes regarding both urban and rural development mechanism. The CDD research project is one of our roles in order to support the development policy in Lao PDR.

In this opportunity, we would like to express our sincere gratitude to the Mekong-Lancang Cooperation Special Fund to support our country in both academic fields and practices. This research would not be driven without the kind support of the Poverty Reduction Fund, Ministry of Agriculture and Forestry. This stage has also been the fantastic room for academic dialog amongst international scholars. Even though, it was only a short research period in Lao PDR but we could say that we have learned several good practices cases of Cambodia, China, Lao PDR, Thailand, and Vietnam. I do believe this collaboration would underscore the current situation of CDD movement in Lao PDR and aforementioned countries. Last but not least, it is not only the research concerned but it would be the crucial stage of the collaboration amongst scholars.

Abstract

A Community-Driven Development (CDD) has been a proven successful approach in rural development for a poverty reduction and well-being of people in the poor community. CDD approach has been applied in several regions in the world. In principle, CDD approach was used to tackle poverty dimension in correspondence to the local context and societal behavior. In Laos, the central government has approved various community development approaches to eradicate poverty with different processes in different communities. Hence it is necessary for a study to explore further the relationship between the level of participation and the physical environment impacts post CDD projects implementation. In order to understand and deliver more accurate findings, samples in Vientiane and Salavan Provinces were selected. In Toulakhom District of Vientiane Province, three Saemaul Undong Movement (SUM) villages and three PRF's interventions in Samouay and Toumlarn District, Salavan Province were selected. The significant data has been randomly collected using questionnaires as the survey tools for both qualitative and quantitative data collection in the pilot villages. The collected data were processed using descriptive analysis, logit model and regression analysis for key outcomes. Findings from this study resulted in both positive outcomes and some areas for improvements.

The SUM in Laos presented a good progress and practice in agriculture sector including mind-set , leadership approach and ownership of villagers during the implementation and management processes. The key findings from the SUM pilot villages are the positive improvement in income generation whereas the drawbacks are the concerns towards sustainable growth due to the inadequate of social cohesion and appropriate land-use planning aspects. For the PRF's CDD pilot projects in Salavan, the approach of participatory process lies under the identification of the village's needs on a basic rural infrastructure where ownership and participatory consultation were taken place at the village level. When the needs were met, the visible outcome and successful story emerged especially on the community's ownership in taking part as the main implementer such as building of schools and water supply system where labors and local materials were sourced within the village itself. Apart from the SUM and PRF, there is also Sam Sang policy implemented to foster further the work on poverty eradication in Laos.

From the interview with the villagers, it showed the villagers welcome very much the assistance; however, the funding to implement the intervention is still limited. The funding scheme should be revisited to ensure more impacts at the community level for the PRF. Both SUM and PRF approaches, it would be suitable to have a consistency on the participatory process where the long-life learning and self-sufficient mind-set aspects were built into the project and scale-up to more communities, resulting in more sustainable development of the communities.

Keywords: community-driven development, poverty reduction fund, saemaul undong movement, economic sustainability, built environment, Lao PDR

I. Introduction

The Community-Driven Development(CDD) is considered as one of the proven successful approaches in rural and urban community development to eradicate poverty. The CDD approach has been deployed in many countries based on country's context. The CDD has been a trend in the crucial dominion of a global development since the late 1990s and early 2000s. Initially, the CDD approach developed out of crisis conditions, for instance, the financial crashes, disasters, and conflicts (Wong, 2012). In the midst of many failed efforts in centralized and hierarchical forms of development, the CDD emerged as an alternative form of development. According to Wong (2012), this approach has been perceived as different idea from traditional approaches because it empowers local communities and institutions to lead and own the development processes voluntarily.

The CDD approaches cover the key principles of community development based on public participation, prior consent, project transparency, accountability, empowerment and building local capacity. The CDD approaches work around the needs of the community as the center of development in consultation with local government and relevant sectors to improve basic infrastructure, livelihoods and wellbeing of the communities as a whole. The poorest of poor were able to take part in the development process, the issues were solely identified by the villagers themselves and the solutions were drawn together with local authorities and relevant sectors.

According to the World Bank, the CDD approaches and movements are critical components of the actual poverty reduction and sustainable rural development schemes. The World Bank has been supporting the governments in low to middle-income countries around the globe on planning, implementing, and assessing the CDD programs , including countries with sensitive conflicts. The programs address needs in various aspects such as clean water, access road, education, healthcare facility, nutrition programs for mothers and infants, as well as micro-credit scheme. The programs managed to achieve a cost-effective implementation for these programs which could be replicated in many countries (World Bank, 2019A).

ASEAN member countries like Cambodia, Vietnam, Thailand, and Philippine also deployed CDD approaches to pursue poverty eradication. The results are a mixture of satisfactory and unsatisfactory dependence on the country's movement and acceptance. In the case of Laos, the CDD approach has been considered as a new and effective approach in rural development strategy (PRF, 2019A). For Lao rural development, the government placed more emphasis on sustainable development rather than a short term approach.

The study found that the CDD in Laos has been implemented with three different approaches classified into the level of authority shown in Table 1. Those three CDD approaches in Laos are (i) Community Force Account (CFA) and Road Management Group (RMG) under the PRF's projects; (ii) Sam Sang Directive (Three Builds) of the Lao government pilot projects; and (iii) Saemaul Undong Movement (SUM) implemented and funded by the Republic of Korea. The funding and implementing approaches however the implementation on the ground would need to follow the direction set forth in the National Growth and Poverty Eradication. Strategy (NGPES).

Table 1. Community-Driven Development Pattern in Laos

Information	Community Force Account (CFA) and Road Management Group (RMG) in Salavan	Sam Sang Directive in Laos	Saemaul Undong Movement (SUM) in Laos
Origin	Laos	Laos	Korea
Organization	Poverty Reduction Fund (PRF)	Central Government	Korea Central Saemaul Undong (KCSU) and KOICA
Implementation target (village)	9 from more than 2500 villages	109	30 (KOICA) 7 (KCSU)
Year	2019 (circle 16)	2012	2009 (1st generation)

Since those CDD approaches in Laos were implemented with various techniques and processes, it is interesting for the researchers and policy maker to draw lesson learnt and identify best practices for replication and scale up. In order to support the Lao government policy on social inclusion, ethnic diversity and community empowerment in the poor communities, this study will seek to identify the effective approach to fulfill the policy especially the evidence based support to improve rural livelihood. The study also presents recent characteristics of the CDD approach of some pilot projects in Laos. The SUM and PRF pilot projects which are located in Vientiane (SUM) and Salavan Provinces (PRF I, II, III) have been selected as samples for case study to narrow down the scope of the study. More than sixteen-year of PRF history, yet the results found were very mixed when it comes to CDD approach used in Laos. The critical cases of Community Force Account (CFA) and Road Management Group (RMG) models have been emphasized due to the distinctive characteristics for the community based development and women empowerment aspects. Based on the case of SUM and PRF, the CDD could be an optimal instrument to lift poor people out of poverty because the approach is very flexible to be adopted in any context which could transform socio and economic conditions of the poor communities and create the enabling environment for a better livelihood. This may lead to a good evidence inputs for policy makers to utilize when drafting policy and strategy to reduce poverty in rural areas.

II. Literature review

2.1. Community-Driven Development overview

Community –Driven Development or CDD is a crucial approach in the implementation of rural and community development projects by the World Bank. The CDD has been a human-centered methodology used by the World Bank. CDD is a development movement

that coordinated with community groups and individuals as group of villagers, rather than the direct supports from other organizations. The CDD and a community participation are the good approach in tackling the poor and poverty, possibly it could be the effective approach in helping the World Bank achieve its goal poverty eradication and improve the living conditions and standards of people in the least developed countries or developing world (World Bank, 2004).

Several reports and academic papers have explained CDD elements within various dimensions and perceptions: 1) CDD has been the community emphasize because the target recipient, grantee, and the active mode of a community-based organization (CBO) pattern or representative local; 2) the community involvement in the participatory planning and design process; 3) the community manages the resources-hence ownership and accountability; 4) the key function in the community development, community has to involve in the implementation processes, including direct supply of inputs, labor, skill, or indirectly through the management functions; 5) Many projects in CDD approach have applied the community-based participatory monitoring and evaluation to ensure downward responsibility to the pilot communities (ADB, 2006).

The CDD has been formed since the traditional movement through the root of modernization. The key modern roots of CDD for international development agencies and public authority have been criticized. Several articles of social scientists explained CDD in the social integrated approach (Putnam 1993, 2000; Coleman,1988 ;White, 2018). A study on enhancing community- driven development in ASEAN member states such as the Philippines required to provide a better understanding on the dynamics of convergence in regards to 1) the interactions between the Conditional Cash Transfer Program (CCTP) and the Sustainable Livelihood Program (SLP), which are the key major assistance programs of the Philippine government's Department of Social Welfare and Development (DSWD); 2) the association between these DSWD programs and the interventions of other national sector agencies in development; and 3) the success instruments on poor rural communities in the Philippines should be considered (ADB, 2016).

Table 2. Percentage of supported sector in Benin, Africa

No.	Supported sector	Percent(%)	Remark
1	Education	15	
2	Health	5	
3	Water and sanitation	16	
4	Transportation	13	
5	Electricity/power	1	
6	Community infrastructure	2	
7	Agriculture infrastructure	10	
8	Income generation and job creation	29	
9	Environment and natural resource management	1	

10	Other	8	
Total		100	

Source: World Bank, 2016

Positive governance spill-overs were found amongst communities, especially the poor and women, to influence village affairs and decision-making. In the CDD treatment areas there also was increased attendance at general village meetings for communities as a whole as well as for poor women (Voss, 2016).

The breakdown table of supported sector in a case of Benin, Africa revealed that the significant magnitude of development based on the self-sufficiency of job opportunities. The job creation has been the critical movement in order to empower to the community. Together with the economic growth, education and basic infrastructure aspects had been urged to be promoted.

As the long experience of the World Bank, the CDD would be a representative approach in poverty reduction. The CDD would be set in an initiative goal to accomplish the livelihood security, empowerment, and access to basic public services. In short, the self-sufficiency and sustainable growth in the poor community should be met in long term vision.

Table 3. Flow and framework of CDD

Program activities	Institution-building	Asset investment
Program outputs	More responsive institutions: Accountable, cohesive, and inclusive	Better distributed assets: Physical, human, social, natural, and financial
Program objectives	Livelihood security Empowerment Service	
Outcome	**Self-sufficiency Sustainable well-being**	

Source: World bank, 2009A

In the principle terms, the CDD approaches has become the holistic concept of people empowerment in poverty reduction aspect by generating investments and responsibility for decision making of community. CDD functions as to create opportunities, strengthen the voice of the community in order to demand greater accountability of the institutions

that are relevant to their livelihoods, and to promote sustainable development in long-term vision. In order to enhance the effectiveness and sustainability of the CDD policies, project's program design, and implementation, the following principles have been considered (Table4):

Table 4. Detailed goal in CDD (pilot project)

Goal 1	Invest in capacity building of community-based organizations (CBOs). Building the capacity of CBOs and promoting relationships with formal support institutions are productive investments in themselves, but should include explicit exit strategies.
Goal 2	Make investments responsive to informed demand. rules of program or project should facilitate informed choice so communities can select priority options and enterprises that are within their capacity and that they can afford to operate in the long run.
Goal 3	Build participatory mechanisms for community control and stakeholder involvement. Involvement of all stakeholders should be sought throughout all phases of the CDD project cycle.
Goal 4	Facilitate community access to information. Facilitating flows of information with all groups in a community in terms of program contents and rules, linkages with government and markets, and good practices of CBOs is an essential component of CDD.
Goal 5	Develop simple rules and strong incentives supported by monitoring and evaluation. Community access to resources should be governed by simple rules and procedures that are easy for communities to interpret and apply. Participatory monitoring and evaluation is an important tool for community assessment of its own performance.
Goal 6	Establish enabling institutional and policy frameworks. Fostering an enabling environment includes: (i) responsive decentralized local governments and inter-governmental arrangements; (ii) a conducive legal and regulatory framework that supports community action; and (iii) clear sector policies with clear roles and responsibilities for key players in each sector.
Goal 7	Maintain flexibility in design of arrangements and innovation. Program design should be reviewed and adjusted periodically, as necessary. Procedures should ensure direct feedback from the community on program performance that can feed into project restructuring.

Goal 8	Ensure social and gender inclusion. Explicit gender-sensitive approaches are needed to ensure that CBOs incorporate the interests of groups that are often excluded, including women, minority groups, remote communities, and the poorest women and men.
Goal 9	Design for scaling-up. In order to have a broader impact on a country's poverty, CDD needs to spread simultaneously in many communities, while respecting the unique features of specific communities. Key aspects of design for such scaling-up include mobilizing administrative and political support, adopting decentralized approval and disbursement processes, devolving responsibilities to communities, clustering activities in the program, keeping procedures simple, monitoring and evaluating both processes and outcomes, and promoting networks among CBOs.
Goal 10	Invest in an exit strategy. Exit strategies for external support are dynamic. Permanent institutional and financial arrangements are required for recurrent services, at a cost that can be supported over the medium and long term.

Source: from "Community Driven Development: Broadening Community Authority and Control Over Decisions and Resources" brochure, Social Development Department, The World Bank (2009B).

Some academic papers analysed and evaluated diverse lessons, problems, and advantages from the community-based development projects in poverty regions across the world, particularly emphasizeing on the CDD projects of World Bank for poverty territories. Regarding the findings from those ecases across the world, the study has been provided the critical requirement in understanding the potential of communities' movement for poverty reduction. The critical lessons learned from these experiences could support the idea of community-based development and could help in direction of effective approach to poverty reduction. In the development partner side, direct actions from multil-partnership development technique should be brought more positive outcome toward the sustainable community development (Chebil and Haque, 2003).

2.2. Community-Driven Development in the PRF pattern

The CDD has been implemented in many countries around the world since 1990s. As the key concept of poverty reduction goals. In Laos, the CDD approach has been considered as a critical instrument in poverty reduction strategy. The poverty reduction has been the challenge issue in the national socio-economic development goal. By the year 2020, Lao government has addressed the poverty eradication goal as stated in the National Growth and Poverty Eradication Strategy (NGPES). This strategy has been considered deeply in terms of

sustainability, social equality, and political stability. The poverty reduction and economic growth enhancement would be the top goal for Lao government, however, the policy and implementation should be aligned and blended in the Lao context (MPI, 2016).

In order to implement the national strategy on poverty eradication, in 2002 the Poverty Reduction Fund (PRF) has been established as a special organization under the Government's Office (Prime Ministerial Decree, 2002). The PRF has played a crucial role in the national poverty eradication goal with a mission to build capacity of local community for sustainable rural development and supporting the decentralized policy have been strongly emphasized (PRF, 2019A).

PRF uses three key pillars to adopt CDD approach in Laos: development technical aspects, combination and responsibility of institutions, and financial supports in order to move forward the sustainable development for the nation. The CDD approach has been implemented since 2003 by the PRF aiming to improve the living conditions of the poor communities and supporting the needs of villagers in the sense of self-belonging community. For the distinctive context and environment in poor communities, the minority groups have been found in the rural poor communities rather than in the developed regions. Therefore, the PRF's CDD has been considered the key strategy in providing chance to the minority group and women. The minority group and women would play the crucial role in the community development project with joining from the right on project selection to the maintenance processes. They have the right on decision making and project implementing which would bring the positive impact to their family and community (PRF, 2019A).

2.3. Community-Driven Development in the Saemaul Undong pattern

The five-year economic development plan of the Republic of Korea since the 1960s had achieved economic growth in the urban sector, which led to an increasing gap between rural and urban income (1960 to 1970 : 9.6% industrial growth 3.5% agricultural growth). Massive migration of rural people to larger cities (agricultural household income was 61% of urban household income) (Kim, 2002). Saemaul Undong Movement (SUM) has been a well-known approach in rural development which focuses on poverty reduction in the Republic of Korea (R. Korea) and that made the R. Korea lift themselves out of poor country status to a OECD country listing.

What is Saemaul Undong Movement (SUM)?

SUM has been a vital approach in community development which gave the power to villagers or community to decide for themselves on their own needs.

Figure1. SU meaning

In general understanding, the approach of SMU is the Community Movement towards the new life with a new change and development. Rural poor communities were the focus.

Concept of SMU for the community development

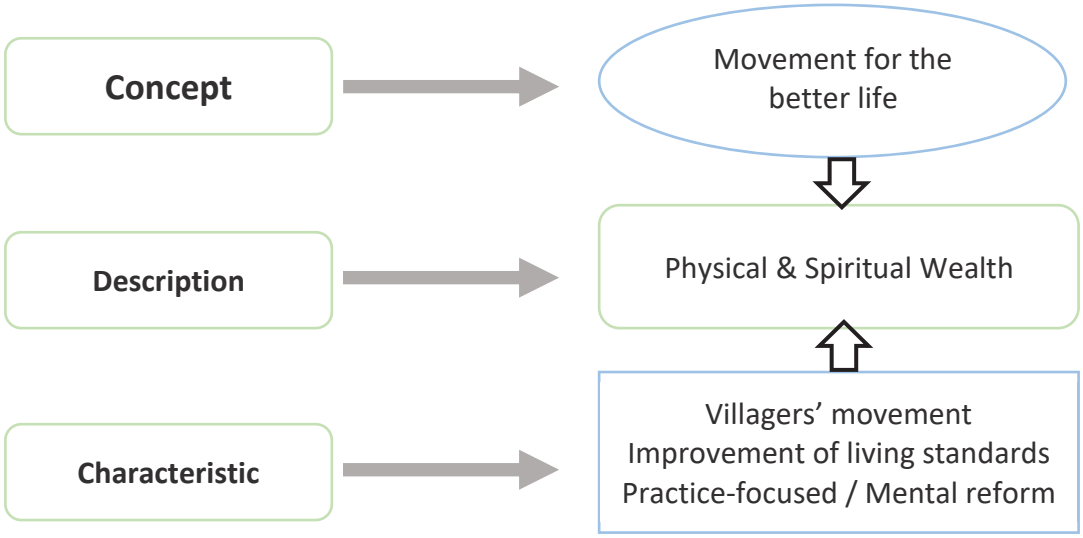


Figure 2. SUM goal

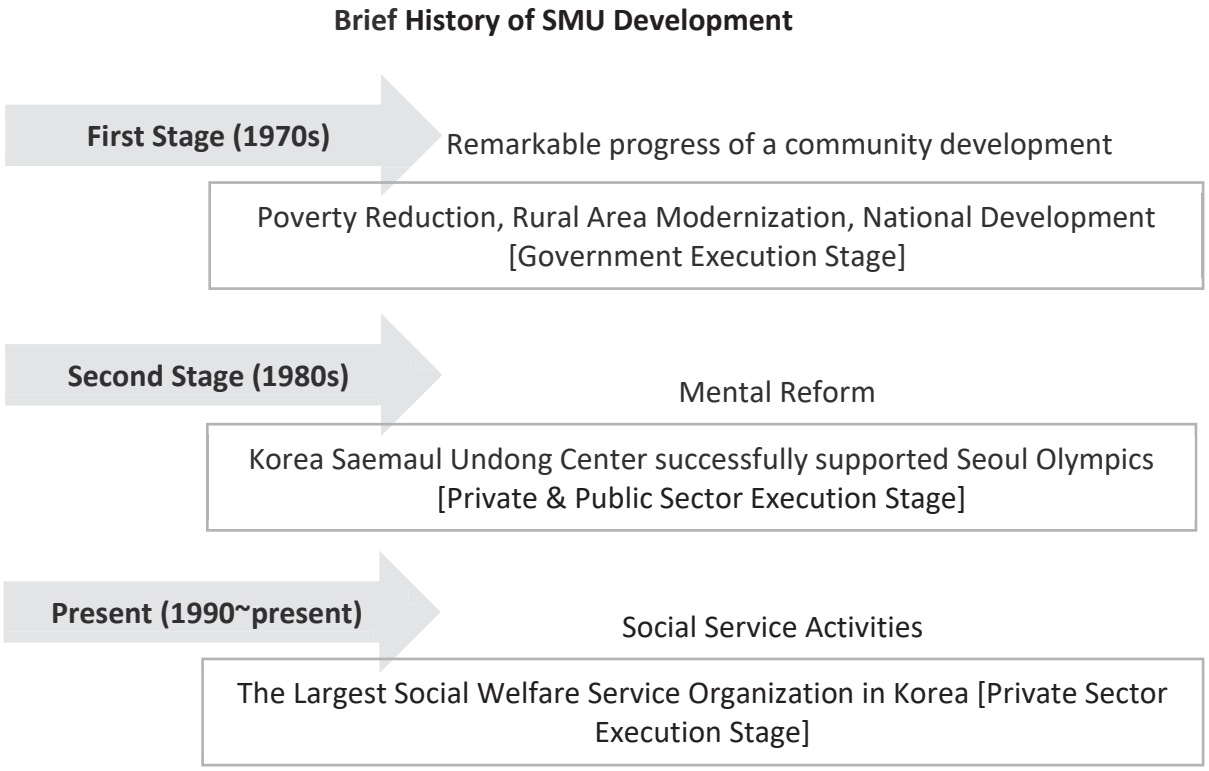


Figure 3. History of SUM

2.4. Impact of Saemaul Undong on poverty reduction

The former approaches of the community development in Korea was about poor villages being the target to improve their livelihood at each level. The successful goal for village development has been classified into three consecutive levels such as 1) Basic level village, 2) Self-help village, 3) Self-sufficient village. In order to move from the basic level to the self-sufficiency status, the Korean government used the Saemaeul Undong Movement (SUM) back in 1970. The SUM was seen as the significant instrument in the poor community development. Three key pillars considered are environmental issue, mental reform, and income development.

Table 5. Purposed projects of SUM

Environmental Development Projects	Mental Educational Reform	Income Increase
○ Paving and expending roads in villages (Accessibility) ○ Building bridges (Accessibility)	○ Practicing the Saemaul spirit with the villagers' understanding	○ Cooperative production (fertilizers, pesticides)

○ Improving water systems ○ Improving roofs ○ Electricity in households ○ New water pipelines ○ Community facilities	○ Leadership training ○ Saving and Helping each other ○ Following the common development rules	○ Improvement of seeds and plants ○ Non-agricultural income (Saemaul manufactures) ○ Raising specialty crops

2.5. Impact of Sam Sang on poverty reduction

The decentralized process under the Sam Sang Devolution Directive (Three builds) has been conducted since 2012, with 15 targeted ministries issuing instructions for the implementation of the Sam Sang pilot province, district, and village. The provincial level has been considered as a strategic unit; district administration as an integrated implementation unit; and village as a development implementation unit. Amongst other things these assign functions to lower levels in development, especially central government and local agencies. Administrative decentralization is currently driven by the central government and ministries (*e.g*. MPI, MOF, MOHA, MONRE). The administrative (recurrent) budget is not yet allocated to account for changed functional assignment but this is an essential next step in development if the early successes shown in the Sam Sang pilot projects are to be maintained. The core principle is that funds (recurrent budget) should follow function (the tasks and duties assigned to lower levels). This is recognized by Lao Government, for instance, the Ministry of Finance is currently revising the 2006 Budget Law to support recurrent budget transfers to the functions assigned under *Sam Sang Devolution Directive* projects.

In 2015, PRF of the Ministry of Agriculture and Forestry has considered the approach of Sam Sang as a rural development movement in matching with PRF's approach. Therefore, the lessons learned from Sam Sang has been conducted within Salavan and Savanakhet province. The critical findings addressed the insight movement of Sam Sang: 1) infrastructure system in the rural area has been tackled with better condition, 2) administrative structure has been improved, 3) local productivities have been dramatically increased, and 4) community could perceive the information and image of Sam Sang more than before implementing Sam Sang (PRF, 2015).

Table 6. Differentiation between PRF and Sam Sang approach

Description	PRF	Sam Sang
Pilot village selection	Focused on poor community with diverse minority ethnic groups and women empowerment	3 village levels were selected: poor, moderate, and good living condition

Village structure development	Least or more than 4 years villages would not be considered in development framework	To provide the mono-centric development by shifting from small villages to bigger community
Project decision	From the root of village level to the donors or central government with accurate budget	From village to the central government with unusual budget

Source: PRF (2015)

The PRF and Sam Sang has been implemented through the similar direction, however, some key approaches were implemented within different patterns. Table 6 explains the key differentiations of PRF and Sam Sang.

Regarding a study of Vongpraseuth et al. (2020) as a Sam Sang case of Vang Vieng district has been criticized that the Sam Sang Directive has been identified as a critical instrument in both administrative structure development and physical environmental improvement. However, the community participatory level should be emphasized. Through several Sam Sang lessons, it would be clarified that Sam Sang has been presented as a good practice in poverty reduction platform. However, the administrative collaboration and community participatory level should be continuously emphasized.

III. Data collection and variable identification

3.1. Site characteristics

Location theory has addressed that the distance and accessibility are the key flow in territory development.

3. 1.1. PRF's CDD in Salavan province

This study has emphasized on some pilot projects which launch the CDD approach. The CDD pilot projects in Salavan province have been selected from the poorest criterion. In fact, the PRFprojects have been implemented in many poor districts in Salavan province, however, the field survey has been conducted due to the accessibility conditions, the poorest status, and CFA/RMG pilot subprojects existed. The selected sites locate far from Salavan city center. The first one is Toumlan district, it takes 30-40 mins by car with the approximately distance about 52 km from Salavan city center. In Toumlan, two pilot CFA and RMG village were considered in this study: 1) Nakachuam and 2) Donxard (circle 16). The second site is in Samouay district, which locates far from Salavan city center about 134 km, it takes 1 hour 30 mins approximately. In Samouay district, Kaleng village has been selected as a sample site.

Table 7. Percentage of poor villages in Toumlan and Samouay District

Toumlan district	Very Poor	Poor	Non-Poor	Total
Number of Village	3	17	17	37
Village (%)	8.1	45.95	45.95	100
Samouay district	Very Poor	Poor	Non-Poor	Total
Number of Village	23	24	4	51
Village (%)	45.1	47.0	7.9	100

From the diverse approaches of the PRF, subprojects have been implemented CFA and RMG within some poor villages. Table 8 shows the list of villages in Toumlan and Samouay district with the status of subproject implemented.

Table 8. Subproject check list in Toumlan and Samouay district

Village in selected distict	CFA (subproject)	RMG (subproject)	Other (subproject)
Toumlan			
Donxard (cycle 14-16)		✓	
Nakachuem	✓		
Sano			✓
Kokmuang			✓
Nahoungnoy			✓
Boynam			✓
Tavuaoen			✓
Apeny			✓
Nahounghaig			✓
huanyva			✓
Donbung			✓
Toumlan			
Huaylai			
Donkhayoung			✓
Nadu			
Samouay			
Tedsaban			✓
Achuengyai- Achuengdilael			✓
Asingtai-Amon	✓		
Latoua			✓
Tanyu			✓
Phinse			✓
Lahang			✓
Peehai		✓	
Kaleng	✓		

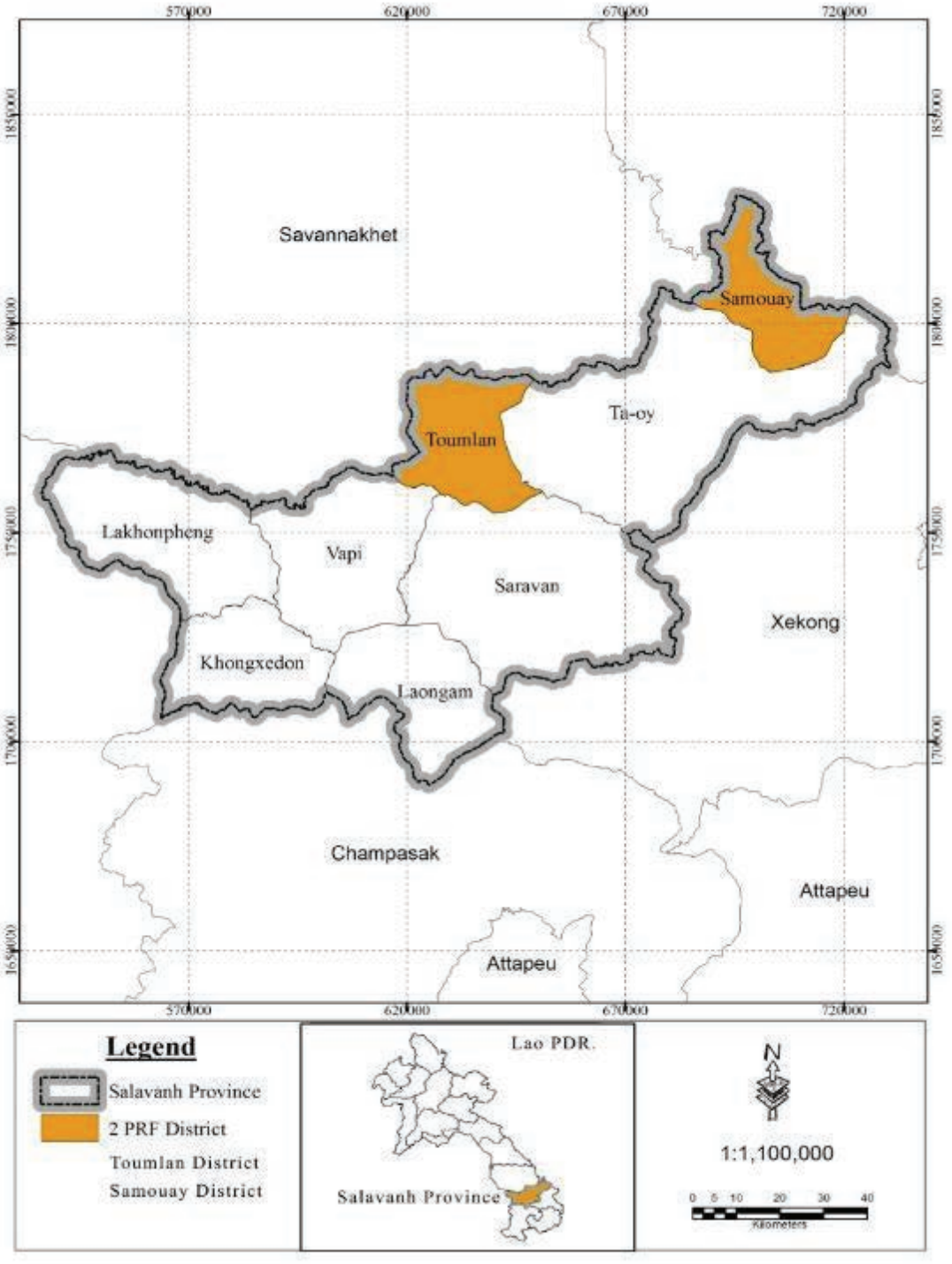


Figure 4. Location map of Toumlan and Samouay district

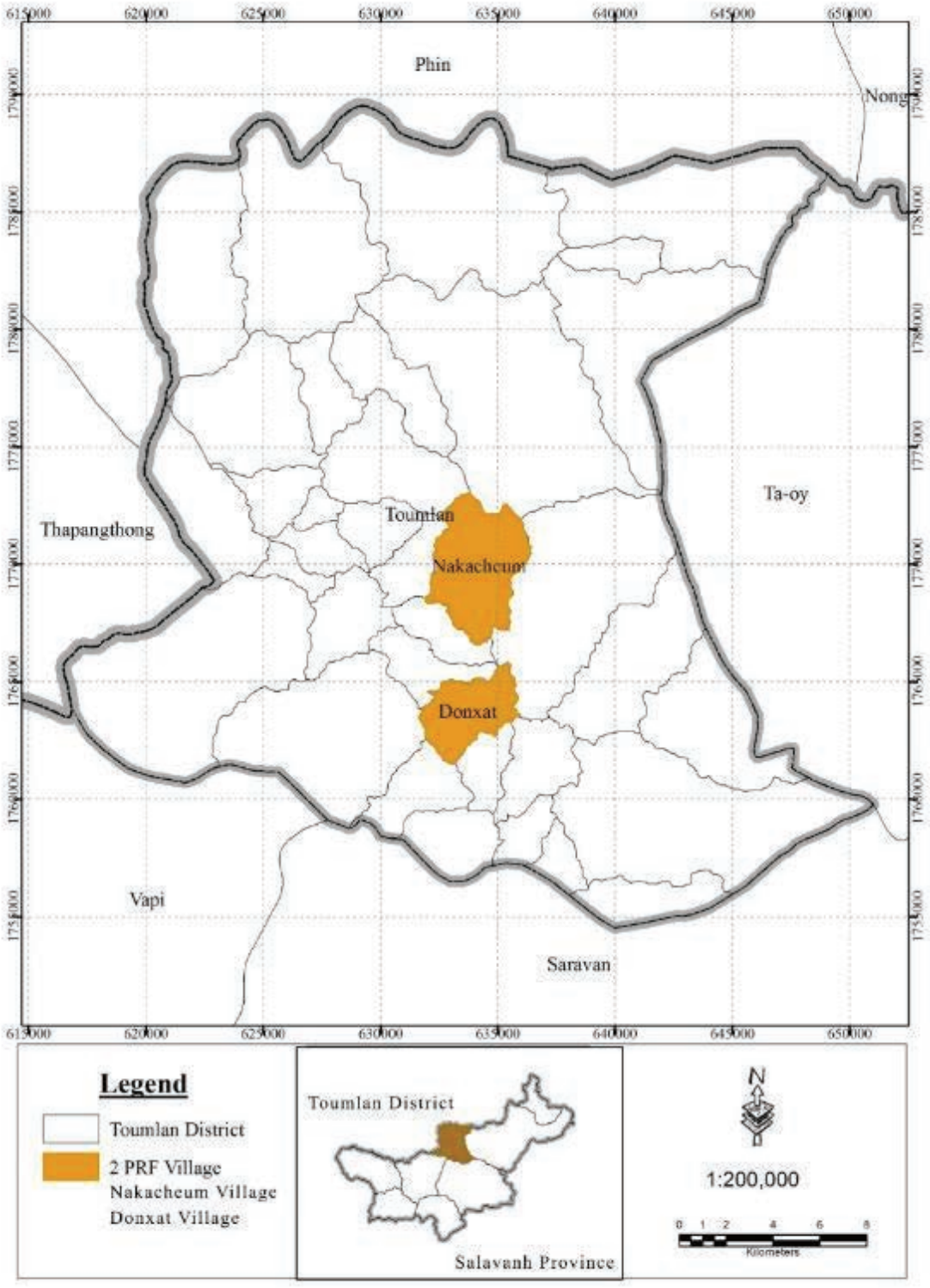


Figure 5. CFA and RMG pilot projects in Toumlan district supported by PRF

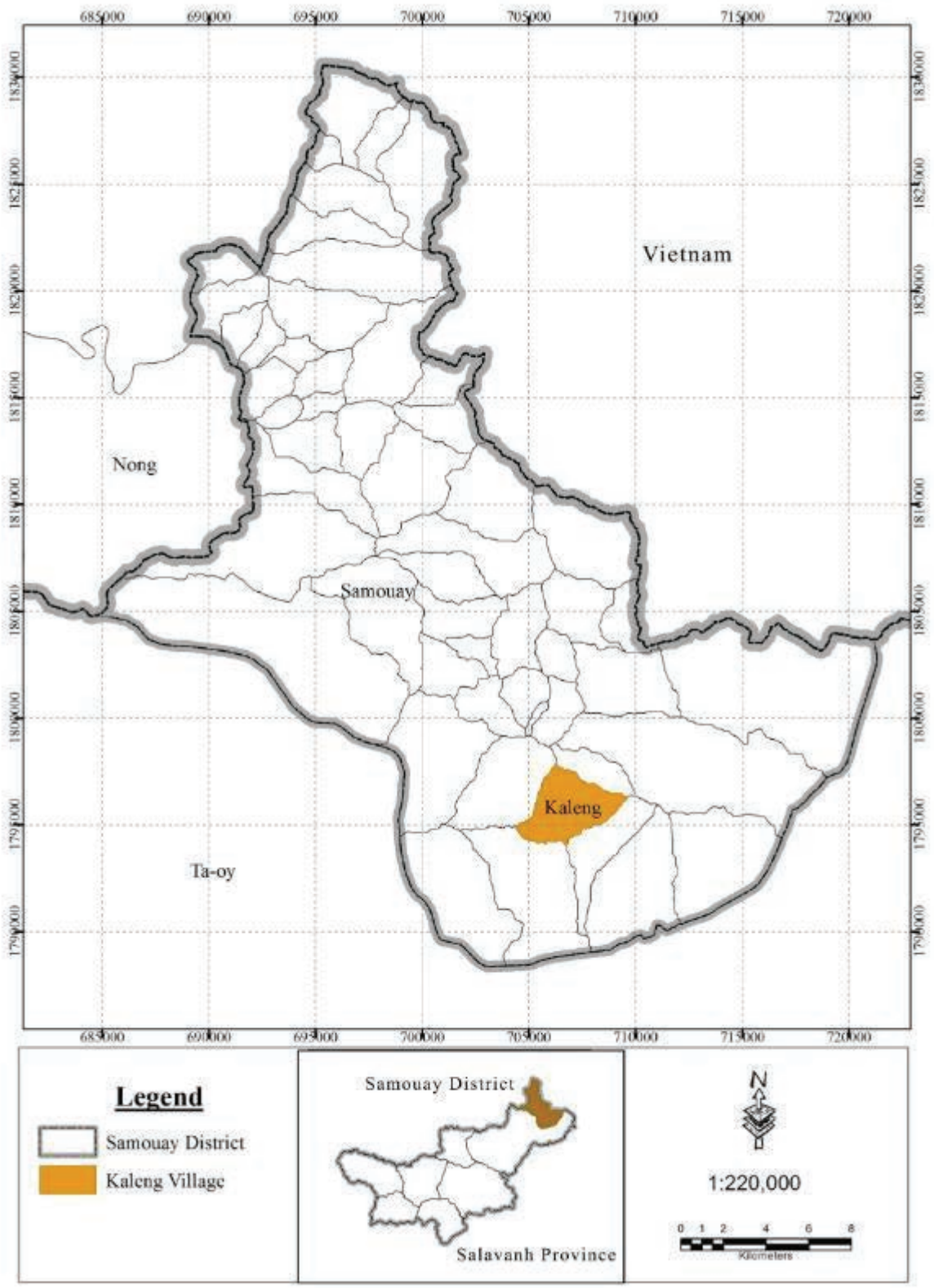


Figure 6. CFA village in Samouay district supported by PRF

PRF has been launched from 2002 to present within three phases. The first phase (2002-2010), PRF had supported 3,179 subprojects within 185 villages of 30 districts and 8 provinces in Laos; the second phase (2010-2016), 1,900 subprojects in 149 villages of 10 provinces hav been supported; the third phase (2017-2019), the PRF has been implementing more than 2,000 projects within 1,820 villages in 44 districts of 10 provinces. All subprojects hav been emphasized on basic infrastructure development and living conditions. The community driven development approach has been utilized in order to encourage villagers' living condition towards the poverty reduction for Laos.

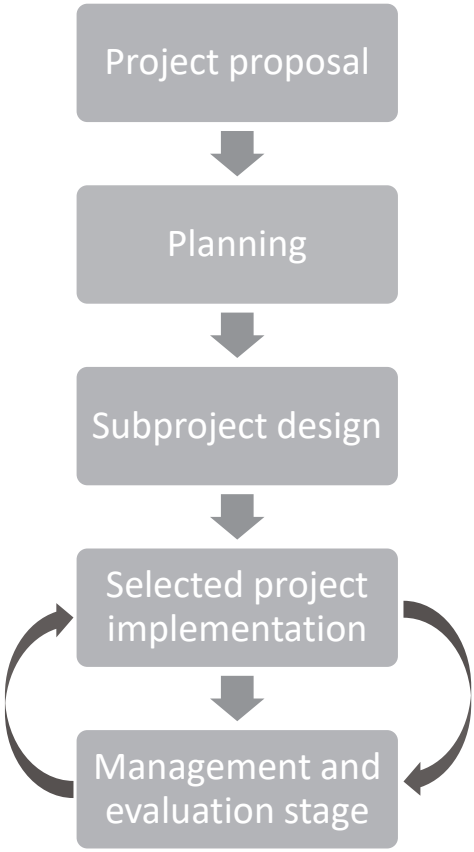


Figure 7. CFA subproject decision making

The key concept of CFA is to help community in poverty reduction strategy. The CFA platform has been driving on self-containment strategy, job creation, and project management techniques. In the case of Toumlarn district of Salavan province, the CFA projects have been implemented with the key participatory movements. Villagers have the right to manage all budget, to hire unskilled and skilled man, and to find material for the subproject in their community. The result of CFA has shown the variety movements of both local PRF and community. Finally, the project would prefer to accomplish the goal of success such as: human resource development; job creation, and free tax for the labor cost process.

3.1.2. SUM in Vientiane Province

Field survey stage has been emphasized on the local characteristics and accessibility factor. The SUM pilot projects have been selected in Thoulakhom district, Vientiane province which located close to the Vientiane capital. The distance from the city center of Vientiane capital to Thoulakhom district is about 80 km approximately with about 1hour 40 mins. Thoulakhom district is a high potential place for agricultural development and the road condition is almost the asphalt pavement, therefore, the SUM pilot projects have been considered with the crucial hope of reducing gap between rural and urban territories.

Figure 8. Location map of Thoulakhom District, Vientiane Province

Currently there are seven initiative SUM pilot villages in Thoulakhom district. Within seven villages, the implementation processes have been driven based on Korea patterns, however, three distinctive villages have been considered regarding the project characteristics, level of development, and accessibility condition.

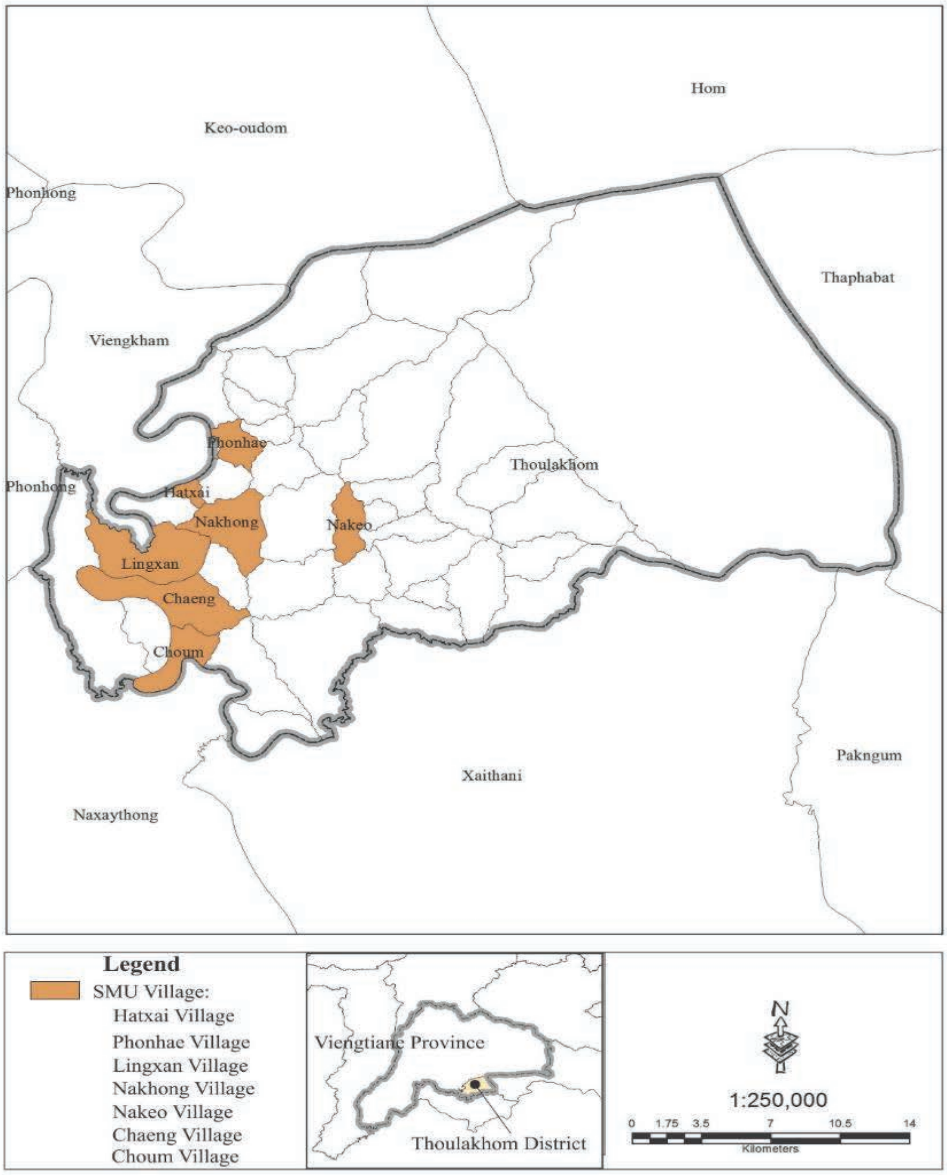


Figure 9. Saemaul Undong Villages in Vientiane Province

Built environmental development:

In general, SUM project has been supported the physical development for the poor environment villages. In the case of Vientiane province, Toulakhom district, the basic infrastructure projects had been the key priority in village development. The road construction projects have been implemented in Choum and Chaeng village. As the similar direction, a village office construction project has been provided instead of road construction for Nakhong village. The environmental improvement projects have been designated by the villagers' preferences.

Road construction development in SUM project has been structured by the representative from Korea and Laos side. The project has been considered within two dimensions such as participation group and construction material. The project has voluntarily encouraged all citizens in those villages to join the construction project. In

terms of construction budget, village would receive some construction material for road construction instead of financial supports. Through this movement, within 5 years connecting roads and alleyway in the community has been developed due to the SUM implementation approach. The key success of the SUM or CDD in the pattern of SUM would be presented from the leadership mindset in the community. Community empowerment approach would be probably a key in rural development in this case.

Job creation and income supports:

This type of SUM has been focused on the income generation based on the agricultural development approaches. This project has been opened to some active groups in those villages. The project has set the initiative market chain framework for supporting the villager's income. In the primary step, it has launched the green house project with different types of vegetation. The farmer groups have to pay for the maintenance fee to the village office about 15, 000 kip per month. Recently, 8 families have participated in this project with 32 green houses. In average their income would be 2 to 3 million kip per month (PRF, 2019B).

Table 9. Project participatory in the SUM villages

No.	Village	Involving in agricultural activity (family)	Percentage of agricultural activity involved	Built environmental aspect (family representative)		Micro-finance (family per year)
				Involving in activity	Involving with financial support *	
1	Choum	8	4.42	181	181	47
2	Chaeng	12	3.49	343	0	0
3	Nakhong	8	4.65	172	0	0

* 50,000 kip/project

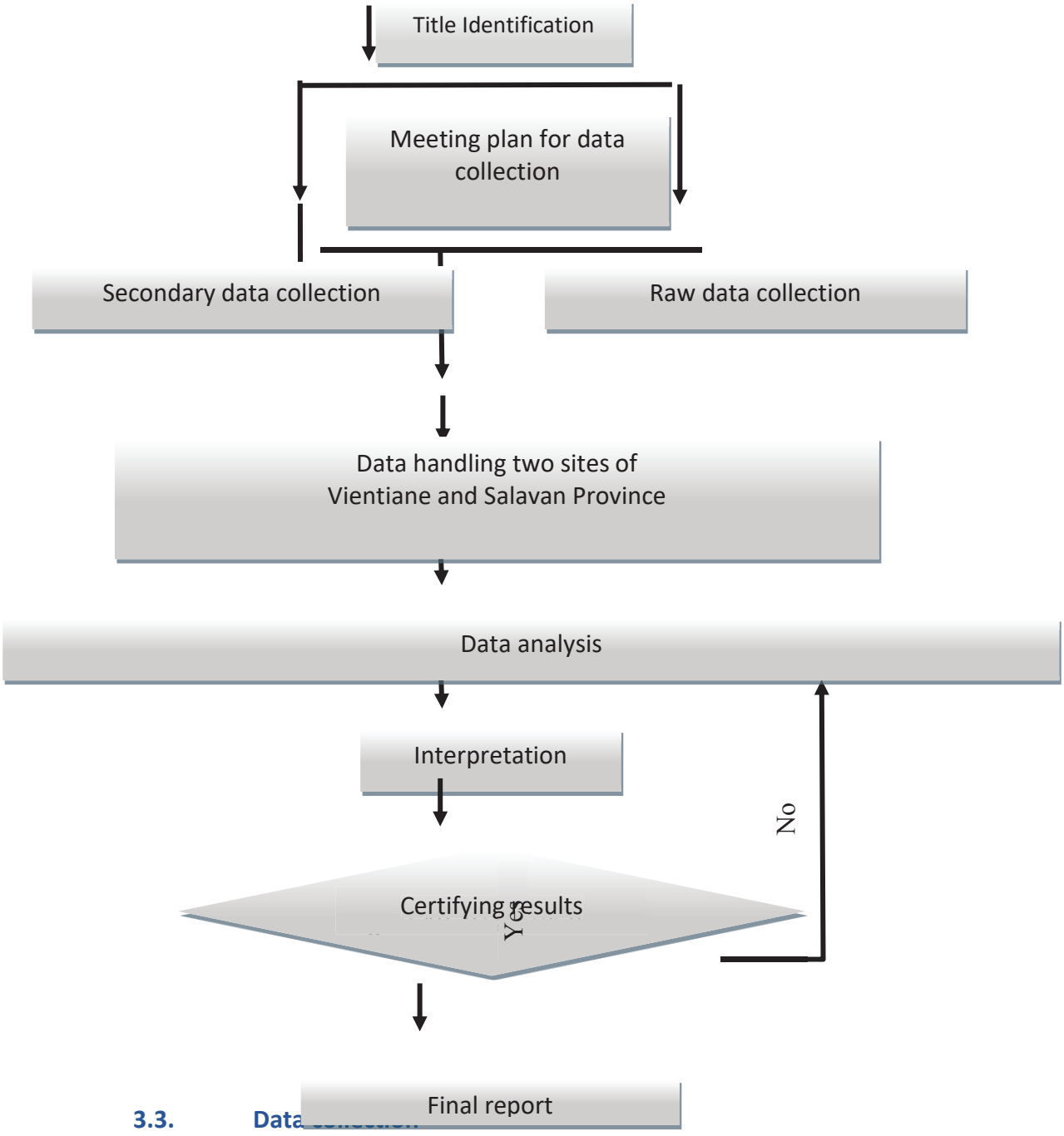
Table 10.Built environment development project

No.	Village	Village office project		Concrete road construction		
		Quantity	Size (m)	Length (m)	Width (m)	Total area (m2)
1	Choum	1	6x12	1200	5.5*	6,600
				600**	3.5	2,100
2	Chaeng	0	0	1700	3.5	5,950
3	Nakhong	1	6x10	0	0	0

*Community budget for 1,5m along 1200m, ** Community budget for 300m

3.2. Research flows

The flow chart elevates the important process of this study from the initiative stage to the final result. The chart presents the logical method in the scientific research method.



3.3. Data collection

Data collection processes were divided into two parts: documentation and field survey parts. The documentation part has been drawn from the secondary data which is accessible from the SUM representative in Laos, PRF website and relevant district offices. The secondary data were obtained from the previous research projects and executive reports. The primary data or raw data collection took place in three villages for each Salavan and Vientiane province. Based on the local condition and accessibility,

the samples have been randomly selected. In order to identify the community senses of villagers, focus group interview (FGI) has been conducted with the key active group in both CFA and RMG.

3.4. Variable identification

Variables were extracted from the personal, household, economic, and built environment factors. The key variables and controlled variables have been set under the accurate circumstance and previous studies regarding the community based development. Many studies stated key indicators in community development were personal information and physical environment. These indicators would help explain the relationship between people and physical environment in the existing context.

Table 11. Variable classification

Variable		Definition	Coding
Personal	Age	Age of respondents	Dummy
	Gender	Gender of respondents	Dummy
	Occupation	Diverse jobs are classified	Dummy
	Status	Marital status	Dummy
	Self-perception on community development	Villagers' perception	Scaled
Household	Household size	Number of member in a family	Numeric
	Housing type	Type of housing, would be classified by material type	Dummy
	Participating in SUM/ PRF	Understanding in the SUM	Dummy/ Numeric
Economy	Income _BF	Income before implementing the SUM	Scaled
	Income _AF	Income after implementing the SUM	Scaled
	Job creation_BF	Job creation before the SUM	Scaled
	Job- creation_AF	Job creation after the SUM	Scaled
	Micro-finance_BF	Community based financial system for development project before the SUM	Scaled
	Micro-finance_AF	Community based financial system for development project after the SUM	Scaled
Built Environment	Housing_BF	Housing condition before the SUM projects	Scaled
	Housing_AF	Housing condition after the SUM projects	Scaled

	Road_BF	Condition of road in the village before the SUM projects	Scaled
	Road_AF	Condition of road in the village after the SUM projects	Scaled
	Water_BF	Condition of road in the village before the SUM projects	Scaled
	Water_AF	Condition of road in the village after the SUM projects	Scaled

IV. Data analysis

Data analysis process was divided into two contexts and patterns. The first context is in Salavan province with PRF development pattern. The second context is conducted in Vientiane province which is driving the SUM approach. Analysis processes presented as following key findings.

4.1. Contextual analysis for the SUM cases

4.1.1. Descriptive analysis for SUM

In this stage, variables were categorized from key indicators of personal, economic and environmental factors. The descriptive value of mean, standard deviation, min, and max have been presented in table 12.

Table 12. General information of selected variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Gender	106	1.660	0.476	0	1
Age	106	50.066	12.654	18	75
Family head	106	1.491	0.502	0	1
Household size	106	4.717	1.672	2	11
Housing type	106	2.415	0.688	1	3
Job_BF	106	1.745	1.096	1	4
Job_AF	106	1.783	1.138	1	4
Understading_SUM	106	0.594	0.493	0	1
JoiningSUM	106	4.000	3.500	0	15
Road_BF	106	2.104	0.792	1	3
Road_AF	106	3.396	1.030	1	5
Streetscape_BF	106	2.198	0.668	1	3
Streetscape_AF	106	3.274	1.000	1	5
Housing_BF	106	2.915	0.480	2	4
Housing_AF	106	3.443	0.634	2	5

Job_improvement_BF	106	2.557	0.570	2	4
Job_improvement_AF	106	3.557	0.782	2	5
Providing land_BF	106	2.585	0.532	2	4
Providing land_AF	106	3.500	0.784	2	5
Microfinance_BF	106	2.132	0.677	1	3
Microfinance_AF	106	2.906	1.167	1	5
Income_BF	106	2.047	0.773	1	4
Income_AF	106	2.557	0.895	1	4

Ban Choum, Ban Chaeng, and Ban Nakhong are classified as agricultural development model villages in Thoulakhom district. The SUM projects have been designated to be implemented in seven villages due to the high potential in agricultural development. Projects have been selected and implemented by some family/group that preferred to take part in the SUM projects. As the first step, some poorest families has been selected to participate in the agricultural development activities. Recently, selected family has been considered from their capability and willingness.

Table 13. Age variable in three villages

Village	Age variable		
	Mean	Std. Dev.	Freq.
Choum	51.345	15.578	29
Chaeng	48.615	12.844	26
Nakhong	50.647	12.030	51
Total	50.340	13.189	106
Sig	0.729		
F	0.321		

Age and gender variable in this study is an important aspect. In order to understand the gender equality situation, gender variable should be contained. Based on the random group identification method of this study, sampling illustrated similar portion within three pilot SUM villages.

Table 14. Gender variable in three villages

Village	Gender variable		Total
	Male	Female	
Choum (%)	13	16	29
	36.11	22.86	27.36
Chaeng (%)	8	18	26
	22.22	25.71	24.53
Nakhong (%)	15	36	51
	41.67	51.43	48.11
Total	36	70	106

	100	100	100
Sig	0.347		
Chi-sq	2.116		

The inequality and poor status in the built environmental aspect would be presented through the housing type and their housing conditions. In general, housing type has been categorized into three distinctive types in this three pilot villages: 1) Wooden type, 2) Half-wooden type, and 3) Villa type. Within three pilot villages, the different portion among three types of housing has been resulted with the statistical significant level. Housing type would be a crucial physical aspect in categorizing the living condition. In Laos, the wooden housing type has been perceived as the rural housing type in poor condition.

Table 15. Housing type variable in three villages

Village	Housing type variable			Total
	Wooden	Half-wooden	Villa	
Choum (%)	1	13	15	29
	(8.33)	(34.21)	(26.79)	(27.36)
Chaeng (%)	8	6	12	26
	(66.67)	(15.79)	(21.43)	(24.53)
Nakhong (%)	3	19	29	51
	(25.00)	(50.00)	(51.79)	(48.11)
Total	12	38	56	106
	(100)	(100)	(100)	(100)
Sig	0.008***			
Chi-sq	13.853			

4.1.2. Economic factor and community driven perception for SUM

The case of Thoulakhom district, the CDD approach under SUM in three selected villages, respondents have been randomly selected. Through the logit model process in this analysis, Pseudo R-square showed high significant model fitting, accounting for 0.63. The age and sense of locality illustrated statistical significant association with their understanding on the SUM's projects. Regarding the main variables, job creation, land providing for agricultural activities, income improvement, and initiative microfinance concept have been explored in before and after the implementation of SUM.

The associated factors of economic development and understanding of SUM in pilot selected villages, the job creation or job improvement, land providing for agricultural activities, income level, and micro-finance variables show the important implication in SUM village development. These results present that after the SUM has been implemented, their economic has been growth with the job creation direction.

Table 16. Understanding of SUM and economic factor

Variable	Odds Ratio	Std. Err.	z	Sig
Age*Age	0.999	0.000	-1.890	0.059*

Gender (male)		0.642	0.649	-0.440	0.661
Family head (yes)		0.464	0.462	-0.770	0.440
Household size		0.745	0.164	-1.340	0.181
Local organization (yes)		0.038	0.057	-2.180	0.029**
Housing type (Wooden)	Half-wooden	0.129	0.206	-1.280	0.199
	Villa	0.101	0.161	-1.440	0.151
Job_BF		0.313	0.326	-1.110	0.265
Job_AF		1.040	1.063	0.040	0.970
Job_improvement_BF		0.031	0.055	-1.950	0.051*
Job_improvement_AF		26.999	40.253	2.210	0.027**
Providing_land_BF		23.824	30.854	2.450	0.014**
Providing_land_AF		0.125	0.151	-1.720	0.086*
Income_BF		0.030	0.035	-2.960	0.003***
Income_AF		19.588	18.642	3.130	0.002***
Microfinance_BF		26.434	39.117	2.210	0.027**
Microfinance_AF		1.201	0.704	0.310	0.754
_cons		0.143	0.618	-0.450	0.653
N		106			
Pseudo R-sq		0.63			

4.1.3. Built environment factor and community-driven perception for SUM

SUM has been implemented with long history in R. Korea context. SUM showed the successful cases in many villages of R. Korea and other least developed regions (LDRs). In Laos, both from KOICA and Central SUM agencies have implemented CDD in order to improve living condition and test the Korean's CDD approach in Laos context. The physical environment has been set as the priority in SUM village development.

Table 17. Understanding on SUM and environmental factor

Variable		Odds Ratio	Std. Err.	z	Sig
Age*Age		1.000	0.001	-1.210	0.226
Gender (male)		1.038	1.056	0.040	0.971
Family head (yes)		0.456	0.472	-0.760	0.448
Household size		0.843	0.239	-0.600	0.548
Local organization (yes)		0.091	0.092	-2.370	0.018**
Housing type (wooden)	Half-wooden	0.038	0.077	-1.630	0.103
	Villa	0.312	0.480	-0.760	0.449

Road_BF	0.934	0.987	-0.060	0.948
Road_AF	0.990	1.005	-0.010	0.992
Streetscape_BF	5.018	5.152	1.570	0.116
Streetscape_AF	11.685	11.400	2.520	0.012**
Housing_BF	1.026	1.087	0.020	0.981
Housing_AF	11.866	13.560	2.160	0.030**
Safety_BF	0.172	0.186	-1.630	0.104
Safety_AF	3.483	3.682	1.180	0.238
Water_BF	3.171	3.391	1.080	0.280
Water_AF	11.926	16.019	1.850	0.065*
_cons	0.000	0.000	-2.640	0.008
N	106			
Pseudo R_sq	0.62			

4.2. Contextual analysis for the CFA and RMG of PRF

This study aims to explore the magnitude of community participation and their individual information within two main targets (SUM and PRF CDD). The study would present a couple steps of entire analysis process, the descriptive analysis would present the general information and characteristic of collected data.

4.2.1. Descriptive analysis for PRF

The personal data has been set as the controlled variable which illustrates the significant mean, min and max value. The key variables of socio-economic and built environment aspects have been set as main variables.

Table 18. Variable characteristics

Variable	Obs	Mean	Std. Dev.	Min	Max
Village	148	1.533	0.201	1	3
Age	148	44.068	15.019	18	70
Gender	148	1.250	0.434	0	1
Family size	148	6.541	2.394	2	15
Housing type	148	1.041	0.198	1	2
Job_BF	148	1.595	1.171	1	4
Job_AF	148	1.831	1.269	1	4
Understanding_PRF	148	1.338	0.475	0	1
Attending_PRF	148	4.743	3.080	0	10
Road_AF	148	3.432	1.167	1	5
Road_BF	148	1.689	0.604	1	3

Street_en~AF	148	3.257	1.351	1	5
Street_en~BF	148	1.838	0.629	1	3
Housing_AF	148	3.041	0.718	1	5
Housing_BF	148	2.520	0.600	1	4
Job Creation~AF	148	3.007	0.979	1	5
Job Creation~BF	148	2.182	0.650	1	3
Workplace_AF	148	2.791	1.032	1	5
Workplace_BF	148	2.095	0.632	1	3
Income_BF	148	1.162	0.370	1	2
Income_AF	148	1.412	0.582	1	3

At the village level within three pilot villages, test of differentiation has been illustrated the different age group of 148 respondents. The average age of respondent in three villages accounted for 44 years old. The random selection method has been conducted with similar proportion among three villages. In these three villages have some homogeneity on minority ethnic group for instance Katang and Pako group. Regarding the age variable, the mean value has been present in the breakdown table for each village.

Table 19. Breakdown age variable within 3villages (PRF)

Village	Summary of age		
	Mean	Std. Dev.	Freq.
Kaleng	45.596	15.202	47
Nakacherm	47.160	14.230	50
Donxard	39.627	14.840	51
Ave	44.068	15.019	148
Sig	0.028**		
F	3.66		

Table 20 shows the summary of gender proportion within three villages. The Chi-square testing has been employed between gender and village variable. The proportion of gender in three villages have been drawn with similar portion. The sampling group identified that male has been collected more than female in each case.

Table 20. Breakdown gender variable within 3villages (PRF)

Village	Gender		Total
	Male	Female	
	38	9	47
Kaleng	34.23	24.32	31.76
	38	12	50
Nakacherm	34.23	32.43	33.78
Donxard	35	16	51

	31.53	43.24	34.46
	111	37	148
Total	100	100	100
Sig	0.370		
Chi-sq	1.989		

The numbers of attending in PRF's projects per month have been recorded by the representative of the village. The average times per month accounted for 4 or 5 time per family in rotation. Within three villages, the attending level of villagers presented in high number with similarity among them.

Table 21. Attending in PRF's projects (time per month)

	Summary of attending in PRF		
Village	Mean	Std. Dev.	Freq.
Kaleng	4.298	2.933	47
Nakacherm	5.020	3.217	50
Donxard	4.882	3.090	51
Ave	4.743	3.080	148
Sig	0.477		
F	0.74		

4.2.2. Economic factor and community driven perception for PRF

The multiple regression analysis has been applied in order to explore the critical association between economic factor in rural community and their personal information. Findings reveal the high significant level in this model, 0.60 has been showed in the R-square value, which is indicating the high value of model fitting level. In addition, the VIF testing has been run in order to prevent the multicollinearity issue. The results of VIF have been certified that the model drew lower than the multicollinearity condition.

With regard to the significant results of this study, some controlled and main variables showed the statistical significant association with the level of participation in PRF. The sharing work task system has been found from the family structure in PRF's pilot projects, it was not only the head of family should attend in the project implementation process but everyone in one family could spontaneously be involved. Due to the finding of the analysis stage, housing type, job creation from the project, understanding the main concept of PRF would be the critical implications in Salavan PRF's projects. Villagers prefer to involve in the project if they have much understanding on project's approach. The finding also elevated the that villagers who find out their poor environment, the high level on participatory was higher than other groups. In addition, they also considered their key benefits and incentives for what they could achieve after the project has been completed, for instance, income generation and job creation in their community.

Table 22. Economic factor and participation in PRF

Variable	Coef.	Std. Err.	t	Sig	VIF
Age*Age	0.001	0.002	1.560	0.122	1.51

Gender (male)	-0.121	0.466	-0.260	0.796	1.61
Family head (yes)	0.916	0.503	1.820	0.071**	1.94
Household size	-0.068	0.071	-0.970	0.335	1.12
Housing type(wooden)	-1.604	0.825	-1.940	0.054**	1.04
Job_BF	-0.076	0.183	-0.420	0.678	1.81
Job_AF	0.095	0.177	0.530	0.595	1.98
Job Creation_BF	0.184	0.191	0.960	0.338	1.37
Job Creation_AF	-0.560	0.271	-2.070	0.041**	1.21
Income_BF	0.605	0.490	1.240	0.219	1.28
Income_AF	-0.374	0.325	-1.150	0.252	1.41
Understanding_PRF(yes)	-4.863	0.380	-12.790	0.000***	1.27
_cons	5.291	1.407	3.760	0.000	1.47
N	148				
R-square	0.60				

Note: *p<0.1, **p<0.05, ***p<0.01

4.2.3. Built environment and community driven perception for PRF

Built environment factor is a critical aspect in translating the meaning of physical environment through the development periods. The surrounding environmental condition would be presented as the important perception and outcome in development processes. This study has employed the multiple regression analysis in order to clarify the perception of villagers on their physical environment within before and after the PRF's projects. The condition comparison method between before and after (BA testing) would meet the research question of this study. Table 22 Illustrates the high probability on model fitting (R-square=0.60). However, only some variables resulted statistically significant such as Age, Housing type, Housing environment, and Project understanding. Age variable: From the implementation process of three villages, result shows the association between level of attending in the project with age group. Elderly would probably be the active group in the project implementation. The reason would link to the understanding level of elderly people in the village rather than younger group.

Housing type variable: This variable has played the important image on socio-economic status, the poorer group would probably reside in low quality wooden housing type. It is showed that the poorer group would be the main group in participating in the sub-project activities in order to improve their village's environment.

Table 23. Built environment factor and attending PRF

Variable	Coef.	Std. Err.	t	Sig	VIF

Age*Age	0.001	0.002	1.760	0.081*	1.470
Gender(male)	-0.242	0.482	-0.500	0.617	1.710
Status (single)	0.036	0.772	0.050	0.963	1.610
Household size	-0.058	0.075	-0.770	0.444	1.270
Family head (yes)	0.765	0.523	1.460	0.146	2.080
Housing type(wooden)	-1.560	0.842	-1.850	0.066*	1.080
Housing_BF	0.102	0.284	0.360	0.721	1.610
Housing_AF	-0.565	0.308	-1.830	0.069*	1.330
Road_BF	-0.270	0.230	-1.180	0.242	2.800
Road_AF	0.348	0.292	1.190	0.236	1.210
Street environment_BF	0.208	0.211	0.990	0.325	3.150
Street environment_AF	0.204	0.298	0.680	0.495	1.370
Understanding_PRF(yes)	-4.772	0.356	-13.420	0.000***	1.110
_cons	6.977	1.773	3.930	0.000	1.720
N	148				
R-square	0.60				

Note: *p<0.1, **p<0.05, ***p<0.01

Housing environment variable: From the villagers' image, the housing environment would be presented as a representative of the built environmental factor. The finding shows the significant level on sub-project attending level and perception on housing development. Their perceived only moderate change in housing environment. As the the sub-project has been initiative from the beginning of 2019, it would be probably developed in a few houses.

V. Discussions

5.1. PRF pilot projects in Salavan province

Regarding the site survey in Salavan province, the critical issue on CDD approach by the PRF showed some key perception of the preferences and intended levels for the existing and future CFA and RMG.

5.2. SUM in Vientiane province context

This study has been focused on three pilot villages in Vientiane province, the key criterion of three villages have been selected based on the prior pilot village in Thoulakhom district.

Table 24. Summary of development factor in SUM

Village	Population		Household	Environmental development activities	Economic growth activities	Job creation activities
	Total	Female				
Choum	994	500	181	√	√	
Chaeng	2,044	1003	343	√	√	
Nakhong	879	434	172	√	√	

Source: Village reports of Choum, Chaeng, and Nakhong village, 2019

5.3. SUM and PRF in economic sustainability

SUM has been addressed as an instrument in rural development of Korea approach. This approach has been applied in Laos within many institutions. As the pilot projects in this study, the critical hope of this project will be emphasized on the self-sufficiency, villages have participated in this project based on the agricultural activities. Regarding the interview stage, the chief of the village addressed that

> *"Due to the potential of this village, poor status has been tackled. The economic development would be the key challenge for our community in order to reach the long-term growth of sustainable aspect. The perception on self-sufficiency of villager would take in to the crucial action rather than policy"*

Regard to the community-driven development in the Southern part of Laos, PRF has performed the important key in rural development, especially, poor and minority community. The community force account and road management group have obviously shown the movement of villages. The key incentive for theme is the income creation from joining community development activities. Community has created they development plans from their needs. The great driver of PRF has been provide as the optimal suit for poor community in order to raise their living quality. The main critical movement of the PRF projects in the form of CFA and RMG are the sufficient support from central government. Regarding the opinion of the village chief said

> *"Villagers in our village have been preferring to take part in the CFA and RMG more than 50 percent, we need to improve our living condition through the implemented projects" Sustainable job creation and Stable income.*

5.4. People centered SUM and PRF in built environment aspect

In the urban and rural development structure has been considered within two directions, for instance, the Top-down(TD) and Bottom-up (BU) directions. These directions have been utilized in village, district, and province level. In the primary stage of poor and rural development trends, BU approach has been play the important role in community based decision in the projects. Within this senses, public voice would probably the crucial tools in community movement. In order to reach the smooth process, the education should be provided. As the case of SUM, educational reform would be the first step in community- driven movement.

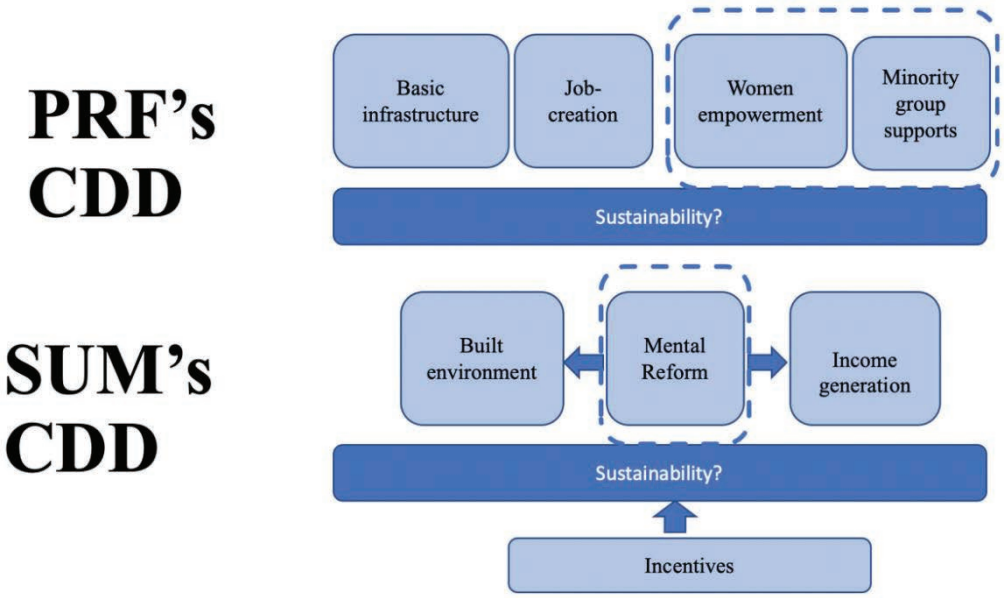


Figure 11. Lessons of CDD in Laos (SUM and PRF)

5.5. Hopes and dilemmas of CDD in form of SUM and PRF

Within the key aspect of this study which would present the optimal idea for CDD movement in Laos. The finding from both SUM and PRF approaches would be clarified within various lessons. In this section, the critical hopes and dilemma of SUM and PRF approaches' outcomes have been discussed from the analysis results and realities.

Hopes: The key concept of hope in this augment are the possibility and capacity for the future development**,** which would be discussed through the existing potential in the sustainable development and the optimal pattern for CDD in the rural areas of Laos. As the critical practices of CFA and RMG of the PRF's approach and SUM, the critical manpower from the community-driven development would be the tremendous engine in driving the poor to the better living condition. The combination between PRF and SUM approach should be mixed. The SUM approach would be presented the economic encouragement based on the geographical potential and basic job creation technique whereas the PRF would consider the villagers' mind-set and incentive toward the active movement in the rural regions.

Dilemmas: From the dilemma idea is presented as the unseen dimension in rural development challenges, especially in the distinctive poor areas. Regarding the finding of this study, key risks on CDD implementation both in form of SUM and PRF approaches would be the social cohesion, sustainable job creation, and stage of self-sufficient conditions. Within three key issues, missing components in the implementation would be the initiative message of dilemma in the future.

VI. Conclusions and recommendations

The CDD approach, there are various patterns of CDD based on regional context and implemented group characteristics. The CDD in Laos has been implemented with high success level. Recently, the pattern of CDD in Laos have been expended within diverse patterns regarding the dynamic growth and national development policies. This study has emphasized

on the critical patterns such as SUM and PRF's CDD in order to explain the initial expectation and dilemma in pilot cases. In general point of views, the SUM has been considered as the growth from agricultural aspects, which would emphasize the key combination between mind-set of villager and their task. SUM would implement the great progress in the stage of better village conditions. Therefore, in the context of rural area with high potential in development has been considered as the pilot model village.

Regard to the good practice of the PRF's CDD pilot projects in Salavan, the critical idea in the basic infrastructure improvement projects have become the significant tools in persuading villagers. The influence factors of those project is the great outcomes and successes. Villagers would find the bright hope if the central government could find the key stable support for them. As they prefer to involve in those projects, however, lacking of constant supports from the government, it would bring their hope toward the stage of dilemma phenomenon in the future. In short, 1) the poor communities in Laos have been developed within diverse CDD patterns (PRF, SUM, Sam Sang, and so forth), however, the appropriate approach should be considered based on their needs and context. 2) stable consideration on funding should be provided in matching between demand and supply (according to the interviews, villagers showed the high attention in the existing project whereas the limitation of funding has been generated); 3) the participatory level should be expended to all community rather than only a few households; 4) long-life learning approach would help them to improve their jobs and income. In order to find the hope for CDD in Laos, limitation on implemented targeting, added costs and limitation of participation in practice, sub-project cycles that are too short for sufficient empowerment, and decentralized management factors should be frequently double checked.

In order to accomplish the goal of functional CDD in Laos, the recommendations from this study has been concludes as follow:

1). Internal factor, this factor would hide inside the community with the local identity. In order to switch their perception from unplanned to planned mode would be the time consumption image. According to the previous report on the impact evaluation in both CFA and RMG subprojects' villages in 2019 (East Asia and Pacific Gender Innovation Lab, 2019), it revealed in which the key issue of understanding of villagers should be supported by government sector within accurate planned time.

2). External factor, this factor should be intervened by the outside organization, for instance, private companies, NGOs, and public sectors. In order to reach the self-sufficiency status, in the primary step, public sector/government side should intervene in the community driven development for the village level, which would emphasize on skill development and job creation for long-term self-sufficient living conditions.

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ASSESSING THE SUSTAINABILITY OF COMMUNITY-DRIVEN DEVELOPMENT PROJECTS IN LAO PDR

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ABSTRACT

The Community-Driven Development (CDD) approach has been applied to more than 5,000 subprojects in 2,000 villages in the Lao PDR. CDD has the potential to make poverty reduction efforts more responsive to the needed, more inclusive, more sustainable, and more cost-effective than traditional centrally led programs. Many CDD projects could not survive due to financial support since many CDD projects could not afford operating and maintaining costs. The overall objective of this research is to assess the sustainability of CDD projects in Lao PDR with the specific objectives to investigate whether the degree of community contribution does matter for the current existence of CDD projects and to assess whether the community's contribution could enhance the current performance of CDD projects. Logit regression is the main model to analyze the impact of the community's contribution to the sustainability of CDD projects in Lao PDR. The result suggests that community participation in the form of labor and finance are key factors for the sustainability of CDD projects. Base on the result of the study, the policy implication for the sustainability of CDD projects include reserving fund for major maintenance, stablishing regulation, and guideline on maintenance fund, improve the methodology of project evaluation with more details on finance, functioning, quality of the project, and challenges, outsourcing person to conduct the project evaluation and setting report system among village and PRF.

Keywords: Community-Driven Development, Sustainability, Community participation

Contents

I. INTRODUCTION

1.1 Background

The Community-Driven Development (CDD) projects have become an important channel of development assistance for the village. CDD programs stem from the trust in local people by treating them especially poor people as assets and partners in the development process. Recently, more than 80 countries have implemented CDD projects.

Experiences from many countries show that by directly relying on poor people to drive development activities. CDD has the potential to make poverty reduction efforts more responsive to the needed, more inclusive, more sustainable, and more cost-effective than traditional centrally led programs (Mansuri et.al, 2004).

In Lao PDR, the Poverty Reduction Fund Project (PRF) initiated the CDD in 2003. The CDD approach has been applied to more than 5,000 sub-projects in 2,000 villages in Lao PDR. While there is general recognition of the potential of CDD approach, there remain criticisms regarding: conceptual issues, practical issues, institutional issues. These shortcomings of CDD approach could decrease the effectiveness and sustainability of the projects.

Questions often arise among development practitioners whether CDD projects sustainable? Does the more participation of community on the project bring more sustainability? and what are factors determining the sustainability of CDD projects? These questions come from the fact that many CDD projects could not survive without continued financial support. Since many CDD projects are constructed in poor villages, they could not effort for operating and maintaining costs.

It is thus interesting to observe the community's participation in the CDD project and its relationship with sustainability. The participation refers to the community participate on finance, labor, management and coordination on the CDD project while the sustainability of defines as whether the project is still functioning and how the community response when the project requires maintenance.

1.2 Objectives

The overall objective of this research is to assess the sustainability of CDD projects in Lao PDR. The specific objectives are to investigate whether the community's contributions do matter for the current existence of CDD projects and to assess the factors determining sustainability of CDD project.

II. REVIEW LITERATURE

2.1 CDD project and Sustainability

Community Driven Development is considered an effective poverty reduction mechanism to promote local development and capacity building, improve service delivery, and provide risk management instruments to the poor. Compared to an earlier generation of community-based rural development projects where communities acted as rather passive beneficiaries, recent CDD projects give communities more voice and place communities at the center of the development process (Wong & Guggenheim, 2005).

Most of the evidence reviewed compares CDD project sites with communities that are otherwise similar but are either blank slates without any projects, or have received other interventions of unclear method and provenance. Khwaja (2001) compares a random sample of AKRSP projects with other projects in the same village that were built without any

participation from the community. Consistent with the theory, Khwaja finds that community managed projects are better maintained than projects managed by the local government.

Khwaja's findings are consistent with Finsterbusch and Van Wincklin (1989). In their meta-analysis of project reports from 52 USAID projects that had participatory elements, they conclude that projects that were less technically complex were more effective, as were smaller projects. Facilities constructed with community involvement tend to be quite effective in improving access to public services. Paxson and Scady (2002) for instance find that the Peruvian social fund, FONCODES, increased school attendance particularly for younger children.

Chase and Sherburne-Benz (2001) evaluating the Zambia social fund report similar findings on school attendance. They also find that the presence of a school constructed by the social fund seemed to increase household education expenditures, and the presence of a health facility increased use of primary care and prevalence of child vaccinations. Katz and Sara (1997) analyze the performance of water systems in a variety of countries. They find that the performance of water systems was markedly better in communities where households were able to make informed choices about the type of system and the level of service they required, and where decision making was genuinely democratic and inclusive.

Katz and Sara also report that community members were more willing to pay for investment costs when they had control over the funds, and were particularly unwilling to contribute if funds were controlled by government staff or contractors. There is further evidence correlating greater community participation with better project outcomes. Isham and Kahkonen in two analyses of water projects in Indonesia (1999a) and India and Sri Lanka (1999b) confirm that greater community participation is associated with better water supply and that well designed community-based water services lead to improvements in health outcomes. Heterogeneity in project effectiveness is largely explained by the ability of a community to engage in collective action, and high levels of 'social capital' improve participation in design and monitoring.

This is also the conclusion of Rao and Ibanez (2001) studying the Jamaica Social Fund who find that a community's capacity for collective action influences its ability to generate a successful application for funds. Regarding project sustainability, Khwaja's (2001) study suggests that since community managed projects are better maintained they are also more sustainable that those managed by local governments. Katz and Sara (1997) and Isham and Kahkohnen ((1991a) and (1999b)) also find strong associations between participation and sustainability.

2.2 CDD projects in Lao PDR

In Lao PDR, donors have increasingly used CDD components in their projects to promote effectiveness and efficiency of poverty reduction efforts. Since 2004, according to a social protection and community development project inventory compiled by the World Bank, 6 projects within Lao PDR maintained a CDD component. After 2 years, about 25 projects implemented by multilateral and bilateral donors, and INGOs, possessed a CDD component. Active donors include the International Fund for Agricultural Development (IFAD), the Canadian International Development Agency (CIDA), the United Nations Development Program (UNDP), the European Union (EU), the World Bank, the German Agro Action (GAA), Village Focus International (VFI), World Concern, as well as other INGOs.

CDD projects were mainly concentrated in the northernmost provinces, the provinces bordering Vietnam, and the southern provinces. CDD projects aim to empower communities, reduce poverty, and improve the economic and social conditions of the poor in rural and

remote areas. These programs seek to enhance village capacity and increase local ownership by helping communities to identify and prioritize their needs, and develop and implement community development plans. Community-based participatory planning and implementation is a common feature of CDD projects, usually accompanied by efforts to ensure women's participation.

In almost all provinces, CDD projects support education, health, livelihood activities, and agriculture. The education sector (infrastructure, support of formal and non-formal education, curriculum development, teaching materials) receives the greatest support, followed by the health sector (infrastructure, family planning and reproductive health support, health education and training, water and sanitation, mother and child care), agriculture (agricultural training, food crop and livestock production, irrigation), and livelihood activities. Most CDD projects support activities in the poorest provinces, but not necessarily in provinces with a high proportion of ethnic minorities. Most provinces receiving multiple projects with CDD components, such as Huaphan, Phongsaly, Oudomxay, Luangnamtha, Attapeu, and Xekong, face high poverty incidence; nonetheless, provinces such as Champasak, Xiangkuang and Savannakhet also receive a high number of projects despite being less poor. Since then, CDD components are widely adopted and implemented in most development projects country wide.

The largest Bank's CDD project in Laos is the Poverty Reduction Fund (PRF) supported by World Bank, which assists the development of small-scale, community-based infrastructure and other activities in the water, transportation, education, health, and agricultural sectors to reduce poverty in rural villages. The Poverty Reduction Fund Project (PRF) has been the World Bank's primary instrument for supporting community-driven rural development in poor upland districts. Building on the experience of a UNDP-supported pilot on participatory planning approaches in 2000, the PRF adapted and developed tools and detailed methodologies appropriate to the context of the poorest districts.

PRF's projects were designed for scaling up, which is to ensure that approach of CDD is aligned policy of the individual country and ready to apply nationwide. To have a broader impact on a country's poverty, CDD needs to spread simultaneously in many communities, while respecting the unique features of specific communities. Key aspects of design for such scaling-up include mobilizing administrative and political support, adopting decentralized approval and disbursement processes, devolving responsibilities to communities, clustering activities in the program, keeping procedures simple, monitoring and evaluating both processes and outcomes, and promoting networks among CBOs. Moreover, PRF also invested in an exit strategy. The exit strategies for external support are vital. Permanent institutional and financial arrangements are required for recurrent services, at a cost that can be supported over the medium and long term.

In general, the objectives of the PRF are to: (i) Assist villagers to develop community infrastructure and gain improved access to services; (ii) Build capacity and empower poor villages in poor districts to plan, manage, and implement their own public investments in a decentralized and transparent manner; and (iii) Strengthen local institutions to support participatory decision-making and conflict resolution processes at the village, kumban, and district levels, involving a broad range of villagers including women, the poor, and ethnic minorities.

III. METHODOLOGY

3.1 Model specification

It is broadly recognized that participatory development has played a prominent role in the achievement of projects. Despite increasing advocacy, it is still questionable whether the inclusion of the beneficiary community in project management could elongate the serviceable durability of community-driven development (CDD) projects.

The ultimate aim of this study is to assess the sustainability of CDD projects. This study intends to investigate a wide range of factors, potentially determining the durable existence of CDD projects. The outcome variable of the current study is dichotomous, coding one if a CDD project is well usable and zero if that project is not currently usable or broken. Given a binary response to the usability of the project as a dependent variable, there are several techniques applicable to estimate the equation. Linear Probability Model (LPM) is a straightforward approach that can be used in this context. This technique is a linear regression estimated by the Least Square method. Despite its simplicity, LPM is possibly subject to many shortcomings. The most critical constraint is that this model violates an important assumption that the predicted outcomes should bound in the restrictive range of zero and one (Wooldridge, 2015).

Alternative approaches, in addition to LPM, are Logit and Probit Models. These two models are non-linear techniques estimated by the Maximum Likelihood method. While the Logit Model is reliant on logistic distribution, the Probit Model estimates the equation under a normal distribution. Since there is no convincing reason to justify the superiority of one to another, this research employs the Logit Model to investigate the extent to which community participation, monetary contribution, poverty rate, project types, and their locations have considerable impacts on the persistence of CDD projects. The structure of the Logit Model is shown and explained as follows:

$$L_i = ln\left[\frac{Prob(Y=1)}{Prob(Y=0)}\right]$$
$$= \beta_0 + \ +\beta_1 PRF_i + \beta_2 CF_i + \beta_3 PR_i + \beta_4 FS_i + \beta_5 PO_i + \sum_{j=1}^{J-1} \delta_j TP_{ij}$$
$$+ \sum_{k=1}^{K-1} \theta_k LP_{ik} + \ u_i$$

where L_i denotes logit which is the logarithm of ratio between the probability that a CDD project is currently usable, $Y = 1$, and the probability that this project is not currently useable, $Y = 0$. PRF_i represents the share of Poverty Reduction Fund's money contributed to the project i. CF_i is the share of community's money contributed to the total value of project. PR_i stands for participation rate which is the proportion of households participating in the project over total number of households in the village. FS_i denotes projects selected by females in the village. PO_i is poverty rate which is the ratio of poor villagers over the total number of villagers. TP_{ij} represents project type j, including gravity-fed water system, projects related to health, transportation, and projected related to education. LP_{ik} denotes the location of projects in province k, including Phongsaly, Huaphan, Luang Namtha, Luang Prabang, Oudomxay, Xiengkhuang, Savannakhet, Saravan, Sekong, and Attapue. β_0 is constant term. β_1 to β_5 are the parameters of PRF's contributed money, community's contributed money, females' involvement in the selecting process, and poverty rate,

respectively. δ_j and θ_k are the parameters of explanatory variables representing the types of projects and their provincial locations. u_i is the stochastic disturbance of equation.

Before proceeding to analyze the sustainability of the CDD project, it is necessary to draw particular attention to what project sustainability in the context of this study is. There is no consensus definition of project sustainability in the literature. Since this study considers many types of CDD projects altogether, it is hard to define what the sustainability of the project exactly means. To overcome this indistinctness, this analysis uses a loose meaning of project sustainability. Based on a study of Chatterley et al. (2013), the sustainability of CDD projects in this study is defined as if the project is not visibly dilapidated and still well workable. In other words, it means that the project functions appropriately without any significant repair needs, at least during the reference period of the survey. The description of this indicator and other variables attached in the empirical analysis are explained in table 3.1.

Table 3. 1 The description of variables in the Logit Model

Variables	Descriptions
Still functioning	1 if a project is currently functioning and 0 otherwise
PRF contribution	The share of money contributed by PRF to the project
Community contribution	The share of money contributed by a community to the project
Participation rate	The proportion of participants in the project
Female selected	1 if a community is selected by females in the village
Poverty rate	The proportion of poor people in the village
Gravity-fed water	1 if a project is gravity-fed water and 0 otherwise
Health	1 if a project is related to health services and 0 otherwise
Transportation	1 if a project is related to transportation and 0 otherwise
Education	1 if a project is related to education and 0 otherwise
Phongsaly	1 if a project is located in Phongsaly and 0 otherwise
Huaphan	1 if a project is located in Huaphan and 0 otherwise
Luang Namtha	1 if a project is located in Luang Namtha and 0 otherwise
Luang Prabang	1 if a project is located in Luang Prabang and 0 otherwise
Oudomxay	1 if a project is located in Oudomxay and 0 otherwise
Xiengkhuang	1 if a project is located in Xiengkhang and 0 otherwise
Savannakhet	1 if a project is located in Savannakhet and 0 otherwise
Saravan	1 if a project is located in Saravan and 0 otherwise
Sekong	1 if a project is located in Sekong and 0 otherwise

Note: Irrigation and energy projects are reference groups for types of community-driven projects. Projects in Attapue province are reference groups for the location of projects.

3.2 Data descriptions

Main data sources are from secondary data of suitability assessment in 2016 and 2019. In 2016, the assessment was organized in PRF's 10 targeted provinces for the project's establishment during 2012-2016 that includes 1,930 sub projects. In 2019, the assessment was organized in 10 provinces for the project's establishment during 2017-2019 that include 1,169 sub-projects. Therefore, the total sub-project during 2012-2019 are 3,099 (Table 3.2). More than 100 sub-projects for each province has been evaluated. Approximately 696 projects or 22% of total have been assessed in Huaphan province.

Table 3. 2 Number of projects by year of establishment

Year	Freq.	Percent
2012	261	8%
2013	393	13%
2014	333	11%
2015	438	14%
2016	505	16%
2017	348	11%
2018	335	11%
2019	486	16%
Total	3,099	100%

Source: Monitoring and Evaluation Division, 2016 and 2019

Table 3. 3 Number of projects by province

Province	Freq.	Percent
ATTAPEU	165	5%
HUAPHANH	696	22%
LUANGNAMTHA	168	5%
LUANGPRABANG	350	11%
OUDOMXAY	424	14%
PHONGSALY	193	6%
SARAVANE	202	7%
SAVANNAKHET	435	14%
SEKONG	226	7%
XIENGKHUANG	240	8%
Total	3,099	100%

Source: Monitoring and Evaluation Division, 2015 and 2019

In respond to a research question whether the contribution of the community, the involvement of female villagers, poverty rate, project types, and project locations by provinces do matter for the sustainability of CDD projects, this research is mainly reliant on a database of Poverty Reduction Fund (PRF). The dataset contains the information of projects constructed from 2012 to 2019. The cost of the sub-project ranges from US$ 30,000 to 50,000. To ensure the capacity of the community to implement the sub-project and the full benefit, PRF applied the CFA approach. However, in 2020, the budget ceiling has been reduced to about USD 14,500 to allow the implementation of more small-scale sub-projects by the community, in line with the CFA approach. The current study intends to emphasize CDD projects completed during 2012 and 2016. Those projects built and transferred to communities recently are not included in the analysis. This study focuses on all construction projects and explore the concept of PRF and how it can be applied in Government policy. Subprojects related to providing equipment and materials are excluded from the empirical analysis. After cleansing and removing missing data, the econometric analysis of this study is based on 1,574 projects.

The dataset used in this study provides a variety of information related to the location of projects, the types of projects, the total value of projects, the amount of money contributed by PRF into the project, the amount of money contributed by a community, the number of households participating in the project, the total number of households and population in the village. In addition to project information collected during the period of construction, this study also utilizes information obtained from the survey, conducted in 2018, aiming to capture the current status of CDD projects. The survey is mainly designed to interview the head of the village and community authorities. The questionnaire is designed to collect information about the present existence of projects which is employed as an underlying variable in the analysis of project sustainability. The summary statistics of variables incorporated in the model can be seen as follows:

Table 3.4 reports the basic statistics of variables included in the analysis, as can be seen, CDD projects that are currently usable share more 90 percent of total project samples. CDD projects are mostly supported PRF, which shares around 90 percent of the total project value; the rest contribution comes from the community. The participation rate of households in the village is around 36 percent. There is a relatively high rate of female participation in CDD projects. Based on the project samples constructed during 2012 and 2016, nearly 50 percent of the total projects in which females involved in the selection of projects. Since the poor population is a target group, most CDD projects are located in poor villages. The average poverty rate where the projects are located is about 37 percent. The majority are projects related to education infrastructure, which share around 36 percent of the total project samples. The second-largest share of CDD projects is water and sanitation which is accounted for 33.3 percent. The number of projects related to transportation shares around 19.6 percent of the total projects. As shown in the table, there is a relatively small number of energy-, health-, and irrigation-related projects. These projects share less than 15 percent of the total CDD projects.

There is a difference in the number of CDD projects completed during 2012 and 2016 across regions in Lao PDR. The majority of projects are located in the northern part, which is accounted for nearly 70 percent of the total project samples. In this region, CDD projects in Huaphan province share around 21.6 percent, followed by the number of projects in

Oudomxay and Luang Prabang, which are accounted for 14 percent and 12 percent, respectively. While the number of CDD projects in the South shares around 19 percent, the projects located in the central part shares only 12.3 percent of the total project samples.

Table 3.4 The summary statistics of variables

Variables	Obs	Mean	S.D.	Min	Max
Functioning	1,574	0.905	0.293	0	1
PRF contribution	1,574	0.897	0.076	0.134	1
Community contribution	1,574	0.101	0.073	0	0.960
Participation rate	1,574	0.361	0.159	0	1.461
Female's selection	1,574	0.492	0.500	0	1
Poverty rate	1,574	0.371	0.314	0	1
Water and sanitation	1,574	0.333	0.471	0	1
Health infrastructure	1,574	0.046	0.209	0	1
Transportation	1,574	0.196	0.397	0	1
Education infrastructure	1,574	0.357	0.479	0	1
Agriculture and irrigation	1,574	0.059	0.236	0	1
Energy	1,574	0.010	0.097	0	1
Phongsaly	1,574	0.056	0.230	0	1
Huaphan	1,574	0.216	0.412	0	1
Luang Namtha	1,574	0.063	0.243	0	1
Luang Prabang	1,574	0.119	0.324	0	1
Oudomxay	1,574	0.139	0.346	0	1
Xiengkhuang	1,574	0.097	0.296	0	1
Savannakhet	1,574	0.123	0.328	0	1
Saravan	1,574	0.057	0.231	0	1
Sekong	1,574	0.067	0.251	0	1
Attapue	1,574	0.064	0.245	0	1

3.3 Field Survey

Apart from quantitative methods, the field work qualitative analysis methods are conducted to obtain more qualitative information for better clarification on the root causes of sustainability in three aspects. This study conducted a field survey in two villages where one has functioning project and another one has non-functioning project. Conduct focus group discussions (FGDs) with villagers in target communities to create historical of village,

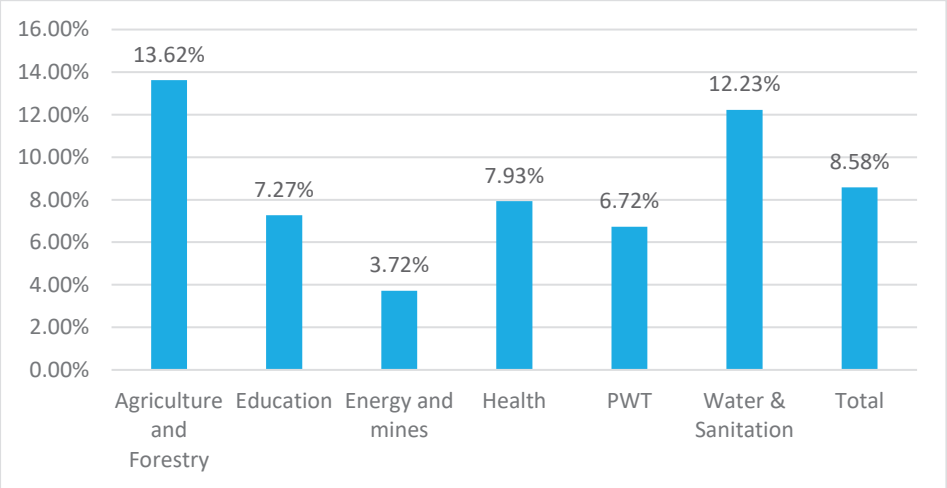
ethnic group, and gender-disaggregated community. FGDs provided a snapshot through which to better understand the meso-level drivers of mobility in wellbeing and project's sustainability.

IV. RESULTS

4.1 The community participation and sustainability

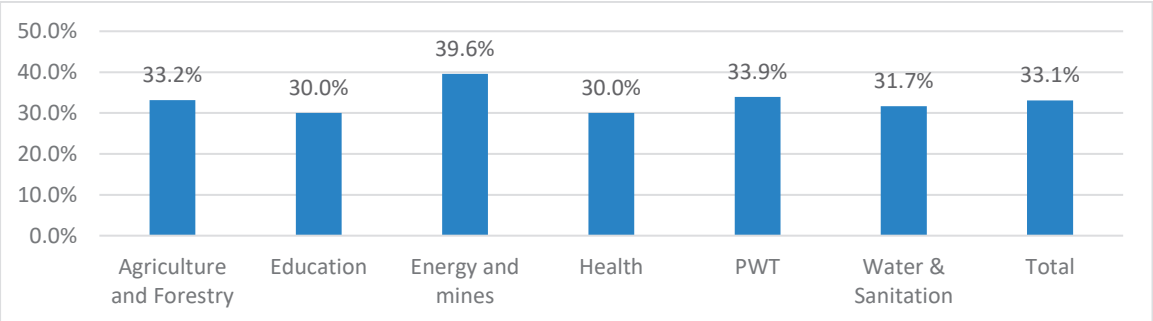
For many decades it has been believed the participation of communities is positively contribute to the sustainability of the project which means the more participation of the community on resources such as budget, labor, materials and the like, the more chance of sustainability of the project (UNCED, 1992). Figure 4.1 shows the participation rate of community on the budget by activities. There are six activities of CDD project. On average the community participation on the budget is 8.58% where the community participates the highest percentage on agriculture and forestry activities because it is the main source of their income. In addition, community spend more on water and sanitation because it is very important for their livelihood. On the other hand, the community participate only 3.72% of total budget for the energy and mine sector since the investment on these activities were expensive. Communities tend to participate more on labor rather than budget since they have limit budget. On average 33.1% of community's member participate to work on the CDD project (See figure 4.2). They work more on energy and mine activities to compensate the less participation on the budget.

Figure 4. 1 The participation rate of community on the budget by activities



Source: Monitoring and Evaluation Division, 2016 and 2019

Figure 4. 2 The participation rate of community on labor by activities



Source: Monitoring and Evaluation Division, 2016 and 2019

One component of sustainability in this paper is whether the project is still functioning. Approximately 2,939 projects or 94% of total project is still functioning where 3.7% of total projects is partly damage but those are already maintenance by the PRF (See table 4.1). There are 43 non-functioning projects. The main causes of damage are due to the natural disaster such as flood, storm and land slide. There are 4 projects have not implemented in Attapue province and those are fresh market project.

Huaphan province has the highest in term of number of projects and projects that are damaged and non-functioning, but it has low percentage of damage and non-functioning to total project. Xiengkhuang province has the highest rate of damage and non-functioning project. This is mainly due to the natural disaster such as flood and land slide.

Water and sanitation and public work and transport (PWT) sector have high percentage of non-functioning projects. However, agriculture and forestry project sector have the highest percentage of non-functioning and partly damage. All of health project are functioning. Two projects in Savannakhet province to maintenance roads are in the process of requesting fund from PRF as it requires amount of fund. However, communities use village fund to repair the road and it is now commutable with fair condition.

Table 4.1 Functioning of CDD project by province

Province	No. project	Functioning	Partly damage	Non-functioning	Not implement	Request for maintenance
Savannakhet	435	409	24			2
Saravan	202	193	9	1		
Xiengkhuang	240	212	16	12		
Phongsaly	193	187	4	2		
Luangnamtha	168	160	7	2		
Huaphan	696	657	30	9		
Luangprabang	350	349	1			
Oudomxay	424	418	5	1		
Attapue	165	149	3	9	4	
Xekong	226	201	18	7		
Total	3099	2939	117	43	4	2

Source: Monitoring and Evaluation Division, 2016 and 2019

Table 4.2 Functioning of CDD project by sector

Sector	No. project	Functioning	Partly damage	Non-functioning	Not implement	Request for maintenance
Agriculture & Forestry	233	206	18	5	4	

Education	1150	1129	14	7		
Energy & Mines	34	32		2		
Health	145	139	5			
PWT	638	576	46	14		2
Water & Sanitation	902	854	33	15		
Total	3102	2936	116	43	4	2

4.2 Community Forced Account (CFA)

The contribution of the local community is a key factor determining the success of CDD projects. A number of studies mostly emphasize on the amount of money, labor, and materials contributed to the development projects, these inputs are considered the lowest hierarchy of contribution (Prokpoy, 2005). Recently, development practitioners pay more attention to the new form of CDD projects, called Community Forced Account (CFA), which community members strongly involve in designing, implementing, and engaging in the construction process. However, there are concerns regarding the benefits and challenges of the new implementation approach. A critical question arises whether a higher level of community engagement would enhance project performance and ensure sustainability.

The new practice of CDD projects in Lao PDR was implemented and evaluated recently. Pilot projects were selected from projects in the third phase of the Poverty Reduction Fund (PRF III) in July 2018 and started in March 2019. There are totally 13 pilot projects from three provinces, namely, Luang Namtha, Oudomxay, and Salavan. Many lessons were learned from the new implementation of CDD projects. The local community benefits from CMS in terms of employment and income generation. According to the evaluation report, on average 12 percent and 4 percent of total CFA budget are spent on local workers and village implementation teams, respectively. Moreover, employment opportunities for unskilled workers were targeted at poor households. CFA projects could enhance their skills and future access to the labor market.

Cost-effectiveness is a reason making the CFA scheme attractive among development practitioners. Traditional PRF subprojects were carried out by contractors who were responsible for the construction of the whole subprojects. CFA scheme allows communities to directly manage the construction of the subprojects. Based on the preliminary assessment carried out by PRF district staff, the cost of CFA is as much as 27 percent lower than traditional PRF subprojects. The cost reduction of subprojects mainly stems from tax exemption. This report is consistent with a finding of Behailu et al. (2016) which find the use of funds is more effective in CFA in Ethiopia than other subprojects in this country.

Although the new implementation of CDD projects brings great benefits in terms of employment opportunities, income generation, and cost-effectiveness, the quality of CFA is still questionable. Since subprojects are mainly constructed by local workers who lack experience and skills, this may lower the quality of subprojects. As a result, it cannot ensure the long-lasting services of CDD projects. Based on the result of project evaluation, the overall quality of CFA was lower relative to subprojects implemented by contractors. This is an important problem challenging the sustainability of CDD projects. However, currently CFA approach is one of the best options to ensure the utilizing the community's capacity to implement the sub-project and allowing the community fully benefit from the sub-projects.

4.3 The impact of community participation on the sustainability of CDD projects

This study applies the Logit Model to examine whether the variation of covariates does matter for the durability of CDD projects. This analysis includes the amount of money contributed by PRF and community, the involvement of females in the selection of projects, the types of projects, the locations of projects by provinces. The estimated results are presented in table 4.4. In this table, it reports estimated parameters and their standard errors in the first two columns. Since the direct interpretation of the Logit Model is not easy for understanding, this study exclusively focuses on the marginal effects of the Logit Model. This estimated result is shown in the two remaining columns.

Table 4.4 shows the estimated results of the Logit Model. It is evidenced that the contribution of the community in the CDD projects does matter for the sustainability of projects. The share of money contributed by communities in the projects is positively and statistically significant at the 1 percent level. Holding other factors unchanged, a 1 percent increase in the share of the community's money in the total value of the project raises the likelihood that the project is still usable by, on average, 22.5 percent. Corresponding to the in-cash and in-kind contributions, the participation rate of households in the community is positively related to the survival of the project. This correlation is statistically significant at the 1 percent level. A rise in the participation rate of households in the community by 1 percent is associated with a 9.2 percent increase in the probability that the CDD project is still functioning at least during the time of the survey.

It seems that the engagement of females in selecting the CDD project exerts a positive impact on the durable existence of projects, constructed during 2012 and 2016. However, the linkage between the participation of female villagers in the selection of the CDD project and the durability of the project is not statistically significant. Consistent with the preliminary result in table 4.3 that the proportions of the CDD projects selected by females between usable and non-usable projects are not significant at the conventional levels. Many CDD projects are intentionally constructed in order to improve the living standard of households in poor villages. The proportion of functioning projects in those areas is relatively low. Due to the lack of resources allocated to construction, management, and maintenance, CDD projects located in the area with a high rate of poverty are less likely to be still usable. Like the dummy variable controlling for the engagement of females in the selection of the project, the poverty rate in the village is not statistically significant at the conventional levels.

Table 4. 4 The estimated results of the Logit Model

	Logit		Marginal effects	
	Coefficient	S.E.	dy/dx	S.E.
Constant	0.379***	0.476	-***	-
Community contribution	4.327***	1.946	0.225***	0.103
Participation rate	1.761***	0.646	0.092***	0.035
Female's selection	0.158***	0.186	0.008***	0.010
Poverty rate	-0.032***	0.312	-0.002***	0.016
Water and sanitation	0.110***	0.364	0.006***	0.018
Health	-0.208***	0.525	-0.012***	0.032

Transportation	0.590***	0.404	0.026***	0.016
Education	-0.443***	0.339	-0.025***	0.020
Phongsaly	1.216***	0.500	0.041***	0.011
Huaphan	0.008***	0.298	0.000***	0.015
Luang Namtha	0.576***	0.436	0.024***	0.015
Luang Prabang	1.701***	0.477	0.054***	0.011
Oudomxay	4.165***	1.039	0.092***	0.009
Xiengkhuang	1.827***	0.477	0.054***	0.011
Savannakhet	0.802***	0.375	0.032***	0.012
Saravan	0.677***	0.454	0.027***	0.014
Sekong	2.074***	0.578	0.054***	0.010
Pseudo R-square				0.136
Chi-square				133.9***
Observations				1,574

Note: * denotes significant at the 10 percent level, ** significant at the 5 percent level, and *** significant at the 1 percent level.

There is a minor difference between functioning and non-functioning projects across the types of CDD projects. According to the database of PRF, CDD projects are categorized into six types, water and sanitation projects, health infrastructure, transportation, education infrastructure, irrigation, and energy. The present study creates four dummy variables to control for water and sanitation, health infrastructure, transportation, and education projects. Other projects related to irrigation and energy are used as reference groups. The estimated result indicates that the probability that a transportation project, including road construction and maintenance, is currently usable is higher than irrigation and energy projects. On the contrary, the likelihood of being usable among water and sanitation, health, and education projects is relatively lower CDD projects in reference groups. Except for education-related projects, dummy variables for the types of CDD projects appears to be insignificant. Projects related to transportation are statistically significant at the 10 percent level. Ceteris paribus, the probability that transportation projects are still usable during the period of the survey is, on average, 2.6 percent higher than those projects in the reference groups.

The survival of CDD projects significantly varies across provinces in Laos. CDD projects are distributed across ten provinces. This research generates nine dummy variables to control if projects are located in Phongsaly, Huaphan, Luang Namtha, Luang Prabang, Oudomxay, Xiengkhuang, Savannakhet, Saravan, and Sekong provinces. CDD projects in Attapue province are treated as reference groups. Table 4.4 shows that except for projects in Huaphan and Luang Namtha, the likelihood that CDD projects in other provinces are significantly different from those in Attapue province. The estimate indicates that the parameters of province dummies appear to be positively and statistically significant at least at the 5 percent level,

except projects in Saravan which are significant at the 10 percent level. The probability that CDD projects are currently usable is found to be lower in Attapue compared to projects in other provinces. The estimate indicates a higher likelihood of CDD projects in Oudomxay than those in other provinces. Keeping other factors constant, the durability of CDD projects in Oudomxay province increases by around 9.2 percent compared to projects in reference province. The likelihood that CDD projects in Attapue are currently usable is lower on average, 5.4 percent in comparison to Sekong, Xiengkhuang, and Luang Prabang, respectively.

In sum, the contribution of the community is a key factor determining the sustainability of CDD projects. The participation of villagers in selecting and designing projects as well as their contributions in terms of money can increase the durable existence of CDD projects. The share of money contributed by PRF, the participation of females in the selection of projects, and the poverty rate do not significantly determine the persistence of projects. There is a small difference in the probability that CDD projects are usable across types of projects. This study finds that CDD projects in Attapue province are more likely to be not currently usable than those in other provinces.

4.4 Field survey

The field survey was conducted at two villages in Thapangthong district, Savannakhet province. The functioning CDD project was the underground water project in Napanien village and the non-functioning project was the underground pipe water system in Thapee village.

Napanien village was established in 1903 with majority of Bru ethnicity. Currently there are 23 poor households out of 72 households. For the villager's point of view, one of the root causes of the poverty is insufficient labor for doing farming especially female household head family and new separated family. The first PRF's CDD project was providing 9 spots of underground water pump stations in the village according to CDD project selection processes. Accessing to water was set as priority because the nearest water source was about 1 km. Before the project, collecting water consume most of the time for women and children.

Thapee village was established in 1913 with majority of Laos. Currently there are 9 households out of 268 households. From the villagers' point of view, the root cause of poverty come from insufficient animal for farming, or being orphan. The first PRF's CDD project was underground water pipe system in 2011. In this village access to water also set as priority because from the village to the nearest water source was about 1 km.

Although the CDD projects between these two villages were improving access to water, there are key factors distinction for determining project sustainability. Key factors of sustainability can be identified as awareness, satisfaction and operation.

There is no doubt that the people in these two village are aware of the important of the project which has significant impact on improving their livelihood. This awareness was clearly pointed out during the CDD project selection process because it was set as a first priority project the all group in the village agree. However, the distinctions between the functioning project in Naphanien village and non-functioning project in Thapee village were lined beneath satisfaction and operation factors.

Regarding operation factor, projects maintenance group have been established and trained after project construction. The maintenance fee has been regularly collected as a fund maintenance. Village's institutions such as village management member, women union, youth union, village security, are very important for keeping project operation. In these two village, the maintenance members are embedded in the village's institutions. Thus, village with strong village institutions is more likely to have strong maintenance team.

The project in Naphanien village has been regularly maintained by replacing broken parts by maintenance group. In contrast, the maintenance group in Thapee village deactivated after the project completely non-function in 2017. According to the survey, it is found that existing of maintenance group crucially correlated with satisfaction level. When the project did not function as the people expected, the number of people who would willing to participate in project maintenance activities and to pay for maintenance fee would decline.

Moreover, an ability of maintenance group is also important in order to sustain the project. Although the CDD projects in both villages were improve access to water, the Thapee village's underground pipe water system is to complicate for the maintenance group to handle. Up until now the maintenance group is still not able to identify the main reason why the project does not function. The survey also found that there was also complication between the maintenance group and PRF's technical team in order to find out the project sustainability issue. Therefore, in order to achieve project sustainability maintaining project operation and satisfaction are crucial.

V. CONCLUSION AND POLICY IMPLICATIO

5.1 Concluding remarks

The CDD project have been discussed on which factors impacts to the sustainability of the project in many countries. One of the key factors for suitability of the project is participation of community in term of capital and labor. This study aims to investigate the impact of community participation on sustainability of CDD project in Lao PDR. By doing that, the data base of PRF on project assessment was used to analyze the impact of community participation on sustainability through the logit regression. In addition, field survey of functioning and non-functioning project is to reveal the factors of sustainability of the CDD project.

Main result shows that community participation on labor and finance are the key factors for sustainability of CDD projects while the female and ethnic participation is not statistically impact to the functioning of the project. This is due to the aim of CDD project to prioritize female and ethnic to be involve in the project. The project that communities decides as a priority project tend to be more sustainable than those decide by project authorities, donor, and local and central government. While the CMS project is quite success in many countries, the quality of CMS projects in Lao PDR is still questionable. The result of field survey also supports that community participation on maintenance fund and ability of maintenance group are the key factors for sustainable of the project.

5.2 Policy recommendations

Base on the results of the studies, the policy recommendations are: (1) Contribution of villagers is the key factors of sustainability, CDD project should be the role model for other government project; (2) There is some limitation of CFA project especially the value of investment due to the resource constraint, reform the enabling policy and regulation of CFA project is needed to strengthening CFA approach; (3) As the concern on quality of the CFA project, in order to enhancing CFA project, the capacity building of CBOs especially skills of planning, accounting, basic maintenance is required; (4) Poor village have insufficient fund and lack of skills and capacity for major maintenance and that cause the sustainable of the project. PRF should reserve fund for major maintenance for all project, establish rules and guideline on maintenance fund, provide technical support to maintenance group and PRF staffs especially a training on maintenance and request an assistant from technician to fixing

and repairing for major problem; (5) Two villages expressed that responsiveness of local authorities on fixing issue often delayed. PRF and Village authorities should design to reduce the procedure on a report system.

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ANNEX 1 Interview Guideline

Village interviews

Method:

- Gather key informants together, selecting those who are the most likely to know about the history of the village over a long length of time (elders…). Those includes head of village, women union, labor union, villager maintenance group were gathered

Question:

- Please briefly explain history of village?
- Has poverty increased or decreased? Why? How?
- What has changed in terms of poverty over the years?
- What projects or factors may explain this evolution?
- How PRF helps the village cope with the poverty issue?
- What were mechanisms that the village use to ensure sustainability of the project? What are the challenges regarding sustainability?
- How the village fixing if there is damage and broke?
- How the village manage the maintenance fund?
- What events had the biggest impact on livelihood of project?
- What are impacts of PRF project?
- How the village involved with the project?
- What are challenges? And how to make it sustain?