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Community Saving and Economic Empowerment: A Case Study of the Village Development Bank (VDB) Model in Ta Yaek commune, Soutr Nikum district, Siem Reap province, Cambodia

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Abbreviations

ADB	The Asian Development Bank
CCRD	The Credit Committee for Rural Development
CEDAC	The Cambodian Centre for Study and Development in Agriculture
CIS	Credit Information System
CMA	Cambodia Micro-finance Association
CRS	Catholic Relief Service
GRET	Groupe de Recherche et d'Échanges Technologies
IMF	The International Monetary Fund
MFI	Micro-finance Institute
NGO	Non-governmental Organization
PDI-C	Population Development International- Cambodia
RACHA	The Reproductive Child and Health Alliance
SfC	Saving for Change
SHG	Self-help Group
UNDP	United Nations Development Programme
VDB	Village Development Bank
VDP	Village Development Partnership

1. Introduction

Cambodia's economy has rapidly grown since the country moved to market-oriented economy after the Peace Accord in 1991 that ended three decades of civil war. The private sector became an important segment driving national economic growth. Micro-business, small and medium enterprises (MSMEs) have played a crucial role to sustain development of the Cambodian economy. They have been considered potential mechanisms to drive economic growth as well as to generate employment. It has been estimated to account for about two thirds of the generated employment of the country (Baily, 2008). In 2011, the Cambodian government conducted a National Economic Census and found that there were about 503,008 business establishments in Cambodia (NIS, 2012). Micro-business establishments comprised 98% (The Council for the Development of Cambodia, 2012). Within the trend, the Cambodian government has focused on promoting SMEs by integrating them into the government's Rectangular Strategy[1].

Access to finance is another factor to facilitate the growth of the private sector, especially the development of Micro-business and SMEs. It has been suggested that limited access to financial services is one of the constraints to promoting Micro-business and SMEs in Cambodia. Limitation of acceptable collateral and financial literacy are still issues to cope with in questions of financial accessibility (Ung and Hay, 2011). Now, micro-financial institutions (MFIs) are emerging. For example, about 39 micro-financial institutions had been established through the country by late 2012[2]. Ashe (2010) suggested that MFIs and banks largely target people living in urban and suburban areas, and are less focused on rural poor areas.

Community saving and credit has become a remarkable movement among rural poor people in Cambodia since the 1990s, when Non-Governmental Organizations (NGOs) introduced the concept of self-help groups. Self-help group (SHG) refers to any associations that are formed on principals of self-help, such as pagoda committees, farmer's group, traditional solidarity groups, and so on. Saving and credit schemes have also been introduced to those self-help groups. Oxfam America has supported local partners in Cambodia to promote the Saving for Change (SfC) initiative; as result, about 5,000 groups within 3,000 villages have been trained in the concept (Ashe and Hong, 2010). In 2010, a Village Development Bank (VDB) model was introduced by the Population Development International-Cambodia in Ta Yaek commune, Siem Reap province.

Since there is little literature which discusses community saving and credit in Cambodia, little is understood about how community saving models contribute to economic empowerment of rural poor people and community.

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[1] http://www.mop.gov.kh/Home/NSDP/NSDPUPDATE20092013/tabid/206/Default.aspx [Accessed August 2013]

[2] http://www.cma-networking.org [Accessed August 2013]

Therefore, the purpose of the paper is to assess how a model of the Village Development Bank (VDB) contributes to economic empowerment of rural people in Ta Yaek commune. Review of the literatures on this topic and empirical evidence has been used in the paper.

1-1 Research Objectives:

- To assess how community saving contributes to economic empowerment in Ta Yaek commune
- To identify challenges and lessons learned from community saving in Ta Yaek commune

2. Literature Review

2-1 History of Micro-Financial Service in Cambodia

Access to financial services is one of the key pillars in promoting the growth of investment and business sectors in a country. The history of micro-financial service in Cambodia has been classified into three important stages. First, the period from the 1980s to 1995 was considered one of limited access to financial services since the country was recovering from the destruction of the Khmer Rouge regime, when it turned the country into zero economic era. Before the Paris Peace agreement in 1991, the country's economy was based on state ownership and planning, so only the state bank provided financial services to state investment and business entities. Almost all Cambodians had no access to financial services. After the general election organized the United Nations in 1993,the country turned into a free market economy and democratized country that allowed international NGOs and donors to come. As result, micro-financial services have emerged through the introduction of many microcredit projects by those international organizations, such as Groupe de Recherche et d'Échanges Technologies (GRET), World Relief, ACLEDA, Catholic Relief Service (CRS) and World Vision (Kim, 2010). These are known as self-help groups or community saving & credit programs. Subsequently, in 1995, the Credit Committee for Rural Development (CCRD) was organized by the government of Cambodia and supported by UNDP and AFD, which facilitated the institutionalization of NGOs microfinance activities as independent microfinance providers to rural people.

The second period is considered to be from 1995 to 2005, when the government accepted a comprehensive macroeconomic and structural reform on financial system modernization and legislation, which was supported by the International Monetary Fund (IMF) and the Asian Development Bank (ADB). The Central Bank Law was adopted in 1996 and the Law on Banking and Financial Institutions was also proclaimed in 1999, which was the foundation of the legal framework to license and regulate some microcredit projects as micro-financial institutes (MFIs). For example, ACLEDA transformed from an NGO which specialized in microcredit to a commercial bank in 2000 (Kim, 2010; CAMBODIA MICRO-FINANCE ASSOCIATION, 2011). This stage was considered an important stage for MFIs in Cambodia.

Another evolution has been observed from 2005 to present. Financial service has become more competitive and significant growth has occurred in urban and rural areas of the country. In 2005, Oxfam America introduced a concept of community finance called "Saving for Change".

The program was aimed to build capacity of local organizations to expend and strengthen community finance or community saving-let microfinance. About 1,600 saving groups were trained by the Cambodian Centre for Study and Development in Agriculture (CEDAC) in 2006 (Suon, 2007). The movement has allowed community finance to compete with MFIs to decrease interest rates and collateral barriers. Competition among the MFIs has also increased. To manage risk, in 2006 the government launched a Credit Information System (CIS), which aimed to collect and share negative credit information among commercial banks and MFIs (Cambodia Micro-finance Association, 2011).

It seems that community finance is playing an important role to facilitate access to financial services for rural poor people in Cambodia. It becomes a competitive alternative to other forms of financial services, such as MFIs. However, understanding of the movement of the community finance or community saving is still limited. Therefore, the assessment of how community finance has contributed to improve livelihood of rural poor is the question at hand.

2-2 Access to Financial Service of Rural People in Cambodia

Microfinance institutes (MFIs) and community savings are the main forms of financial services that provide credit to rural people in Cambodia. About 35 licensed MFIs and four rural credit operators organized by NGOs operate in Cambodia, with a gross outstanding portfolio of about 892.6 million US dollars and 1.31 million loan recipients in 2012. Yet, most loans were provided in urban areas such as Phnom Penh and provincial towns (Cambodia Micro-finance Association, 2011). Thousands of communities saving groups have been operating in Cambodia, but there is no available inventory data about the groups. For example, CEDAC alone was formed of about 1600 groups in 2006, and the Reproductive Child and Health Alliance organization (RACHA) accounted for about 738 groups in Banteay Mean Chey and Preah Vihear province in 2011 (Suon, 2007; EMC, 2011).

It has been suggested that the average annual interest rate charged by the MFIs is relatively high compared to community savings with an interest rate of only about 12-24% per annum. However, the competition allowed MFIs to decrease their average interest rate charged from 42% in 2003 to about 34% in 2011 (Cambodia Micro-finance Association, 2011; Kang et al, 2011). The average amount of loans from MFIs was about US$678in 2012[3] when the average amount of loans from community saving was about US$150.

[3] http://www.cma-network.org [access July, 2013]

2-3 Concept of Community Saving

Community saving was started based on long-standing traditions of saving and lending among villagers. The concept was derived from the Grameen Bank in Bangladesh a Nobel Peace Prize-winning microfinance organization and community development bank in 2006. It has been successfully providing financial service to poor rural communities through promoting the microfinance and saving model in Bangladesh since the 1970s. From this model emerged the self-help group (SHG) movement in India in the early 1990s (Bateman, 2010).

Another similar approach is Saving for Change (SfC), or saving-led microfinance, a concept introduced by Oxfam America. It has been suggested that Saving for Change is one of most effective mechanisms to improve the livelihood of the poorest people. The model has been promoted among their partner organizations in the world, especially in Africa and Asia. In 2012, about 680,000 people were involved in the model from 13 countries (Oxfam America, 2013). It was designed to engage rural poor in regular saving and borrowing from their group, with interest paid to their collective. The profit is shared among members in each saving and loan cycle. Most loans were used to invest in livestock, cash crop productions and small businesses (Devietti and Matuszeski, 2009;Rippey and Fowler, 2011)

In Cambodia, the concept of self-help groups or community saving was originally integrated with community development mainstreaming when NGOs started working in the country after the general election organized by the United Nations in 1993. It is a solidarity group, which uses saving-led microcredit as mean to empower rural people to participate in development programs. It is now becoming a popular scheme to provide more opportunities to rural poor people in accessing basic financial services to start their family business or investment.

2-4 Community Saving and Economic Impacts

It has been suggested that community saving or saving-led microfinance has remarkable positive impacts for rural poor. The impact is not only on the economic but also on social and life skills of rural people (Grove, 2005; Dills et al, 2009;Miller et al, 2011; Rippey and Fowler, 2011; Jahns, 2012). First, the economic impact refers to increasing financial capital and increasing family income. Suon et al (2007) argued that most Saving for Self-reliance's beneficiaries claimed they had better access to financial service and gain more capital from their saving with the group. They can solve their urgent problems when they need money. They also had more chance to borrow money for investment. They testified that their family livelihood has improved since they joined the group.

Second, it has been suggested that community saving has contributed to increase social capital among rural people. For example, Suon et al (2007) concluded that Saving for Self-reliance has improved the solidarity of people in the community. Matthews (2005) argued that community finance contributed to building trust and to raise awareness of saving among community members. In addition, according to a research conducted by the University of

Arizona with Saving for Change groups in Mali, Senegal, Cambodia, El Salvador and Guatemala in 2005 and Bateman (2010), microfinance has created a space to empower local women to participate in development, such as in livestock and small enterprise. It found that women were a dominant group in saving and lending.

Third, it has been suggested that community saving has created chance for rural poor to access skills, such as new agricultural techniques and other vocational and business skills (University of Arizona, 2005; Suon et al, 2007; Matthews et al, 2010). For example, villagers who participated in Saving for Self-reliance claimed that they learned new techniques in raising pigs, chickens, growing vegetable and rice cultivation (the System Rice Intensification), which they can use to earn more income for their family (Suon et al, 2007).

It is clear that community saving has significant impacts on improving the livelihood of rural people. Economic impacts can be defined as accessing financial capital through saving and loans and using skills to generate income. The empowerment of women was also found to be an outcome of community saving scheme, since the majority of saving members were women.

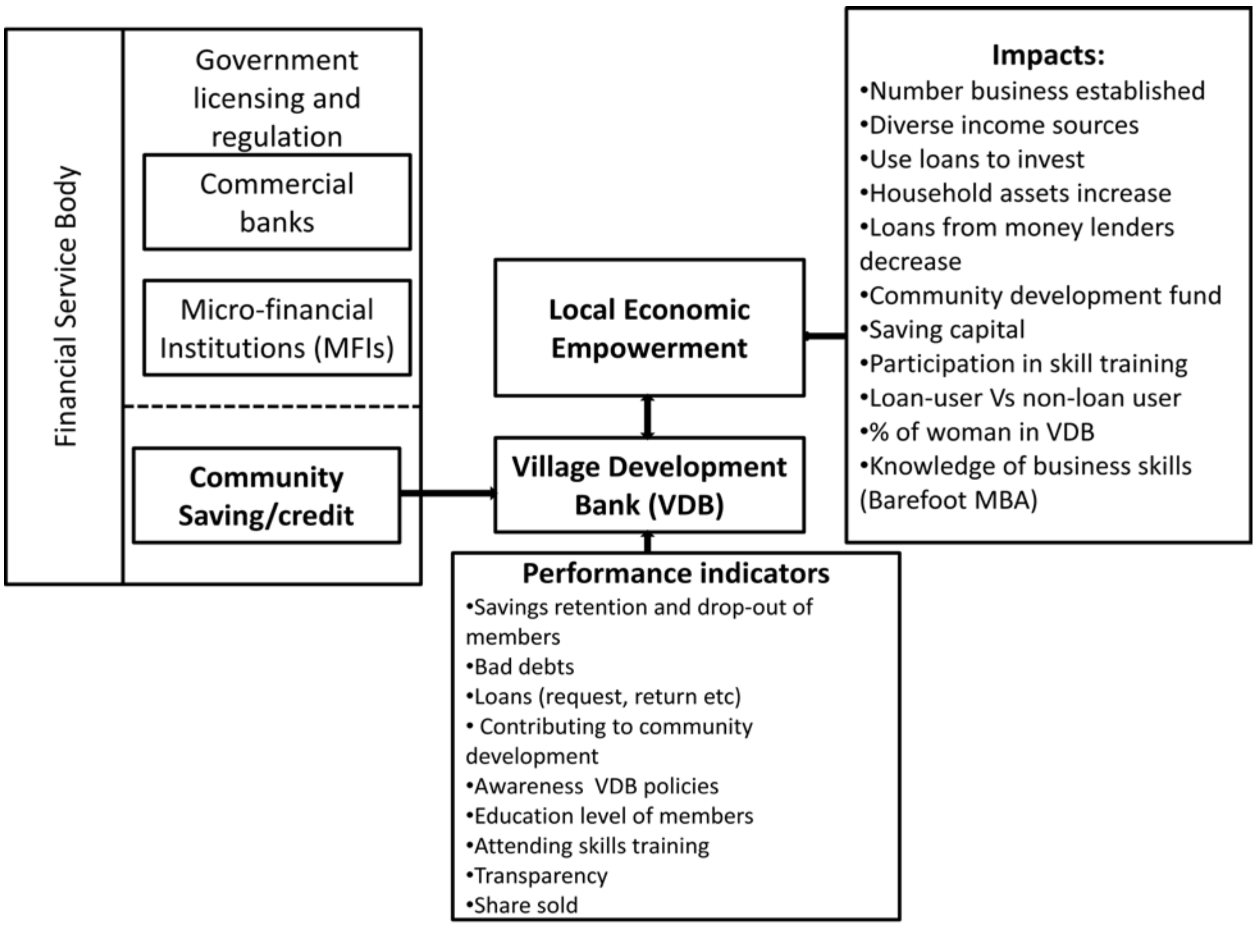
3. Concepts and AnalyticalFramework

There are three main forms of financial service which provide credit or loans to local people in Cambodia. They are commercial banks, micro-financial institutions (MFI), and community saving/credit. Commercial banks and micro-financial institutions are considered a formal scheme, which require regulation and licensing from the central government bank. Community saving/credit is not under the control of the government. It is considered an informal scheme, which is mostly organized by community people with supported by Non-governmental organizations (NGOs). Community saving/credit has been emerging since the 1990s, when most NGOs introduced self-help group programs to the country. It has been suggested that community saving/credit is a basic form of financial service, which provides more opportunities to rural poor people in accessing financial capital (Ashe and Hong, 2010).

This study assesses the impact of community saving/credit schemes on local economy by exploring the Village Development Bank (VDB) model in Ta Yaek commune, Sautr Nikom district, Siem Reap province. The model has been introduced by the Population Development International, Cambodia (PDI-C) to promote saving and credit schemes. The main purpose of the model is to empower local people in Ta Yaek commune through: 1) generating capital for promoting income generation activities in the villages; 2) improving the quality of life of villagers and involving them in the environmental safeguards of the area; and 3) building business and management capacity of villagers, and accessing credit with low interest rates.

The analysis focuses on how the performance of the VDB contributes to local economic results, such as new businesses established, extension of existing businesses, knowledge of business skills and loans for business investment, involvement of women in the VDB, and community development, among others. Figure 3.1summarizes the analytical framework of the study.

Figure 1: Concepts and analytical framework



Source: Authors, 2013

4. Methods

The study targets Ta Yaek commune, Sautr Nikum district, Siem Reap province, where the Population Development International Cambodia (PDI-C) has been working to promote community saving and development since 2010. Six villages out of nine villages were selected to conduct fieldwork according to the maturity of the Village Development Bank (VDB) implementation.

The study employed two main approaches: review of existing materials, and empirical data collection by using a household survey, in-depth interviews, and focus group discussions. Document review included relevant material related to the topic, such as previous research articles. The monthly progress activity reports produced by the PDI-Cambodia were crucial documents, which were used to examine the progress of the VDB. The household survey was conducted among 631randomly-selected VDB members in six villages. This is part of the monitoring and evaluation program conducted by the Royal University of Phnom Penh for the PDI-C in January and July 2012. The fieldwork also consisted of interviews with thirty-seven key participants who work on the VDB project and related issues in the study area. Those people include PDI-C field staff, local authorities, the VDB management committee, and loan recipients, among others.

Two focus group discussions (FGD) with 19 participants were organized on site and sixty three percent of participants were women. One focus group discussion was conducted with non-VDB members in order to understand their view about the VDB and the reasons that they have not joined the bank. Another group interview was with people who have been involved with VDB activities such as management committees, saving members, loan recipients, and so on. The interview was held to understand the impacts of VDB on their families and communities.

Data was reselected to address some specific issues related to the topic. For example, the household survey was used to understand socio-demographic and livelihood profile of the VDB families and to generate frequency or percentage. Data was re-coded to classify affluent and less-affluent families. An affluent family was defined as one that had one hectare or more of land plus at least one of other asset, such as trucks, tractors, pick-up trucks, walking tractors, automobiles, harvesters, rice mills, and motorbikes. Some aspects of the VDB outcome examined the difference between these two groups. For example, it was hypothesized that affluent families have a more positive attitude about the VDB improving income generation activities than other groups.

The focus group discussion and key participant in-depth interview were recorded, transcribed, and analyzed based on thematic categorization of relevant issues. Quotations and case stories were also used in the report. Triangulation information was employed to ensure the accuracy of the data. The study used perception base to measure the impact of the VDB.

5. Empirical Findings

5-1 General Livelihood Profile of the Villagers

This section presents the general socio-economic profile of the VDB members, including household assets, livestock, debt, and income. The data is mainly generated from a household survey in the six villages. The section provides basic information about the members which is used to explore different segments of their livelihood condition and the relation with the VDB.

5-1-1 Household Socio-Demographic Profile

The survey shows that the average household size was 5.2. About 78% of respondents had family members under 15 years of age and 14% over 60). The average of number of people earning income for the family was three. The average number of people age 15-25 and 26-60 in each family was 2.1, respectively. These groups of people were considered important age groups to generate household incomes and to provide a labor force within the family. About 13% of the interviewed families had family members who do seasonal work outside the village, with an average of 1.7 people per family. Interviews revealed that most families had family members working in Thailand, especially during the dry season.

Table 1:Average of family members by age groups

Description	%	Average Members
Total family member	100	5.2
Family members earning income	99	3.0
Age under 15 years	78	2.0
Age15-25	67	2.1
Age 26-60	93	2.1
Age over 60	14	1.2
Seasonal migration for work	13	1.7
Disabled family members	1	1.0

Source: Household survey, July, 2012 (n=631)

Understanding education background of the VDB family members is an important factor in identifying the challenges of developing household and community economy. Table 2shows that about one-third of the interviewed families had no education or non-formal educational background and 45% had completed primary education. Another 14% had lower secondary education. Only 4.6% had upper secondary education and less than one percent had gone to higher education. It is true that most families in the area had low education levels. This can be a challenge for members to access further capacity-building and to develop their livelihood.

Table 2: Highest education levels of household heads

Description	Percentage
No education	30.7
Non-formal education	5.5
Primary education	45
Lower secondary education	14
Upper secondary education	4.6
Higher education (eg. university, tertiary etcetera)	0.2

Source: Household survey, July, 2012 (n=631)

5-1-2 Household Assets

Land

The survey indicates that the average land size owned by a family was 1.9 hectares. Most of the land is used for rice cultivation. About 86% of the interviewed families had rice-growing land. The average rice field size was 1.6 hectares per family. Only 11% had farmland to grow secondary crops such as fruits, potatoes, cassava, sugarcane, corn, beans and so forth. The average land use for houses and other structures was 0.24 hectares, which covered land for house construction, home gardening, ponds, and livestock cages. About 57% of the households had home gardens, with an average of 0.09 hectares per household. Home gardens are pieces of land that most villagers reserve for planting some vegetables and herbs for their kitchen. Only 2% of the households had extra land for rent. About 30% of families had less than 1 hectare of land.

Machines and other capital goods

The study assesses some important machinery and other material assets of the household, which were considered as essential tools to help in wealth classification and identifying the productivity capacity of families. Those machine assets are trucks, tractors, walking tractors, cars, harvesters, rice mills, motorbikes, bicycles, water pumps, and so on. In total, the average value of machinery and other materials was 5.58 million Riel per household. About 49% of the households interviewed had a motorbike at home. Some of them had more than one motorbike. The average value of a motorbike was 4.3 million Riel (US$1,075). Seventy-two of the households had a bicycle at home. The average number of bicycle per household was 1.3. Some households had as many as five bicycles.

The walking tractor has become a popular tool in doing rice or farm cultivation and as transportation for rural people in Cambodia. Only 15% of the interviewed households had a walking tractor. This number was similar to a statistic produced by the Siem Reap Provincial Planning Department (16%) in 2012[4]. The average value of a walking tractor was 7.3 million Riel (US$1,825). There were few households that had a truck, pickup vehicle or car in Ta Yaek commune.

Means of communication is one of the key indicators to measure how rural families access information from the outside world. It can help them to access information about markets and new technology. It might be a factor in determining rural household economy. The survey shows that 76% of the interviewed households had a cellphone. The average number of cellphones per family was 1.6. About 71% of the households used batteries, followed by 53% which had a television. There was no electricity in the area. Most families used batteries for lighting and watching television or using VCD players. About 21% had a VCD player and 42% had a radio.

According to the method for identifying poor households, walking tractors, motorbikes, bicycles, televisions, radios and cell phones have been included as important indicators of a family's wealth (Ministry of Planning, 2012). Therefore, this paper also uses these indicators to aggregate data for further analysis in next section of how affluent families interact with the VDB.

5-1-3 Livestock

Cows, buffalos, pigs, chickens and ducks were popular livestock raised in the villages. The study found that 73% of the interviewed households raised cows. Only about one percent had buffalos. The average number of cow per family was 3.2 and the average value of each cow was about 1.96 million Riel (US$492) per head. Cows and buffalos are commonly used to plow rice fields and for transport. Some families sold their cows for cash to clear debt or healthcare. About 23% of families raised pigs, with an average of three pigs per family. Observation revealed that most families raised pigs using the traditional practice of feeding them with leftover food from their kitchens. It was a high risk of losing the pigs to illness. Pigs are still one of the potential livestock if new farming techniques are introduced. Chickens are also a potential livestock to introduce in the area. The survey found that 86% of households raised chickens but only 23% raised ducks at home. Ducks require land with a water source whereas chickens do not; so keeping chickens was a common practice in the area. However, most families raised chickens for household subsistence, not for commercial purposes, so commercial chicken farms are one potential productive activity for VDB members.

5-1-4 Household Debt Situation

The survey found that 62% of the households interviewed reported having debt with both formal and informal credit sources. In total, the average amount of household debt was 1.71 million Riel (US$428). Some families have

[4]Siem Reap Provincial Planning Department, Ta Yaek Commune Profile Year 2012 for Local Development Management.

double debt. The survey found that 13% of families have borrowed money from two or more credit sources. About 40% of these were less affluent families.

Formal sources include commercial banks and the Microfinance Institute (MFI). In this context, community saving/credit such as the VDB, cooperatives or farmers' groups were included in formal sources. About 38% of households have borrowed money from formal scheme. The average amount of household debt from formal sources was 1.85 million Riel (US$463). The average length of loan was 11.9 months, with an average of interest rate of2.43% per month. Among the interviewees, about 27% borrowed money from MFIs such as Angkor Microfinance Kampuchea (AMK), Amret, Hatha Kassekor, Kredit and others, or the commercial bank (ACLEDA Bank).

Informal sources in this context included money lenders, loans from friends or relatives in the villages or the areas. Thirty four percent of households had debt with informal scheme. The average amount of debt was 1.04 million Riel (US$260) per family. The average length of loan was 9.8 months with an average of interest rate of 6.57% per month. About 16% of loans were from money lenders.

5-1-5 Household Incomes

In this section, the study highlighted income of the VDB households. Some important sources of family income were presented. They were roughly estimated by respondents. It was challenging to assess family incomes because some families might have provided underestimated income figures.

In total, the average income of the household was 9.01 million Riel (US$2,254) per annum. Two sources of household income were estimated. First, income from agriculture was the main income for the households in the area. About 98% of the interviewed households reported their income from agriculture. The average family income from this sector was 4.82 million Riel (US$1,205) per year. Rice production was the main source of household agricultural income. It amounted to more than two-third of income. On average, rice yield was 3.7 tons per family per year, and the value in cash was 3.96 million Riel (US$990). Almost all villagers in the area were doing rice cultivation based on rain-fed agriculture and raising one crop a year. Besides keeping rice for eating, 69% of families sold their rice yield for cash for family expenses. Income from livestock (pigs, chickens, ducks and fish, etcetera), secondary crops (potatoes, corn, sugarcane, etcetera) and vegetables was a relatively small proportion (1-8%).

Second, income from the non-agricultural sector was considered a secondary income of families in this area. Non-agricultural income included independent labor or contractor fees, trade or small businesses, salary, remittance from relatives, and rental fees. About 90% of families mentioned income from these sources. The average income from this sector per family was 4.74 million Riel (US$1,185) per annum. Most families (52%) reported earning income from providing labor, such as independent construction work, farm labor and so on. They can earn an average of 1.86 million Riel (US$465) per year. About 13-15% of families earned income from salary-based income, doing trades or small businesses in the villages, and remittance from relatives, who migrated to work outside the village, especially in Thailand.

In summary, most of families earned income from one season of rice production and independent labor. Income diversification could be an option to increase household income for villagers in this area since there were not many families doing commercial livestock (eg. cows, pigs, chickens, ducks) or doing trade or business.

In the next section, the paper is going to discuss a different segment of families and their relation to the VDB performance and impacts.

5-2 Understanding the Village Development Bank (VDB) Performance

This section presents the general process of the Village Development Bank (VDB) by reviewing the secondary source documents from the PDI-Cambodia. The VDB was one of the core activities of the organization in the area. The main purpose of the VDB is to empower the local economy and to promote community development through the saving of capital and access to credit with low interest rates in order to engage local people in income-generating activities and community work. The benefit from the bank also supports the improvement of maternal and child health, and environmental safeguards programs in the area. Process, management and profit sharing are discussed in detail below.

5-2-1 Process of the VDB Establishment and Management

The process of organizing VDB can be classified into four main stages: establishing the Village Development Committee, selecting the Village Development Bank management committee, registering saving members, and providing loans and building capacity such as business skills. First, a Village Development Committee was established in each village through general election to select 30 members. The committee was elected based on gender equality and volunteering for community work. The committee was divided into three sub-committees: the Village Youth Committee, the Village Health Committee and the Village Development Bank. Each sub-committee consisted of 10 people selected from the Village Development Committee.

Second, the VDB management committee was selected from the Village Development Committee to be an organizational structure with 10 people. They consisted of a chairperson, two vice-chairs, a secretary, a treasurer, an accountant, a logistics/public relation manager, a loan manager and two loan monitors. The management committee was monitored by a number of external advisors, including PDI-Cambodia staff, the village chief, commune councils, elders and teachers. The VDB management committee played an important role in ensuring the sustainability of the VDB and managed the entire operation of the bank. The VDB management committee had only a two-year mandate and a maximum of four consecutive years in the same position for re-elected members. The committee members were re-elected by the VDB members in the village.

Third, saving membership was opened to all people in the village, who provide a minimum savings of 1,000 Riel (US$0.25) per month with the bank. According to VDB regulations, there were two kinds of membership: ordinary and special membership. Ordinary membership was open to villagers between 18 and 60 years old. They were required to do monthly savings and could apply for loans after six months of saving. Special membership was provided to villagers between the ages of 13 and 17 or to those over 60 years old. These members could save their money with the bank but they were not allowed to apply for loans.

There are several criteria to be a VDB member. These can be summarized as follows. First, a person must be a permanent resident and have owned property (house or land) in the target village for at least 6 months at the time of registration. Second, s/he must accept all the terms and condition of the VDB and commit to generate income from loans. Third, the member must commit to an environmentally safe occupation. S/he may not have a psychological disability. VDB members have the right to purchase shares from the bank at 1,000 Riel (US$0.25) per share, with a maximum of 500 shares per member. Only ordinary VDB members are allowed to apply for loans to do businesses..

Fourth, loans can only be supplied to ordinary members who have saved money at the bank for six months. They can receive loans at a minimum of 10 times the saving amount s/he has made and a maximum of US $250. There are several procedures for getting loan approval. First, they need to prepare a loan application, with a simple business plan attached. The business plan format is provided and guided by the management committee. Second, they are required to attend some business and vocational skills training, provided by the PDI-C partner institutions such as the Cambodian Center for Study and Development in Agriculture (CEDAC).

5-2-2 Knowledge, Roles and Responsibilities of the VDB Management Committee

Several roles and responsibilities for the committee were established in conjunction with all members, facilitated by PDI-C field staff. Box 1 discusses in detail the roles and responsibilities of the committee. Having well defined roles and responsibilities is not sufficient to keep the bank functioning well, but committee members understanding their roles and responsibilities is a crucial for the bank to achieve sustainability.

Knowledge and educational background of the committee were a challenge for managing the bank. In-depth interviews revealed that most management members find it difficult to explain their roles and responsibilities on the committee. Most respondents commented on the collective duty to manage the bank. The study found that most committee members had only basic reading and writing skills since their education background was quite limited. Therefore, the roles and responsibilities were appointed based on educational background. It means that a person with higher education background performs many jobs or takes on more roles and responsibilities. For example, a committee member in Braval village who has more knowledge (secondary education) performs various roles and responsibilities in managing the bank in her village. In-depth interviews with committee members found that most of respondents complained about too much work and time spent on bank duties with limited reward. It affects the involvement of the members in operating the bank.

Box 1: Roles and Responsibilities of the VDB management committee

- Help create VDB regulations and decide how to use shared profits for community projects.
- Help the VDB expand and gain more interest.
- Organize the bank's monthly opening day.
- Manage the bank's budget and accounts, and plan the budget.
- Help solve problems within the bank, and help members resolve their financial emergencies.
- Recruit outside advisors.
- Organize new elections if any VDB member leaves the committee.
- Organize the process for accepting new members into the bank, and set the terms for canceling bank membership.
- Help members apply for loans; provide and explain the loan application form; and review and approve applications.
- Set interest rates for savings and loans.
- Follow up on members' loan usage and their progress on repayment.
- Coordinate with PDI-C and other relevant stakeholders.

Source: PDI-Cambodia, 2010

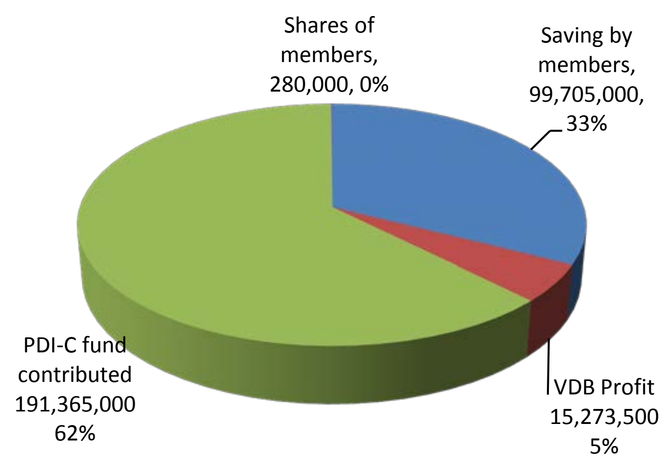
Additionally, the study found that the VDB management committee still had limited knowledge of the policies and regulations of the bank, which is considered an important aspect of managing the bank effectively. Interviews and observations revealed that some members had on-and-off involvement with the bank. The in-depth interviews with PDI-C staff suggested that most training time was spent on the job training methods. For example, a VDB committee member said that, "*Every month PDI-C staff help in doing the saving and loans calculation of the bank. I am so worried when there is no PDI-C staff available to help us*". However, some respondents complained there were too many training sessions and meetings related to VDB work.

In summary, capacity of the VDB management committee is still limited in terms of working independently to keep the bank functioning. Therefore, more capacity building is needed for the committee. On-the-job training is the best approach to continue to build committee capacity.

5-2-3 Capital of the Village Development Bank and Profits-Sharing Mechanism

Capital for the Village Development Bank (VDB) is basically generated from various sources, such as saving by members, incentive funds from PDI-C, members purchasing shares, and the profits of the bank. First, the monthly savings by each member of a minimum 1,000 Riel (US$0.25) is regular capital generated for the bank. Only saving members are allowed to access VDB loan. The interest earned on savings is 1.2 percent per annum, which is shared to members at each loan cycle. Figure 2 shows that the savings capital was in total 99.7 million Riel for 23 months of saving by members in six villages. It amounted to about 33% of total capital.

Figure 2: Share of the VDB Capital



Source: PDI, Cambodia, 2013

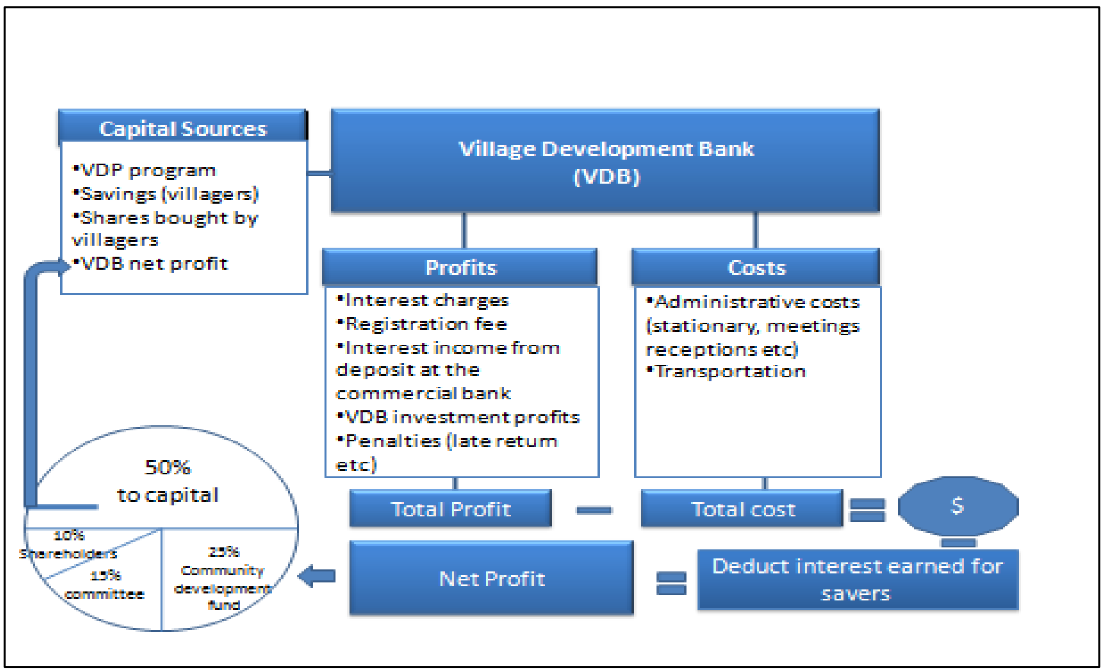
Second, an incentive fund, which is contributed by PDI-C to villagers who have participated in development activities of the Village Development Partnership (VDP) program, constitutes a large amount of capital for the bank. The incentive fund is not given to individual villagers but converted to capital of the VDB in each village. For example, a villager who participates in planting a tree in their village receives 4,000 Riel (US$1). This fund is then converted to capital of the bank for community benefit. The detailed contribution policy is presented in annex 1. In total, PDI-C injected about 191.3 million Riel (US$47,841) up to April 2013. It comprised about two-thirds of the VDB's capital.

Third, capital was also generated from selling shares to members. Each member was allowed to purchase a maximum of 500 shares and each share costs 1,000 Riel (US$0.25). About 280 shares were bought by members with total share value of 280,000 Riel (US$70) up to April 2013[5].

[5] PDI-C's monthly progress report, April 2013

Another important capital source was profit from the bank and donations from other organizations. Annual profit of the VDB can be earned from interest charged on loans, with a minimum charge of one percent per month. The interest rate is decided by the members. Second, each saving member was required to apply for a savings book, which cost about 4,000 Riel (US$1) per membership. The fee was used to increase the capital of the bank. Third, late payment by a loan recipient was punished with a 4,000 Riel (US$1) fine per month when they are late paying either the loan or interest fee. Finally, loan balance (remaining money from loan request) is deposited in the ACLEDA commercial bank for security reasons. The interest earned from the deposit is included to increase the VDB capital. The bank generated a gross profit of about 15.27 million Riel (US$3,818) over 23 months in six villages. It covered about 5% of total capital. The gross profit is shared into two parts. Fifty percent of the bank's net profits is allocated to increase the capital of the bank, and the other half is divided among the community development fund (25%), the VDB management committee (15%), with 10% to shareholders. The detail profit sharing of the VDB is presented in Figure 3 below.

Figure 3: Sharing of the VDB's Profits



Source: PDI-Cambodia, 2011(Designed by Authors)

5-3 TheVillage Development Bank and Impacts on Local Livelihood

5-3-1 Participation of the Villagers

The Village Development Bank started with savings from members in each village. In total, 76% of families became involved in saving money with the bank and about one-third of the total population in these six villages. Ta Yaek and Boeung Vean village had the highest proportion of families join the bank. Table 3 shows about 90-95% of total families in these villages joined the bank. Some families had more than one member save at the bank. They might find the bank useful to their family or they are wealthier than other villagers. Members' view of the usefulness of the VDB is discussed in the next section.

Table 3: VDB Membership and Its Share of Total Population

Village	Total population			VDB member			%of total population		
	Family	People	Female	Family	People	Female	Family	People	Female
Champei	117	587	301	84	138	86	72	24	29
Ta Yaek	273	1,525	763	246	351	264	90	23	35
Braval	475	2,524	1,263	287	388	268	60	15	21
DakPhka	264	1,310	685	193	233	161	73	18	24
BoeungVean	187	986	520	177	295	197	95	30	38
PaoySmach	271	1,375	769	218	270	174	80	20	23
Total	1,587	8,307	4,301	1,205	1,675	1,150	76	20	27

Source: PDI-Cambodia, Progress Report, April 2013 (Calculated by Authors)

However, the in-depth and focus group interviews with non-VDB member suggested several reasons why they did not join the bank. First, respondents complained that they were not well informed about the bank policies. There were a lot of cases of cheating in similar previous saving programs in their villages. For example, most participants in the group discussion and other key respondents argued that some organizations came to the village, did saving activities and then ran away. This happened in Braval village. Second, they complained that the process of getting loans from the VDB was complicated. They referred to the loan application and business plan. Third, some villagers are involved in seasonal labor migration. Observation revealed that most of these families did not join the bank. Some families complained that they couldn't afford to find money to save in the bank. Another important reason is that they do not understand why they should borrow their own savings, which is the same money they already had. This perception is widely heard both among non-VDB members and some VDB members. It seems they are quite beyond financial illiteracy. Therefore, building financial literacy capacity among rural people is needed.

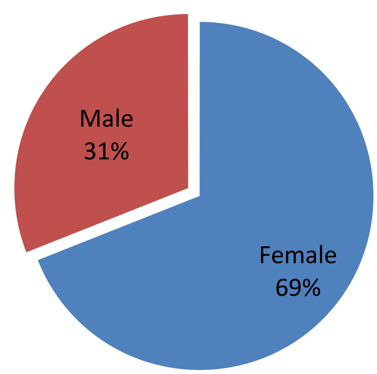
Likewise, about 8% of the VDB members decided to quit the bank since it began operating. There was high number of drop-outs in Ta Yaek village (18%) where the VDB was first operated. This was followed by Braval, village (9%) and Champei village (7%). In-depth interviews revealed several reasons. First, they were upset with the management committee that rejected their loan applications because they could not meet the loan criteria. Second, some families had not enough time to participate in regular saving since they were migrant workers or involved in rice cultivation outside the village.

It seems that the involvement of villagers in the bank is still uncertain because some members rationalized their emotional factors to quit the bank. Therefore, ownership of the members of the bank is still a challenge, as is discussed in the next section.

5-3-2 Gender involvement

The participation of women in the bank is a crucial element of this study. Figure 4 shows that more than two-thirds of the bank members are female. In total, they constituted about 27% of the total female population in the area (see table 3). In each village, they make up about one-third of the female population, with an average of age of 39 years old. They are considered an important age group to generate income for the family.

Figure 4: VDB Members by Gender



Source: PDI-Cambodia, 2013

The study also found that most of the participants in the agricultural and business skill training sessions, which were organized by the PDI-C and partner organizations in the area, were female. In total, about 66% of participants attending agricultural training such as raising pigs, chickens, and ducks, vegetable growing and compost making were female. About 72% attended business skills training. The in-depth interviews suggested some reasons why women attended training sessions more than men. First, women mostly stayed at home while men often traveled outside the village to earn money for their family. Second, men do not seem very interested in attending training sessions. Some villagers said that they already knew those agricultural techniques. Interviews with the staff of relevant NGOs complained that it was difficult to get villagers to attend continuous training. Most villagers were busy with their family. Men were difficult to encourage.

However, the adoptive capacity to those new agricultural techniques and business skills of female participants after the training is still a question. Observation and in-depth interviews with key respondents, including organization staff and community leaders, revealed that there were not many villagers applying new agricultural techniques or skills after training. Several reasons were suggested during the in-depth interviews. First, the level of education of participants was too limited to understand the full content of the training. For instance, the household survey found that 78% of females had only primary education.

Second, the mindset of villagers of using traditional practices was an issue in getting them to adopt innovations. For example, a female respondent in Ta Yaek village said "*I learned how to grow a seedling of rice from CEDAC through watching a video. It produced more yield than our traditional rice growing. I want to try it but my husband did not agree and he did not believe in it. So, we keep doing the usual.* "The cultivation of one seedling of rice is referred to as the System Rice Intensification (SRI), which is widely promoted by CEDAC. It produces a significantly higher yield. Addressing these issues, CEDAC has promoted farmer-to-farmer extension and demonstration approaches. They observed that villagers are now gradually adopting those new techniques. Also, they observe that families who had the husband participate in training were more likely to practice what they had learned. However, it has not yet been ascertained how gender factor affects the adoptive capacity of villagers for new agricultural and vocational skills.

Third, some villagers migrated to work in Thailand and other places in the country after rice cultivation. According to the Ta Yaek commune statistics record in 2011; about half of migrant workers were female[6]. The survey indicated that about 13% of families were involved in labor migration. It has been argued that another reason is that there is not enough water to grow vegetables or other cash crops during the dry season. However, they also complained that there was too much water during rainy season and that they were too busy with rice cultivation.

In summary, more than two-thirds of families in each village had joined the bank. Most of the members are women. Women are an active group involved in the VDB but they have limitations in adopting new skills to generate income.

5-3-3 Access to Loans and Skills

Access to loans and skills of the rural poor is an important part of empowering them to participate in improving the local economy. The VDB model was designed to provide more chances for rural poor to access loans and skills. According to the progress report of the VDB, 26% of borrowed money, with an average loan amount of 0.74 million Riel (US$185). The average length of loans was seven months, and the interest rate was one percent per month.

Bank policy requires members to attend skills training, including agricultural or vocational skills training as well as business skills. They are also required to submit business plans to the bank committee as the criteria for loan reception. There is no collateral required for members. The study found that 19% of members attended business and

[6] Ta Yaek commune profile year 2012, prepared by Siem Reap provincial planning department

vocational skills training and 86% attended agricultural training. About 15 business& vocational skills training sessions and 66 agricultural training sessions had been provided to villagers by the PDI-C and their development partners so far. Agricultural training includes the System of Rice Intensification (SRI), organic chicken farming, raising pigs, vegetable &home-gardening, compost making, and so on. Business skills focus on how to prepare a simple business or production plan, such as opening a grocery, pig or chicken farming, and so forth. It is part of the Barefoot MBA program. In-depth interviews found that most villagers rarely used the new skills they had learned.

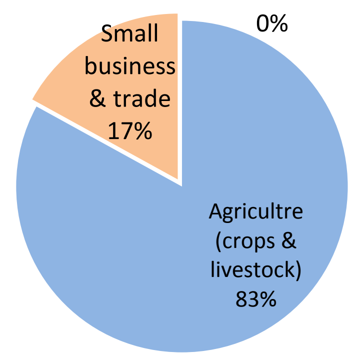
Besides loans from the VDB, they also borrowed from micro-financial institutes (MFIs) such as Angkor Microfinance Kampuchea (AMK), *Amret*, *Hatha Kassekor*, and *Kredit*, among others, as well as from private money lenders in the area. More than half of members had debt with these credit sources. The average amount of debt was 1.71 million Riel (US$428), with an average interest rate of 2.4 to 6.5% per month, which is higher than the VDB loans. The majority of the loans were based on land collateral and no business or vocational skills training was provided. These seem to be high-risk loans, since some recipients spent loan money on their daily livelihood instead of investing in business. For example, the household survey found that at least 19% of the loan is spent on living expenses and medical/healthcare (8%). Only 2% is spent on children's education. The rest is invested in agriculture (55%) and non-agriculture (16%). Observation revealed that most villagers had lost their land to these credit schemes because they cannot generate enough money to pay back the debt. Since most loans are used for rice farming, this is relatively risky because it is based on rain-fed cultivation.

To sum up, the access to loans of villagers in the area was not an issue, but how to use their loans effectively is a challenge. It seems that villagers can access multiple loans at the same time. The survey shows that about 43% of members who borrowed money from the VDB were in debt with other credit providers, such as MFIs and private money lenders. There is a relatively high risk of debt default. Another challenge is the participation of local people in training, and their adoptive capacity is also a question. Providing both new agricultural and vocational skills is costly and timely consuming, but it was suggested that most participants hardly practiced what they had learned from the training provided.

5-3-4 The VDB and Income Generation Activities

The main purpose of the VDB model is to create an environment that enables rural people to start their own income generating activities and become involved in community development. The enabling environment includes, first of all, access to loans with low interest rates, which was considered a motivating factor for local people to start their income generating activities in the villages. The bank introduced a maximum interest rate of 1% per month for the members. Another factor is the skill of people in doing business and technical proficiency, such as agricultural and other vocational skills. As result, about 15 business and vocational skill trainings and 66 agriculture trainings had been provided to loan recipients to date. The next important factor is access to markets where people can sell their products.

Figure 5: Share of loan takers by investments

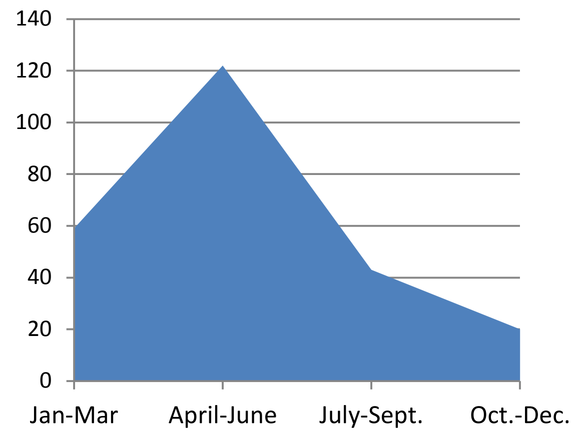


Source: PDI-Cambodia, 2013

The study found that about 26% of VDB members received loans from the bank. The average amount of loan was 0.74 million Riel (US$185), and the average length of loan was seven months. The majority of loans (83%) was used for investing in agricultural production, include livestock, rice and other cash crops (see Figure 5). Raising pigs and chickens is a common livestock activity, which has been proposed for the loans.

Most of the loans are used for rice cultivation season (April-June). Interviews revealed that they used loan money to invest in rice cultivation such as buying fertilizer, land preparation and so on. Likewise, Figure 6 shows that the number of loan recipients peaked during the second quarter of the year (April-June), when it is rice cultivation season. There were a few people who used loans for growing vegetables or other cash crops. However, 17% of loans were used to invest in starting or expanding small business and trade. Grocery stores and food shops were common businesses in the area. Some people used loans to expand their trade activities, such as buying pigs or chickens and buying other agricultural products to sell at the district market. These were considered as middleman traders. No loan was used for starting handicraft work.

Figure 6: Trend of the VDB' loan takers



Source: PDI-Cambodia, 2013

The study attempted to establish a spatial geography to assess where and how far the villager can access markets for selling or buying products. Three market places are used for trade by villagers in the area. They are the commune market, the district town market and the provincial market. The commune market is relatively small and for daily food needs. There are a few groceries stores and food shops. The average distance of villages to the commune market is five kilometers with a paved road for accessibility. The average distance to the district town market is 12 kilometers, and to the provincial market it is about 40. Most villagers trade their products in the district town market. Observation revealed that no public transport was available to these market places. Most villagers used their own transport to travel to them. Only families with motorbikes or automobiles can access the district or provincial markets often. Hence, access to district market and provincial markets was still limited for villagers in the area. It can be considered one of the challenges that limited villagers’ income generating activities.

Another factor that might affect people’s attitude towards income generating activities is affluence. It is hypothesized that affluent families, with substantial landholdings (over one hectare of land), walking tractors and motorbikes, among other capital goods, might agree more with a statement like "the VDB helps to improve the income generating activities of my family." The survey used the Likert scale, with one indicating least agreement and ten the highest score. The survey showed that there was no significant difference between the two groups ($p=0.10$).

In summary, most loans trended to agriculture-related works, with a limited number of loans for investment in small and medium-sized businesses. The majority of loans is used for rice cultivation, which is a relatively high risk investment. Climate change might severely affect production. No loan was invested in handicraft production, which is an opportunity that needs to be considered, as the area is not far from a provincial town that is the central tourist attraction of the province.

5-4 Benefits and Challenges of the VDB

This section examines the villagers' views on the impact of the VDB on their family and community livelihood. Empirical data from in-depth interviews and focus group discussions were used.

5-4-1 Usefulness of the VDB

The study found that most respondents express positive views about the VDB model. First, they mentioned that the bank provided them with more opportunities to access loans at low interest rates, which is advantageous when compared to other credit sources such as MFIs and money lenders in the area. The average interest rate of MFIs and money lenders is about 2.4 to 6.5% per month, whereas the VDB interest rate is 1% per month. Some respondents admitted that loans from the VDB could generate benefits for the village. A female respondents in Ta Yaek village said "*when we borrow money from the VDB, we can have money for our village by paying interest to our bank. If we borrow money from Amret or AMK, they take all our money for themselves every month. The whole village has paid a lot of money to them.*"

Second, they find it easier to access the loans since they are not required to provide proof of collateral. In-depth interviews revealed that the VDB also allowed special loans or emergency loans to villagers who needed money for family affairs such as death in the family, accidents, hospitalization, or other such things. The VDB policy includes a special loan for a maximum of 200,000 Riel (US$50) without interest charged to villagers who face an emergency or crisis. However, some respondents complained about the difficulty in applying for a loan as they were required to prepare a business plan and fill in a loan application. The VDB management is helping or giving advice on how to prepare the forms. Also, observations and interviews revealed that some members were reluctant to attend training courses (eg, business and agricultural skills training) even though it is a requirement for the loan request. For example, a respondent in Champei village said, "*I tried to apply two times already for a loan but I still cannot get it. I don't have time to attend the training they organize in the village. I was busy making money outside the village*." It seems that they want to borrow money for other purposes rather than for running a business. As a result, most villagers turned to MFIs and money lenders, despite the high interest rates. The survey showed that about 43% of total respondents had debt with MFIs and money lenders in the area. For example, a respondent repeated the common complaint from villagers that, " *borrowing money from **Thoneakeaphum** [referring to the VDB] is so difficult because they ask so many details about use of the loan. When we borrow money from **Angka** [referring to MFIs), we can get as much money as we can. It is easy.*"

However, in-depth interviews suggested that taking loans from those MFIs required collateral, which requires a signature from the village chief and commune chief. They also paid some amount of money for this paperwork, which cost about 10,000-15,000 Riel (US$2.5-3.75) per loan. Some families cannot repay their debts, and are then forced to sell their land to pay for the debt. According to the Soutr Nikom district profile in 2011, the number of families who own no cultivated farmland increased from 69 families in 2010 to 4,543 families in 2011.

Third, most people admitted that the VDB has changed their perception on saving money and they had learned how to save money for their family. For example, most participants in the group discussion organized in Champei village suggested that villagers were active in saving money with the bank. Some families save for their children. In addition, a respondent in Braval village said, "*Every month I have to keep money for saving in the bank. Then, I have to be careful with my expenses and try to find money to save. Every month, I have to save 3,000 Riel (US$0.75) for myself and my son.*" In contrast, some villagers felt that saving and lending was the same as having their own money. It was one of reasons they did not join the bank.

Box 2.From traditional pig raising to commercial pig farmer

A 33-year-old woman with her four family members in Ta Yaek village, Ta Yaek commune, Siem Reap province has saved 5,000 Riel (US$1.25) per month in the VDB since June 2011. In January 2012, she requested the bank committee for one million Riel loan but it was approved for 800,000 Riel (US$200) only due to limited loan capitals of the VDB. She used the capital to build a pig cage and buy 8 baby pigs. Totally, it cost 1,760,000 Riel (US$440). Pigs were raised for 3 months at feeding cost about 3,973,600 Riel (US$993.4). She could earn 4,069,000 Riel (US$1,017.25) from selling pigs of 626 Kilogram. In this cycle, she could not make any profit but she could build a pig cage. She hoped she would make a profit in the next cycle. She planned to get 10 pigs in the next round.

Source: Interview, 17 November 2012

Fourth, a majority of respondents suggested that the VDB has made a significant development in their family and village. Frequently, they mentioned involvement in development activities in the village, which can also generate capital for the bank, such as tree planting, village cleaning, health and education, among other things. They also argued that by being a VDB member, they could receive support from the Village Development Partnership program such as latrine, water filters and water jars. However, in-depth interviews revealed that some villagers were not fully committed to being members of the VDB, but they just wanted to receive a latrine, water jar and water filter when they saw earlier members receive them.

Fifth, respondents argued that the VDB provides them more chances to get new knowledge and skills about agriculture and other vocational skills, which are provided by CEDAC and PDI-C. The training mostly focuses on business planning (how to calculate profit and loss), chicken and pig raising, fish, vegetable growing, rice cultivation using System Intensification Rice (SRI), making compost, and so forth. Some families stated that they could earn more income after being involved with the VDB through trying new chicken and pig raising practices and vegetable growing. Some respondents suggested their businesses have improved. For example, a female respondent, a chief of the VDB in Ta Yaek village said, "*I was trained to calculate the profit and loss of my pig farming business. I have learned how to keep records of all expenses of my products. Then, I can figure out how much I earn or lose, and I found that I could get a pig cage from my first round of pig farming.*" However, as discussed previously, observations and in-depth interviews revealed that most families who had attended training sessions did not adopt the skills.

In summary, the VDB is a useful model, which is providing another alternative to rural households for access to financial services with low interest rate, and in mobilizing people to save. It can be a comparative advantage to turn poor rural people from using high-interest loans such as MFIs and money lenders to low interest rates from the VDB. The model provides a chance for rural people to acquire business and other skills, which are the main forms of economic empowerment.

5-4-2 Challenges for the VDB

The study found several important challenges that need to be addressed. First, most of the VDB management committee members admitted that their management capacity was still limited. The educational background of the members was one of the challenges that limit their capacity. In fact, the general education of people in the area is low. The survey showed that about half of respondents had primary education or non-formal education, and about one-third had no education background. The ability to do calculations and keep records of savings and loans is a crucial skill that the management committee needs to handle in order to ensure the bank functions. For example, a member of the VDB committee in Ta Yaek village said, "*Every month when the bank opens, PDI staff comes to help us in doing the calculation of the money. I have learned from him (PDI staff) but I still find it difficult.*" However, in-depth interviews suggested that the VDB committee is helped by other volunteer groups, especially the Village Youth Committee, when the bank opens. Most of the youth volunteers have a secondary education, which can help the committee in keeping records of savings and loans.

Second, the understanding roles and responsibilities were still unclear among the VDB management committee. In-depth interviews with committee members revealed that they were not able to explain well what their roles and responsibilities are on the committee. Some committee members were new replacements of resigned members. They work hand and hand, helping each other as a team, which requires a lot of involvement by all members to make sure the bank functions.

Third, the availability and retention of the VDB management committee members were important factors to ensure the bank is managed properly. The interviews suggested that most committee members complained that they spent a lot time to work on the VDB, which has limited the time for their family business. For example, a committee member said, "*Sometimes my husband complains a lot about my time with the family. Sometimes he forces me to quit the VDB committee. But, now he has a bit more understanding about my work*." Observation revealed that most of VDB management committee members were also elected committee members in other organizations; therefore they are involved in many activities and many meetings in their village. Sometimes they find problems with schedule overlap when PDI-C staff calls for trainings or meetings. In-depth interviews with PDI-C staff and VDB committee members suggested that most committee members elected by villagers left the committee after some involvement. For example, a committee member in Champei village confirmed that, "*Now, I observe that most of them are new members but I do not remember how many have left.*" In fact, PDI-C staff stated that they find it a challenge to keep training new committee members, as the time in each village is limited.

Another important challenge was the adoptive ability of the villagers in practicing the skills and knowledge that they had learned from the program, including new agricultural techniques, business and other vocational skills. Interviews found that only a limited number of people applied the skills to generate new income. Observation found that new techniques of chicken or pig farming, which CEDAC has taught, were not widely practiced by villagers. It was a basic form of promoting income-generating activities among the VDB members who received loans. In addition, it was suggested that it is difficult to retain the participation of villagers in continuous training sessions. In fact, most participants were female, who need to lobby their husbands to introduce new skills. Finally, the study found that most of the VDB members had multiple loans, which causes the problem of debt default and calls into question the effective use of loans, since most are invested in rain-fed rice cultivation.

In summary, these challenges can be classified as internal and external factors. The internal factors include the limitation of the VDB management ability. This is a crucial element to ensure the sustainability of the bank. It must be a priority to overcome. Otherwise, it might affect the trust and transparency of the bank. The external factors include participation, adoptive capacity and multiple loans. Awareness raising is one of the options to address these challenges.

6. Discussion and Conclusion

In this section, the study highlights some important implications, which are considered common issues in implementing community-based microfinance. By reviewing relevant literature and analyzing the current performance of the Village Development Bank (VDB), these can be discussed and summarized as follows.

6-1 Institution and Management Capacity

Effectiveness and efficiency are terms widely discussed in economics and management. Ritchie (2007) suggested that the effective institutional arrangement and management of a community-based financial organization is an important element to ensure the sustainability of the organizational structure, to facilitate financial service, as well as to serve the group members. A large organization needs a professional management team, which divides clearly the roles and responsibilities of each subcommittee. The Village Development Bank model is considered a large organization, which handles hundreds of savings and loan members in a village.

However, the VDB management committee works voluntarily and with limited capacity in general education as well as management skills. For example, the study found that most of the VDB management members find difficulty in implementation their roles and responsibilities. Knowledge of keeping records and calculations was a challenge of the current VDB management team. It can affect the transparency of the organization, and therefore can be a leading source of lost trust among saving members.

Second, it seems there is no clear vision of developing a financial organization among the VDB management team. The model favors community development-oriented rather than profit-oriented activities in order to preserve the autonomy of the organization itself. It has been suggested that microfinance is profit-oriented to ensure autonomy, financial independence and the ability to provide financial services in the long term (Ritchie, 2007). The study found that most of the VDB management members complained about too much work and times spent on the VBD management limited reward. It seems that their involvement in managing the bank is limited, although their roles and responsibilities are important.

Another factor is the retention of the management members. The study found that most of the VDB management members were changing from time to time, which is a big challenge to build their ability, since the project support has a limited timeframe.

In summary, institutional organization and performance capacity are crucial elements to ensure the sustainability of community-based microfinance. Profit-orientation should be a vision of the management team rather than just community development. It can lead the VDB to autonomy when the PDI-C withdraws.

6-2 Local Ownership& Sustainability

The sense of ownership among local people of community-based microfinance, initiated by them in their own village, is also a crucial factor in keeping local people participating in the scheme. First, people participating in savings were considered an important mechanism to make sure that they stayed involved in the process long-term. Ritchie (2007) argued that many revolving loan projects, which were based on external funds only, failed to secure repayment. They created a culture of default. However, the saving-led community finance model has a better chance of ensuring sustainability than revolving credit-led loan models. The study found that the VDB model has introduced saving-led community finance, with saving capital covering about one-third of credit capital.

Second, it has been suggested that external funds or donor-funded supports for saving-led community finance projects should be made in an appropriate manner, which can ensure a strong sense of ownership among community people toward the incentive funds provided by a project. These external funds can be injected when community members have gained enough experience in using the saving credits from their resource. This approach has created more possibility to manage external funds effectively (Ritchie, 2007). In this case, the study showed that VDB members have limited experience in lending their own savings capital, since external funds from PDI-C were injected six months after members' savings. It means that they have limited experience in how to produce credit with their own capital. In fact, the survey asked the question "To whom do you think the VDB belongs?"; about 28% of respondents claimed that the VDB belonged to PDI-C or others. Some people said they didn't know. It seems that the sense of ownership of the Village Development Bank is limited among members. This needs to be solved before the project is phased out.

It is clear that creating a strong sense of local ownership of community-based microfinance is a crucial step to keep people involved in the process. The involvement of local people was considered a factor to define the success of community-based finance. Creating a strong sense of stewardship towards donor-funded incentive supports was also considered an effective approach to sustain the process.

6-3 Loans and Household Investment

The use of loans to learn new vocational skills or to apply business models is still a question. First, the study found that most loan recipients used money to invest in their traditional agricultural practice. For example, the majority of loans was used as money for rice cultivation, which is a relatively high-risk investment. About 83% of loan recipients invested in agricultural production, including rice, vegetables and livestock. There was a limited number of villagers who adopted the new techniques that they had learned. Only 17% invested in doing trade and small business, which is considered a relatively high-return investment if the business is well planned. Second, women were the dominant group involved in the VDB scheme. About two-thirds of women had attended new skills training provided by the project, but a limited number of women have the chance to practice the skills in their families. It might be that their ability to influence men in accepting these new skills is limited.

In conclusion, community saving or saving-led microfinance is an effective model to empower poor rural people in accessing basic financial services in order to improve their livelihood in several ways. First, access to loans with low interest rates is a competitive advantage for rural people who depend on MFIs and private money lenders, which have a relatively high interest rate and require collateral. Second, the community saving model is a paradigm that brings a changing attitude towards saving money and loans for investment among rural people. It is part of financial literacy and awareness. Third, the model provides a chance for rural people to access business and other skills, which are the main forms of economic empowerment. Fourth, community savings created a window of opportunity to empower women to become involved in development work, even though their roles and rights in the family needs to increase to have more influence. The VDB model has contributed to the empowerment of women through access to new skills and financial services. Finally, community saving contributed to an increase in social capital by creating a chance for rural people to work in a group and strengthening solidarity.

However, to achieve these positive impacts, the model needs careful design and to overcome several challenges in order to ensure sustainability. First, institutional structure and management ability should be prioritized. Collective performance measurements, including regulation, record-keeping systems, loan-tracking systems and other important procedures, need to improve to avoid conflict or mistrust among members. Creating a profitability plan for the model by management members is an option in order to maintain the autonomy of the organization. The current performance of the VDB model might be at risk when the PDI-C involvement is phased out. Second, a sense of ownership among the community needs to be promulgated. Another important problem to overcome is improving the adoptive capacity of villagers in applying new skills, which provide them with a broad spectrum for innovation. Changing the traditional mind-set of rural people toward absorbing new skills is still a big challenge in the context of Cambodia. It is considered a limitation in improving rural people's livelihoods.

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Annexes:

Annex1. Activities and Amount of Incentive Funds from PDI-Cambodia to the VDB

Activities	Amount of Fund to be Added to VDB (in Riel)
Maternal and child health care	
Each prenatal care appointment attended by a pregnant woman	20,000
Each immunization received by a woman of reproductive age	20,000
Each pregnant woman who delivers at any official health facility	80,000
If more than 75% of women in the village deliver at the health center within 6 months	2,000,000
Each postnatal care appointment attended by a new mother and her infant	20,000
Each immunization received by an infant	20,000
Hygiene	
Built a latrine at home	40,000
Use of water filter at home	20,000
Environment	
Trees planted (per tree)	4,000
Joined monthly village cleaning (per person)	2,000
Compost making at home (at least 1 square meter)	40,000
Monthly participation watering trees (per person)	2,000
Installed trash bin at home (per bin)	4,000
Re-dig canal (1meter)	8,000
Clean Canal (1meter)	4,000
Dig pond for fish farming	40,000
Participation in VDP meeting and events	
Each health education session attended	2,000
Each family planning session attended	2,000
Each skill training session attended (agricultural skills etcetera) organized by VDP	2,000
Each special campaign organized by VDPC attended (eg. human rights, child rights etcetera.)	2,000
VDB participation	
Each new VDB member	20,000
VDB share purchase by a member (amount of share purchased is equal to the fund added to the bank by PDI-C)	1,000
Education	
Adult literacy class registered	20,000
Each adult literacy class attended	4,000

Note: exchange US$1=4,000 Riel,
Source: PDI-Cambodia, 2011