Savings groups and educational investments

Plan

This report was authored by Stuart Cameron and Eric Ananga, commissioned by Plan UK, with funding from its Programme Partnership Arrangement with the UK Government.

Please contact Karen Moore, Economic Security Adviser, at karen.moore@plan-uk.org for more details.

Plan

Supported by

UKaid
from the British people

Plan UK
Finsgate
5-7 Cranwood Street
London
EC1V 9LH

Tel: +44 (0)20 7608 1311
Fax: +44 (0)20 7253 9989

Web: www.plan-uk.org

Front cover photo: Plan

Contents

Acknowledgements

The authors are very grateful to Plan for the opportunity to work on this fascinating project, and for support and feedback throughout the process, especially from Karen Moore. We are grateful to all those at various Plan offices who provided comments on our methodology and report drafts and who attended presentations in London and Accra. We must also thank David Bruce and other colleagues from Plan Ghana, its partner organisations, and the community volunteers, who went out of their way to help us. We are very grateful to the other two members of the research team, Ayisheitu Azutigah and Berthy Kpiebaya from the University of Education, Winneba, who worked as research assistants and translators. Finally, we are extremely grateful to the parents, children, and teachers in both communities who took the time to participate in the research.

Abbreviations

ASCA	Accumulating Savings and Credit Association
GHS	Ghanaian cedi
NGO	Non-governmental Organisation
RCT	Randomised Controlled Trial
SILC	Savings and Internal Lending Community
VSLA	Village Savings and Loan Association

Exchange rate

1 Ghana cedi (GHS) = USD0.52 (www.xe.com, 1st March 2013)

1. Foreword

Plan is a global children's charity that works with children and youth in the world's poorest countries to help them build a better future. For over 75 years, Plan has been working in a range of ways to ensure every child's right to fulfil their potential. Our core programmes include those that secure equitable access to quality basic education for girls and boys, and those that enable families and young people to earn a living, manage their money, and plan for their children's future. Plan UK raises funds and provides technical and management support to the delivery of projects by Plan country offices, and carries out related research, advocacy and campaigns.

This piece of research aims to explore the interaction between two priority areas of work for Plan: education and savings groups. Savings groups – a low-risk form of microfinance based on members' own savings, often known as Village Savings and Loans Associations – are a key strategy employed by Plan to enhance the economic security of households. Plan has facilitated savings groups since 2003 reaching about 850,000 people, around 82% of them women, in 25 countries. Savings groups are an effective way to foster a savings habit, smooth household income, and build household financial assets. Banking on Change – a partnership between Plan UK, CARE International UK and Barclays – is an example of this work. From 2009-2012 it helped over 513,000 people in eleven countries build their economic resilience; from 2013-2016, it intends to reach over 330,000 people, mostly young women and men, in seven countries.

Plan's education work focuses on promoting girls' and boys' access to inclusive, safe, healthy, child-friendly learning environments; improving the skills of teachers; and offering essential life-skills training. Plan UK's flagship programme, Building Skills for Life, aims to empower adolescent girls and promote gender equality, with a particular focus on education and is part-funded by a Programme Partnership Arrangement (PPA) with the UK Government.

This report, Savings Groups and Educational Investments, was commissioned by Plan UK with funding from our DFID PPA in response to an expressed need across both sets of programmes. What level of educational impact can Plan expect from its savings group programmes? To what extent can savings groups help break down the financial barriers to education? (And – broader than the scope of this paper – how does that compare to other approaches to reducing financial barriers to education such as cash transfers or scholarships?). In which ways does participation in savings groups affect educational investments and outcomes? How can Plan better link its savings group and educational programming?

The authors, Dr. Stuart Cameron and Dr. Eric Daniel Ananga, have done an excellent job in distilling evidence from a wide range of programmes run by Plan and others, as well as illuminating the issues at the local level in two communities in Ghana. What they have found is that the greatest potential of savings groups seems to come from the income smoothing effect, allowing formal and informal education fees to be paid in a more timely manner and thus reducing absenteeism – with possible positive impacts on progression and learning outcomes.

Thus, in the short term, while savings groups won't necessarily allow for increased household education spending overall, or increased enrolment rates, a positive effect on attendance is an important outcome – especially if it means that girls and young women can access money for school fees in ways that don't put them at risk of violence, abuse or pregnancy. And, over the longer term, savings groups can help support livelihoods that do allow increased household investments in education.

We hope that the paper, along with the accompanying primary methodological tool, will be drawn upon both within and outside Plan as we endeavour to better understand the social impacts of microfinance in general, and the educational effects of savings groups in particular, and to improve our knowledge of what works best in financially supporting girls' education.

We would like to acknowledge the significant contribution of a large number of colleagues from Plan Canada, Plan Ghana, Plan UK, and Plan International, including the West African Regional Office, in helping design the work, commenting on drafts and facilitating the primary research.

Michael O'Donnell, Head of Programme Support and Impact, Plan UK
Karen Moore, Economic Security Adviser, Plan UK

2. Executive summary

This report, commissioned by Plan UK, investigates whether savings groups, often known as Village Savings and Loan Associations (VSLA), affect educational investment and outcomes. These are groups that meet periodically (usually weekly), require members to contribute savings, allow members to take loans with interest, and 'share out' the accumulated savings and interest to members at the end of a cycle (usually annual). The study is based on a review of the research literature and evaluations, and primary qualitative fieldwork conducted in Ghana in 2013.

The **literature review** covers a large number of evaluations of savings group impacts in different countries. Many of these provide suggestive rather than firm evidence of impacts, because they lack control groups for comparison, are often based on recall data rather than separate baseline and impact surveys, and often use education indicators that are not sufficiently sensitive to changes over time. Nevertheless, there are several studies reporting that loans and share outs from savings groups are used for education, and a few reporting increases in education expenditure and enrolment.

There are also several indirect channels through which savings groups could in theory affect education, and the literature review sheds some light on whether these hold in practice. An effect of savings groups on overall income or livelihoods was difficult to discern, although this may not be surprising given that the aim is usually to allow households to smooth consumption rather than necessarily increasing total income. Income generating activities are unlikely to result immediately in large increases in income within the time frame of these studies, which is typically less than three years.

There is evidence in some studies of savings groups affecting health, nutrition, child labour, and decision-making, in ways that are likely to affect education in turn, in the medium to long term. In some contexts loans or share outs are used for food and healthcare expenses, and there is evidence from several studies of health and nutrition impacts, although not from the most rigorous studies. Savings groups appear to shift expenditure decisions towards female household members, which past research has suggested may increase expenditure on children. On child labour, there are studies suggesting both decreases and increases resulting from savings groups, which is not surprising given that savings groups tend to increase business activity and the demand for labour.

The **primary fieldwork in Ghana** focused on two villages, one in the Upper West region and one in the Central region, interviewing 52 adult savings group members, 27 adult non-members, 19 children (aged 9-17) in school and 5 out-of-school, 8 teachers and 2 community volunteers (those trained to establish and support savings groups). In total around 30 of the participants were aged 15-24. The study revealed that parents valued education highly as a way of reducing dependence on agricultural work, which was becoming less viable as a livelihood. However they faced small unofficial fees at primary and lower secondary level, larger fees at senior secondary level, and additional costs such as uniforms, all of which were sometimes difficult to meet given their extremely low and irregular cash incomes.

Education was among the main reasons given for taking loans and several people also reported using share outs to pay educational expenses. Participants said that educational attendance and results had improved as a result of the savings groups. The main mechanisms appear to involve a combination of overall, gradual improvement in income, especially from small businesses operated by women, and better ability to pay fees on time, resulting in children being sent home from school more rarely. Loans were also used for healthcare and had reportedly helped to reduce hunger in the community. There was little evidence for a change in the incidence of child labour, which was still widespread, but some evidence for a change in spending patterns and that women had increased power over expenditure decisions. In the wealthier of the two communities, parents were using the combination of raised income from businesses and loans to withdraw children from the local government school and send them to a private school which was seen as better quality, a potentially problematic outcome in terms of inequality and social exclusion.

The report **concludes** that the impacts of savings groups on education appear to be quite diverse across countries and projects, but in at least some cases appear to be positive and significant, and are in no cases negative. A possible exception is child labour, where more research is needed. It argues for more rigorous and long-term research and better education indicators to uncover any impacts, and warns against over-selling savings groups either in international discussions or at the level of individual villages.

3. Introduction and framework

Community-managed groups offering savings and loans have a long history in both Africa and Asia, and have been promoted by a number of international non-governmental organisations, including Plan. There is growing interest within Plan in how to draw on the success of savings groups, also known as Village Savings and Loan Associations, to support its education work in terms of breaking the financial barriers to enrolment, attendance and completion. This report, commissioned by Plan UK, investigates whether savings groups have an effect on educational investments by households. It is based on a literature review and primary qualitative research conducted in Ghana in 2013.

'Savings groups' in this document refers primarily to those based on the model known as Village Savings and Loan Associations (VSLA), evolved by CARE Niger in the 1990s based on the Accumulating Savings and Credit Association (ASCA) approach. In this model, members make regular savings, which are compulsory if they are to remain members; these are used to provide short-term loans (for one or a few months) to members who request them; and the members get back their savings plus a proportionate share of the interest earned from these loans (Allen and Panetta, 2010).

Savings groups thus fulfil a number of functions: they encourage regular saving; provide loans; keep the profits from money-lending within a community; and may also encourage solidarity and cooperation by instituting regular meetings. In addition, they may offer 'emergency' or 'social' funds: grants or interest-free short-term loans to members in emergencies.

There are a number of direct and indirect mechanisms through which these functions could have an effect on education. For this research we identified at least seven possible mechanisms, and use these to guide both the literature review and the primary research.

1. **Households use share outs to meet educational expenses.** This assumes that households do face financial costs of education, or can improve educational outcomes by paying more. If educational expenses are 'lumpy' – infrequent and large – and the household has difficulty putting money aside for them, then it may be able to use the savings share outs for this, although it depends on the timing of the share out and the needed expenditure. Since share outs include interest they slightly expand the household's overall income as well as changing the timing.

2. **Households use loans or emergency funds to meet educational expenses**. Again, this assumes that there are financial costs to education. Households may have difficulty paying, for example because the expenses are unpredictable or variable, need to be paid quickly, are large compared to the household's income, if the household is not able to put money to aside for these expenses, or if the household faces other unpredictable and important expenditures such as for healthcare. It is important to keep in mind that loans cannot allow a household that simply does not have enough income to pay educational expenses; they only allow it to move the timing of payment in ways that may be more manageable.

3. **Savings groups improve overall income or livelihoods, making more money available for education.** This mechanism may work through either loans or share outs being invested into farms or businesses, increasing the household's overall income or security of livelihood. For example, if a farming household invests in fertiliser, it may have to buy food less often, leaving more cash available for education.

4. **Savings groups improve overall income or livelihoods, reducing the need for child labour.** In households whose livelihoods require children to work long hours, children are likely to have difficulty staying in school, especially beyond the basic level. If savings groups improve overall livelihoods they may reduce the need for children to work. The reverse is also possible, however. For example, if a household buys more land using a savings group share out, it may become more profitable for children to work.

5. **Improved health and nutrition.** The effects of childhood nutrition and health on education are well recognised in the literature (e.g. Helmers and Patnam, 2010; Dercon and Krishan, 2009). Hunger and malnutrition, especially during early childhood, are associated with slower cognitive development, poorer learning outcomes, starting school late, and dropping out early; poor health during school years can also increase the risk of non-attendance or drop-out (Alderman et al., 2006; Buxton, 2011; Pridmore, 2007). If savings groups improve health and nutrition – through using loans to pay for healthcare, or having more money to buy diverse foods – they may increase children's school attendance and learning outcomes.

6. **Changes in who makes decisions.** In most cases a large majority of savings group members are women.[1] Research has suggested that women tend to invest more of their income in children's education and health than men (e.g. Ranis et al., 2000). If savings groups put more income in the hands of women, they may increase educational investments by a change in the household decision-making power of women, in addition to any effect of an overall increase in the household's income.

7. **Changes in patterns of spending or work.** Savings groups provide an incentive (interest, as well as ongoing participation in the group) to save regularly. This may deter the household from spending money on items deemed less essential, and increases the incentives to engage in cash-generating work. In either case this would increase the financial resources available for education (possibly at the expense of other goods).

A further area for the research is whether these increased investments (of money, and children's time) in education lead to better outcomes, in terms of indicators such as attendance, grade attainment, grade for age, and learning outcomes. A complicating factor is that increased investment by some parents in a community could worsen outcomes for others, for instance through separation of richer and poorer children into different schools. Neither the primary nor secondary research components of this

[1] See the SAVIX database (http://savingsgroups.com/analysis/comparative).

study go into depth on such issues, which would probably be better addressed with quantitative methods and a longitudinal design, but the study does attempt to get parents' and teachers' views on changes in educational outcomes of children in the community since savings groups started.

4. Literature review

4.1. Review strategy

The focus of this literature review is research on savings groups of the Village Savings and Loan Associations (VSLA) model, Accumulating Savings and Credit Association (ASCA) model, or similar, and with evidence for a direct or indirect impact on education. This includes evaluations of the Banking on Change partnership projects of Plan UK, CARE International UK, and Barclays, particularly in Ghana, Tanzania, and Kenya. Also included are Freedom from Hunger and Oxfam America's Saving for Change in El Salvador, Mali and Cambodia; Catholic Relief Service's Savings and Internal Lending Communities (SILC) in Rwanda and Kenya; and numerous other projects run by the international NGOs Plan and CARE.[2]

In addition, research was consulted on self-help groups in India, a parallel innovation to savings groups, though usually with much more emphasis on credit. Most are linked to banks and provide access to additional capital, usually managed by the group. Rather than giving share outs, they tend to pay profits or dividends to their members (Allen and Panetta, 2010). A number of other programmes combine savings and credit groups with other interventions. We have drawn on these while noting that it is not always possible to distinguish which impacts result from which intervention. These include the NGO Pact's WORTH programme, which combines savings groups with literacy training, enterprise development, and rights and advocacy training for women, in countries including Nepal, Uganda, and Ethiopia.

Although it is not the main focus, the review also briefly encompasses findings from the broader literature on microfinance, which in most cases involves institutions offering credit rather than savings and loan associations. The systematic review by Duvendack et al. (2011) is useful but limited for the purposes of this review, as it groups impacts as economic, social and 'empowerment', rather than detailing educational impacts separately. Van Rooyen et al. (2012) is a systematic review of impacts of microfinance in Africa, drawing on 15 studies of "good enough" quality, and is useful because it considers separately the education, health, economic and decision-making impacts. Bauchet et al. (2011) discusses recent evidence from randomised evaluations of a wide range of microfinance interventions, with an appendix table summarising main findings. This literature review does not include programmes whose main aim is to improve

[2] Sources used for the review include: materials passed to us by Plan UK; browsing or searching websites of relevant organisations, such as SEEP network, Innovations for Poverty Action (IPA), and the Abdul Latif Jameel Poverty Action Lab (J-PAL); general searches using search engines and databases; specific searches of the relevant peer-reviewed journals *Economics of Education Review, Compare, International Journal of Educational Development, World Development, Journal of Development Studies, Journal of Development Economics, Oxford Development Studies*.

access to regular banks.[3] Nor does it include programmes that focus on commitment to savings through other mechanisms.[4] A full list of the savings group studies with notes on the relevant types of impact, is provided in appendix.

Most of the documents consulted are project evaluations conducted on behalf of international non-governmental organisations. We were not able to find any directly relevant articles on effects specifically of savings groups on education in peer-reviewed journals. However, van Rooyen et al. (2012) is a systematic review of the literature on various impacts, including education, of both micro-credit and micro-savings in Africa; and Ssewamala et al. (2011) examines the effects of a savings programme on education (but is outside the scope of this study because the project involved facilitating access to commercial banks).

There are clear differences between sources in the strength of evidence. We have not altogether excluded any relevant studies on the basis of weak methods, but do note where the evidence basis for a claim is either not made explicit, or does not seem sufficient, in the original document. Three studies stand out as being particularly strong methodologically because of their use of randomised controlled trials (RCTs): Bundervoet et al. (2011) use a randomised impact evaluation of VSLA in Burundi, which was in some cases delivered in conjunction with 'Healing Families and Communities', a family-based discussion group aiming to improve caregiver-child relationships; Karlan et al. (2012) assess the impact of CARE savings groups in Ghana, Malawi, and Uganda; and BARA and IPA (2013) evaluate the impact of the Saving for Change programme in Mali. In all three cases the RCT quantitative results are complemented by qualitative findings, allowing a strong argument to be built about the causal effects of the interventions. Another rigorous study is that by Deininger and Liu (2012) on impacts of self-help groups in Andhra Pradesh, India, which uses a combination of pipeline comparison and econometrics (propensity score matching and difference-in-difference) to deal with the possibility of selection bias. However, Deininger and Liu do not look at the impact on education.

Of the other studies, several compare results after around two years with results at 'baseline' (near to the start of the savings group), but do not have a control group, making it difficult to know if the findings (e.g. an increase in school enrolments) are not due to some external factor. In these cases qualitative results are often used to explore whether a causal link can be justified, but evidence is rarely presented of interviews probing possible alternative explanations. Small sample sizes, potential bias due to the self-selection of savings group members, and reliance on recall data are among the other issues making it difficult to draw general conclusions on the basis of these studies. Nevertheless, we record the findings to show the range and variety of possible impacts on education.

In the following sections, we first ask whether funds from savings groups – in the form of loans or share outs – are reported to be used for education, which would be the

3. Prina (2013) examines effects of giving easy access to bank savings accounts in Nepal, using a randomised field experiment, finding that the intervention increased investment in education, in the form of textbooks and school uniforms, although enrolment rates were no higher than in the control group. Investment in health and women's assets also increased in the experimental group. Ssewamala et al. (2011) report on the Suubi project in Uganda, which included workshops and mentorship for youth and a matched bank savings account. The project positively affected children's educational plans and academic performance.

4. Brune et al. (2011) examine a 'commitment' savings account in Malawi, whereby farmers could agree to freeze their funds held with a microfinance institution until a set date, finding that it increased post-harvest household expenditure, compared to either a control group or a second treatment group who were given access to ordinary accounts without commitment devices. Ashraf et al. (2003) review commitment savings products in developing countries, and Ashraf et al. (2006) describes outcomes of such a product in the Philippines.

most direct way in which the groups could have an impact on education. We then examine whether there is any evidence for an impact on expenditure or educational enrolments, and briefly examine evidence where savings groups funds have been used collectively, as opposed to by individuals, to support education. Finally we consider the evidence for indirect channels – through increasing income or livelihoods, improved health and nutrition, or shifts in how decisions are made or who makes them.

4.2. Direct impacts of savings groups on education

Use of savings or loans for education

Table 1 summarises the findings of different studies on how share outs and loans from savings groups are used.

The use of loans is quite diverse, but in most cases was for business or for agricultural inputs. This may have reflected an explicit focus of interventions on giving loans for business. Only in one case – the Ugandan participants in Karlan et al. (2012) – is education clearly the most common use of loans.[5] However in several other cases, substantial minorities reported using loans for education (Barber, 2011 in South Africa; Boyle, 2009 in Burkina Faso; and VARG and Mayoux, 2008, in Nepal).

In VARG and Mayoux's (2008) evaluation of the WORTH programme in Nepal, savings group members reported that loans from the village banks made it possible to send their children to school, and adult education had given them greater appreciation of the importance of child education. Nearly half of the members of the village banks had taken at least one loan for education expenses, making it the single largest non-business use of the loans. A large majority said they had joined the village bank to be able to provide an education for their children. In interviews, members said that they used the loans to send their children to high-cost English-medium private schools, and in one village where boys were formerly sent to private schools while girls were more often sent to government schools, group members launched a campaign for parents to stop discriminating between boys and girls in their choice of school.

Fewer studies report on the uses of share outs, but among those that do there appears to be a higher propensity to use these for educational expenses. In three cases education is the main reported use of share outs.

5. Karlan et al. report impact estimates for a pooled sample of all three countries (Ghana, Uganda and Malawi), allowing them to "detect impacts that are significant in the overall sample but might be present on too small a scale in each individual country to be detected there" (2012, p. 20). They also report estimates for each country individually.

Table 1. Do savings groups members use share outs and loans for education?

Study	Country	Sample	Main use(s) of share outs	How many used share outs for education?	Main use(s) of loans	How many used loans for education?
Allen (2005)	Uganda	24 savings groups	agriculture (30% of responses)	20% of responses	business (75% of responses)	7% of responses
Allen and Hobane (2004)	Zimbabwe	272 member households	school fees	around 200	inputs to income generating activities (around 200)	around 150
Anyango et al. (2006)	Zanzibar, Tanzania	134 members	housing project/ improvement	13%	business	2%
BARA and IPA (2013)	Mali	696 members (share out) / 356 members (loan)	food (47%)	1%	business (42%)	2%
Barber (2011)	South Africa	44 members			home improvements (19%)	14%
Boyle (2009)	Burkina Faso	60 members for 2 years + 60 members for 1 year	investment in income generating activities: 58% (2 years) / 63% (1 year)	*School fees:* 22% (2 years) / 0% (1 year) *School supplies and uniform:* 15% (2 years) / 0% (1 year)[6]	investment in income generating activities – 67% (2 years) / 76% (1 year)	*School fees:* 12% (2 years) / 10% (1 year) *School supplies and uniform:* 7% (2 years) / 7% (1 year
CARE (2012)	Rwanda	628 members / 1,316 loans			income generating activity/ business (37% of loans)	3% of loans (school fees)[7]
Devietti and Matuszeski (2009)	El Salvador	24 members	reinvest funds in group (6)	4 members		
EMC and Wancer (2010)	Cambodia	49 members	food	1 member [8]	agriculture	4 members

6. The author suggests that the reason those who had only been members for one year did not use share outs for school expenditures may have been the timing of the share out.
7 Data shown is for the end-line. At baseline around 6% of loans were for school fees.
8 Only 10 members had received share outs at the time of the research. Of the other 39, business was the main planned use of the share out, with 6 members saying education.

Study	Country	Sample	Main use(s) of share outs	How many used share outs for education?	Main use(s) of loans	How many used loans for education?
Garnier-Crussard (2011)	Mali	20 members (all women)			school fees, livestock	50% used it for school fees or livestock
Gash et al. (2013)	Mali	30 women from 30 different groups			business, food, farming	"several"
Jahns (2012)	El Salvador	105 members	food, Christmas, clothing	2%		
Karlan et al. (2012)	Ghana	1,043 members (share out) / 749 members (loan)	business (19%)	14%	business (42%)	8%
	Malawi	272 members (share out) / 323 members (loan)	food (30%)	7%	business (40%)	3%
	Uganda	290 members (share out) / 438 members (loan)	education (27%)	27%	education (24%)	24%
Oslin (2007)	El Salvador	82 members			purchase goods; cover medical costs	not reported
Panetta and Conroy (2011)	Bangladesh	not stated			funeral	2% of regular loans[9]
VARG and Mayoux (2008)	Nepal	4,486 members			business[10]	48%
Zollmann (2010)	Swaziland	members of 4 savings groups (number unknown)	school tuition and household durables	not reported	"consumption needs"[11]	not reported

Note: The studies use different methods and allowed different possible responses, so this table should be seen only as a rough guide; however in every case education was among the permitted responses. Since most are small-sample studies, they should be seen as a series of illustrative cases, and not as representative of each country.

9. Education was among the main uses of emergency loans but was rarely the reason for taking regular loans.
10. WORTH savings groups were encouraged to lend mainly for business, as this was seen as increasing the probability of repayment, but many members were found to be borrowing for other purposes, of which education was the most common.
11. It is not clear if consumption needs included school expenses in this study.

Evidence for impact on education

The strongest studies find somewhat mixed evidence for a direct impact on education of savings groups. In the Karlan et al. (2012) randomised evaluation in Ghana, Malawi and Uganda, there was no significant increase in education expenditure in any of the countries. However, there was an increase in respondents reporting having used money from income generation activities for education expenditure in Uganda, and in using loans from savings groups for education in both Ghana and Uganda.[12] In Ghana, there was a significant increase in primary school enrolment for both boys and girls, and in secondary school enrolment for boys, attributable to the presence of savings groups.[13] However, this result lost its statistical significance when a different way of estimating change between the baseline and endline was used.[14]

In Burundi, Bundervoet et al. (2011) find that there were large increases in education spending across the board, but significantly larger increases for those who were members of the VSLA group. In the Mali study by BARA and IPA (2013), there was no significant impact on school enrolment or expenditure.

Banking on Change evaluations in Ghana and Kenya provide evidence on changes over time but do not have a control group or other reference point for comparison. The Ghana Banking on Change evaluation (JMK Consulting, 2012) finds that educational expenditure increased over time for VSLA members. However there was no difference in expenditure for those who had been members for two years compared to those who had been a member for one year. Changes in the primary gross enrolment rate were not significant; this rate was in any case fairly high (around 95%). A large majority of VSLA members felt that children's access to education had improved slightly (49%) or significantly (36%), and some of those who thought this (33 and 43%, respectively) attributed the change to VSLA. The Kenya Banking on Change evaluation (Okeyo, 2013) finds no significant change in the proportion spending money on children's school fees among savings group members. However there was a significant increase in the proportion spending money on books for children's education. The review of Banking on Change evaluations (Triodos Facet 2013) in Egypt, Ghana, Kenya, Tanzania, Mozambique, Zambia and Vietnam finds an increase in the proportion of respondents incurring educational expenses from 63.9 to 67.5% across the seven countries.

Abebe and Selassie (2009) report that mothers more often sent their children to school after joining the WORTH programme in Ethiopia than before. They attributed this most commonly to increased awareness about education resulting from the programme; only 4% said it was partly or wholly due to their income increasing. Thus it seems to be other aspects of that programme, rather than the savings group, that have the best claim to being causal factors in increased school enrolments. The evaluation of WORTH in Uganda (Swarts et al., 2010) finds that WORTH members provided more support to their children than non-WORTH members, for instance helping them with homework and paying fees for extra tuition at school. Again, however, other programme components such as literacy training may have been more important

12. Data on use of money from different sources for education expenditure was not available for Malawi due to a difference in questionnaire wording.

13. There was also a "suggestive" (i.e. significant only at the 10% threshold) increase in boys' primary school enrolment in Malawi.

14. Specifically, the authors use two econometric techniques to control for baseline values of outcome variables: the first includes a lagged variable in the regression, while the second, a 'difference-in-difference' model, "directly compares the differences at endline to the differences at baseline" (Karlan et al., 2012, p. 35). Using the second model, the results for Ghana are no longer significant.

than savings or credit. WORTH groups were also directly helping to fund children's education in many cases. Children's school attendance was the same in both WORTH and control group households. In Nepal, 83% of respondents in the VARG and Mayoux (2008) evaluation said they were able to send more of their children to school because of WORTH.

Some studies asked participants directly whether they thought education had improved or worsened over time and what reasons they thought were responsible. CARE (2012), in Rwanda, finds that 15% of participants felt that access to education for children in their household had significantly improved, and 33% felt it had slightly improved, and most of these attributed the change to savings group membership. There was no significant increase in educational expenditure, but the net enrolment rate in primary education increased from 71 to 76% among households that were members of the group at baseline, and in secondary education from 6.3 to 7.6%. (The study does not present any comparison between members and non-members). The study by Anyango et al. (2006, 2007) in Tanzania finds that only 6% of members thought that education ("for self or children") had improved since they had joined the programme. By comparison, 21% said their housing had improved, and 20% that their income or business had improved.

In Dovi's (2008b) study in Togo, 63% of members and 47% of non-members thought that the conditions of education or apprenticeship for children had improved over the past year. However there was little sign of increased enrolment; indeed there was a slight increase in the proportion of households with at least one child (aged 7-17) out of school among members, while there was a decrease in this proportion among non-members. (However, this is not a good measure of enrolment as it does not take account of the number of school-aged children in each household, and it is not clear if it was statistically significant).

Dills et al. (2008) attributes a rise from 2 to 7% in the proportion of households saving for education, and a reduction from 20.7% to 14.8% in the proportion of households with a child who had dropped out of primary school, to the SILC programme in Rwanda. However the lack of a control group again makes the causal claim difficult to assess.

Allen (2009a) finds a drop in the reported number of male children per household who were unable to attend school due to lack of money among savings group members in Tanzania, but an increase in the proportion of female children who were unable to attend. However this finding is particularly difficult to interpret because of the very small numbers involved (fewer than 10 children), reliance on recall data, not accounting for possible changes in the number of school-age children per household, and lack of statistical tests. The study also reports that 45% of savings group members, and 30% of control group respondents, claimed that there had been improvements in school attendance or performance, or in attitudes towards education, since the savings groups had started (2005-2008).

Allen (2009b), using similar methods in Uganda, finds a drop in the number of both male and female children per household reportedly unable to attend school due to lack of money, while at the same time the proportion rose for non-savings group participants. The change was larger than that reported in Tanzania, but the study has the same limitations in terms of sample size and choice of education indicator. Similarly, an earlier study in the West Nile region of Uganda (Allen, 2005) records a 28% drop in the number of school age children not attending school due to lack of school fees among participants. In Ethiopia, Allen and Bekele (2008) find a large reported drop in the proportion of children not in school among project participants, but little reported change in attendance among non-participants.

Turning to the broader microfinance literature, the systematic review by van Rooyen et al. (2012) finds nine studies of "good enough" quality with evidence on impacts of microfinance on education. Of these, three showed positive effects and four showed mixed or no effects. Two studies showed negative effects: in Malawi, microcredit significantly decreased primary school attendance among borrowers' children (Shimamura and Lastarria-Cornhiel, 2009); and in Uganda, clients of a combined microcredit and microsavings programme were more likely to be unable to pay school charges for at least one term during the previous two years, resulting in children dropping out of school (Barnes et al. 2001). However, the review does not provide evidence on the mechanisms of these negative impacts. Only the Shimamura and Lastarria-Cornhiel (2009) study looks for effects of microfinance on child labour, and finds no such effect. The economic effects of microfinance are generally positive in the reviewed studies; although there are both positive and negative effects on income, the effects on savings and asset accumulation are more positive, including in the study by Barnes et al. (2001). Thus the review does not provide much support for either child labour or growing indebtedness as channels through which, in some cases, microfinance might have negative or no impacts on education, and this question remains in need of further investigation. It does, however, record evidence from several studies that microfinance impacts may worsen over time, with "recurring clients' businesses becoming less successful and levels of health and education decreasing" (van Rooyen et al., 2012, p. 2258), but also notes that this could be due to the categories of people who have a continuing need for loans, rather than an impact of the microfinance programme per se.

Bauchet et al. (2011), summarising recent randomised evaluations on a range of microfinance interventions, find little evidence of impact on healthcare, education, or female empowerment within the treatment period. Desai et al. (2011), examining impact of microcredit in a randomised evaluation in Ethiopia, do find significant improvements in school attendance.

Overall, the findings from strong studies of microcredit are mixed, with positive, negative and zero impacts on education being revealed in different contexts. Bauchet et al. (2011) see the randomised evaluations as showing that "this model of microcredit works for some populations – those who successfully grow businesses – but not for others" (p. 1). The evidence on savings groups is also mixed, but with no clear negative effects to date. It may be that savings-led microfinance carries lower risks of indebtedness than credit-led services, or is better at improving the livelihoods of the poorest, leading to better outcomes for education.[15] The evidence to date is consistent with this, but given the scarcity of rigorous studies on savings groups and lack of understanding of the mechanisms through which either type of service may have an impact on education, it is not possible to draw strong conclusions. The varied results to date give strong grounds for caution when trying to generalise on the likely effects between different contexts.

In summary, savings groups appear to have a positive impact on educational expenditure at least in some contexts, while in other countries any impact has been harder to find. There is no evidence for a negative effect but there are several cases of no significant effect being found. Strong evidence for effects on enrolment is even scarcer, although the small-scale studies in Uganda and Ethiopia (Allen, 2005, 2009b; Allen and Bekele, 2008) suggest that parents in savings group households recall larger drops in school non-attendance than parents in control group households. More sensitive measures of educational attainment may be needed in some African contexts, where gross enrolment rates may be high but with large numbers of overage children due to late enrolment and grade repetition.

Collective action through savings groups for education

As well as savings group funds being used individually to cover educational expenses, there are cases described in qualitative studies of savings groups being used on a group-wide or community-wide basis to invest in education. Allen and Panetta (2010) describe how members of a savings group in a slum in Kampala started an orphanage by pooling their savings, and hired a nursery teacher. Savings groups promoted by a farmers' association also in Uganda pooled resources to found a nursery and primary school. Many of the self-help groups in the Sinha (2009) study had been involved in community action, including improving education. WORTH groups reported having taken collective action on a number of social issues, including child labour, child marriage, and promoting awareness of girls' education (VARG and Mayoux, 2008). They also said they had used savings group funds for social or charitable purposes that included (in 16% of cases) construction of classrooms, libraries or school buildings, and for a smaller number (9%) cash assistance to people in need including poor students. Edwards (2010) describes a case of a savings group collectively buying birth certificates in Mali, important for sitting exams at school as well as accessing other services. EDA and APMAS (2006) find a few cases of self-help groups in India taking joint action to improve education, including by contributing funds for the panchayat to build a village school, and petitioning an NGO to start a school for girls. These examples are in line with some other studies which have suggested that the actual financial services provided may not always be the most highly valued aspects of savings groups. BARA and IPA (2013), in Mali, argues that women perceived the value of savings groups in terms of women's social cohesion and village civic identity, more than in terms of adding financial capacity.

15. Allen and Panetta (2010) suggest that savings groups reach a wider range of clients than credit-led microfinance. Assuming the poorest are most likely to have children out of school then interventions improving their livelihoods may have larger impacts on education indicators at the community level.

4.3. Indirect effects

There are several indirect pathways through which savings groups could, in the medium to long term, lead to improvements in education.

Income and livelihoods

The household's income and, more broadly, socioeconomic status and livelihood capacity, are likely to affect education via payment of educational expenses, and also through other indirect routes, by improving health, food security and nutrition, and reducing the need for child labour. Studies report on a wide range of indicators, including involvement in business among savings group members, investment in assets, income, and whether they are above or below national poverty lines.

The Karlan et al. (2012) study finds that in communities with VSLA programmes, the level of savings and the number of women taking out loans increased. The intervention was associated with some small increases in food security, and increases in the likelihood that women run a business and income from businesses increases significantly, although the likelihood of business failure also increases. However expenditures for agricultural inputs were not affected by the intervention, and there were no significant effects on ability to mitigate economic shocks or on asset accumulation. Bundervoet et al. (2011) presents evidence that VSLA participation enabled member households to escape a general downward economic trend in rural Burundi. Household assets and child wellbeing, as reported by both parents and children, improved more among households that benefited from VSLA than in the control group. BARA and IPA (2013) find increases in livestock holdings among treatment villages but small or no significant differences between treatment and control villages in business development or expansion, agricultural inputs, or household and agricultural assets. Treatment and control households were equally likely to use costly strategies to deal with an economic shock, but in treatment villages there was a lower probability of using migration to cope with such shocks. Drawing on qualitative evidence, the authors argue that, although they may be modest in size and better characterised as consumption-smoothing than income-raising, the economic effects of savings groups were highly valued by members.

Among other studies, a few report worsening poverty among VSLA members (though with no suggestion that this was due to their VSLA membership) (e.g. JMK Consulting, 2012; Okeyo, 2013), but most find evidence for positive changes in assets, business, wealth rankings, and economic vulnerability. One study that includes better controls for broader trends in income and poverty, Deininger and Liu (2012), finds an increase in consumption and nutritional indicators among participants in Indian self-help groups, but without a commensurate increase in income or assets; this is in line with the idea that the main role of microfinance is to allow consumption smoothing so that households use their existing incomes more efficiently.

In summary, there is evidence from several studies of increased business activity, but more mixed evidence on whether savings group members acquire more assets that would help to improve their longer term livelihoods. To date the Bundervoet et al. (2011) study in Burundi presents the clearest evidence for an improvement in economic status resulting from savings group membership. Many of the studies focus on relatively recently started groups, in which the quantities saved and loaned are small, which may explain the limited evidence for an effect on incomes. In addition, new businesses can fail as well as succeed, as Karlan et al. (2012) show, and increased involvement in income generating activities may not lead to an immediate large increase in incomes. Financial services (whether focused on credit or saving) may be more important for smoothing a household's consumption at any given income level, rather than for increasing income per se, and the studies reviewed have not been able to investigate directly whether any positive income effects of microfinance are important for education.

Use of child work

Savings instruments may help households not to send children to work, for instance because they can take a loan to hire a labourer, where previously they would have used their children's labour. The Bundervoet et al. (2011) study of Burundi examines the issue but is unable to draw any conclusions about impact of VSLAs on child labour. Okeyo (2013) reports reducing use of children as labour in income generating activities among savings group members in Kenya. Dovi (2008b) reports little change in child participation in economic activities; for both members and non-members of savings groups, children were reportedly working in around 40% of households.

On the other hand savings groups may actually increase demand for child labour, for instance if people are able to buy more land or agricultural inputs that make farm labour more productive, or if they have difficulty making enough money to save without asking children to work. Boyle (2009) finds, in Burkina Faso, higher use of children's labour among members of savings groups compared to people in communities without savings groups, and the gap had increased since the savings groups started. Allen (2009a) finds large reported increases in children, especially female children, employed in income generating activities in Tanzania, which may relate to the apparent increase in female school non-attendance among group members (see above). In Uganda, Allen (2009b) finds a smaller but still definite increase in child labour, but no evidence that this affected school attendance.[16] A recent microcredit RCT study in Bosnia and Herzegovina (Augsburg et al., 2012) finds a substantial increase in 16-19-year-olds working and a reduction in their school attendance.

Health and nutrition

If savings group membership can help improve health and nutrition, it is likely to have longer-term impacts on education, as children are absent less due to ill health, and learn more easily due to better early childhood nutrition. Again, though, the evidence is rather mixed. The BARA and IPA (2013) study in Mali finds no significant change in how houesholds dealt with health expenditures, but significant improvements in a measure of food security, suggesting that the savings group helped to smooth consumption during lean periods. The other two RCT studies found little evidence for health or nutrition effects. In the Karlan et al. (2012) study, households in communities with VSLA did not spend significantly more on food or health than those in the

[16] However, the indicator is based on a question that asks specifically about children not attending or dropping out of school "due to lack of money (fees, uniform, textbooks, etc.)". It may therefore not pick up on children who are out of school due to child labour or other reasons.

control communities. Bundervoet et al. (2011) find that expenditure on child health was actually lower for children who had been through VSLAs, a finding the authors are not able to explain. Of the less rigorous studies relying on members' perceptions and recall, several (including Triodos Facet, 2013; Okeyo, 2013; VARG and Mayoux, 2008; BARA, 2008; and CARE, 2012) report positive effects on health or ability to access healthcare, and several (Allen, 2009a, 2009b; Allen and Bekele, 2008; Dovi, 2008b; Okeyo, 2013; CARE, 2012) report improvements in food availability, quantity and quality of meals, food security and/or nutrition. Van Rooyen et al. (2012) list seven studies of microfinance more broadly in Africa that examine the impact on health, all of which find positive effects. Of seven studies examining the effects on food security and nutrition, five found positive effects and two no effect.

Decision-making

Past research has suggested that when women control income it is often directed towards inputs more conducive to children's development, such as food and education (e.g. Ranis et al., 2000). Thus it becomes important to ask whether savings groups, whose members are largely female, result in a change in who makes household decisions, and how they are made.

The Karlan et al. (2012) study finds that women in treatment areas had significantly more influence over household decisions, including education expenditure decisions, although when they disaggregate between countries the difference is only significant for Malawi. BARA and IPA (2013) does not find any such shift in decision-making power in Mali. The Ghana Banking on Change evaluation (JMK Consulting, 2012) finds that over the period of the study, women's self-esteem, self-perceived social position, contribution to decision-making, and their contribution to household expenses, including education, all increased. A response in the qualitative component of this study sheds some light on changes in household expenditure decisions:

> **Our husbands are now interested in our affairs because we are making money from the VSLA ... Now ... they will tell you we have to decide together on how to use the money judiciously... so you can't just take action to do something for yourself ... We have to respect them on that.**
> **(JMK Consulting, 2012; edited)**

In qualitative findings from the Kenya Banking on Change evaluation (Okeyo, 2013), women reportedly were taking on a much larger part of household expenditures. In some cases men had reportedly stopped contributing to their families in a way that women saw as problematic. The studies by VARG and Mayoux (2008), Abebe and Selassie (2009), Boyle (2009), Allen (2009b), CARE (2012), and Deininger and Liu (2012), all report increases in various measures of women's economic empowerment among savings group members. Thus, savings groups do appear to shift expenditure decisions towards female household members, although some caution may be warranted in calling this empowerment rather than an increase in female household members' burden of responsibility. Nevertheless it may be a good sign for the longer term impact of savings groups in terms of educational expenditure and other investment in children such as healthcare and food.

4.4. Conclusion

Examining around 30 evaluations and research studies on the impacts of savings groups (see appendix), this review has found several studies reporting the use of share outs and loans for education, and a few reporting increases in education expenditure and enrolment. There is also evidence in some studies of savings groups affecting health, nutrition, child labour, and decision-making, in ways that are likely to affect education in turn, in the medium to long term. There is no evidence of negative impacts, with the possible exception of child labour, where more research is needed. However, some studies are unable to find any significant result, and others rely on recall data or lack controls for broader economic and social changes. There is a need for more rigorous studies of impact, for more detailed studies of underlying mechanisms, and for acknowledgement that the impacts of savings groups may vary greatly across different country contexts (and perhaps, within countries too).

5. Primary research in Ghana

The range of impacts of savings groups found in the literature review highlight the need for research that can help to understand the underlying processes: how are savings groups functioning in reality, and how do they interact with households' livelihood strategies and social, economic and political context to influence – or fail to influence – educational investments, decisions, and outcomes? Primary research in Ghana attempted to address these questions, and to develop a model for small-scale qualitative research on educational impacts of savings groups. This research should not be seen as an impact evaluation, or as a representative study of the Banking on Change project in Ghana, but rather as a complement to such studies in advancing knowledge about mechanisms and context. A separate document[17] describes the research methodology and tools used in the primary research in detail, and makes recommendations for improving and adapting the methodology for future use, either in Ghana or in other contexts.

5.1. The study sites

Primary qualitative research was undertaken in Ghana in February/March 2013. Ghana was chosen by Plan UK for the study because Plan Ghana has worked extensively on both savings groups and education projects there. The aim of the study was both that it would collect useful information in its own right, and that it could act as a pilot for similar studies in other countries where savings group projects are operated.

The research was undertaken in two villages, one in the Upper West region and one in the Central region (henceforth, the 'Upper West community' and the 'Central community'). The two regions were chosen to represent a good spread of different characteristics. According to the national Demographic and Health Survey in 2008, the Upper West region is among the poorest in Ghana, with 53% of the population belonging to the bottom 20% by wealth. In the Central region most people are in the second, third or fourth quintiles, that is, spread around the middle of the national wealth distribution (DHS, 2009). Employment in the Upper West is still predominantly agricultural (52% of women and 71% of men who are employed) while in Central region there is greater diversification into skilled manual work (for men) and sales and services (for women), although agriculture remains important (33% of women and 36% of men) (ibid.). There are large regional inequalities in education: in 2008, 82% of 15-24-year-olds had completed primary school in the Central region, compared to 54% in Upper West. There were substantial gender disparities in both cases; the rate for females was only 77% in Central region and 50% in Upper West. 14% of 7-16-year-olds in Upper West, but only 3% in Central region, had never been to school. Among this age group no gender gap is apparent in the Central region, and in Upper West the gender gap was reversed: 11% of girls and 16% of boys had never been to school (UNESCO, 2012).

Within each region, one village was chosen at random from a list of villages where the Banking on Change projects had been initiated by Plan Ghana and its partner organisations, and where there was a school in or nearby the village. The aim was to

17. Please contact Karen Moore at Plan UK (karen.moore@plan-uk.org) for details.

interview around 20 savings group members, 10 non-members, two teachers, the community volunteer[18], and focus groups of in-school and out-of-school children, in each community. In practice we interviewed adult savings group members and non-members individually and in groups, in order to maximise the coverage, although we had difficulty finding as many non-members as planned. Table 2 presents the full break-down of participants in different categories. We interviewed 52 adult savings group members in total (including 8 aged 18-24), 27 adult non-members (11 aged 18-24), 13 children aged 9-14, 11 aged 15-17, 8 teachers and 2 community volunteers.

The sample included around 30 youths (15-24-year-olds), including some who were parents themselves; among those aged 18-24, several were savings group members, and two (one member and one non-member, both male) were still in education. Most of the adult interviewees were female – roughly in line with the 3:1 female-to-male proportion in savings groups – while the under-18s included 17 boys and 22 girls.

Table 2. Numbers of participants in each category

		Upper West		**Central[19]**		**Total**
Age group	Category	Male	Female	Male	Female	
9 - 14	In school	3	3	2	3	**11**
	Out of school	2				**2**
15 - 17	In school	3	2		3	**8**
	Out of school	2	1			**3**
18 - 24	Non-member		4	4	3	**11**
	Member	1	4	2	1	**8**
25+	Non-member	4	6	6		**16**
	Member	4	14	26		**44**
	Total	**19**	**34**	**50**		**103**

Note: 8 teachers and 2 community volunteers were also interviewed. Participants often did not know their exact age, so the age group counts are approximate.

The community in Upper West was a dispersed village thought to have a population of around 800. It is about 20 minutes' walk from a larger community where children from the village attended primary and junior secondary school. Although not far, the route passes a dam where crocodiles are reportedly a hazard, and which small children are often afraid to cross. At a third small community nearby, there is a second primary school and junior secondary school, and some of the children from the study village attended school there. The study site did not have electricity, and nor did any of the schools used by children there. For senior secondary school, children had to travel around a thirty-minute drive to the nearest city. This was difficult because there were few public or shared transport options. Consequently, those children and youth who transitioned to senior secondary school tended to stay in the city, either boarding at the school, renting a room elsewhere, or staying with relatives.

18. Community volunteers are those trained by Plan or its local partner to set-up and support savings groups. In other countries they are known as village agents.
19. Accurate data was not collected for sex of adult participants in the Central region; most were female.

The Central community had a population of around 600. The village has electricity but no piped water. There is a primary government school within the community, which had become dilapidated and been restored by Plan Ghana some years ago; and a separate government junior secondary school. Children in the community also attended a private primary school around 3km from the village, travelling daily by an arranged shared taxi-bus. As in the Upper West community, children who made the transition to senior secondary school tend to stay with family or friends, or in hostels, in towns around 10-20km from the village.

Livelihoods

The Central community was relatively well connected to the urban economy; although most households still have at least one member who farms, there was also diversification among men into jobs such as driver, electrician, and mechanic, while women often worked as traders or dressmakers.

Making enough money became more difficult for most households during the dry season, usually between January and April. Some businesses such as producing and selling gari (fermented, dried, and fried cassava) were countercyclical to farming, being at their most profitable in the dry season. Women sometimes had several businesses in order to sustain an income throughout the year:

> **My business drops when it is dry season because during the farming period, people are able to make money and beautify their hair. I do different businesses – hairdressing, sale of second hand clothes, farming. So when one is done, I support it with the others. (adult savings group non-member, female, Central)**

The community in the Upper West, though only a 30-minute drive from the city, was more cut off from it economically and most households relied on a mixture of subsistence farming and small businesses. Participants reported a declining ability to live off the land, change in timing of the rainy season and pressure to cultivate crops during the dry season. Several participants said that the land no longer gave them much food, and others noted the risks inherent in farming, where they could end up “losing everything” if their crops were affected by weeds or rains failing.

Participants gave varying descriptions of their livelihoods strategies, but in general these involved a combination of growing food to eat, food to store and sell either when prices are higher or in case of an emergency (such as healthcare), and food to sell immediately for outstanding cash expenses. In the Upper West community, those who farmed tended to spend around GHS5-10 per week on additional food. Since for the most part they grew their own food, their main need for cash was for education (see below), health (insurance, medicines, and visits to a traditional herbalist), and funerals (travelling to a funeral or hosting guests who come for a funeral). Some were unable to grow enough food consistently and so had to spend more on food. A sudden unexpected need for money sometimes caused members of this community to sell food that they had in storage, knowing that they would need to buy the same food again later, at a loss, when they could find the cash by growing and selling other crops. The scarcity of cash did occasionally lead to hunger in this community:

> **If you are able to get a bowl of maize you buy and use that and try so that by the time it finishes you are able to get another bowl of maize. A bowl of maize is 1 cedi 20 pesewas. ... if you have money you will buy every week but if you don't have money you sleep hungry.**
> **(adult member, female, Upper West)**

Moreover, there were some cases of quite severe need, and some further cases may not have been readily visible. Some families and individuals had migrated either to work in mines, or to work as labourers on farms elsewhere in the country. We met some who had done this and later returned, but there may have been others who were still working outside the community. They had reportedly migrated because of chronic shortfall of food compared to their needs for food and cash.

Men in the Upper West community worked almost exclusively in farming, but women's livelihood strategies were more diverse. Sewing, trading tomatoes (buying locally and selling them at market in the city), and brewing and selling pito (millet beer), were common ways for women to earn cash income. There were a number of quick ways to earn small amounts of money during the dry season, such as picking fruits and leaves, and as a last resort, charcoal and wood selling. Charcoal was more in demand, and burning it more profitable, in the rainy season, yet tended to be done in the dry season because that was when the extra income was most needed. The widespread reliance on charcoal and wood selling was reportedly problematic because the number of trees in the area was dwindling.

> **With the farming sometimes you farm but you don't even get anything from the land. When you are able to get a bag of maize from the land you have had a lot. What will he do? When sometimes he cultivates an acre of land but you will not get a bag of maize out of that. So what will I do? When I also burn the charcoal and sell what I get from it is what I use to support the family. I use that money to grind flour and buy ingredients for the house. So where will the money be for us to put it together and spend?**
> **(adult member, female, Upper West)**

Children themselves often worked, whether they were going to school or not. Two of the five school-going 15- and 16-year-olds in one group discussion in Upper West, both of them boys, had their own 'gardens' – small allotments of land near the dam. They said that their mothers sold the crops for them, and they gave the money to their parents, who used it for school uniforms and other things that they needed, or to buy fertiliser for the family farm. It was more common for boys than girls to work on their own farm gardens, because girls were expected to help with cooking and other household chores when they came home from school. Some children, such as one boy who lived with his uncle and was out of school, said that they were responsible for their own expenditures such as clothing and school fees. In the Upper West community, a 14-year-old school-going girl and a female junior secondary school teacher both said that some girls who were unable to get enough money from their parents became pregnant after looking for money elsewhere, implying that they engaged in transactional sex.

Some families relied heavily on youth, especially male youth, leaving school to farm, producing enough food to be able to sell some without going hungry and helping younger siblings through school. This kind of strategy, however, was harder for families with less farm land – although people can also sell their labour to other farmers during the rainy season, when it is in demand – and without money to invest in fertilisers and other agricultural inputs. Having a combination of some household members working in farming and some in salaried employment could be advantageous, increasing the household's exposure to the cash economy on the income side while minimising it on the expenditure side.

5.2. Education

Hopes and expectations

In both communities, parents emphasised their aspiration towards jobs outside of farming for their children, and education as a route to those jobs. Aspirations of nurse, teacher, or doctor were often mentioned, although many parents in both communities were fatalistic about their children's futures, suggesting that it was beyond their control or taking it for granted that when children go to school, they will be able to make those decisions for themselves. Parents explained these aspirations in terms of the physical hardship of farming and declining productivity of the land.

> **Going to school is very important. Times are hard now. The land is not able to give us much food any more. [...] Learning also helps us to know a lot of things. When you learn you are able to know a lot of things you didn't know.**
> **(adult member, female, Upper West)**

> **When you don't go to school they won't even take you to be a cleaner.**
> **(adult member, female, Upper West)**

> **I don't want my children to do farming like myself.**
> **(adult member, female, Central)**

Having one or two educated family members who could get salaried jobs in the city was one of the main ways that families hoped to secure their livelihoods in future, given that their farms were becoming less productive and yet they had increasing need of cash to pay for school fees, food bought at the market, and items such as health insurance. Such people, often an uncle living in the city or a grown-up child, were relied on heavily by their families, including for the education of younger children. Indeed, they were relied on by the broader community. Although participants talked about aspiring towards salaried jobs for girls as well as boys, the examples they gave of young people who had found such employment were usually male. This could reflect worse opportunities for young women in urban labour markets, or an expectation that young men, but not young women, would send part of their incomes back to their parental household. Asked about the importance of education, one savings group member who was working as a farmer said that educated people who find jobs can come back and create opportunities for others in the community. In the same discussion, a young man (who was a student himself) gave the example of a man who had completed his university degree and worked in a government department. He had helped other members of the community benefit from a government employment programme. It was not clear what form this assistance took. There are some obvious dangers to this kind of reliance on community networks for access to government assistance: those without such links risk being excluded.

This aspiration towards salaried employment was important for many, but, as noted above, for some families it was also very important to their livelihoods for children and youth to stay in the village and contribute labour; and a child becoming educated to senior secondary level was no guarantee of a good job, although it would help them to find some kind of salaried job. For example, one young woman in the Upper West community was working as a teacher in a private school in the city, but earning only GHS50 (around US$26) per month. However, it was a steady and reliable income and compatible with caring for a young child. She planned to go to training college once her baby was older, and said her parents would support her. Although several members of the community had in the past completed university courses, few of these remained in the community.

We asked a few members in the Upper West community if Plan or other organisations had come to talk to them about education. They said this was not the case; in most cases they had not met anyone from Plan Ghana and did not recognise the name of its Banking on Change partner organisation. However, the potential for savings groups to be used for education had been mentioned by the community volunteer in recruiting members, and education was one of the priority areas in the groups' constitutions for which people could receive loans (see below). In the Central community, Plan's involvement in education was clear; participants told us that Plan staff had encouraged parents to take care of school-going children, and encouraged children to study hard, as well as renovating the school building.

What is needed for learning?

We asked parents and children both about aspects of the school that were beyond their control and those that they could influence, which would affect children's learning.

In terms of school infrastructure and materials, the school in the Central community had reportedly been in bad condition before it was restored by Plan Ghana, but was now considered satisfactory by parents. Asked about bad things in their schools, children in junior secondary school reported that they did not have computers but were still required to sit exams in information and communication technology, and so were at an unfair disadvantage compared to students in the city. In the Upper West community, parents also seemed satisfied, although perhaps not very well placed to judge the quality of the school. Some parents wanted to mobilise for a school to be built in the same village, instead of having to travel to the neighbouring one.

> **The students are learning, the teachers are also doing their best and the building is nice for learning.**
> **(adult non-member, Central)**

The building is okay, the teachers are trying but some of the pupils are difficult.
(adult member, Central)

We are trying to see, if we will get another school in addition to what we have, we will be happy. But if we don't get a school we will continue to have what we have, and we will say it is okay. We will say that children should be managing here for now.
(youth member, female, Upper West)

Although education is officially free at primary and junior secondary level in Ghana, schools were charging small fees, usually around once a term or in the run-up to exams, to cover various costs. Accounts differed on exactly how much these were, but in both communities they totalled around GHS3-6 (US$1.50-3.00) annually at day nursery, GHS12-18 (US$6-9) at primary, and GHS30 (US$15) at junior secondary school. These charges were usually called development levies or exam fees.[20] Children who did not pay these fees could be sent home from school, or barred from sitting an exam. Teachers claimed that these were only threats made to obtain needed funds from reluctant parents, and were not actually carried out; but parents and children in both communities were clear that children were sometimes sent home and in some cases then spent days or weeks at home. For example, one savings group member said that every time she had to pay exam fees her children got sent home, generally staying at home for one week while they helped her burn charcoal or look for firewood to get the money. Children in one focus group (of school-going 15-16 year olds) all said they had been sent home at some point, and that they stayed home for 1-2 weeks before their parents sold food or burned charcoal to send them back.

When your child is sent home from school and the child doesn't return to the school after some time they send people to come and find out why the child is staying at home and is not coming to school any more, whether it is the fault of the parents. Now the government has made us aware that if you don't send your child to school there will be a punishment for you.
(adult member, male, Upper West)

School uniforms and sandals were an expense on a similar magnitude to fees, and the cost increased with age. Basic textbooks were supplied in both primary and junior secondary school, but in the latter students were expected to buy additional textbooks. Teachers at junior secondary level complained that parents did not always buy the required textbooks for their children. Exercise books and other stationery items had to be bought, but the costs of these items was very small compared to the two headline costs, fees and uniforms.

Fees were much higher at senior secondary level – several hundred GHS per year, even in a government school – and in both communities, costs at this level also included accommodation, since children had to live away from home. At senior secondary level, children were apparently not sent home but would have their final

20. Akaguri (2013) explains that parental contribution to the operational costs of a public school is allowed with permission from the School Management Committee or district director. Akaguri's study, based on data from 2008, finds that parents with children in public schools were charged parent-teacher association (PTA) fees and exam fees, but the levels of those fees, at around GHS1per child per year, was lower than in the present study.

exam results withheld until fees were paid.

It was not clear that children always had enough to eat when in school. In some cases children were eating before going to school; others received money from their parents to buy food, and others still were not eating at all. At primary level in the Upper West community, children received food from the school during the mid-morning break, but in the Central community they did not receive any food from the school. In one discussion group in Upper West, children mentioned two students who had collapsed in school in the past year, and said these cases were due to a combination of hunger and being sick with malaria.

As well as material support, parents struggled to provide educational support to their children; they had difficulty understanding how well their children were learning or to help them with school work:

> **When my children come from school they show their books to me and I cannot read, I don't know what is in their books. They say, Mother, look at my work. I tell them I don't know what is in the book and they say the teachers tell them to show their work to their parents when they come home. I don't know what is in the book and so they tell me this is that and that. I've been seeing their work but I don't know what it is but if they tell me they have passed I tell them they have done well and they should keep it up. (savings group member, Upper West).**

Some parents wanted extra help that was not available:

> **The teachers are trying their best but the children also need a helping hand at home after school hours which they don't get. I think the [savings] group should help organise extra classes for our children since that will help them study very hard.**
> **(adult member, Central).**

Choice of school

As already noted, in the Upper West community there were two different government primary and junior secondary schools used both in neighbouring communities. Parents and children were unable to give us very precise answers as to why they were using one school rather than the other, although one student had switched to the more distant school after an incident where books were destroyed and he had to ask his parents to buy new ones for him. It was apparently easy to change school and required no payment, and fees at the two schools were the same. A teacher at the more distant junior secondary school told us that his school was better, as demonstrated by its consistent near-100% pass rate. (But as described below, this was due to children being held back if they were seen as unlikely to pass.) Extra classes were available.

In the Upper West community, within the school, in the final grades of primary and junior secondary schools, to prepare for exams. These were free at primary level but incurred a small fee at junior secondary level, and except for those unable to pay on a particular afternoon, would be attended by all children in the grade.[21] In addition, some students reportedly attended a different type of extra class, conducted by senior secondary completers, in their home compounds or under a tree. The reason for taking these, according to a male school student in one discussion group, was to prepare to take exams at a different school, for students who were being held back at their own school and wanted to try the exam anyway.

In the Central community, parents had the choice – if they could afford it – to send children to a private school. This involved paying for transport every day as well as higher fees. Parents said that they sent their children to this school because they saw it as having a better standard of teaching. Their view had been reinforced by the dilapidated state of the local government school and a severe shortage or absence of teachers. Although some said the government school had since improved, and now had enough teachers, some still considered it of low quality, or just did not want to move their children a second time.

Out of school children

All of the children we talked to in the Central region knew others who were not in school. Reasons included that they "just do not want to be in school" (girl, 13, Central), because of teen pregnancy, and because their parents did not have money to take care of them.

> **... in this village when there is no money, you stop school and what do you do, you go and sell pineapple or fry gari.**
> **(member, Central)**

However, we were unable to locate these children (under 18) at the time of the study, because they were either working outside of the village on a daily basis, or had moved out of the community altogether to find work, only occasionally visiting their parental home. Dropping out of school was related to overage enrolment (see below); children started school at a late age and by the time they reached the end of primary school had often reached an age where they were expected to work. In the Upper West community there were apparently few children out of school, especially below the age of 15. The ones we met included a boy who had never enrolled in school because he was taking care of his disabled 5-year-old sister. He and his father told us that he would enrol the following year, when his sister would enrol at the day nursery. One girl was staying in the village temporarily with her mother, who was visiting her sister who was recovering from an illness. She intended to return to school afterwards, but must have missed several weeks or months. Another boy had left school at primary grade 4 to rear cattle and work on his uncle's farm. One boy and one girl had dropped out when their fathers died. The boy lived with his uncle and no one in his new household would take care of his educational expenses. The girl said her mother would take care of her expenses but they were waiting for the next savings group share out to buy a uniform.

21. According to Akaguri (2013), fees for extra classes are not allowed at primary or junior secondary level.

Children in discussion groups said that reasons for not going to school included taking care of younger siblings; being asked to repeat a year and not wanting to go back; missing an exam due to non-payment of exam fees, and not wanting to repeat the year; and going to work in mines, usually without parents' knowledge. A number of children were 'temporarily' out of school, and the short time frame of this study did not allow us to find out if they would eventually return. Erratic attendance, and spending time out of school due to non-payment of fees, appeared to be more common than dropping out altogether. Both boys and girls could be out of school to care for siblings or other family members, but this type of task was in general more often done by girls. Similarly, both boys and girls could be obliged to stay out of school in order to work outside of the household, but the type of work was gendered, with boys usually working on farms while girls helped with their mothers' small businesses.

One 19-year-old had dropped out of school after becoming pregnant. She said she intended to return to school, although her baby was still young. According to teachers and parents, it was rare but occasionally happened for a woman to return to school after childbirth. However, they would often be made to repeat grades.

Overage enrolment

Overage enrolment was also more common than dropping out of school. Children in primary grade 6, for example, ranged in age from 10 to 20. One reason was that children were held back until deemed ready for the exam. At one junior secondary school there were apparently only 11 children in grade 9, compared to 47 and 37 in grades 7 and 8, respectively. Children were not allowed to progress to grade 9 until teachers thought they would pass the exam. Some children were also enrolled at a late age. In the Upper West community, parents preferred to send them to the day nursery in the same village until they thought they were big enough to travel independently to the primary school in the neighbouring village. Consequently, although most children were attending school, they had in many cases not completed junior secondary school by the time they reached 18 years; using enrolment rates may make educational outcomes look better than they really are in this village.

5.3. The savings groups

How they work in practice

In the Central community, almost every household had a member who was in either a Banking on Change savings group or in a different group that predated Banking on Change. Some individuals were members of both. In the Upper West community, most households had a member in the Banking on Change savings group and a few belonged to other savings groups. There were four Banking on Change groups in each of the communities. In both cases the oldest groups were in their third annual cycle.

Neither Plan Ghana nor its partner organisations were, from what we were told, still involved in an active way in the running of the groups. This reflects the intended working of the VSLA model, whereby Plan supports local partner NGOs to form initial groups and train community volunteers, and groups then maintain themselves. The trained community volunteers worked with a number of groups in different villages, advising them where necessary, although the groups themselves make decisions such as over the minimum and maximum weekly savings amounts, and which types of loan to prioritise.

In Upper West, savings groups members saved between GHS1 and GHS5 every week, and contributed GHS0.20 weekly for the emergency fund. Members could take loans up to three times their savings. According to the community volunteer, each group's constitution decided the priority given to different loan applications; for instance, one group gave explicit first priority to education loans.[22] Members said that there was sometimes pressure on the groups because everyone wanted a loan at once, and so loan applicants would be given a portion of the amount requested rather than the full amount. Loans had to be repaid within three months, although some members told us that if they were not paid they would simply be rolled over for another three months. The interest, GHS0.50 per GHS10 borrowed for 3 months, was equivalent to an annual rate of 22%.

In the Central community, members saved between GHS2 and GHS10 every week, and the interest charged on loans was higher, at GHS7 per GHS100 per month, equivalent to 125% annually. Some members said they would like to save more than GHS10 if they could. As in Upper West, there was a weekly payment of GHS0.20 towards a shared fund, and there were small fines for members who were late or absent at meetings.

A number of participants said that the groups were becoming more useful over time because the funds available for loans, emergency loans, and end of year share outs, were increasing as people saved more. Some members did not trust the group initially; in Upper West, participants recounted a bad experience with an earlier savings group (not related to Plan or Banking on Change) where the leaders absconded with all the money. It appears they joined in response to the encouragement of the community volunteer or NGO staff, but refused to save more than the minimum. Others were

22. The system of prioritisation was mentioned to us by the community volunteer on the final day of the study and we were not able to explore in more detail what the priorities of each group were. Moreover, none of the members mentioned this system of priorities when we asked how loans were obtained, which raises some doubt over whether the system was followed in practice.

reportedly "not serious" about saving at first because they did not understand that the community would keep all the money including interest, and became more serious about saving after seeing the first share out.

Several participants appeared to have raised expectations about benefits of belonging to the savings group, including that they would be more likely to get further assistance such as child sponsorship from Plan, or that bank accounts would be set up for them.[23] Members also tended to stress the easy access to money as loans and downplay the repayment and interest, and talked more about loans than share outs.

Tables 3 and 4 list some example uses of loans and share outs. This is not meant to be representative but gives an idea of the variation. Loans were used for small businesses for women, for agricultural investment usually by men, to pay hospital bills and for educational expenses. Share outs were often used to renovate houses or build on land, and occasionally for school fees.

Table 3. Example uses of share outs

How you used the share out	Amount (GHS)
Education	
> school fees for son at senior secondary school	not known
> part deducted for unpaid loan; rest given to daughter for school expenses	not known
Business and agricultural inputs	
> bought maize, soya beans, millet, beans; will sell when prices rise	264
> bought pig to rear (but it got sick and died); also bought maize and other crops to resell	130
> used part to buy a sewing machine	135
Housing and household goods	
> (wife's share out) restored roof of house	not known
> helped son renovate his room with cement	85
> roofed house (blown away by wind)	100
> added to husband's money to roof house	80
> bought wood for house	240
> built and acquired lands	not known
Reinvested	
> sent the money to the bank for the future	not known
> saved the money in a microfinance bank in a nearby community	600

23. Linkage of groups to formal financial services is an aspect of the Banking on Change programme (see JMK Consulting, 2012), but at the time of the study was limited in Ghana and had not yet happened in these communities.

Table 4. Example uses of loans

How you used the loan	Amount (GHS)
Education	
> paid fees in 1st semester of polytechnic	500
> bought uniform for child; covered housekeeping expenses	65
> helped pay nephew's school fees	100
> sewed school uniform for son	30
> contributed to son's polytechnic fees	60
> paid college fees for daughter who was becoming a nurse	600
> for boy in senior secondary school	200
> children's private school fees; hire people to weed farms	not known
> loan to pay school fees	not known
> paying child's school fees in senior secondary school	not known
Health	
> helped aunt with medical expenses	40
> took daughter to hospital	not known
> helped to pay hospital bills not covered by health insurance	not known
Business / agricultural inputs	
> bought whole rice to husk and sell	60
> bought millet to brew pito	120, 130
> bought tomatoes, peppers locally to sell in market	60, 80
> hired labourers for farm	100, 70
> hired a tractor to plough farm	60
> wife took loan and he used some to buy soya seeds	not known
> bought maize and other produce to sell in Wa	60
> wired house for electricity	60
> started small business trading rice	40
> emergency loan – bought thread, zip, buttons for work	10
> bought electric motor for milling	not known
> acquired materials for sewing business	not known
Housing and household goods	
> moulded blocks for new house	not known
> bought drum for keeping water	65

Note: Where multiple amounts are shown, it means that multiple loans were taken for the same purpose.

Reasons for not joining

In both communities, some people did not join savings groups because they felt they would not be able to raise the weekly savings. Also, many were reluctant to join at first for fear of being tricked and losing their savings. Others apparently did not have time, or were busy on meeting days. Some did not join because they were already members of other savings groups and did not feel the need to join another. In the Upper West community, some had not lived in the village for long, or were moving frequently between different locations for work. Those who did not join initially, or moved to the village recently, had some difficulty starting a new group, which would require them to find 25-30 others in the same situation in the community, and so would have to wait for someone to leave an existing group. This was difficult because there were apparently so few non-members left in the community. When we asked children (including youth under 18) if they wanted to join the savings groups, they said they would not be able to find the money to save, and would not be able to attend because they would be in school. One woman from another part of the country feared quarrels breaking out if she, as an outsider, became active in the savings group, having had a similar experience in another village.

There may have been a larger proportion of non-members among older people who were not the main focus of this study because they did not have school-age children. For example, one woman in the Upper West community who was not a savings group member said that both she and her husband were “weak” because of their age and so would not have anything to save. Thus although the savings groups include a wide spectrum of members, including many very economically insecure or poor households, they do seem to exclude some of the poorest, who cannot get the money together to save each week. Even so, they may still benefit by having relatives who are members, but this is not always the case. People with higher incomes, more education, and strong links to the city also tended not to use the savings groups, preferring to use conventional banks in the city.

Other options for savings and credit

Several other savings groups existed in both communities. In the Upper West these were mostly rotating savings schemes associated with particular types of work, such as tomato growing, pito brewing, and farming. Participants said that funds from these groups could sometimes be borrowed by members to pay, for instance, for educational or health expenses. Borrowing money from informal money-lenders was apparently not an option, except that farmers could sometimes borrow from crops traders, repaying the money later in kind. People would often borrow from friends or relatives. Responses suggested that people prefer taking loans from savings groups for reasons of pride; they would not have to tell everyone their problems. Requests for loans in the savings groups appeared to be approved or declined without the requester having to describe his or her problems in detail.

In the Central region there were existing savings groups, including one that had been running for more than a decade, which were from participants’ descriptions, quite similar to VSLAs: members saved each month and could take a loan once they had saved enough. However loans were repaid in weekly instalments, which according to members could sometimes be "a little pressuring". As in Upper West, people could also borrow from traders, friends and relatives. Some had accounts with banks or with microfinance operations in nearby villages.

5.4. Effects of savings groups on education

Using loans or share outs to pay educational expenses

As noted in Table 4, several participants said they had used loans for educational expenses. Many said that others also took loans to pay school fees or for uniforms. Indeed, many talked about the savings groups as if their main purpose was payment of school fees.

> **Now any time I go for a loan, it's for the payment of the child's school fees.**
> **(adult member, Central)**

> *Do other people living here sometimes have difficulty meeting these [educational] expenses?*
> **A lot but fortunately members of the group are able to acquire loans to cater for such expenses**
> **(adult member, Central)**

Some participants said that they had little trouble in paying school fees, which for the most part came around at predictable times of year. For others, however – perhaps those who were less familiar with the school system, or who did not have enough to put some money or crops aside – educational expenses were unpredictable and a source of uncertainty, and they appreciated the relative ease with which they could take a loan from the savings group.

> **There is a time when you have to pay school fees. When I get the produce from the farm, I keep some and sell it later, so that when the children's fees are to be paid I sell that and use the money to pay for their fees.**
> **(adult member, male, Upper West)**

> **The children are asked to pay exam fees this week, 4 cedis each. If you cultivate the crops and the rains fail. Now 4 cedis each. What and what am I going to sell this month to get the money for them. And they have to pay the money before they write exams. When your children are in junior high school you have to pay 6 cedis and if you have about 3 children in junior high school how are you going to pay all the money?**
> **(adult member, female, Upper West)**
> **The savings group is helping. It is helping a lot. Like I was saying when one of our children is going to school and you go and borrow money from the savings group a loan is helpful. You know**

that somebody has money and you trust the person but when you go to the person to give you a loan they will not give you. As you are aware some of us have and some also do not have [money]. You tell them everything about what you are going through but they will not give you the money. But as for the savings groups, like we are sitting now, if you tell them you need some money and they ask you what for you are able to tell them what you need the money for. You will be given the money.
(adult member, female, Upper West)

Children, particularly the out-of-school teenagers interviewed in the Upper West community, reported previously having been at least partly responsible for their own educational expenses, and said that since the savings groups had started, they could now ask their parents for money instead.

As Table 3 shows, participants in some cases used share outs to pay school fees, especially at secondary level. But they mentioned share outs much less frequently than loans as the advantage of the savings group for education. However, this may have reflected the concentration of children at primary and junior secondary school in the study sites. The loans taken were generally small amounts – usually much smaller than the maximum amount of three times the savings balance. These amounts were a better fit for the relatively small expenses associated with basic education, and for larger expenses such as house renovations or major business investments, people seemed to prefer using the share outs.

Improved income or livelihoods

Several participants said explicitly that they could now pay for educational expenses more easily because their incomes had increased following participation in the savings groups. Share outs and loans could be used to invest in fertilisers, hire labourers, or hire a tractor, for farms, reportedly resulting in large increases in productivity.

I use it to hire labour on my farm which increases my productivity. I now spend more on my farm. I can now also cater for my children's educational expenses.
(adult member, Central)

The share outs have helped me in transforming my business as a miller. Proceeds from this have been to buy an electronic motor that has helped in my work since I no longer have to buy diesel or use manpower. Now I use electricity without buying diesel, which used to cost a lot.
Has this made things possible in relation to education that wouldn't have been possible otherwise?
Yes because I've been able to save part of the money to send my son to a private school.
(adult member, Central)

The savings groups were also attributed with keeping people in the local community and reducing the need to travel for work, which, as seen above, could disrupt children's education.

> **People no longer travel to other places for greener pastures as before; they often returned with one problem or another. Now people stay because they can get assistance.**
> **(adult member, Central)**

Improved health or nutrition

Few participants reported major health problems in their families, but some in both communities did report taking savings group loans to cover medical expenses. Participants also reported that hunger had reduced in the Upper West community as a result of being able to take loans from the savings group.

> **When the savings group wasn't started, sometimes you are hungry and you don't even know where your next meal is coming from. But now that the savings group is here you can go there for money at any time and go to the market to buy food and try to get the money to pay back later.**
>
> ***So has it reduced hunger in the community?***
> **There is still hunger in the community but it has reduced.**
> **(adult member, female, Upper West)**

Lower need for child work

Although this study is not able to determine whether the savings groups has led to a change in household's need for child work, it was clear that children in the communities do work, looking after siblings, helping with household work, helping parents or other relatives on their farms, or working as a labourer on someone else's farm. Work on farms tends to be mainly done by older children (aged around 11 or older), but household work such as looking after siblings is done even by quite young children. School hours in these communities left children free during the afternoon to work if they needed to, but it is still possible that where a household needed more income they would have to stop school altogether to work. Teachers told us that many children disappeared from the classroom during the rainy season, when more labour was needed, and did not report any change in this absenteeism since the savings groups started.

According to school-going children in discussion groups, the savings groups had not eliminated the need for them to work occasionally. In one discussion in Upper West, three girls aged around 14 said that they sold charcoal once a month, getting GHS4-6 for a bowl. They sometimes used this money to buy sandals, asking for extra money from their parents if necessary. Other children appeared to have quite a heavy burden of labour; for instance, one school-going girl did chores in the house, washed dishes, helped with pounding grains, and helped to look after her brother and sister; one boy, also school-going, tended his family's goats, fetched water, and weeded the farm with his father. These descriptions are consistent with a gendered division of child labour mirroring that for adults, so that boys worked more on farms while girls worked in the household and in the types of small business also undertaken by adult women, such as charcoal burning.

Decision-making

When asked about who makes expenditure decisions, most participants said that male adult household members were responsible. However, probing revealed that some children would go to their mothers for school-related expenses in the first instance, and only if they did not have the cash would they turn to their fathers. Indeed children themselves appeared sometimes to be made responsible for their own school expenses, turning to their siblings, parents, or other relatives if they did not have the money themselves. Even where fathers are more closely involved in such spending decisions, the scope for making this decision may depend partly on how much has been put aside, over a longer period of time, by children's mothers. Children in the discussion groups said that, since the savings groups started, they turned to their siblings less often and were able to ask their mothers for money instead.

One female participant who was a member of a non-Banking on Change savings group in the Central community, claimed savings groups had made it easier for women to make expenditure decisions.

> **We the women now have the financial power and we can meet our monetary needs.**
> **(adult non-member, female, Central)**

This suggests that savings groups may be having a subtle effect by placing more income in the hands of women, even where their husbands are still formally in charge.

There was some evidence of changes in spending patterns resulting from the need to keep some money to save each week. Participants reported being careful to make sure they earned enough cash income, and careful to keep enough of it aside for the savings group, and in turn linked this to paying for education. For instance, a 16-year-old girl in one of the children's discussions groups, said that some parents previously used their money to drink pito but now prefer to save it. A savings group member said that small amounts of money she would previously have spent on unnecessary things, she now saved; and that she was more serious about selling produce to make sure there was enough money.

> **Whenever I am spending money, I think of the savings group first which I will have to meet before any other expenses.**
> **(adult member, Central)**

Some participants reported not using the share outs immediately but saving it for the future.

> **I send the money [from share outs] to the bank for savings. I save it for future use. So I don't use the money for my business. ... Before, I was wasting money. But now I am able to save the money.**
> **(adult member, Central)**

Overall effect

Without having reliable enrolment data over time, and also without being fully able to control for other changes such as more favourable attitudes towards education, government and NGO messages on education, and falling revenues from farming, it is difficult to be certain about the effects of the savings groups. But according to several accounts more children were going to school than previously and fewer were being sent home because of non-payment of fees or to work on farms. A primary school teacher interviewed in Upper West said that there had been a dramatic improvement in the junior secondary school exam pass rate, which had previously been poor but in 2012 was 100%. However he did not know if this was due to changes in the students, their parents, or the teachers. As already noted, schools tended to hold back students not considered capable of passing, and the strictness with which they did this may explain changes in the pass rate more than any objective change in learning conditions. One junior secondary school teacher said that previously, children would not come to school because of money, but that absenteeism had reduced since the savings group started. Day nursery teachers reported children were healthier, cleaner, and more smartly dressed.

In the Central community, the savings group had also, according to participants, spearheaded a shift away from the government school, seen by some as poor quality, and into a private school:

> ***Has the savings group made things possible in relation to education that wouldn't have been possible otherwise?***
> **Yes it has helped children's education. First they all went to government school but now I have taken some of them to private school where I can pay. They don't teach them well in the public schools.**
> **(adult member, Central)**

While seen in a positive light by the participants who had moved their children to private schools, there are some evident risks in terms of inequality and exclusion of the poorest; savings groups appeared to be helping slightly better off families to gain an educational advantage over those whose incomes were not sufficient to make regular savings.

We asked whether representatives of Plan or its partner organisations had talked to savings groups about education, and members reported that this was not the case. However, the very close and near-universal association that participants in the study made between the savings groups and education, suggested to us that it was part of a discourse that had emerged within the groups concerning legitimate and prioritised uses of loans. As noted above, groups also explicitly prioritised education in some cases. The detailed and substantial descriptions of how loans and share outs were used for education suggested, though, that this discourse was also linked to actual practices and that members found these beneficial.

Limitations of the savings groups

The discourse presented by parents in this study often stressed the ease of taking loans to pay school fees, and downplayed the fact that it would have to be repaid eventually or any difficulty in repaying. Paying school fees appears to have been one of the main reasons used by community volunteers to encourage people to join, and parents' discourse may have reflected this. On the one hand, the groups were both providing additional income at the end of the year and encouraging small businesses that could result in longer-term income growth. On the other hand, some people had to rely on labour-intensive and not very sustainable activities such as charcoal burning to repay loans in time; loans did not exempt them from this kind of activity but merely gave them more time in which to do it.

The savings groups, still being only in their second or third cycles, had not yet built up funds on the scale that some participants felt was needed for higher levels of education.

> **(A) In terms of education, if [it is] not [a] small amount of money, the money from the savings cannot pay when the children go higher [in school], considering what you are saving. Some of them when their fees come it is more than five times what you have saved. Money from the [savings group] 'small box' (dagibile) cannot pay for these fees. So the savings help to pay for when there are small problems.**
> **(V): In Kaleo [a market town near the regional capital] a lot of people are engaged in businesses and at the end of the year people were able to get about 1,500 to 2,000 Ghana cedis from the share out.**
> **(A) Because there is no work (business) here people save with poverty.**[24]
> **(A, member, and V, non-member, both female adults, Upper West)**

Arguably, this should not be seen as a criticism of savings groups, but simply reflects their long-term and sustainability-oriented nature; they cannot in themselves generate profits that are not already in the community.

[24] Sic, apparently meaning saving in a poor way as a result of being poor.

6. Conclusions

Taken together, the results of the literature review and qualitative research in Ghana suggest that savings groups may be quite diverse in their effects on education. There are several cases, including the Banking on Change projects we saw in Ghana and the Ugandan sub-sample in the RCT study by Karlan et al. (2012) where education is among the major reasons given for taking loans. In Ghana, the Banking on Change savings groups had explicitly decided to allow, and in some cases, prioritise, loans for education. There are also several cases from the literature review and a few in the Ghana study, of using savings group share outs to cover educational expenses.

Harder to substantiate is whether educational expenditure actually increases as a result of the savings groups. The possibility arises that people give education as the reason for taking a loan, but the loan is simply displacing other funds, and any increase in expenditure is channelled elsewhere. Nevertheless, a number of evaluations have found increased education expenditure, although several of these lack a control group against which comparison could be made, and in some cases savings groups were combined with other interventions likely to affect education, such as literacy training. However, Bundervoet et al. (2011) find increases in education spending that are higher for savings group members than non-members in Burundi. The primary research in Ghana found that, in one of the study sites, people were using increased overall income, and access to loans, to send more children to private schools in response to a problem in teacher supply at the government school. In the other study site in Ghana, we found few children who had progressed beyond junior secondary school, no private schools and little private tuition; it is therefore not surprising that there was not much variation in expenditure.

There are several studies claiming an improvement in education outcomes, usually measured in terms of enrolment or attendance. Karlan et al. (2012) find suggestive evidence for an increase in enrolment, particularly in Ghana. CARE (2012) in Rwanda, and the primary fieldwork in Ghana, find that participants saw education as having improved due to the savings groups. The mechanisms remain difficult to pin down, but in Ghana appear to involve a combination of overall, gradual improvement in income, especially from small businesses operated by women, and better ability to pay fees on time, resulting in children being sent home from school more rarely. In the literature review, an effect of savings groups on overall income or livelihoods was difficult to discern; this may be because savings groups emphasise consumption smoothing rather than increases in total income, and perhaps also because the savings groups they examine are not yet fully mature, and new income generating activities do not immediately result in large increases in income.

There is evidence in some studies of savings groups affecting health, nutrition, child labour, and decision-making, in ways that are likely to affect education in turn, in the medium to long term. In some contexts loans or share outs are used for food and healthcare expenses, and there is evidence from several studies of health and nutrition impacts, although not from the most rigorous studies. Savings groups appear to shift expenditure decisions towards female household members, which past research has suggested may increase expenditure on children. On child labour, there are mixed results. In Ghana, participants in our study said that the use of loans for urgent expenditures and to increase production was helping to avoid the need for children to work. In the literature review, there are studies suggesting both decreases and increases in child labour resulting from savings groups. This finding is not surprising given that increased business activity, and increased farming inputs, may raise the demand for extra labour.

With regards to their educational impacts, there is a need for caution about over-selling savings groups, both in international debates and at the level of the villages where they are being introduced. The evidence base is still sparse, but expanding with longer-term, larger-scale, and better-designed evaluations underway. The studies by Bundervoet et al., 2011, and EMC and Wancer, 2010, are both parts of a longer evaluation that should provide more results further down the line. Plan Canada has initiated a project which collects financial diaries from a sample of 110 members of savings groups for youth in Senegal, Niger, and Sierra Leone. An initial analysis based on data from the first six months suggested that loans and savings withdrawals are used for education, but did not find evidence that educational expenditure increases following loans or withdrawals.[25]

There is no evidence to suggest savings groups are harmful – with the possible exception of appearing to foster changes in livelihood strategies that increase child labour in some cases – and they may fulfil a modest but important role in helping households to smooth consumption. But savings groups should not be seen as a cheap substitute for more costly interventions that may be needed to ensure that children's rights, including free access to a quality education, are fulfilled. Given the evidence that some people do not join savings groups because their incomes are too low or because they migrate for work, savings groups may not be the best instruments for reaching the poorest or those who are otherwise marginalised, meaning complementary measures may be needed that target these groups in particular.

Given the variation between countries and projects already observed in the sparse evidence base, it may be difficult to generalise research from one context to another. A possible reason is that savings groups are set up with different attitudes towards education. As Bauchet et al. (2011) point out, microfinance has generally been linked to enterprise development. The research literature reviewed does not always bring out very clearly the tacit and explicit expectations about what loans will be used for, and it remains to be seen whether some groups are discouraging or refusing loans for education, health, or consumption. If this is the case, then it may be useful for education advocates to engage with the savings group and microfinance community more generally to make sure that the idea of education as a longer-term investment is widely accepted. That said, education will not usually provide the short-term returns that would help to minimise the risk of non-repayment of loans.

New research and evaluations of savings groups and microfinance in general needs to use better education indicators than is sometimes the case currently. Enrolment rates may not always pick up on educational disadvantage in countries where most children are enrolled, but many are overage, repeating grades, and unlikely to attain the qualifications for further education or formal work that they aspire towards. The effects in the short to medium term are likely to be quite small and difficult to detect

25. Details are available upon request by contacting Plan UK at karen.moore@plan-uk.org.

statistically, and may be drowned out by the effects of broader trends such as an expansion of the school supply (when these broader trends are properly controlled for). It also needs to be remembered that children may spend time out of school without necessarily dropping out altogether, with incremental effects on their educational outcomes that may not be reflected in the enrolment rate. Poor quality of schools, high-stakes exams and grade repetition practices, may also impede them from progressing. Grade attainment, controlling for age, is a good indicator that can be combined with enrolment (e.g. a single variable indicating if the child is enrolled in school and at roughly the right grade for his or her age) or used separately, to increase the sensitivity of the research to changes in education. Studies may also want to consider measures of learning attainment.

Savings groups continue to hold considerable potential to improve educational outcomes, but the effects may often be at the margins: the households that are not quite able to afford fees or school uniforms every time they are needed; the children who do not drop out altogether, but whose education is cumulatively affected by time out of school. Further research on this topic therefore needs to be sensitive, rigorous enough to account for wider social and economic changes, and acknowledge that any impact may be indirect, through channels such as income, health, and decision-making, and observable only over the medium or long term.

7. References

Abebe, S. and B.H. Selassie (2009) Report on impact evaluation of WORTH literacy-led savings and credit program. Submitted to Pact Ethiopia. Accessed March 2013 http://www.seepnetwork.org/impact-evaluation-on-worth-ethiopia-literacy-led-savings-and-credit-program--resources-684.php.

Akaguri, L. (2013) Fee-free public or low-fee private basic education in rural Ghana: how does the cost influence the choice of the poor? *Compare*, DOI:10.1080/03057925.2013.796816.

Alderman, H., Hoddinott, J. and Kinsey, B. (2006) Long term consequences of early childhood malnutrition. *Oxford Economic Papers*, Vol. 58, No. 3, pp. 450–74.

Allen, H. and F. Bekele (2008) Women's Enterprise Development Project. Final evaluation. Farm Africa, Ethiopia.

Allen, H. and D. Panetta (2010) Savings groups: what are they? The SEEP Network. Accessed February 2013 http://www.seepnetwork.org/savings-groups--what-are-they--resources-175.php.

Allen, H. (2009a) Impact and programme evaluation of Plan and UHIKI's joint VSL programme in Tanzania. Plan / VSL Associates.

Allen, H. (2009b) Impact and Programme Evaluation of Plan and Community Vision's joint VSL Programme in Uganda. Plan / VSL Associates.

Allen, H. and P. Hobane (2004). Impact Evaluation of Kupfuma Ishungu, February 2004. Harare and Arusha. Accessed March 2013 http://edu.care.org/Documents/Kupfuma%20Ishungu%20Impact%20Evaluation%20Report.pdf.

Allen, H. (2005) DFID's Financial Sector Deepening Uganda Project. Savings and Loan Associations pilot project – West Nile. Project review report. Accessed March 2013 at http://www.fsdu.or.ug/pdfs/SLA_Pilot_Project_Review_Report_Final.pdf.

Anyango, E., E. Esipisu, L. Opoku, S. Johnson, M. Malkamaki and C. Muskoke [2006] Village Savings and Loan Associations in Zanzibar. Decentralised Financial Services (DFS) / DFID Financial Sector Deepening Project Uganda. Accessed March 2013 http://edu.care.org/Documents/DFS-DFID%20VSLA%20in%20Zanzibar%20(281106%20final).pdf.

Anyango, E., E. Esipisu, L. Opoku, S. Johnson, M. Malkamaki and C. Musoke (2007) Village Savings and Loan Associations - experience from Zanzibar. Small Enterprise Development, 18, 1, 11-24. Accessed March 2013 http://www.seepnetwork.org/village-savings-and-loan-associations---experience-from-zanzibar-resources-768.php.

Anyango, E., J. Mvula, J. Maulana, M. Sikero, I. Luke, and O. Gondwe (2005) Central Region Livelihood Security Project (AusAID). Impact assessment report of Village Savings & Loans Component (VS&L). Lilongwe, and Dowa districts. CARE Malawi. Accessed March 2013 at http://edu.care.org/Documents/Central%20Region%20Livelihood%20Security%20Project_Impact%20Assessment%20Report.pdf.

Ashraf, N., D. Karlan and W. Yin (2006) Tying Odysseus to the mast: evidence from a commitment savings product in the Philippines. *Quarterly Journal of Economics*, May, 635-672.

Ashraf, N., N. Gons, D.S. Karlan and W. Yin (2003) A review of commitment savings products in developing countries. Accessed February 2013 at http://karlan.yale.edu/p/commitment-savings-product-review.pdf.

Augsburg, B., R. de Haas, H. Harmgart and C. Meghir (2012) Microfinance, poverty and education. Accessed March 2013 http://www.povertyactionlab.org/publication/microfinance-poverty-and-education.

BARA (2008) Operational evaluation of Saving for Change in Mali. Accessed March 2013 http://www.seepnetwork.org/operational-evaluation-of-saving-for-change-in-mali-resources-706.php.

BARA (2010) Baseline study of Saving for Change in Mali: results from the Segou expansion zone and existing SFC sites. Report commissioned by Oxfam America, Freedom from Hunger and the Stromme Foundation. Accessed March 2013 http://www.ffhtechnical.org/resources/articles/baseline-study-saving-change-mali-results-segou-expansion-zone-and-existing-sfc-sites.

BARA and IPA (2013) Final impact evaluation of the Saving for Change program in Mali, 2009-2012. Bureau of Applied Research in Anthropology, University of Arizona, and Innovations for Poverty Action. Evaluation commissioned by Oxfam America and Freedrom from Hunger.

Barber, A. (2011) Transforming lives: can savings and credit group membership work for people affected by HIV/AIDS? A South African case study. Paper commissioned by Universitas Forum. Accessed March 2013 http://www.seepnetwork.org/transforming-lives-resources-762.php.

Barnes, C., G. Gaile and R. Kibombo (2001) The impact of three microfinance programmes in Uganda. Paper submitted to USAID/Uganda.

Bauchet, J., C. Marshall, L. Starita, J. Thomas and A. Yalouris (2011) Latest findings from randomized evaluations of microfinance. Access to Finance Forum, No. 2. Washington, D.C.: Consultative Group to Assist the Poor (CGAP).

Boyle, P. (2009) Making financial services and business skills development available to African children and youth: a pilot. Assessment of phase 1: August 2007 to October 2009. http://www.seepnetwork.org/making-financial-services-and-business-skills-development-available-to-african-children-and-youth--resources-693.php.

Boyle, P. (2009) Plan Burkina Faso. Namentenga Village Savings & Loan Project. Evaluation of impact of the Tougouri Pilot Phase Project and establishment of baseline data for Phase II. Accessed March 2013 http://www.seepnetwork.org/evaluation-of-impact-of-the-touguri-pilot-project-and-establishment-of-baseline-data-for-phase-ii--resources-668.php.

Brune, L., X. Gine, J. Goldberg, D. Yang (2011) Commitments to save: a field experiment in rural Malawi. Policy research working paper 5748. Washington, D.C.: World Bank. Accessed February 2013 at http://go.worldbank.org/O1MM8TTGK0.

Buxton, C. (2011) The impact of malnutrition on access to primary education: case studies from Ghana. CREATE Pathways to Access 68. Falmer: Consortium for Research on Educational Access, Transitions and Equity, University of Sussex.

Bundervoet, T., J. Annan and M. Armstrong (2011) Urwaruka Rushasha: A Randomized Impact Evaluation of Village Savings and Loans Associations and Family-Based Interventions in Burundi. Findings from the mid-term survey.

CARE (2012) Impact of a village savings and loan intervention. Evidence from Rwanda sustainable access to financial services of investment project. Impact evaluation report.

DAI (2010) Group savings and loans associations. Impact study. Financial Sector Deepening (FSD) Kenya. Accessed March 2013 http://www.fsdkenya.org/pdf_documents/11-01-19_GSL_Impact_assessment_study.pdf.

Deininger, K. and Y. Liu (2012) Economic and social impacts of an innovative self-help group model in India. *World Development*, 43, 149-163.

Dercon, S. and P. Krishan (2009) Poverty and the psychosocial competencies of children: evidence from the Young Lives sample in four developing countries. *Children, Youth and Environments*, 19, 2, 138-163.

Desai, J., K. Johnson and A. Tarozzi (2011) On the impact of microcredit: evidence from a randomized evaluation rural Ethiopia (preliminary). Accessed March 2013 http://www.povertyactionlab.org/publication/impact-microcredit-evidence-randomized-intervention-rural-ethiopia.

Devietti, E. and J. Matuszeski (2009) Saving for Change program assessment. Accessed March 2013 http://www.seepnetwork.org/saving-for-change-program-assessment--el-salvador-resources-735.php.

DHS (2009) Ghana. Demographic and Health Survey 2008. Accra: Ghana Statistical Service / Ghana Health Service, and Calverton: ICF Macro. Accessed April 2013 http://www.measuredhs.com/pubs/pdf/FR221/FR221[13Aug2012].pdf.

Dills, L., M. Mayson, and A. Mukankusi (2008) Increasing savings and solidarity among households with orphans and vulnerable children in Rwanda. Microfinance Learning Paper 3. Catholic Relief Services. Accessed March 2013 http://www.seepnetwork.org/increasing-savings-and-solidarity-among-households-with-orphans-and-vulnerable-children-in-rwanda--resources-686.php.

Dovi, B.Y. (2008a) Évaluation d'impact du projet « Associations Villageoises d'Épargne et de Crédit » (AVE&C) dans le préfecture de l'est-mono au Togo. Données de référence (Enquête de rang 1).

Dovi, B.Y. [2008b] Évaluation d'impact du projet « Associations Villageoises d'Épargne et de Crédit » (AVE&C) dans le préfecture de l'est-mono au Togo. Données de référence (Enquête de rang 2).

Dupas, P. and J. Robinson (2010) Savings constraints and microenterprise development: evidence from a field experiment in Kenya. Working paper. Accessed February 2013 at http://economics.ucsc.edu/research/downloads/savings-constraints.pdf.

Dupas, P. and J. Robinson (2011) Why don't the poor save more? Evidence from health savings experiments. Working paper 17255. Cambridge, MA: National Bureau of Economic Research.

Duvendack, M., R. Palmer-Jones, J.G. Copestake, L. Hooper, Y. Loke and N. Rao (2011) What is the evidence of the impact of microfinance on the well-being of poor people? London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

EDA Rural Systems and Andhra Pradesh Mahila Abhivruddhi Society (APMAS) (2006) Self help groups in India. A study of the lights and shades. Accessed March 2013 http://www.seepnetwork.org/self-help-groups-in-india---a-study-of-the-lights-and-shades-resources-749.php.

Edwards, R. (2010) Saving for Change in Mali: a study of atypical groups from Sissako to Kayes. Accessed March 2013 http://www.seepnetwork.org/saving-for-change-in-mali--a-study-of-atypical-groups-from-sikasso-to-kayes-resources-737.php.

Emerging Markets Consulting and M. Wancer (2010) Saving for Change's research study in Banteay Mean Chey and Kampot Provinces. Oxfam America. Accessed March 2013 http://www.seepnetwork.org/saving-for-change-evaluation-study-in-bentay-menchay-and-kampot-provinces-resources-750.php.

Garnier-Crussard, P. (2011) Saving for Change case studies in Sirakoro. Oxfam. Accessed March 2013 at http://www.seepnetwork.org/saving-for-change-case-studies-research-in-sirakoro-resources-731.php.

Gash, M., M. Maxwell, V. Arredondo, B. Brown, J. Farrell, B. Guerra, T. Heaton, E. Linton, R. Morgan, Y. Seino and B. Crookston (2013) Saving for Change Impact Stories Follow-Up Research Report. Accessed March 2013 http://www.seepnetwork.org/saving-for-change-impact-stories-follow-up-research-report-resources-935.php.

Helmers, C. and M. Patnam (2010) The formation and evolution of childhood skill acquisition: evidence from India. *Journal of Development Economics* 95, 2, 252-266.

Jahns, E. (2012) Savings groups and coping strategies in rural El Salvador. A study conducted in association with Catholic Relief Services and the Agriculture for Basic Needs Project. Accessed March 2013 http://www.seepnetwork.org/filebin/pdf/Elke_Jahns_-_Savings_Groups_and_Coping_Strategies_in_Rural_El_Salvador.pdf.

JMK Consulting Ltd (2012) Banking On Change: impact survey of village savings and loan associations. Final report. Draft.

Karlan, D., B. Thuysbaert, C. Udry, E. Cupito, R. Naimpally, E. Salgado and B. Savonitto (2012) Impact assessment of savings groups. Findings from three randomized evaluations of CARE Village Savings and Loan Associations programmes in Ghana, Malawi and Uganda. Final report. New Haven: Innovations for Poverty Action.

Okeyo, D.O. (2013) Banking on Change Project Final Evaluation Report. Unpublished report submitted to CARE Kenya.

Oslin, J.M. (2007) Saving for Change in El Salvador. Pilot project evaluation. Accessed March 2013 http://www.seepnetwork.org/saving-for-change-in-el-salvador-resources-736.php.

Panetta, D. and K. Conroy (2011) Beyond financial services. The DFID Chars Livelihood Programme in Northern Bangladesh: The Promotion of Village Savings and Loan Associations in a Multi-Input, Rural Livelihoods Programme. Aga Khan Foundation. Accessed March 2013 http://www.akdn.org/publications/beyond_financial_services_chars_livelihood_programme_bangladesh.pdf.

Pridmore, P. (2007). 'Impact of health on education access and achievement: A crossnational review of the research evidence.' CREATE Pathways to Access No 26. Falmer: Consortium for Research on Educational Access, Transitions and Equity, University of Sussex.

Prina, S. (2013) Banking the poor via savings accounts: evidence from a field experiment. Working Paper. Accessed February 2013 http://faculty.weatherhead.case.edu/prina/pdfs/prina_savingsaccounts_2013.pdf.

Ranis, G., F. Stewart and A. Ramirez (2000) Economic growth and human development. *World Development*, 28, 2, 197-219.

Seng, S., V. Sean, C. Keartha, L. Sokhom and P. Phira (2007) Saving for self-reliance initiative in Cambodia. Qualitative evaluation report. Accessed March 2013 http://www.seepnetwork.org/saving-for-self-reliance-initiative-in-cambodia-qualitative-evaluation-report-resources-738.php

Shimamura , Y. and S. Lastarria-Cornhiel (2009) Credit program participation and child schooling in rural Malawi. *World Development*, 38, 4, 567-580.

Sinha, F. (ed., 2009) Microfinance self-help groups in India: living up to their promise? Rugby: Practical Action.

Ssewamala, F.M., J.S.-H. Wang, L. Karimli and P. Nabunya (2011) Strengthening Universal Primary Education in Uganda: The potential role of an asset-based development policy. *International Journal of Educational Development*, 31, 5, 472-477.

Swarts, B., P. Bukuluki, G. Mwangi and J.R. Wanyama (2010) Empowering better care: report on economic strengthening for OVC caregivers in Uganda. Summary of findings. Accessed March 2013 http://www.seepnetwork.org/empowering-better-care---report-on-economic-strengthening-for-ovc-caregivers-resources-787.php.

Triodos Facet (2013) Report: final evaluation of the Banking on Change programme in Africa. Unpublished report.

UNESCO (2012) World Inequality Database on Education (WIDE). Ghana. Data downloaded April 2013 http://www.education-inequalities.org/countries/ghana#?dimension=all&group=all&year=2008.

Valley Research Group (VARG) and L. Mayoux (2008) Women ending poverty. The WORTH program in Nepal. Empowerment through literacy, banking and business. Accessed March 2013 http://www.pactworld.org/galleries/worth-files/Nepal_Final_Report_Letter_0825_PDF.pdf.

Van Rooyen, C., R. Stewart and T. de Wet (2012) The impact of micro-finance in sub-Saharan Africa: a systematic review of the evidence. *World Development*, 40, 11, 2249-2262.

Zollmann, J. (2010) Waiting for rain, reaching for mangoes. The origins, evolution, and role of savings groups in rural Swaziland. Accessed March 2013 http://www.seepnetwork.org/waiting-for-rain--reaching-for-mangoes-resources-771.php.

8. Appendix – Studies consulted for the literature review

Reference	Country	Intervention and organisation	Methods	Relevant findings on impact
Abebe and Selassie (2009)	Ethiopia	WORTH (Pact)	Survey with recall data; no control group; MM	Increased reported school enrolment but attributed to awareness-raising component of programme. Members reported decision-making in areas including child marriage and education had increased.
Allen (2005)	Uganda	Financial Sector Deepening Uganda – Savings and Loan Association pilot (DFID/ CARE[26])	Survey with questions about impact; MM	Drop in number of children not attending school due to lack of school fees.
Allen (2009a)	Tanzania	Plan-UHIKI joint VSL programme	Small scale survey with recall data; no significance tests. Control group	Per cent of children unable to attend school due to lack of money decreased for boys but increased for girls. Larger gains in non-productive assets among members than control group. Large reported increases in children employed in income generating activities. Increase in meals per day among member households, compared to decrease in control group. Little difference in control over resources or decision-making that could be attributed to savings group membership.
Allen (2009b)	Uganda	Plan-Community Vision joint VSL programme	Small scale survey with recall data; no significance tests. Control group	Drop in % of children unable to attend school due to lack of money among members; increase among non-members. No change in assets. Small increase in child labour. Increase in meals per day among member households, compared to decrease in control group. Larger shift towards female control of family resources among members than control group.
Allen and Bekele (2008)	Ethiopia	Women's Enterprise Development Project (FARM Africa)	Small scale survey with recall data; control group of non-members from same areas	Large reported drop in % of children not in school among members, but not non-members. Larger increases in assets for members than non-members. Increase in meals per day among member households, compared to decrease in control group.

[26] The programme was initiated by CARE and later transferred to a local association, CREAM (Consultancy for Rural Enterprise Activities Management).

Reference	Country	Intervention and organisation	Methods	Relevant findings on impact
Allen and Hobane (2004)	Zimbabwe	Kupfumu Ishungu (CARE)	Survey with recall data; no control group	Increases in productive assets among members.
Anyango et al. (2005)	Malawi	VSL component of CARE/ AusAID Livelihood Security Project	Baseline-endline comparison with non-randomised treatment and control groups	Does not report on educational expenditure or outcomes. Wealth ranking improved for savings group member households but not in control villages.
Anyango et al. (2006, 2007)	Tanzania (Zanzibar)	CARE VSLAs	Survey of members and past members. MM	Few members thought education had improved since joining the programme. Respondents reported improved standard of living and increased incomes.
BARA (2008, 2010); BARA and IPA (2013)	Mali	Saving for Change [27]	RCT	No impact on school enrolment or education expenditure. Improved food security. Members highly valued modest consumption-smoothing effects.
Barber (2011)	South Africa	SaveAct (partnered with HIV/AIDS-oriented community-based organisations)	Mainly qualitative interviews with members	Participants cited health as most important benefit of group membership.
Boyle (2009)	Burkina Faso	Plan VSLA pilot	Rolling baseline with control group. MM	Productive assets and use of some agricultural inputs increased more among members than non-members. Higher use of child labour among members. Large increases in women's reported control over resources.
Bundervoet et al. (2011)	Burundi	USAID-funded VSLA, with/without family-based discussion groups	RCT	Larger increases in education spending in the treatment group. Improvements in household assets and child wellbeing.
CARE (2012)	Rwanda	Sustainable Access to Financial Services of Investment (CARE VSLA)	Rolling baseline; no control group	Most respondents said access to education had not changed. No increase in educational expenditure. Primary and secondary NER increased. Slight drop in poverty among member households. Interviewees said revenue had increased. Large increases in assets. Most participants reported improved quantity and quality of meals and access to healthcare. No change in amount spent on healthcare. Increases in women's contribution to expenditure and decision making, including for children's schooling.

[27] At the time of the BARA studies, there were existing Savings for Change interventions run by Oxfam. The ongoing programme is implemented jointly by Oxfam America, Freedom from Hunger, Plan Mali and the Stromme Foundation with local partners. The other Saving for Change interventions in this table were implemented, unless otherwise stated, by Oxfam America, Freedom from Hunger, Plan, and the Stromme Foundation.

Reference	Country	Intervention and organisation	Methods	Relevant findings on impact
DAI (2010)	Kenya	CARE Group Savings and Loans Associations	Survey and FGDs	(Does not examine education or other impacts.)
Deininger and Liu (2012)	India	Self-help groups	Pipeline comparison; PSM/DID	No increase in income or assets, but increased consumption and nutrition, among members. Increased 'female empowerment' in programme villages, with spillover effects on non-members in the same community.
Desai at al. (2011)	Ethiopia	Microcredit (Packard Foundation through local partners)	RCT	School attendance improved.
Devietti and Matuszeski (2009)	El Salvador	Saving for Change (Oxfam America)	Small scale survey; mixed methods	(Does not examine impact on education.) No reported increase in assets.
Dills et al. (2008)	Rwanda	SILC (Catholic Relief Services)	No control group	Rise in % of households saving for education. Reduction in school drop-out.
Dovi (2008a, b)	Togo	VSLA (Plan Togo)	Survey with recall data. Compares members and non-members	More members than non-members thought conditions of education or apprenticeship had improved. No change in enrolment. More members than non-members thought assets had increased in past year. Little change in child participation in economic activities. Greater improvements in nutrition for members than non-members. Use of health centres increased more for members than non-members.
Edwards (2010)	Mali	Saving for Change	Qualitative study of "atypical" groups	Describes creation of new savings groups for children. Loans used for children's needs including school supplies.
EMC and Wancer (2010)	Cambodia	Saving for Change (Oxfam America and local partners)	Rolling baseline	SfC reduced dependence on moneylenders but did not increase incomes.
Garnier-Crussard et al. (2011)	Mali	Saving for Change	Interviews with 20 members	Some cases of funds used for school fees; no evidence on impact.
Gash et al. (2013)	Mali	Saving for Change	Impact stories	Reported improvement in business among members with small businesses due to participation in group.

Reference	Country	Intervention and organisation	Methods	Relevant findings on impact
JMK Consulting (2012)	Ghana	Banking on Change (Plan UK – CARE International UK – Barclays)	Rolling baseline; MM. No control group	Educational expenditure increased for VSLA members. No change in primary gross enrolment. Some VSLA members said education improved due to savings groups. Poverty increased. Investment in income generating activities increased. No clear increase in assets. Most members reported improved access to healthcare. Women's self-esteem, self-perceived social position, contribution to decision-making, and contribution to household expenses increased.
Karlan et al. (2012)	Ghana	CARE savings groups	RCT	No increase in education expenditure. Increase in primary enrolment for boys and girls, and in secondary enrolment for girls (but not robust to econometric technique). Increases in food security, likelihood that women run a business. No effect on expenditures for agricultural inputs, ability to mitigate economic shocks, asset accumulation. No change in food or health expenditure. Women in treatment areas had more influence over household decisions, including education expenditure.
	Malawi	CARE savings groups	RCT	No increase in education expenditure. No change in food or health expenditure.
	Uganda	CARE savings groups	RCT	No increase in education expenditure. No change in food or health expenditure.
Okeyo (2013)	Kenya	Banking on Change (Plan UK – CARE International UK – Barclays)	Rolling baseline; MM. No control group	No change in % spending money on children's school fees; increase in % spending money on books for children's education. Acquisition of assets declined. Reduced use of child labour in income generating activities. Improved perceptions of food availability. No change in proportion lacking food in past 6 months. Improved access to healthcare. Women reported taking on larger part of household expenditures.
Oslin (2007)	El Salvador	Saving for Change pilot (Oxfam America and local partners)	Assesses progress during first 7 months	Large numbers of children and teenagers in some groups, saving to pay school or university fees
Prina (2003)	Nepal	Access to bank savings accounts (GONESA)	Randomised field experiment	Increased investment in education among experimental group. No effect on enrolment rates. Increased investment in health and women's assets in the experimental group.
Seng et al. (2007)	Cambodia	Savings for Self-Reliance (CEDAC with support from Oxfam America)	Qualitative approach with case studies	Improved livelihoods through higher productivity and diversified economic activities.

Reference	Country	Intervention and organisation	Methods	Relevant findings on impact
Sinha (2009)	India	Self-help groups	Survey at baseline and endline	No clear shift out of poverty.
Ssewamala et al. (2011)	Uganda	Access to commercial banks (Suubi Project)	RCT	Improved academic performance and raised aspirations to stay in education to a higher level
Swarts et al. (2010)	Uganda	WORTH (Pact)	Cross-section survey with no control group or recall data; MM	Members provided more financial support to children in school than non-members, but this may be attributed to other (non-savings group) components of intervention. No difference in school attendance between WORTH and control group.
VARG and Mayoux (2008)	Nepal	WORTH (Pact)	Interviews with members and non-members; MM	Respondents said they were more able to send children to school due to WORTH. Most respondents reported improved access to health services due to WORTH.

Notes: RCT = randomised controlled trial; PSM = propensity score matching; DID = difference in difference; MM = mixed methods (i.e. in-depth interviews or focus group discussion in addition to survey); FGD = focus group discussion. Education impacts are shown in blue.

Reviews of microfinance impacts

- Duvendack et al. (2011) – Systematic review of microfinance. Not used because it groups impacts as economic, social and 'empowerment' rather than distinguishing education impacts.
- Van Rooyen et al. (2012) – Systematic review of impacts of microfinance in Africa.
- Bauchet et al. (2011) – Discusses recent evidence from a range of microfinance interventions.

Plan is a global children's charity. We work with children and young people in the world's poorest countries to help them build a better future. A future you would want for all children, your family and friends. For over 70 years we've been taking action and standing up for every child's right to fulfil their potential by:

- giving children a healthy start in life, including access to safe drinking water
- securing the education of girls and boys
- working with communities to prepare for and survive disasters
- inspiring children to take a lead in decisions that affect their lives
- enabling families to earn a living and plan for their children's future.

We do what's needed, where it's needed most. We do what you would do.

With your support children, families and entire communities have the power to move themselves from a life of poverty to a future with opportunity.

Supported by

UKaid
from the British people

Plan UK
Finsgate
5-7 Cranwood Street
London
EC1V 9LH

Tel: +44 (0)20 7608 1311
Fax: +44 (0)20 7253 9989

Web: www.plan-uk.org

Registered Charity no: 276035 - Registered in England no: 1364201