

The savings and investment behavior of extreme poor Marma community households in resilience building: a case study on Green Hill village savings and loan association intervention in the Chittagong Hill Tracts

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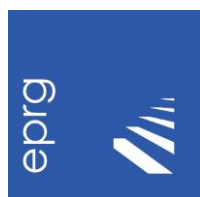
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Abstract

This paper explores the linkages between the financial behaviour of extreme poor Marma households and their resilience through a qualitative research approach. The study was conducted with Green Hill beneficiaries in Chittagong Hill Tracts (CHT). The main finding emerging from the study is that extreme poor Marma households significantly changed their financial behaviours (regarding savings and investing) as a result of their involvement with the Village Savings and Loan Association (VSL). Their savings increased which enabled them to cope with illness, crisis/lean period of their savings and invest in income generating activities for regular income but also to mitigate the impact of shock through lower adoption of risky strategies (such as borrowing from money lenders, reducing food consumption, distress asset/labour selling or providing extra labour). The intervention also had an effect on trade linkage with buyers and marketing of the products. This has important and positive effects on household resilience. Besides, the study finds that the intervention also affects extreme poor non-beneficiaries in three different ways. First, some benefitted from the presence of the groups in their villages (educational effect or trend effect), second because they were included by beneficiaries in VSL and third through reproducing informal VSL groups. VSL are comparatively more attractive for them than MFI loans, or moneylenders (flexibility and cost). The study concludes that VSL association approach is effective in helping the extreme poor households build their resilience in the CHT, where households have limited access to other financial services.

Key words: Village Savings and Loan association, savings and investment behaviors, extreme poor Marma community, financial access, resilience, Chittagong Hill Tracts.

Contents

| | |
|---|----|
| Acknowledgements | 2 |
| Abstract | 3 |
| List of Figures | 5 |
| List of Tables | 5 |
| 1. Introduction | 7 |
| 2. Literature review | 8 |
| 2.1 Access to financial services and poverty..... | 8 |
| 2.2 Poverty and lack of financial access in the CHT | 10 |
| 2.3 Village savings and loan association: a rural financial access..... | 12 |
| 2.4 Conceptual framework | 13 |
| 3. Methodology | 14 |
| 4. Data analysis | 16 |
| 4.1 Impacts on beneficiaries' savings | 16 |
| 4.2 Intervention's impact on beneficiaries livelihoods and income | 21 |
| 4.4 Impacts on non-beneficiaries and on the community..... | 25 |
| 5. Conclusion..... | 26 |
| 6. Bibliography | 28 |
| Annex-I: VSLAprogramme guide, rules and regulation..... | 32 |
| Annex-II: The VSLA tool kits | 33 |

List of Figures

| | |
|--|----|
| Figure 1: Conceptual framework: building resilience of extreme poor Marma community households through Village Savings and Loan Association..... | 14 |
| Figure 2: Savings and loan status of Thoaiangpara (n=20) and Choiratongpara (n=16) VSL association over the period. The BHHs are from IMPACT project..... | 17 |
| Figure 3: The studied PRASAKTI project VSL associations' savings and loan status from January to November-2013)..... | 18 |
| Figure 4: Monthly change in household's savings pattern of extreme poor Marma community over the period according to CMS2 survey..... | 18 |
| Figure 5: Salient features of Nithuai Ching's individual savings (share money) and loan taken from the VSL group. The savings (share money) was 30 Taka per share meeting..... | 19 |
| Figure 6: Month-wise loan taken by extreme poor Marma community BHHs over the period. The question asked in the CMS-2 regarding loan taken is "did you take out any loans over the last month?" The possible range of answers in this multiple choice question is "Yes" or "No" | 20 |
| Figure 7: Reason for loan taken by the extreme poor Marma community people (CMS2) those beneficiaries who positively reported that they had taken a loan outside the VSL groups..... | 21 |
| Figure 8: Month-wise number of income sources reported by the extreme poor Marma community people (CMS2). The question asked in the CMS-2 regarding number of income source is: How many sources of income does the household have?..... | 22 |
| Figure 9: Month-wise income changes of extreme poor Marma community households according to CMS2 data..... | 22 |

List of Tables

| | |
|--|----|
| Table 1: Stages of Asset Accumulation and Types of Saving Strategies..... | 10 |
| Table 2: Comparison of studied village savings and loan associations (VSLA) between Bandarban and Rangamati district in regard to savings status..... | 26 |

Abbreviations and acronyms

| | |
|----------------|---|
| ASA | Association of Social Advancement |
| BBS | Bangladesh Bureau of Statistics |
| BHHs | Beneficiary Households |
| BRAC | An international development organization based in Bangladesh (formerly known as Bangladesh Rural Advancement Committee) |
| CCT | Conditional Cash Transfer |
| CHT | Chittagong Hill Tracts |
| CMS2 | Change Monitoring System, a real time monthly snapshot using mobile phone technology |
| DCI | Direct Calorie Intake |
| EPRG | Extreme Poverty Research Group |
| FGDs | Focus Group Discussions |
| GrameenBank | A microfinance institution based in Bangladesh |
| Green Hill | A national NGO in Bangladesh, mostly based on Chittagong Hill Tracts |
| <i>Headmen</i> | <i>Headman</i> is mainly responsible to preserve peace and order within the <i>Mauzas</i> , a <i>Mauza</i> consists of several villages |
| HHs | Households |
| IDE | International Development Enterprise |
| IDF | Integrated Development Foundation |
| IGA | Income Generating Activities |
| IMPACT | Improving Markets and Poverty Alleviation through Cash Transfer |
| <i>Jhum</i> | Shifting or slash and burn cultivation locally known as <i>Jhum</i> cultivation, practices in the Chittagong Hill Tracts ethnic minority people |
| <i>Karbari</i> | The leader of a village |
| MFI | Microfinance Institution |
| NGOs | Non-Government Organizations |
| PRASAKTI | Poverty Reduction through Agricultural Sustainable Advancement Knowledge Transfer and Insurance |
| Shiree | Stimulating Household Improvements Resulting in Economic Empowerment aims to support the Government of Bangladesh (GoB) in achieving the Millennium Development Goal (MDG) 1 of eradicating extreme poverty and hunger by 2015. |
| Tk. | Taka (Bangladeshi currency) |
| UP | Union Parishad (smallest rural administrative and local Government unit in Bangladesh) |
| VSLA | Village Savings and Loan Association |

1. Introduction

The study of potential linkages between access to financial resources and poverty is increasingly addressed by scholars. In the Chittagong Hill Tracts (CHT), situated in south-eastern Bangladesh, where this study was conducted, people are generally deprived of basic public services such as health, education and income generating support from different social service departments, which contributed to keeping people in poverty and in some cases worsening their situation (Barkat et. al., 2009). The specific geographic situation of this area is that it is covered by 77% hills, 20% undulating bumpy land and 3% plain land and that it is populated by 11 ethnic minorities¹ and Bengalis (Jamaluddin et. al., 2010). In the CHT, the majority of households live in poverty or extreme poverty, unemployment is high and there is a general lack of economic opportunities (Jamaluddin, 2010; Rasul, 2003). Barkat et al. (2009) found that the poverty scenario in rural CHT is about 1.6 times higher than other parts of rural Bangladesh. According to direct calorie intake (DCI), about 62% of households in the CHT region, irrespective of ethnicity are living below the absolute poverty line. Rasul (2005) reported that the majority of CHT people, especially in rural areas, suffered chronic food shortage.

Extreme poor households in CHT struggle to save money to deal with shocks² and rely mostly on moneylenders for accessing financial support or sell off productive assets during the crisis period. The lack of formal banking infrastructure and low financial education make it difficult for the extreme poor ethnic minorities to save money or to take out loans during uncertain periods or for mitigation of shocks. The majority of the households living there depend on subsistent agriculture locally known as *Jhum*³ cultivation and manual day labouring. The well-being of these people has deteriorated over time due to various endemic reasons, such as low production from *Jhum*, inconvenient transportation facilities, lack of education, lack of technological knowledge, insufficient marketing channels, and an overall lack of economic opportunity (Barkat et al., 2009; Jamaluddin, 2010).

This study investigates the effect of village savings and loan association (VSLA) on extreme poor Marma community savings and assets investment behavior and how this affects household resilience building processes. It uses Green Hill's cash transfer and savings group intervention targeted to extreme poor, small-scale farmers of ethnic minority people as a case study. The first section of the paper reviews the existing literature on savings processes and the relationship between financial behavior and resilience of the poor. It is generally acknowledged that poor households' savings and asset investments can play an important role in resilience building (Allan, 2002; Allen, et. al., 2010; Rihan, 2012), and by protecting households from the negative impact of shocks and risks on their livelihoods. It then introduces VSL, a new form of intervention in CHT aiming to change the savings and investment behaviours of extreme poor Marma households. The third section describes the methodology adopted by the study and the research tools. The fourth section presents an analysis of the effects of the intervention on the financial

¹Chakma, Marma, Tripura, Khumi, Lusai, Pangkhoya, Khiyang, Mro, Tanchangya, Bawm, Chak

²Here shocks is referred as sudden and often unforeseen events

³ It is done cutting down and burning the vegetation. Cultivation is done by dibbling a small hole with a blunt knife and broadcasting. There is no irrigation, crops are fed by rainwater. This cultivation is known as swidden cultivation or shifting cultivation (locally called *Jhum*.)

behaviour of the extreme poor beneficiaries, and non-beneficiaries. The research finds that intervention of savings and loan association approach has significant effect on the saving and investment behaviours of the extreme poor Marma community.

2. Literature review

2.1 Access to financial services and poverty

A large number of studies emphasized the role access to financial services can play in the out-of-poverty graduation path. Notably microfinance related literature is copiously published on the benefits to poor households of financial services for poverty reduction, income growth, consumption smoothing, asset accumulation, reduction of vulnerability, ability to better adapt/cope with shocks, mitigating risks and improved well-being (schooling, nutrition) (Wilkes, 2005; Hashemi et al. 1996; Khandker, 1998; Montgomery et al. 1996). According to Versluysen, (1999) household income of families is far higher with than without access to credit. Zaman (1999) for example stated “Micro-credit contributes to mitigating a number of factors that contribute to vulnerability whereas the impact on income-poverty is a function of borrowing beyond a certain loan threshold and to a certain extent contingent on how poor the household is to start with.” Moreover, microfinance is thought to have facilitated the graduation of poor households through addressing their needs for credit, savings services, insurance, money management advice and financial planning.

Nevertheless, there is another stand in the literature that argues for savings and asset accumulation as possible poverty reduction strategies. For example Beverly (1997) classified this into four categories: 1) neoclassical economic; 2) psychological and sociological; 3) behavioral; and 4) institutional. According to Beverly (1997) neoclassical economic theories of saving are based on common assumptions. For example individuals are viewed as rational beings who seek to maximize pleasure and minimize pain, and individual utility is assumed to be a function of consumption. Second, to most mainstream economists, there is little difference between income and assets such as an individual’s saving behavior is expected to reflect her preferences for present versus deferred consumption and her income and wealth. Beverly (1997) also cited the two most well-known neoclassical theories of saving are the life cycle hypothesis and the permanent income hypothesis. Beverly (1997) argued that psychological and sociological theories of saving are grounded in the assumption that consumers’ tastes and aspirations are not fixed, but instead are affected by economic or social stimuli and conditions. Katona (1975), Cohen (1994) and Furnham(1985) acknowledge that consumers’ expectations and sentiments determine households’ willingness to save and that families, peers and past savings experiences affect people’s tendency to consume and save. Analysing financial behaviour therefore requires investigating complex psychological and sociological processes. The financial access of households plays, according to many, an important role in the well being of the families (Losby, 2008; Aportela, 1999) and on the contrary, the lack of access to standard savings accounts could force households to save using informal instruments (Rutherford1999).

Psychological theories in particular are frequently grounded in a stimulus-organism-response framework whereby change in the environment or information received is viewed as a stimulus which influences the individual and the response (Katona,1975). Economic psychologists examine how the effects of external stimuli on economic behavior are conditioned by intervening variables such as motives, aspirations, and expectations (Katona, 1975; Olander&Seipel, 1970; Strumpel, 1975; Van Raaij, 1989). Katona (1951; 1975) has posited that saving is a function of two sets of factors, ability to save and willingness to save. Shefrin & Thaler (1988) argued that according to behavioral theories individuals are expected to respond and even create their own behavioral incentives and constraints. The primary behavioral theory is the behavioral life-cycle hypothesis which is grounded in an “economic theory of self-control” (Thaler & Shefrin, 1981). Maital & Maital, (1994) argued that household saving is seen as “the result of the successful and sophisticated imposition of welfare-improving, self-imposed constraints on spending”.

They are part of a larger body of institutional theory emphasizing that societal institutions shape and give meaning to individual behavior (Gordon, 1980; Neale, 1987). Institutional theories of saving are grounded in the notion that individual and household saving is shaped by the institutional processes through which saving occurs. Beverly (1997) argued that existing theories did not provide a suitable explanation for saving and asset accumulation in low-income households. He criticizes that the weaknesses are apparent when these theories are applied to saving in low-income households and developed a model for understanding savings behaviours based on demographic variables (e.g., income, wealth, age, stage in the life cycle, education, race, employment status) and psychological variables (e.g., preferences, motives for saving, financial knowledge and understanding, expectations, rate of time preference). Sociological variables, (e.g., neighborhood quality, socialization and social learning, neighborhood characteristics, reference group norms), behavioral variables (consumption patterns, strategies of financial management) and institutional variables (e.g., financial education, rates of return, facilitation, and access to credit) affect saving; and those sociological and demographic variables predict institutional variables according to Beverly (1997). The model of savings has also been referred to individual model of savings. The factors influencing the saving and investment behavior of households are summarized in Table 1.

Table 1: Stages of Asset Accumulation and Types of Saving Strategies

| Stage of asset accumulation | Types of savings strategies | |
|-----------------------------|--|--|
| | Psychological | Behavioral |
| Reallocation | <ul style="list-style-type: none"> • Mentally focused on a saving or asset goal • Use mental accounting • Seek encouragement for saving | <ul style="list-style-type: none"> • Increase efficiency • Reduce consumption • Increase income • Sell assets • Increase debt • Postpone income in order to receive lump-sum payment • Monitor resource flows |
| Conversion | <ul style="list-style-type: none"> • View deposits into savings accounts as obligatory | <ul style="list-style-type: none"> • Make savings deposits first • Arrangement for automatic transfers to savings accounts • Store money informally |
| Maintenance | <ul style="list-style-type: none"> • Adopt simple rules regarding the uses of savings | <ul style="list-style-type: none"> • Choose financial services that increase the costs of withdrawals |

Source: Adapted from Losby, 2008

2.2 Poverty and lack of financial access in the CHT

The household incomes of the CHT rural people vary according to the season. Though Barkat et al., (2009) reported 35 different income sources of the rural CHT people, irrespective of ethnicity, almost all the CHT households have at least one agriculture-related income source. There are very limited permanent income sources on which the family can rely throughout the year. Jamaluddin et al., (2010) reported that the average monthly per capita per household income was estimated at taka 814 for all ethnic people which was higher than the non-ethnic (Tk.757). However, both the figures were lower than the national average in rural monthly per capita income (Tk.1246) HIES, (2007). He also found that major sources of income of ethnic communities came from *Jhum* farming, fruit gardening, day labouring, livestock rearing, weaving, and services. Mallick and Rafi's (2010) study reveals that ethnic minority female-headed households are more engaged in income generating activities than Bengali female-headed household. The livelihoods of Marma households are mainly based on agriculture and are mostly hill dwellers (ANZDEC, 2011). Though agriculture is the subsistence economy for ethnic minority people in CHT, the practices of agriculture are different from other parts of Bangladesh. The ethnic minority people are more likely to practice *Jhum* cultivation (swidden cultivation). In recent years the production of *Jhum* is reduced due to repeated and intensive use of land and the lack of rotation period between harvests. The period is now usually 2-3 years, despite the fact that the land requires 10-12 years to restore its fertility.

In relation to food security in CHT, Barkat et.al (2009) reported that given average per capita daily energy intake of the ethnic minority communities at 1762 k.cal according to direct calorie intake (DCI) method, 36% are hardcore poor (below 1805 k.cal). However, Jamaluddin et.al (2010) found that the average calorie intake was estimated at 2051 k.cal for ethnic communities in CHT, which was lower than the national average of 2238.5 k.cal (BBS, 2007a). Jamaluddin (2010) also found that for ethnic minority people in CHT, 24.5% of households possessed high, 36.7% moderate and 38.9% low level of food insecurity. He also found that 32.8% of ethnic minority people felt little anxiety about the next meal, 32.0% sometimes worried, 24.0% often and 12.5% were always worried about their next meal.

Access to microfinance or other mainstream banking services is not widely spread across the CHT. Thus, it is necessary to study the savings and investment behavior of extreme poor ethnic minority households' to understand how these communities could use such services to improve (or at least sustain) their livelihoods and resilience building. Regarding savings, Barkat et.al., (2009) found that only 6% of the CHT households (4% Ethnic minority and 8% Bengali households) save money in banks and post offices, which indicates low access of CHT people to formal savings institutions. Rahman (2011) found that ethnic minority people in the Chittagong Hill Tracts do not take loans and do not seek loans from the formal or informal financial institutions, instead preferring to combat poverty and hardship using their local resources. He also stated that ethnic minority people seek out loans only when they are in dire need and do not have any food and cash. Is it low income or lack of mobility that causes ethnic minority people not to save money or take loans from the formal or informal banking sector?

There are several microfinance organizations operating in the CHT despite the presence of formal banks. The notable microfinance organizations are BRAC, Grameen Bank, Integrated Development Foundation (IDF) and Association of Social Advancement (ASA). The study of Barkat et al (2009) also concluded that access to credit was easier for Bengali people than ethnic minority people. He found that 54% of Bengalis have access to formal forms of credit (from formal banks and microfinance NGOs) against 47% of ethnic minority people in CHT, although these findings are not focused on the extreme poor. However, Jamaluddin et.al (2010) found that 47.4% ethnic households received micro credit only for agricultural purposes, while 40% of non-ethnic households received micro credit. He also concluded that lack of cash and limited working opportunities were the main causes of food insecurity. Bala et.al (2010) studied the micro credit status in 27 villages of the Hill Tracts of Chittagong. He found that above 50% of the farmers do not receive any type of micro credit for their agricultural activities. He also concludes that the overall coverage of formal micro credit is low in CHT. The percentage of formal micro credit is the highest in Rangamati (33.22%), followed by Khagrachhari (29.85%) and Bandarban (22.61%). On the other hand, percentage of informal micro credit is the highest in Bandarban (18.50%) followed by Rangamati (13.39%) and Khagrachhari (7.22%).

As a result of the lack of access to formal forms of credit and limited access to informal sources of credit, there is no clear understanding of how extreme poor ethnic minority households in the CHT can cope with shocks. A study by Jamaluddin et al. (2010) found that ethnic minority people practice different types coping strategies for consumption purposes. These include: less expensive foods everyday (30.5%)

and sometimes (50.4%), borrowing food (16.5% everyday, 49.3% sometimes), purchasing food on credit (15.9% everyday, 42.8% sometimes), harvest immature crops (5.8% everyday, 29.1% sometimes), consumed seed stock (16.5% everyday, 49.3% sometimes), cut quantity of food per meal (12.8% everyday, 37.2% sometimes), adults took less food (12.8% everyday, 37.5% sometimes), reduced number of meals taken (8.6% everyday, 34.4% sometimes). The other non-consumption coping strategies were taking loan (35.9%), selling of bamboo (29.2%) and selling of fire wood (28.4%). However the study was not fully focused on extreme poor ethnic minority households.

2.3 Village savings and loan association: a rural financial access

The Village Savings and Loan (VSL) model has been defined as self-managed and self-capitalised microfinance methodology⁴. According to Allen (2002) VSL is a community-based organisation that pools member savings into funds from which members can borrow, it offers savings, insurance and credit services. VSLAs provide loans usually short-term (1-6 months) that are repaid with interest. The duration of VSLAs is usually one year and all the money in the loan fund is distributed amongst the members which is between 5 and 30 (Allen, 2002). Many reports praise the positive impact of VSLs in mainland Bangladesh (where income opportunities and credit availability are reasonably good) and in more vulnerable context (such as with CLP⁵ beneficiaries on the *chars* where income opportunities and credit availability are very poor)(Allen2002; Rihan 2012; Anyango 2006; Panetta 2009).

Green Hill runs two innovative projects in the Chittagong Hill Tracts, one focusing on “Improving Markets and Poverty Alleviation through Cash Transfer (IMPACT)” project running since 2009 with the support of the Government of Bangladesh, UKAid and Shiree (www.shiree.org). A total of 1,200 extreme poor ethnic minority people are included of which 77.93% are male headed and 22.07% female headed. The average family size is 4.1. The other project is entitled “Poverty Reduction through Agricultural Sustainable Advancement Knowledge Transfer and Insurance (PRASAKTI)” running since 2011 with 1300 beneficiaries. The IMPACT project utilizes a Conditional Cash Transfer (CCT) approach, providing cash to extreme poor households (HHs), to help them meet their basic needs for livelihoods activities, healthcare and nutrition. Providing CCTs also enables them to overcome the stress of having debts and to focus on agricultural crop production. The CCT also covers the opportunity cost of attending project training and participation in project activities by providing a stipend/cash equal to income lost due to foregoing daily labour. To maximise new income opportunities for target HHs, Green Hill used the services of International Development Enterprise (IDE) to assist participants/groups in identifying high value crop production opportunities, forming cluster groups and linking of other extreme poor HHs to markets. Green Hill (GH), with the technical assistance of IDE, worked with communities to establish 3-5 market collection points to act as temporary markets and as a link to local input suppliers and output purchasers.

⁴ The model was developed by CARE International in Niger in 1991 and has spread to at least 61 countries in Africa, Asia and Latin America

⁵ See more at <http://www.clp-bangladesh.org/index.php>

While running the IMPACT project, Green Hill conducted need assessments with the project beneficiaries in October 2011 and identified that there was a complete lack of any savings mechanism. Further Green Hill observed that the sustainability of the intervention was potentially undermined, as beneficiary households (BHHs) were less resistant to shocks (other than selling their assets) and had less ability to save money for reinvestment. For example, beneficiaries were either forced to directly reinvest all their money or keep it in unsafe boxes.

Therefore, PRASAKTI project focuses on a combination of cash transfer (to satisfy primary needs as well as providing cash for investment in income generating activities (IGAs)) and access to community financial services. The main features of the project are to develop community-led savings and insurance groups called VSL (Village Savings and Loans) associations. The Green Hill strategy is to sustain the impact of cash transfer through VSL activities. The VSL methodology involves:

- BHHs form the savings group. After all input support from the project, each group has a written constitution and clear rules
- Each group member has a savings passbook where they record their share and loan amount
- They save money on a fortnightly basis. The minimum saving is Tk. 20. The saving (share) amount is determined by the group member after completion of one cycle
- One member can buy up to five shares per meeting
- The share amount is deposited in a metal box which has three locks. The keys are kept with three different members. They also have three different kinds (blue, yellow and green) of bags. These, together with all passbooks, calculator, stamp pad, stamp and pen, are finally kept in the box.
- Members can withdraw cash on a fortnightly basis as per their needs.
- Small loans are made from the VSL cash pot (for investment or other reasons), at a low interest rate (5-10%). The actual interest size is determined by the group members.
- Members can withdraw interest free loans from the VSL social fund in case of crisis or emergency
- This community insurance system is vital to ensure that IGAs can be sustained despite shocks.
- Interest is earned at the end of the year, when profits (from loans) are paid out.

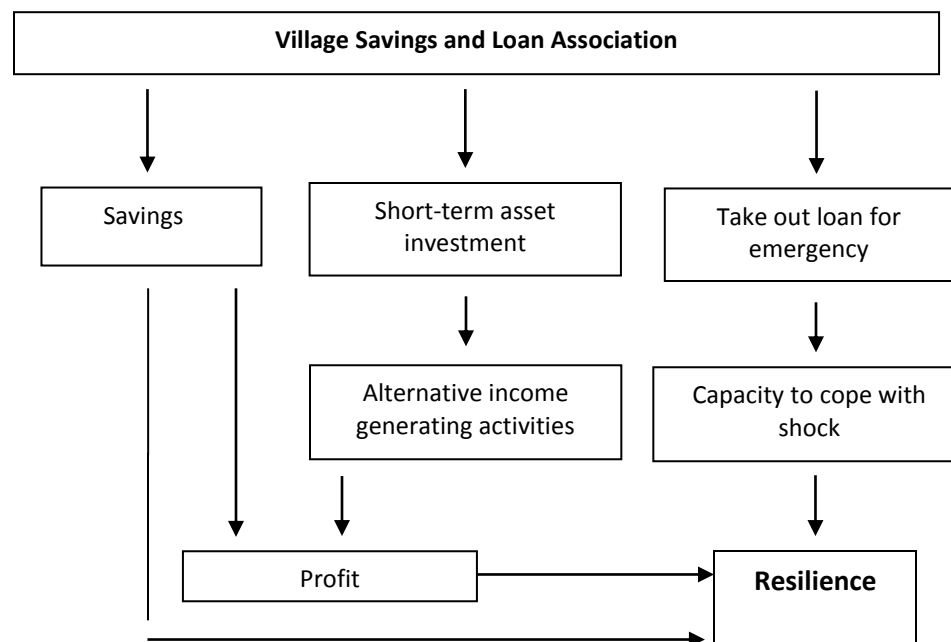
This system has been developed for extreme poor people in CHT to secure the gains earned from IGA activities in the longer-term. Detailed VSL methodology can be found in Annex-1.

2.4 Conceptual framework

The literature suggests that financial services can play a significant role in improving poor households' well-being through loans, savings and investments. The application of Village Saving and Loan Association approach is one kind of approach that helps people save money and utilize the opportunities created by savings and profits to cope with shocks and build resilience by diversifying income sources. This diversification enhances confidence among poor households as it reduces their vulnerability and dependency. In this study, resilience refers to the potential of a system to remain in a

particular configuration and to maintain its feedbacks and functions, and involves the ability of the system to reorganize following disturbance-driven change” Walker et al. (2002). The conceptual framework (Figure 1) illustrates this:

Figure 1: Conceptual framework: building resilience of extreme poor Marma community households through Village Savings and Loan Association



Source: The author

3. Methodology

The methodology adopted by the research addressed the main research question: Is village savings and loan association intervention changing the behaviors of extreme poor Marma community households in terms of savings and asset investment? The study addressed three main objectives:

1. To understand the previous savings and investment behaviours of extreme poor Marma community
2. To explore extreme poor Marma household’s behavioural changes in terms of savings and asset investments after intervention of the village savings and loan association
3. To understand the impacts on savings and asset investment behaviours to build up household’s resilience of extreme poor Marma community

The study mainly relies on primary data collection, which was qualitative and in-depth in nature and secondary data collected on previous socio-economic study in the Chittagong Hill Tract and

ShireeCMS2⁶monthly mobile phone survey data (mainly savings, loan and income). CMS-2 is a survey carried out every month by Green Hill (GH⁷) field staff on the beneficiaries. The answers are self-reported levels of change in household characteristics by beneficiaries. The questions and answers within CMS-2 are designed to be simple and intuitive, and whilst not giving a detailed account of changes (e.g. precise level of savings, etc) it does provide useful evidence of small but significant change (e.g. whether savings have increased or decreased, etc). The results of CMS-2 are available via a visualization tool. The results are disaggregated to only include Marma community beneficiaries. It should be noted that CMS-2 relies entirely on beneficiaries' self reporting of answers – whilst this means that the results of CMS-2 paint an accurate picture, it is also possible that some people may not be reporting the whole truth or potentially under or over reporting. Such cases shall be explained further.

The researcher conducted 8 focus group discussions (FGDs) with 6 to 8 respondents. Four focus groups were conducted with households in Bandarban district and other four focus groups were held with households in Rangamati. The participants were Green Hill (GH) beneficiary household heads (both men and female-headed households). Because of the remoteness and spatial spread of the villages in this particular region, participants were also selected according to the distance from one another. Selecting neighbours and nearby households facilitated data collection and provided useful information regarding peer savings practices within communities. To understand the in-depth intervention impacts 16 respondents were selected from the eight FGDs. The interviews allowed collection of important information regarding the different forms of savings (personal savings, institutional savings, and asset investments). Challenges to accessing certain types of savings, investments and networks were covered (reliability, intention, mobility). The number of interviews were equally spread between male headed (8) and female headed (8) households. The researcher also conducted 6 Key Informant Interviews with local opinion leaders and village *Karbari*, *Headmen*, Union Parishad (UP) chairman who are connected with the studied communities. They were important informants because of their leadership position in the village. We also observed differences of extreme poor Marma community savings and investment behaviours both in Rangamati and Bandarban district in terms of distances.

The study was conducted with Green Hill (GH) beneficiaries of both IMPACT and PRASAKTI project under Bandarban Sadar Upazila of Bandarban Hill District and Kaptai Upazila of Rangamati Hill District from July 2013 to September 2013. The data analysis started during the data collection process, and early findings had been documented. The collected information was compiled using narrative methods for the case studies and other qualitative information.

⁶Change Monitoring System a real time monthly snapshot. Details can be found at: <http://www.shiree.org/extreme-poverty-monitor/cms-2-monthly-snapshot>

⁷ A national NGO in Bangladesh, mostly based on Chittagong Hill Tracts

4. Data analysis

The study found that the intervention had an impact on beneficiary households' financial behaviour which had an effect on their levels of savings and investment which, in turn, had a significant effect on their resilience building process. The majority of the beneficiary reported that they stopped taking loan from moneylenders with high interest (120% or above) or selling productive assets during the crisis period. Beneficiaries take loans with minimum interest (5%) during the crisis period, save income in the VSL accounts and also invest their savings in various income generating activities. Besides, the study identifies that VSL has positive effects on non-beneficiaries. Non-beneficiary extreme poor households were included in VSL account for financial access and insurance. The notable impacts of savings and investment behaviours on extreme poor Marma community people is analysed below.

4.1 Impacts on beneficiaries' savings

By tradition, ethnic community people did not save cash money and relied on their day to day or week to week earning. They had sufficient financial return on their production and *Jhum* cultivation in the hills and had no need to buy/borrow food from others except after accidents such as animal attacks (mostly wild boars, elephants and rodents) or after heavy rainfall/landslides. They maintained their lives in the village by mutual understanding with each other and most villages formed with their clans and relatives from the same ethnic group. When a certain family faced shocks (such as ill health or death) they helped each other. Due to such livelihood practices most of the people did not have savings tendencies - neither individual nor collective.

Furthermore, they did not save because of lack of education (including financial), access to credit, lack of communication/information and lack of awareness. A Union Parishad⁸ (UP) member said, "our ethnic CHT people- not only Marma, Chakma, Tripura, but other ethnic minority groups are isolated from the different government services. They always waited for their traditional cultivation rather than other income generating activities". Here, he emphasizes on the lack of education and lack of technological knowledge and exclusion from government services resulting in some ethnic groups living in greater isolation and poverty.

The evidence gathered shows that the VSL significantly impacts beneficiaries' savings behaviour. For example, Thoaiangpara and Choiratongpara VSL groups shows the savings and loan pattern of extreme poor Marma community people over the period (Figure 2). Thoaiangpara had already completed 2 cycles of group savings. On the other hand, Choiratongpara BHHs are still continuing their VSL group savings. The figure 3 shows four VSL groups (PRASAKTI project) savings and loan pattern over the period. CMS2⁹ data shows seasonal variation of savings pattern of extreme poor Marma community people. The responses given by beneficiaries in CMS-2 are entirely self-reported. In November 2013, 731 beneficiaries reported their monthly savings pattern. Of them 9.17% of beneficiaries reported a fast

⁸ Smallest rural administrative and local government unit in Bangladesh

⁹ Monthly mobile phone monitoring data of Marma community beneficiaries' savings using self-reported responses from CMS-2

increase in cash savings, 71.13% of BHHs reported a little increase in cash savings and 19.15% of beneficiaries reported that cash savings remained the same and 0.55% of beneficiaries reported that cash savings had been falling a little (Figure 4).

VSL savings acts to beneficiaries as insurance. For example, Utaimong, a beneficiary of IMPACT project, before entering the project had to take loan from moneylenders of both Bengali and Marma community for agricultural production and to buy agricultural inputs. After entering the project, he saved money and took loan from the VSL group. He received 3,000 Taka after the end of the first year of VSL savings, a security for next year cultivation and investment. This savings behavior of the extreme poor Marma household mitigated their mental stress (where to get money during times of crisis) and built households resilience.

Figure 2: Savings and loan status of Thoiaiaungpara (n=20) and Choiratongpara (n=16) VSL association over the period. The BHHs are from IMPACT project.

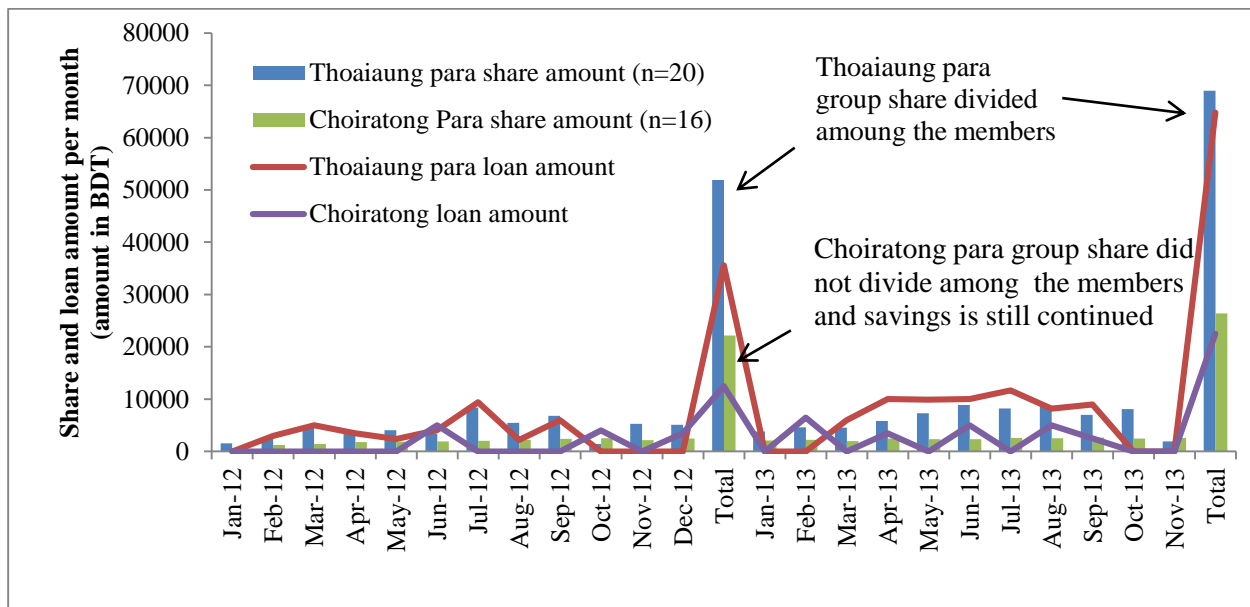


Figure 3: The studied PRASAKTI project VSL associations' savings and loan status from January to November-2013)

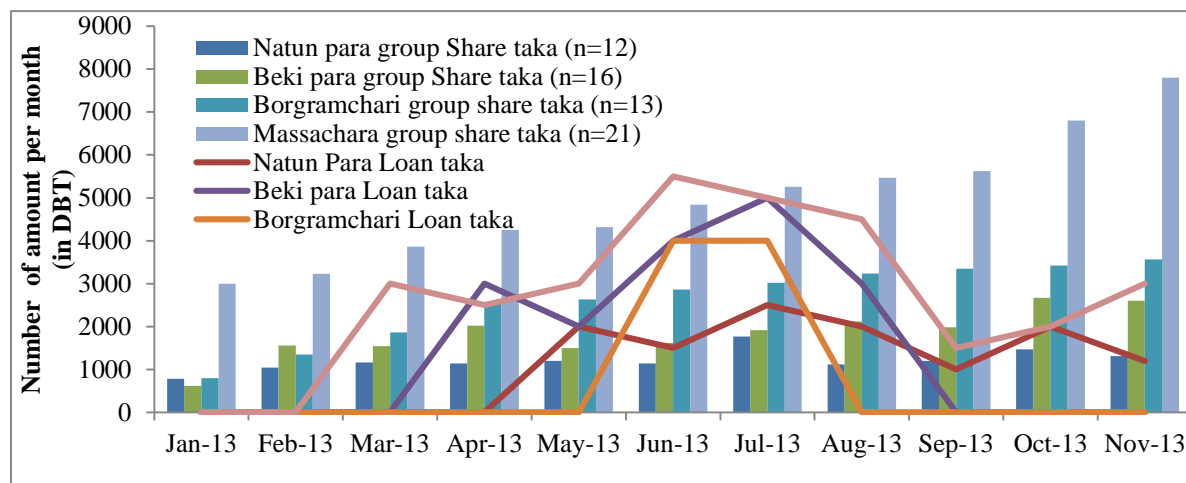
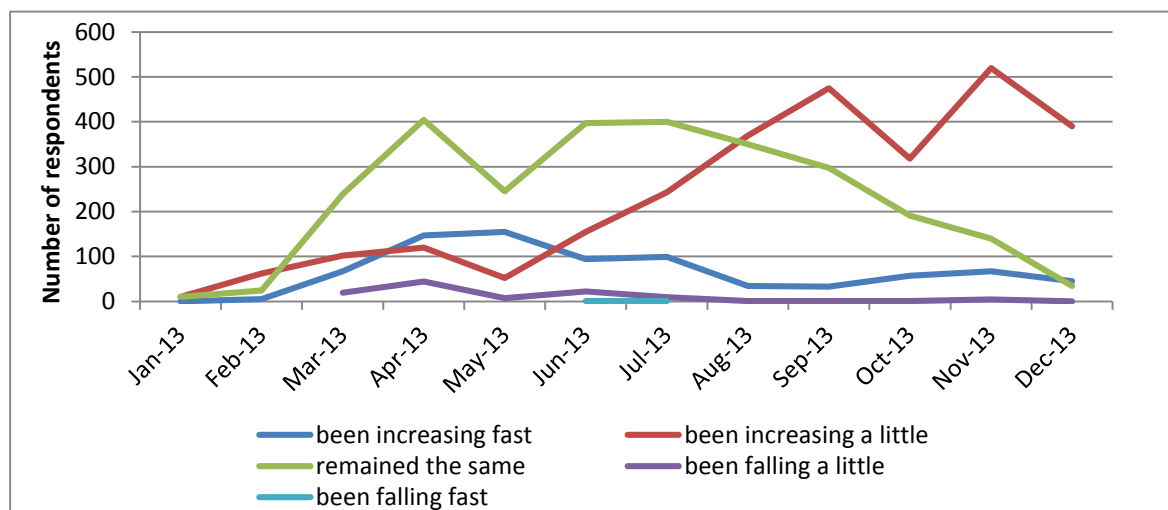


Figure 4: Monthly change in household's savings pattern of extreme poor Marma community over the period according to CMS2¹⁰ data

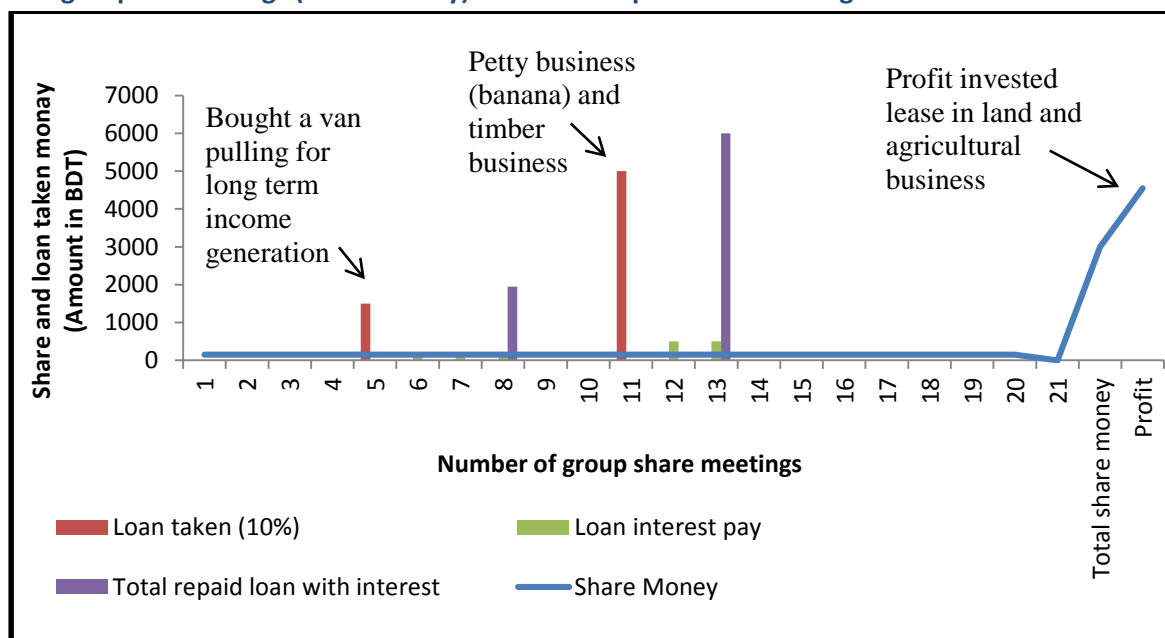


Respondents explained that group savings incentivised members to save money because beneficiaries would meet regularly and put money in the account while sitting in the meeting. They also explained during the FGD discussion (with Thoiaungpara beneficiaries) that individual's savings were not sustainable in the long run because members tended to spend money too easily. As an example, Figure

¹⁰The responses given by beneficiaries in CMS-2 are entirely self-reported. The question asked in the CMS-2 regarding saving is “what has happened to the total level of cash savings [in your household]?” The possible range of answers in this multiple choice questions is: been increasing fast, been increasing a little, remained the same, been falling a little, or been falling fast. Beneficiaries say the answer that best reflects what has happened to their savings from these responses.

5 shows Nithai Ching Marma’s individual savings and loan taken from Thoiaungpara VSL group (here the percentage of loan amount is 10 Tk.). In 2012 his total share amount was Tk. 1880 but received Tk. 2994 (with profit) after completing the one year cycle. That time the minimum share was 20 Tk. and maximum was 100 Tk. per sitting. Again in 2013 he bought a share which was a total of Tk. 3000 but received Tk. 4550 (with profit) after division of the group share among the members. In 2013 the minimum share was 30 Tk. and maximum was 150 Tk.

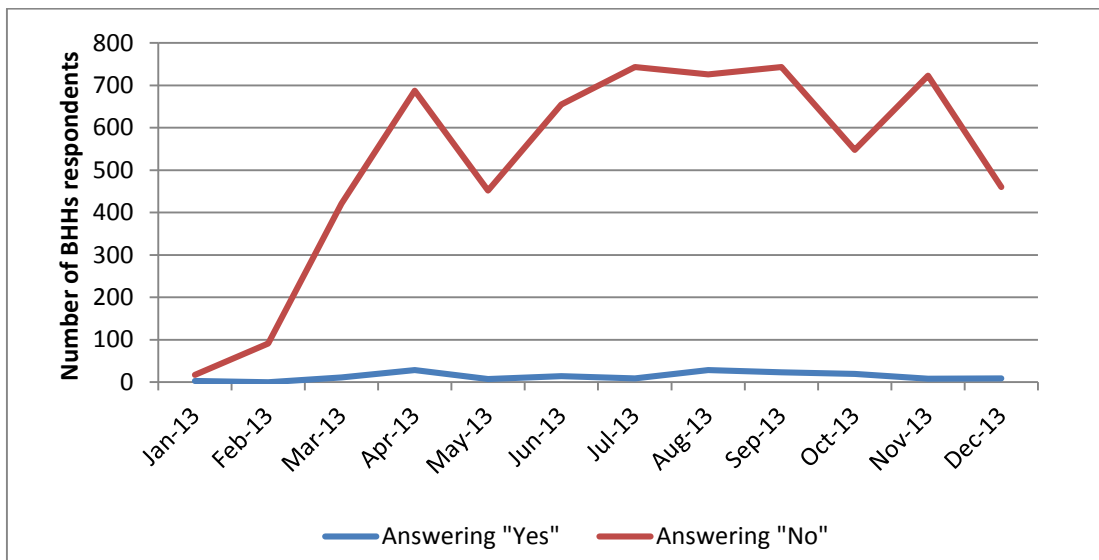
Figure 5: Salient features of Nithuai Ching’s individual savings (share money) and loan taken from the VSL group. The savings (share money) was 30 Taka per share meeting.



Furthermore, the data collected from the different groups in different study sites suggests that savings helps the extreme poor cope with illness, crisis/lean period and prevent them from advance selling of productive assets/household assets or taking high interest loans from the money lenders. For example, Saching Marma from Kalamassapara said he took a loan worth 1,000 Tk. from Bengali moneylenders for his children’s medical treatment before intervention of the project. He reported paying 1500 Tk. to the money lender within three months which equals approximately 100% interest on the loan, compared to the VSL group loan interest rate which is only 5% per month. Sucraching Marma, a PRASAKTI beneficiary took a loan worth 1500 Tk. from the VSL group accounts for temptation of good consumption as well as poultry rearing. Within the three months she repaid about 1725Tk. with interest. Further FGD participants from Thowaiungpara said that, “Previously there were no savings systems in the society. Now we save money in the VSL accounts, take loan during the crisis period and invest in larger IGAs”. The above findings indicate that this change in the savings behaviour of extreme poor Marma people had significantly improved their capacity to cope with shocks and to invest in income generating activities to maintain and build their resilience.

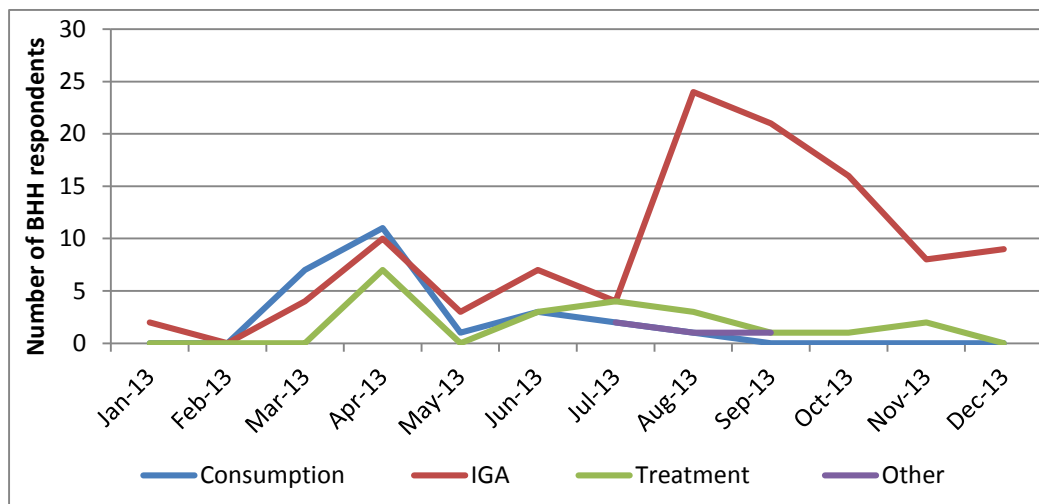
According to the project report about 31% (on average) of all BHHs had taken loan from the VSL groups from January to December 2013. Out of 31%, about 18% of Marma beneficiaries had taken loan from the VSL loan. On the other hand, CMS2¹¹ data shows quite low - approximately between 2-4% (on average) of all Marma beneficiaries who had said they took a loan outside of the VSL loan (Figure 6). The beneficiaries who had taken loan outside the VSL groups had utilized loan for different purposes according to CMS2 survey (Figure 7). There may be a pattern of seasonal variation, since there is some observational change from the responses given for reason for taking a loan: income generating activities (IGA), consumption, treatment and other. The result seems that extreme poor ethnic minority BHHs prefer VSL loan than outside loan such as microfinance and moneylenders.

Figure 6: Month-wise loan taken by extreme poor Marma community BHHs over the period. The question asked in the CMS-2 regarding loan taken is “did you take out any loans over the last month?” The possible range of answers in this multiple-choice question is “Yes” or “No”.



¹¹ CMS2 data shows self-reported responses for type of loan taken for all those beneficiaries who positively reported that they had taken a loan outside the VSL groups.

Figure 7: Reason for loan taken by the extreme poor Marma community people (CMS2) those beneficiaries who positively reported that they had taken a loan outside the VSL groups¹²



4.2 Intervention’s impact on beneficiaries livelihoods and income

The data collected also suggests that the intervention had a significant impact in increasing beneficiaries’ number of income sources. For example, ThuiuangMarma, a PRASAKTI project beneficiary said that previously he only relied on traditional cultivation and often faced food insecurity in the month of May to August. Barkat et.al, (2009) study also found that Ashar(June-July) and *Sravan* (July-Aug) are the food insecure months in CHT. After intervention he received both training and cash which he used to cultivate both traditional crops and other new variety of crops (long bean, Comilla arum) for income generation in the *Jhum* field. He also cultivated winter vegetables such as potato, radish and cucumber in another field. As a result his income source has increased. Our CMS2 data also shows seasonal variation of number of income sources of extreme poor Marma community people. For example, in March 2013, a total of 427 beneficiaries reported their number of income sources in which about 0.23% beneficiaries reported having five or more sources, 3.98% reported four sources, 12.65% reported three sources, 42.86 % reported two sources and finally 40.28% reported one source of income (Figure 7). Contrary in November 2013, a total of 601 beneficiaries reported their number of income sources in which about 0.83% beneficiaries reported having five or more sources, 27.13% reported four sources, 44.76%reported three sources, 27.29%reported two sources and finally 0% reported one source of

¹²The question asked in the CMS-2 is “Select reason loan was taken for [select all that apply]?” The possible range of answers in these multiple choice questions is: Consumption, IGA, Treatment, dowry, repayment of other loan and other. Beneficiaries say the answer that best reflects what has happened to their reason for loan from these responses.

income (Figure 7). So CMS-2 data shows that most Marma beneficiaries now have a greater number of income sources. Figure 8 also shows income changes of extreme poor Marma community people over the period.

Figure 8: Month-wise number of income sources reported by the extreme poor Marma community people (CMS2). The question asked in the CMS-2 regarding number of income source was: How many sources of income does the household have?

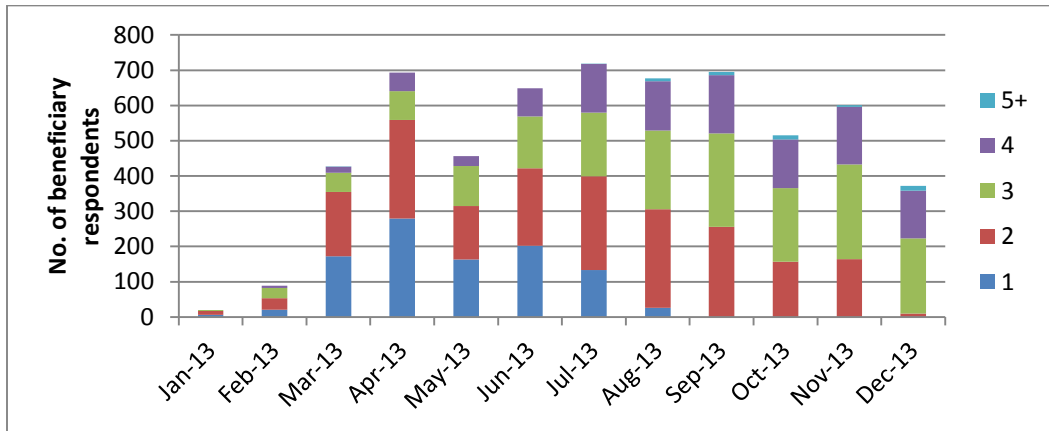
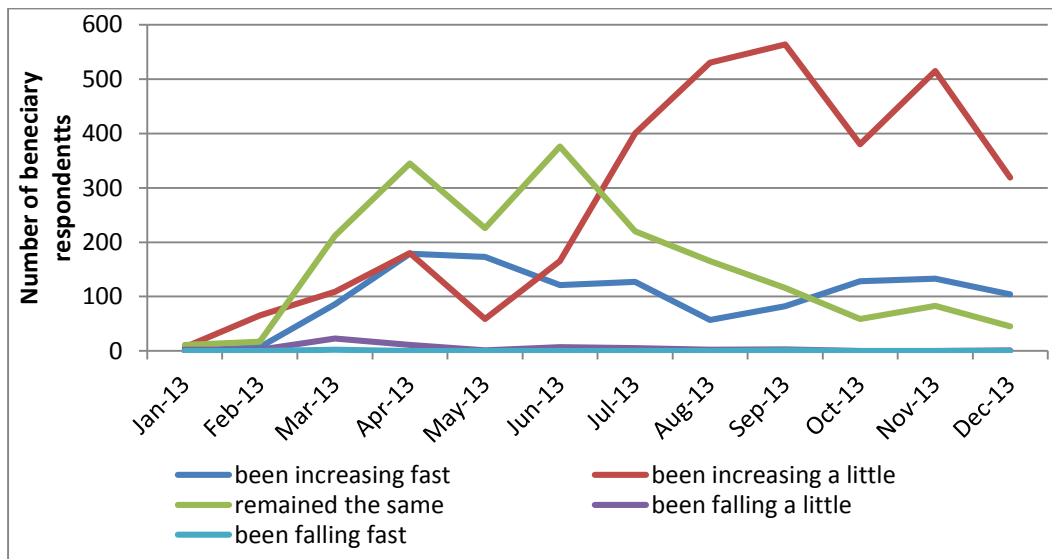


Figure 9: Month-wise income changes of extreme poor Marma community households (CMS2 data)¹³



¹³All beneficiaries are asked the question: What has been happening to your household income from all sources over the previous month? The possible choice of answers is: been increasing fast, been increasing a little, remained the same, been decreasing a little, or been decreasing fast.

The intervention had also contributed to reduce the level of dependency of extreme poor beneficiaries on larger vegetable buyers. It was commonly reported that selling their production was one major barrier faced by extreme poor households in the CHTs. Middleman (mostly Bengalis) dominates the whole trading system in the CHTs. To overcome the problematic situation, the project facilitated linkage with buyers and input providers such as LalTeer and ACI Seeds Company (Green Hill lesson learning report). Beneficiaries adopted different strategies to cope with the product selling barriers beyond project intervention such as banana and turmeric selling. FGD participants from Thowaiangpara said that bananas are sold in the village level to the village middleman and farmers received money on daily and weekly basis. Then the village middleman goes to the market after communicating with the buyers on weekly market days. For turmeric selling, farmers stored the products in the household and then communicated and negotiated with the buyers for selling their products. Income earned is used for household needs and savings. These systems adopted by the extreme poor households allow simultaneous income earning and savings in VSL group accounts and assist in building households' resilience.

For example Abey Marma, aged 32, a beneficiary of IMPACT project, is acting as village middleman for product selling in the village of Thowaiangpara. He started his middleman business when he saved money in the group savings and received a lump-sum amount of money (about 3000 Taka). He stores the banana bunches in the house bought from the farmers, both project beneficiaries and non-beneficiaries, in advance on a daily basis. Then he goes to the market for selling the banana bunches. He pays about 100 Taka per banana bunch from the farmers then he sells them at about 115 to 120 Taka to the buyers in the market. Farmers sell their banana bunches to him because they received money on a daily basis without going to the market. Another advantage of the product selling is to reduce transportation cost and to save time (less having to wait for buyers). However, Abey Marma has better leadership abilities and market networks than other beneficiaries because as he completed his primary education, he has the ability to speak in Bengali and hence, can negotiate with the Bengali buyers. However, he ensured the farmers' demands were also met.

Mostly, farmers practice such kind of product selling which requires high transportation costs and non-perishable goods. Some other crops such as chilies and vegetables are sold directly in the market to local wholesalers and consumers. Similar type of product selling has also been observed in the village of Rojar Para under Bandarban district. Although the para is situated at a long distance (about 15 km away) from the Upazila sadar, the Para has good transportation and product trading facilities for buyers who come from outside of CHT. For example, Ubong Marma collects the beneficiary's beans, cucumbers and different kinds of vegetables from the village and buys beneficiaries' products. Then he stores the products near the roadside to handover to the buyers and receives a total amount for the products. He receives a profit of one Taka per kg from the buyers.

The main findings highlighted above emphasize that the intervention has some major short-term and more importantly, long-term implications on the capacity of households in the CHT to anticipate shocks, invest in income generating activities and negotiate more advantageous terms for vegetable trade. These factors contribute to building the long-term resilience of beneficiary households. For example,

during an interview with Uwangsangthui Marma (female) from Thowaingyapara, she said that she planted around 300 banana plants and 200 mango saplings for long term income generation after getting profit from the VSL groups. Furthermore, she said that before the intervention of the project she cultivated limited crops mainly for household purposes and limited products that could be sold. After intervention she cultivated larger scale commercial products like turmeric and is also rearing poultry. Hlanue Marma from Rowajapara said that he invested 6,000 Taka to hire plain land for the production of rice and commercial vegetables garden. FGD discussion participants said that they invested their income in several income-generating activities such as poultry, duck and pig rearing as short-term income generating activities which helped them for short-term resilience.

Most importantly, the intervention has a direct impact on children's education. Now extreme poor Marma people are educating their children. During FGD discussion in Thoaiaungpara, beneficiaries said that previously they were not aware of children's education. Mostly children went to crop cultivation along with their parents. However, they did not have enough money for bearing children's educational costs like tuition fee. Although intervention subsidizes children's educational purposes for one year, now their children regularly go to school. For example, Thuimonu, an IMPACT beneficiary, receive education support for his two children for one year in 2010 and now both children are continuing school.

The VSL groups are now empowered to operate and able to take good initiatives for long-term investment and well-being. The studied VSL group had taken different initiatives for their VSL proceeds. However, some VSL groups are continuing in the long run until they reach higher expected amounts, for example, Choiratong and Tarabonnya VSL groups. Thus, Choiratong VSL group reported that they have a plan to buy a jeep for long-term income generation as well as product trading; while Tarabonnye VSL group will buy an engine boat for the same reason. During the FGD discussion with Tarabonnye VSL group, they said that they had to hire a boat with a large amount of money from others; and sometimes they could not hire a boat during the peak season of trading. As a result, they are deprived of getting a fair price for their produce. Now they have 141,296 Tk. in their VSL account up to November 2013. Some other groups have divided their VSL amounts among the group members after completion of a year and proceeded to run VSL functions again the following year, such as Thoaiaung VSL group. These finding suggest that the project intervention builds resilience of beneficiaries through enhanced financial access.

The study also found that for the villages situated far from the upazila sadar, there were no significant differences in the savings behavior of extreme poor Marma community members in comparison to savings in villages situated at a comparatively shorter distance (Table-2). Savings were increased based on number of meetings held and number of savings group members. How much money was given to the members as loan also varied the group savings amount. It seems that extreme poor beneficiaries were accepting the savings system to meet their dire need of savings.

The studied savings groups of Rangamati district have more long-term savings and investment behaviors than Bandarban district. For example, Choiratong and Tarabonnye savings groups are still continuing their savings accounts after one year for achieving bigger lump sums with a view to invest in the future.

Table 3: Comparison of studied village savings and loan associations (VSLA) between Bandarban and Rangamati district with regard to savings status

| Studied VSL groups | Total beneficiary | Total savings (share) amount in BDT* | Total meetings held | District |
|----------------------------|-------------------|--------------------------------------|---------------------|-----------|
| Rojar para ¹ | 10 | 9,365 | 9 | Bandarban |
| Thoiaung para ¹ | 20 | 76,920 | 22 | Bandarban |
| Natun Para ² | 12 | 13,330 | 11 | Bandarban |
| Beki Para ² | 15 | 20,150 | 19 | Bandarban |
| Massachara ³ | 21 | 40,300 | 21 | Rangamati |
| Choiratong ¹ | 16 | 48,535 | 33 | Rangamati |
| Tarabonnye ³ | 41 | 141,296 | 35 | Rangamati |
| Borgramchari ³ | 13 | 28,660 | 22 | Rangamati |

* The VSL amount has been presented up November 2013 after establishment

¹ The distance from the upazilasadar is about 12-15km away, good transportation facilities

² The distance from the upazilasadar is about 10-12km away, transportation is not good

³ The distance from the upazilasadar is 8-10km away; road access is not good, mostly hilly terrain

4.4 Impacts on non-beneficiaries and on the community

The intervention also had some positive effects on non-project beneficiaries. Non-beneficiaries benefit from the presence of the groups in the villages because they are sometimes accepted by beneficiaries to be a VSL member. For non-beneficiaries the VSL is more attractive for the extreme poor than MFI loans, according to what they report, because VSLs are more flexible and less expensive. For example, in Thoiaung Para, total VSL members are 17. Out of them, nine are non-beneficiaries. A Green Hill beneficiary FGD participant said: *“we included the non-beneficiary in our VSL group with the consent of all members, because we know every person in the village who are good and who are not, they are also struggling to save money”*.

Interviews with non-beneficiary, Mongnuching Marma, reported that the savings and loan system is good for the poor people who *“have no formal or informal access to finance”*. Further, he said that two microcredit organizations are working in the village but their savings and loan systems are complicated and come with high interests. On the other hand, the VSL system is simple and self-operated by the local community, which allows them to be more flexible and understanding in case of adverse situations. The non-beneficiaries did not receive any assets or cash from the project. They were only included to save money and take loans from the VSL association for income generating activities.

The data collected also reports that non-beneficiary households within the community reproduced the VSL savings group structure informally. For example, Rojarpara, under Bandarban district has

established a savings group after observing the Green Hill VSL group activities. During discussion, beneficiaries said that previously there was no system existing in the village. Not only are the extreme poor struggling to save but other village members also have the same type of problems due to lack of financial access. Now both Green Hill beneficiaries and other savings groups adapted to group savings to mitigate the stress and shocks during crisis periods. This can be an indication that the VSL suits the livelihood need of the extreme poor households living in this region of Bangladesh.

In fact, one could argue that the change in savings behavior of the beneficiaries influenced the community's perception and attitude toward saving. The local community leader Mongshui from Thowaiangpara said: *"The extreme poor Marma people in this village have adopted VSL system rapidly and it has been observed that the extreme poor are donating during the religious functions and taking part in the decision making process in of the society"*. Further, he said that sudden shocks (such as death of a family member or relatives) need immediate money for funerals or performing other religious rituals. This savings behaviour helps the extreme poor Marma people to mitigate such shocks. FGD participants from Choiratong said that neighbours are also influenced to save more, as they are observing extreme poor neighbours who save tend to accumulate more assets and increase food consumption. So, the intervention not only changes the individual's savings behaviors, but also indirectly influences the neighbours.

5. Conclusion

The evidence gathered for this study and presented in this paper showed how the geographic condition and economic vulnerability of extreme poor ethnic minority people in the Chittagong Hill Tracts constraints their financial behavior. More specifically, it investigated the effects of group savings and loan association model on the resilience of the extreme poor. This study demonstrated how a VSL intervention can have significant effects on the financial behaviour of extreme poor Marma and can contribute to building their resilience to shocks. This intervention appeared effective in CHT because most of the areas are remote and generally excluded from financial services (Government and MFIs). VSL has had similar success all over the world specially Africa and Asia (Allen 2002; Allen, et. al., 2010; Rihan 2012; Anyango, 2006). This VSL system is based on mutual trust and social cohesion within the community which facilitates financial transactions. This intervention helps the extreme poor people to overcome crisis such as illness and food shortage by taking loans with minimum interests. It also prevents beneficiaries from taking loans from moneylenders with high interest rates. The other positive impact on savings is the asset investment where the beneficiary receives regular income when they have the opportunity to access big lump sums for productive investments, and insurance (savings). The information collected also suggests that this model may have positive spillover effects on the financial literacy and behavior of non-beneficiaries. Indirect awareness and educational effects on non-beneficiary households regarding the importance of savings led them to reproduce the VSL model informally. Perceptions and attitudes seem to have been transformed which has the potential to positively affect the resilience of extreme poor Marma communities.

The research findings speak to and contribute to the debates on resilience building of extreme poor households. This paper presented considerable evidence that the resilience of the extreme poor could be enhanced through flexible and community-based financial products which allow them to put in place anticipation measures to help overcome the shocks and hazards they experience and to invest in income generating activities. Although VSLA has an impact on BHHs resilience, however, it is not necessarily focused on graduation. VSLA is used for families to maintain stable well-being and be more resilient to shocks. It, however, according to the data, does not lead to graduation. One of the main limits of the study is that it cannot capture the longer-term effects or inter-generational effects of the intervention.

That access to financial services by poor people can play an important role in the “out of poverty graduation path” is well documented. Rutherford (1999) argued that “poor people can save and want to save, and when they do not save it is because of lack of opportunity rather than lack of capacity”. Extreme poor people need such systems where they can save in a convenient way. VSLA is one such system where extreme poor people can save, take out loans and invest in various income generating activities for building household resilience. This reported change in the perception and culture of savings can have a long-term impact through households’ investment in children’s education and savings behaviours which coincides with the link between short term resiliency and longer term graduation. However, the sustainability of those behaviors after the withdrawal of NGO activities is uncertain, which questions the longer-term resilience effect of the intervention on the extreme poor households. Green Hill should undertake in-depth analysis of BHHs perception about group savings systems as well as engaging beneficiaries in the formal bank institutions or government line departments. In an alternative approach, Eco-Development (another Shiree partner NGO in CHT) is facilitating, since 2012, BHHs to open 400 individual bank accounts in the formal banking sector such as Grameen Bank, Pubali Bank and Krishi Bank for savings. Presently, the effectiveness of savings through opening individual bank accounts in the formal bank institutions has not been assessed and the suitability of such arrangements for the extreme poor ethnic minorities in CHT needs to be further studied.

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Annex-I: VSLA programme guide, rules and regulation

The most important VSLA programme guide, constitution, rules and regulation adopted from Allen et. al., 2008; Allen and Staehle, 2009 and <http://www.vsla.net/aboutus/vslmodel> which are presented below:

- Each VSLA has a Management Committee, and a written constitution and clear rules. The committee cycle is one year and is changed through elections.
- All VSLA members are allowed to save small amounts of money bi-weekly, group members decide the minimum and maximum value of bi-weekly savings, which allows each member to buy shares in the Association. (Green Hill BHHs save Tk. 20-30 bi-weekly).
- Members do not need to save the same amount each time, or the same amount as each other
- The savings are used to provide small loans to members, not greater than three times their savings.
- All loans are repaid over a period of not more than 3 months
- All borrowers have to pay a service charge on their loans, at a rate that is the same for everyone and decided by the members themselves. (Green Hill BHHs practice 5-10% loan)
- There is a social fund from which members can receive grants for emergencies
- All of the cash is deposited in a box with three locks that can only be opened in meetings when all of the Key-holders are present
- All transactions take place in meetings, in front of all the members
- Record-keeping is based on passbooks and memorization so that everyone understands the system and the financial status of the association
- At the end of each year, all loans are repaid, and all savings and profits are distributed to members according to the amount that they have saved
- All members must attend all meetings and be on time
- Late and missing members must pay a fine (Green Hill BHHs practice Tk. 5 as penalty)
- All members must pay attention in meetings
- All members must contribute the minimum share-purchase/savings at each meeting
- Any borrowers must repay their loans on time
- All members will cooperate to approve loan requests and requests for help from the social fund
- All members will cooperate to resolve disagreements
- All members will help and encourage each other to be successful and active members of the Association
- Groups operate in annual cycles. At the end of every cycle, the accumulated savings plus service charge earnings are shared out amongst the membership according to the amount each member has saved.
- After the share-out, members who do not wish to continue may leave the group and new members may be invited to join.

- When a new cycle begins, members conduct new elections, review their constitution and may make changes to the terms and conditions that apply to savings, lending and the social fund. For example, agree to change the social fund contribution, share price and the monthly loan service charge.

Annex-II: The VSLA tool kits

