Banking on Savings: Understanding the role of community-based microfinance in conservation of the North Luangwa ecosystem

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A thesis submitted for the partial fulfilment of the requirements for the degree of Master of Science at Imperial College London

Submitted for the MSc in Conservation Science
Declaration of own work

I declare that this thesis:

“Banking on Savings: Understanding the role of community-based microfinance in conservation of the North Luangwa ecosystem”

is entirely my own work, and that where material could be construed as the work of others, it is fully cited and referenced, and/or with appropriate acknowledgement given.

Signature

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<td>CREATE</td>
<td>Conservation Research for East Africa’s Threatened Ecosystems</td>
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<td>FGD</td>
<td>Focus group discussion</td>
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<td>FZS</td>
<td>Frankfurt Zoological Society</td>
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<td>GMA</td>
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<td>ICDP</td>
<td>Integrated Conservation and Development Project</td>
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<td>M&amp;E</td>
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<td>Microfinance institution</td>
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<td>TAWIRI</td>
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<td>TOT</td>
<td>Trainer of Trainees</td>
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<td>TZ</td>
<td>Tanzania</td>
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<td>USAID</td>
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<td>VSLA</td>
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Abstract

A shift towards integrating the socio-economic needs of local people with the protection of biodiversity has prompted increased awareness that microfinance can be a valuable component within conservation programmes. Access to capital through microfinance programmes has been found to diversify income-generating activities, alleviate poverty and improve livelihoods of the rural poor, thus enabling reduced reliance on natural resources and the promotion of environmental protection. Despite this promising strategy, there has been extremely limited empirical research into conservation impacts, and evidence on this aspect remains scarce and largely anecdotal. Using Conservation Community Banks (COCOBAs) established by Frankfurt Zoological Society (FZS) in Zambia and Tanzania, this project aims to improve the effectiveness of community-based microfinance programmes for conservation outcomes. It found that participants in such programmes are associated with greater wealth and more positive wellbeing changes and conservation attitudes, as well as perceived pro-conservation behaviour changes. A framework outlining key success-factors across different life-stages of COCOBAs was compiled from the findings which can be used as the basis for future interventions by FZS and for others in similar contexts worldwide. This study found that COCOBAs can contribute to positive development and conservation outcomes in the North Luangwa ecosystem in Zambia and that they represent a potentially valuable tool for conservationists to effectively achieve their objectives.
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Finally, I would like to give special thanks to my husband and our families for their patience, encouragement and enduring good sense of humour throughout this adventure.
1 Introduction

1.1 The microfinance industry

Microfinance has experienced immense growth globally over the past four decades. In 1976 the Grameen Bank began using microfinance to reduce poverty through affordable, targeted banking services and credit (Grameen Bank; Conlin, 1999). The industry reaches over 150 million people (Allen & Panetta, 2010, Herrold-Menzies, 2008), through the support of non-governmental organisations (NGOs), governments, and the general public, and substantial funding from the World Bank, United States Agency for International Development (USAID) and other donors.

Microfinance has become one of the most popular strategies in the development industry and advocates claim it has been highly effective in alleviating poverty and improving wellbeing (Anderson & Locker, 2002; Ghosh, 2013). When used to provide access to capital for the poor, it can improve their income-generating opportunities and facilitate enterprise growth. In turn this can lead to improved livelihood security, reduced vulnerability to external factors and participant empowerment (Ledgerwood & Gibson, 2013). The United Nations noted in General Assembly Resolution 52/194 that microfinance programmes have been successful to ‘increase participation in the mainstream economic and political process of society’, thus mitigating market failures and driving social equality (U.N., 1998).

However, it is unlikely that a single model can represent a panacea for poverty alleviation and microfinance has not escaped criticism, which often relates to inappropriate lending causing indebtedness of some of the world’s most vulnerable people (CSFI, 2012). Moreover, underlying causes of poverty and understanding of broader implications to socio-economic development should not be neglected (Buckley, 1997; van Rooyen et al., 2012).

1.2 Conservation, development and microfinance

Over the past thirty years there has been a shift in conservation practices towards integrating the socio-economic needs of local people with the protection of biodiversity (Kuboja et al., 2013; Rands et al., 2010). Rural economic development is commonly cited as a means to alleviate poverty (Herrold-Menzies, 2008), reduce dependency on natural
resources (Hughes & Flintan, 2001) and build conservation support in communities (Wells et al., 1992). Links between conservation and poverty alleviation were documented into policy at the 10th Conference of Parties of the Convention of Biological Diversity in 2010 (Decision X/6, Strategic Plan for Biodiversity 2011-2020), by encouraging further integration and better communication of such inter-linkages (CBD, 2010).

Integrated Conservation and Development Projects (ICDPs) aim to simultaneously achieve economic development and biodiversity conservation targets by alleviating poverty to reduce reliance on natural resources, or by sharing benefits or power (Blomley et al., 2010). ICDPs address biodiversity conservation objectives through socio-economic development tools (Hughes & Flintan, 2001). In fact, there is a growing awareness that microfinance may be such a tool (Murali, 2006). The application of microfinance has been broadening beyond traditional development ends, to support goals such as improvements in environmental quality and social capital (Jha & Bawa, 2007).

In rural areas, microfinance can help develop small-scale entrepreneurship and new enterprises (Ledgerwood & Gibson, 2013). This can lead to alternative livelihoods, which may provide diversification to, or entirely replace environmentally-destructive activities (Anderson & Locker, 2002; Anyango, 2005; Kuboja et al. 2013). Such diversification in many cases is away from agriculture and can increase income. Bigsten & Tengstan (2011) observed that diversification from being a full-time farmer raised household incomes by 25%-100% in rural Zambia. This finding has been similarly reported in Tanzania (Lanjouw et al., 2001), Uganda and Ghana (Canagarajah et al., 2001).

Microfinance can also reduce the need to exploit natural resources as a coping strategy (Araya & Christen, 2004) as it reduces households’ vulnerability to economic shocks. In addition, it may be an enabler to the development of social capital. Richer social capital may improve cooperation, compliance and the desire to invest in group-actions and therefore strengthen local natural resource management (Pretty, 2003).

There is mixed evidence of microfinance impacting poverty and limited empirical evidence of it impacting conservation (Murali, 2006). Impact on poverty may be positive (Gash & Odell, 2013) or neutral (Morduch, 1998), whilst some measures to reduce poverty may carry high environmental costs (Jha & Bawa, 2007). Inadvertent negative environmental impacts may occur where additional disposable income drives demand for illegally-sourced resources.
(Barrett & Arcese, 1998) or where labour is not completely absorbed by other activities and there is capacity to continue engaging in environmentally-damaging activities (Brandon & Wells, 1992). Kuboja et al. (2013) warn that programmes require thorough integration of conditions for participants if they are to also promote environmentally-friendly behaviours. Although achieving positive economic and environmental goals through microfinance is desirable, identifying effective management interventions that provide community-based ‘win-win’ solutions remains a challenge (Hughes & Flintan, 2001).

1.3 Community Conservation Banks

In 2008 and 2009 FZS established unique programmes of Community Conservation Banks (COCOBAs) in the Serengeti ecosystems of Tanzania and Zambia respectively. These programmes are researched by the Conservation Research for East Africa’s Threatened Ecosystem (CREATE) project which aims to ‘conserve biodiversity through interventions designed to improve livelihoods and reduce poverty’. COCOBAs incorporate microfinance via community-based savings-groups with core conservation principles, whereby members take small group-funded loans to support environmentally-friendly income-generating activities. The programme was initiated through FZS’s ongoing relationship with local communities who highlighted their need to diversify livelihoods and sustainably manage natural resources in areas where many people were entirely reliant on poaching for income (F. Julius, FZS, pers. comm.).

Although FZS-CREATE management believe COCOBAs in Zambia are not performing as successfully as in Tanzania (G. Wallace & A. Wallace, FZS, pers. comm.) there are limited data regarding current operations or outcomes for COCOBAs in Zambia, which is hindering future development of the programme.
1.4 Aims and objectives

The COCOBA programme presents a unique case-study to research the application of savings-groups in a conservation context, providing a relatively large-scale intervention and the chance to form comparisons between Zambian and Tanzanian elements. This study represents an important opportunity to better understand how to improve the functioning of existing Zambian COCOBAs and the execution of future similar programmes.

The aim of the study was to understand the dynamics of the North Luangwa COCOBA programme, explore reasons why it may be functioning differently to the programme in Tanzania and recommend ways to effectively develop COCOBAs in Zambia. This was done through research of the Zambian study-site and comparisons with the Tanzanian programme. It is not within the scope of this study to quantify the impact that COCOBAs have had on wildlife populations.

This study addresses six objectives:

1. Determine priority objectives of stakeholders in the Zambian COCOBA programme

2. Explore the wellbeing and social status of COCOBA members and non-members

3. Investigate whether and if so, how COCOBAs have influenced conservation attitudes and behaviour in North Luangwa

4. Outline factors that contribute to delivering successful conservation and social outcomes through COCOBAs

5. Identify any constraints to effective future use of COCOBAs in North Luangwa

6. Make recommendations for future management of COCOBAs in Zambia
2 Background

2.1 Financial ecosystems

In assessing the application of savings-groups it is informative to examine their constituent parts separately, as the dynamics differ. Gibson (2008) categorises financial ecosystems within this context into three key components; (1) the core, which is driven by supply and demand, (2) formal and informal rules which shape behaviours of customers, and (3) supporting functions, considered below with a focus on savings-groups (fig. 2.1).

Fig 2.1: Characteristics of financial ecosystems (Gibson, 2008).

2.2 Core

2.2.1 Supply of microfinance services

Microfinance services are provided by a broad range of suppliers from formal microfinance institutions (MFIs) through to informal family loans. They can be separated into three categories – community-based, registered institutions and regulated institutions (fig. 2.2). Community-based services include facilitated groups such as savings-groups which have a standardised format but operate without legal governance (FinScope, 2009).
Financial inclusion is defined by the World Bank (2014; p.1) as ‘the proportion of individuals and firms that use financial services’ and there is growing recognition that increasing inclusion plays a vital role in alleviating extreme poverty and supporting sustainable development. The supply of microfinance services in sub-Saharan Africa is notably lower than Southern-Asia and Latin America, where there has been provision in many areas for decades. Astonishingly, the state of Andhra Pradesh in India has almost as many microfinance clients as all of Africa (Napier, 2011). The supply of financial services is particularly limited in Zambia, with 63% of the population completely excluded from access to financial services - the highest level of exclusion in the region, as well as having a particularly small community-based sector (fig. 2.3). The Government of Zambia appears to want to improve this situation, recently publicly stating their aim to increase financial inclusion to 50% within five years and signing the Maya Declaration in 2011\(^1\) (AFI, 2011).

1. The Maya Declaration is a global and measureable set of commitments for governments, with the aim of unlocking the ‘economic and social potential of the 2.5 billion poorest people through greater financial inclusion’ (AFI, 2011).
2.2.2 Demand for microfinance

Financial products must accurately address the needs of clients, which will clearly differ and therefore there is no single financial service which can meet the demands of all market segments (Ledgerwood & Gibson, 2013). Institution-based providers such as MFIs have traditionally delivered services within development projects and have been hailed as a way to alleviate poverty, albeit mainly for urban or semi-urban clients (Allen & Panetta, 2010; Shaw, 2004). The poor infrastructure, inaccessibility and low population densities associated with servicing the rural poor often leads to high costs for MFI providers being passed on to clients, culminating in high interest rates of up to 100% (Anyango et al, 2007; Karlan & Zinman, 2011; Ledgerwood & Gibson, 2013). This, combined with the requirement for physical collateral, and an inability and unwillingness to take on average-sized debts means that MFIs often cannot effectively meet the demands of the rural poor (Allan et al, 2013; Allen & Panetta, 2010).

In light of these challenges, there has been steady growth of less formal, community-based approaches such as savings-groups since the 1990s, which have several notable differences to MFIs (Table 2.1). These savings groups offer a promising solution to addressing the demand-gap and financial exclusion in rural areas, due to their greater flexibility and convenient formats (Allen & Panetta, 2010; Gash & Odell, 2013).

Table 2.1: Characteristics of savings-groups and commercial MFIs

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<th>Commercial MFI</th>
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<td>Regulation</td>
<td>May be registered with local authorities or community leaders</td>
<td>Licensed as a commercial bank</td>
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<td>Governance</td>
<td>Self-governing via elected committee</td>
<td>Board of Directors appointed by shareholders</td>
</tr>
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<td>Target market</td>
<td>Poor and very poor requiring small credit amounts &amp; safe place to save</td>
<td>Commercial micro, small and medium enterprise clients. Usually urban, fewer poor clients</td>
</tr>
<tr>
<td>Products</td>
<td>Basic savings and credit, often insurance</td>
<td>Credit, savings, payments, sometimes insurance</td>
</tr>
<tr>
<td>Management &amp; reporting</td>
<td>Self-managed with initial technical assistance from facilitator</td>
<td>Professionally managed, report to central bank</td>
</tr>
<tr>
<td>Funding</td>
<td>Member savings</td>
<td>Equity and debt from institutional investors; deposits</td>
</tr>
<tr>
<td>Sustainability</td>
<td>Group independence 9-18 months</td>
<td>Initial support required then independent</td>
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Adapted from Nelson (2013); Ledgerwood (2013).
2.2.3 VSLA methodology

In 1991 CARE International pioneered the term Village Saving and Loan Associations (VSLAs) for the standardised savings-group model that it developed in Niger. VSLAs have subsequently been replicated in 59 countries with over 6 million participants, facilitated by CARE and numerous international NGOs, including FZS through COCOBAs, which are based on the VSLA model (VSL Associates, 2012). VSLAs are a standardised, structured and transparent form of savings and loan facilities targeted towards those that are typically excluded from other forms of financial services (Allen & Panetta, 2010). They provide a safe place for members to regularly save money in a group fund, from which they can access interest-bearing loans and usually a form of emergency insurance, with loan conditions and constitutional rules set by the group. Common principles of VSLAs are included in Appendix I.

One of the key benefits of VSLAs is their sustainability, providing opportunities for self-financing, self-management and self-replication with very little, or no external inputs (Anyango et al., 2007). VSLAs include the formation of networks of ‘Trainer of Trainees’ (TOTs) who are selected and trained to act independently to provide training and support to existing and new groups (Allen, 2002). It is widely asserted that VSLAs should survive and continue to provide sustainable services to members after approximately one year of training, consisting of an intensive initial phase with progressively fewer sessions (Allen & Hobane, 2004; IPA, 2012, Ksoll et al, 2013; Odell & Rippey, 2011).

2.3 Rules

Formal and informal ‘rules of the game’ determine the extent to which financial services can grow, adapt and succeed, and enable financial inclusion. These rules govern participation, drive incentives and shape behaviours of participants in financial systems (Ledgerwood & Gibson, 2013). Formal rules consist of laws, policies, industry standards or regulations that are documented and enforced (microLINKS, 2010). Because community-based savings-groups are unregulated, formal rules may include compliance to technical models such as VSLAs, group-elected constitutions, as well as formal agreements made with the provider of supporting functions, such as NGOs.

Informal, unwritten rules outline what is acceptable for almost all communities based on social norms, historical influences and culture (microLINKS, 2010). They are expressed through a combination of common behaviours, social structures and attitudes, and often
influence the extent of adherence to formal rules. Social norms within a group imply a code of conduct that individuals believe they should follow to avoid the disapproval of the group (Coleman, 1990).

Societal and cultural norms regarding money, authority and sharing play a major influencing role in determining what financial products may be most suited to a community (Ledgerwood & Gibson, 2013). A key example of this is trust, which Shipton (2007) proposes may play a pivotal role in financial decisions and behaviours, as well creating social relationships which might or might not be reciprocated. Understanding social norms is critical to understand which microfinance services would be effective in a given community, although the connection between social capital and the design of optimal programme structures is complex (Sanae, 2010).

2.4 Supporting functions

Supporting functions provide information, resources and services that facilitate the development, adaptation and success of financial ecosystems. There are many different types of organisations engaged in the provision of supporting functions, each with differing aims and roles. Nelson (2013) defines a strategic distinction between ‘market players’ - those with an active and continuing role delivering functions, and ‘facilitators’ - who are external players facilitating change, most often NGOs and donors whose role is to use available resources to address constraints and build a more effective and inclusive system.

The key strategic difference of these two function providers appears to be the shorter timeframes of facilitators, indeed Ferrand (2013: p.474) states that ‘the single most important practical principle of market facilitation is determining how to leave’. Regarding savings-groups, the provision of additional, non-financial supporting services is not straightforward and there is vigorous debate surrounding whether and how they can be used as a platform from which to deliver additional services (Allen & Panetta, 2010). Wilson (2012) highlights the importance of determining whether supporting services, such as agricultural skills and product marketing, are driven by participant demand and will provide discernible, long-term benefits or whether they are driven by interests and capacity of facilitators. Facilitators must also consider whether group focus, independence or commitment may be undermined by additional services, as well as managing compromises.
between providing additional services to current savings-group versus establishing new groups (Odell & Rippey, 2011).

2.5 Savings-groups for conservation outcomes

There is limited practical application of savings-groups for conservation outcomes and accordingly there is a paucity of evidence on this topic globally and none in the North Luangwa ecosystem where this study was focused. A summary of key findings from conservation programmes incorporating savings-groups in other areas is provided in Table 2.2 (overleaf).
<table>
<thead>
<tr>
<th>Study topic</th>
<th>Country</th>
<th>Key findings</th>
<th>Reference</th>
</tr>
</thead>
</table>
| Freshwater management & climate change adaptation (WWF) | Tanzania         | - Conservation outcomes, eg. livelihoods diversified into more environmentally-friendly activities  
- Increased awareness of sustainable management  
- Members act as ‘environmental ambassadors’  
- COCOBA members relatively wealthier  
- Capacity building ‘essential’                                                                                     | Kashaigili, et al., 2009  |
| Net-Works; ZSL & Project Seahorse collaboration       | Philippines      | - Management note that community banks are a key part of conservation outcomes to date  
- “We recognised the need for people to manage risk and have access to non-fishing occupations, which access to microfinance can help facilitate” | N. Hill, ZSL, pers. comm. |
| Impact on livelihood and environmental conservation   | Tanzania         | - Access to capital had little effect on conservation attitudes or pro-environmental practices, conservation education was more important  
- Reported changes in income-generating activities but no diversification  
- Conditionality attached to loan-use is necessary                                                                  | Kuboja et al., 2013        |
| Jozani Bay Conservation Project                       | Tanzania         | - Savings-groups represent a ‘replicable model of savings and credit and is an example of best practice’ and has played ‘vital role’ in success  
- Conservation attitudes significantly improved, leading to uptake and training in environmentally-neutral livelihoods (beekeeping, mushroom growing)  
- Savings-groups not tied directly to conservation objectives                                                          | Hartley & Rijali, 2003    |
| CARE in partnership for STEWARD programme             | Sierra Leone & Guinea | - Biodiversity outcomes being achieved: “In villages where the only activity was selling firewood now there is very little firewood as people have other livelihoods”  
- “Sierra Leone people in the programme are at another level now – one village with 6 groups have created their own physical bank as they have such large funds”  
- Links to conservation developed and maintained through (1) group constitution which outlines loans are for pro-conservation uses, and (2) Natural Resource Management programme delivered in 15-30 minute sessions with groups each week on environmental issues or practical demonstrations | M. Kourouma, CARE, pers. comm. |
| Primeiras & Segudnas (WWF-CARE Alliance)              | Mozambique       | - No publicly available monitoring but nearly 100 community savings-groups for strengthened livelihoods and improvement in ecosystem health  
- Programme support and supervision handed over to community association (Oct. 2013)                                  | CARE-WWF, 2013             |
| Conservation Through Public Health                    | Uganda           | - No publicly available monitoring but comments that programme “has resulted in reduced poaching and protection of gorillas”  
- VSLAs used to improve community health and conservation attitudes  
- Reportedly a ‘sustainable and scalable’ model                                                                       | CPTH, 2010                 |
| Self-help groups for natural resources management     | India            | - Anecdotal evidence that reliance on forests is reduced & forest condition improved  
- Savings used in soil conservation and sustainable medicinal plant collection and additional employment generated | Rao, 2006                 |
Given the scarcity of robust evidence on the effectiveness of savings-groups in driving conservation outcomes, practitioners currently rely on limited and anecdotal findings.

One instance where a final assessment is available is the Jozana Bay Conservation Project. Unfortunately, this does not constitute a full-scope evaluation, with no assessments of individual project outputs or efficiency, and no inclusion of baseline or comparable data (Hartley & Rijali, 2003). It is encouraging, however, that Net-Works will shortly be commencing a process to gather baseline data of livelihood activities, behaviours and attitudes towards conservation, having realised the need for robust monitoring and evaluation (M&E). This will be used to generate comparative evidence of project outcomes in future research (N. Hill, ZSL, pers. comm.).

Many of the programmes which involve savings-groups incorporate their use as one of several interventions, for example Net-Works involves several aspects of NGO involvement, such as the establishment of a global supply-chain for discarded nets and working in collaboration with People’s Organisations on MPA management (N. Hill, ZSL, pers. comm.), who noted:

“Community banking is a key part of Net Works but it is not a tool used on its own – you need a package of tools that support each other to achieve success”

2.6 Study site

Mukungule Game Management Area (GMA) covers 1,900km² and borders the North Luangwa National Park (NLNP) (figs. 2.4, 2.5) which is one of the most pristine areas of wilderness in Zambia and falls within a Global 200 eco-region that is recognised as a highly important area for vertebrate diversity in southern Africa, (Estes & Greyling, n.d.; Turpie & Crowe 1994).

GMAs were created as buffer zones intended to address and incorporate sustainable natural resource use and management alongside the socio-economic development of local people. Mukungule GMA was established in 1998 making it the newest of Zambia’s 35 GMAs. It is also one of the least developed, partly due to the aim of maintaining NLNP as a wilderness area with access only through selected operators with permission to conduct walking safaris (Muleya et al., 2004). Despite the low levels of tourism, NLNP has provided employment opportunities for a limited number of GMA residents.
Mukungule GMA supports a population of 10,092 for whom the generation of household income and sufficient food is a frequent challenge (Sennett, 2013). Local livelihoods include
sales of maize, vegetables, beans, and locally brewed beer as well as natural resource use such as fishing and charcoal burning (Sibbuku & van der Westhuizen, 2004). Illegal and unsustainable poaching of wildlife, the traditional Chitemene system (slash and burn cultivation) and charcoal production are the most widespread conservation threats within the GMA. Conservation activity in the North Luangwa area was initiated by FZS in partnership with ZAWA in 1986, with the aim of securing the biodiversity and function of this key ecosystem for the benefit of the local people and for its intrinsic value (FZS, n.d.).

2.7 FZS COCOBA programme

COCOBAs are based on VSLA principles with conservation goals incorporated in their core objectives and the programme consists of 4 groups in the Mukungule GMA, Zambia and 27 in the Serengeti ecosystem of Tanzania (F. Julius, FZS, pers. comm.). The programme aims to increase alternative livelihood options without the provision of ‘handouts’ in order to reduce poverty and to enable community members to reduce their reliance on natural resources, including bushmeat hunting.

Through training, education and group constitutional rules, members are encouraged to take out loans for environmentally-positive or neutral business ventures, which a committee must approve. Additionally, in Tanzania there are conditions promoting environmental-friendly behaviours, as FZS’s support may be withdrawn if any member is found to be engaged in an illegal activity such as poaching. However, Zambian COCOBAs have received limited support due to resource constraints and there has been no formal M&E since their implementation in either Tanzania or Zambia.

Box 1: COCOBA training in Tanzania

The training programme in Tanzania is extensive; three members are selected from each group to attend a 21 to 28 day course, and these TOTs are responsible for replicating training to fellow members over the following three months. The training programme is provided by an external consultant and covers several topics in detail: COCOBA operations, conservation education, financial record-keeping, personal finances and business and entrepreneurial skills. TOTs continue to act as in-village support and are viewed as experts who can assist with problems and even initiate and train new groups if required.

Sources: F. Julius, FZS, pers. comm.
3 Methods

3.1 Location

Fieldwork was carried out in two areas; Katibunga in Mukungule GMA where all four Zambian COCOBAs are located (fig. 3.1) and three villages in the North-Western Serengeti area in Tanzania (fig. 3.2). Tanzanian study villages, Bonchugu, Nyamburi and Rwamchanga, were selected as they contain well-established COCOBAs which are considered to be functioning effectively by FZS-CREATE management thus enabling the most insightful comparisons.

Fig. 3.1: Location of Katibunga, Zambia. (Google Earth 2014 & ZAWA)

Fig. 3.2: Location of the three Tanzanian villages (Google Earth 2014 & FZS)
3.2 Ethical considerations

Data collection complied with the ethical guidelines of both Imperial College London and FZS. FZS obtained relevant permits from the Zambia Wildlife Authority (ZAWA), Tanzania National Parks (TANAPA) and Tanzania Wildlife Research Institute (TAWIRI) to conduct research in areas surrounding NLNP and Serengeti National Park.

Free, prior informed consent was obtained verbally from each participant and from relevant local authorities. Research assistants provided an introduction in the local language, which assured participants of confidentiality and anonymity, and encouraged them to not answer any question that made them uncomfortable. An example of information provided to participants can be found in Appendices II and VII. Data records were stored securely using participant codes rather than names to ensure anonymity.

3.3 Methodological framework

A mixed-methods approach was adopted in order to triangulate findings and gather a richer, more complete set of data and thus improve the accuracy of results (Newing, 2011; Gavin et al, 2010).

Focus group discussions (FGDs) are an effective method for gaining background information and context, generating a broad range of ideas and accessing a varied collective knowledge base to explore group views and perspectives (Newing, 2011). FGDs were conducted in both Zambian and Tanzanian study sites. Key informant interviews are a common method used to obtain a broad contextual background and to gather a full range of perspectives on a particular topic (Newing, 2011).

Social surveys, such as structured interviews, are used to test research hypotheses when information is required from a specific human target population (White et al, 2005). Findings from FGDs were used sequentially, informing the design and content of the structured interviews. Structured interviews were used to gather targeted data to corroborate and test outputs from FGDs and to enable direct comparisons to be made between different groups.

Participatory methods such as FGDs, structured interviews and key informant interviews have been used in a similar studies aiming to assess environmental and livelihood outcomes.
A summary of the methodological framework outlining data collection methods in each location and data analysis techniques is shown in fig. 3.3.

### 3.4 Data collection

#### 3.4.1 Research assistants

Data were collected in May and June 2014. Local FZS staff were trained in FGD and interview methods by the author and FZS-CREATE staff to assist in data collection, and a local translator was hired to assist during FGDs in Tanzania. Research was conducted in Bemba (Zambia) or Swahili (Tanzania), which are the predominant languages in each region, by native speakers to prevent any misinterpretation of questions.

#### 3.4.2 Focus group discussions

Six FGDs were held in Zambia to develop an understanding of COCOBA structures and operations, and to explore the surrounding opinions, motivations and perceived impacts on livelihoods and conservation. FGDs in Zambia were predominantly aimed to scope emerging issues and to generate hypothesis on which to subsequently build upon during the research.

FGDs were held separately for COCOBA members, non-members and leavers and non-active members, with different aims and discussion topics for each (Table 3.1). Where possible,
FGDs were held separately for men and women to minimise any inhibitions or male dominance. This is advisable in societies where women are subordinate to men, as is the case in the study area. Zambia overall was ranked 85th out of 102 developing countries on a social and gender equality index (Branisa, 2013; Breen, 2007).

Twelve FGDs were conducted in Tanzania, with four in each of the three villages. The aim of FGDs in Tanzania was to expand on hypotheses and test key issues arising from Zambian discussions, as well as to corroborate understanding of COCOBA structures, stakeholder perceptions and motivations.

<table>
<thead>
<tr>
<th></th>
<th>Members</th>
<th>Non-Members</th>
<th>Leavers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zambia</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Male groups</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Women groups</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Male groups</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Women groups</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Mixed groups</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

COCOBA representatives were contacted in advance and asked to gather participants based on their relation to COCOBAs (members, non-members, leavers), gender and willingness to participate. Non-members were only invited if they were aware of COCOBAs in their village. All discussions were arranged in advance to be held somewhere enclosed and private to prevent interruptions and to maintain the confidentiality of the information provided by participants.

Discussions began with an introduction to the research and an overview of how the expected outcomes will inform the understanding and development of COCOBAs.

Participants were advised how they would be able to obtain a summary copy of the findings in the local language, which was either through the Village Headman (Tanzania), Chief Mukungule (Zambia) or through COCOBA representatives (both).

FGDs usually consisted of 8 to 10 participants with discussions led by the author and facilitated by FZS-CREATE staff who have experience in facilitating such discussions. Participants were provided with a soft drink and biscuits as a token of appreciation for their time.
Seven tailored guidelines led the direction of discussions, which included some repetition of topics between different groups and countries to enable comparison, and some unique topics which were of most interest for discussion with certain groups (examples in Appendices II - IV).

**FGD exercises**

FGD participants selected a picture from a set of 20 that represented the aim of COCOBAs to them and gave a brief explanation for their choice (Appendix V). Two copies of each picture were provided and pictures were randomly distributed around the room. This exercise was conducted with all FGDs to enable comparisons between different groups (fig. 3.4).

![Fig. 3.4: Zambian COCOBA members displaying picture choices during FGD](image)

Participants were also invited to generate ideas of COCOBA success-factors (member and leaver FGDs) or barriers to entry (non-member FGDs) through a free-listing exercise, with each item written on a card in both Bemba or Swahili, and English. Used in this way, free-listing provided a qualitative method to identify and compare factors which are perceived to be important, or salient, to different groups of informants (Newing, 2011).

The collection of success-factors or barriers cards were randomly arranged in the room and a reminder of each item was given. Participants were given three beans and invited to distribute them between the factors or barriers in proportion to their perceived relative importance. Participants could vote with any weighting of their three beans, giving more
beans to items they perceived to be more important (fig. 3.5). Thus participants could vote with one bean on three items, two beans on one item and one on another, or all three beans on one item. Total votes for each item were counted and results fed back to participants to prompt further discussion. Overall scores for each factor or barrier generates a weighted ranking, providing information on both the perception of importance and of the relative magnitude, unlike linear ranking exercises (Newing, 2011).

![Fig. 3.5: Tanzanian members voting on key success-factors during FGD](image)

### 3.4.3 Structured interviews

Interviews were conducted in Katibunga, Zambia with two sub-groups; current COCOBA members (n=65) and non-members (n=65), totalling 130 with a similar mix of men and women. Leavers were not sampled as very few members had left COCOBAs and only three still lived in the study area. Respondents were sampled evenly from ten sub-villages surrounding the central hub of Katibunga and were distributed across all age categories (breakdown of gender, sub-village and age categories of Zambian interview respondents is included in Appendix VI).

A member list was prepared by the Chairpersons of each of the four COCOBAs and COCOBA representatives led the field team to households of these members. The members were
then interviewed if they were available and willing to participate. Houses are not numbered and access to census data was not available, which limited the potential for a systematic or random sampling strategy. Non-members were therefore sampled opportunistically with efforts to reduce bias, and participants were asked to confirm prior to the interview that that they were aware of COCOBAs and that no-one in the household was a current or previous member.

Structured interviews for members and non-members were different, but did include a mix of identical questions, to enable direct comparisons to be drawn, and unique questions for each group (Appendix VII and VIII). Interviews included open and fixed-response questions covering five sections; (1) demographics and wealth indicators (2) attitudes towards conservation (3) livelihood information and awareness (4) perceived wellbeing changes and (5) opinions about COCOBAs.

Open-ended questions were used to gain more detailed descriptive information and to support qualitative analyses. Fixed-response questions typically included rating-scales such as a 4-point Likert scale and a scoring system between 1 and 5. During rating-scale questions participants were given visual prompt cards with English and Bemba options, shown in Appendix IX, with verbal explanations to ensure that participants were able to understand and remember options as well as accommodating illiteracy (fig. 3.6).

Fig. 3.6: Zambian member using visual prompt card during interview
3.4.4 Key informant discussions

Semi-structured interviews were held with eight key informants as part of data collection (Table 3.2).

Table 3.2: Key informants interviewed during this study.

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Graham Wallace</td>
<td>FZS-CREATE</td>
<td>Project Leader</td>
</tr>
<tr>
<td>Dr. Andrea Wallace</td>
<td>FZS-CREATE</td>
<td>Technical Advisor</td>
</tr>
<tr>
<td>Florentina Julius</td>
<td>FZS-CREATE</td>
<td>Project Coordinator, Tanzania</td>
</tr>
<tr>
<td>Bennett Siachoono</td>
<td>FZS-CREATE</td>
<td>Project Coordinator, Zambia</td>
</tr>
<tr>
<td>Bornface Chibulu</td>
<td>n/a</td>
<td>Village &amp; COCOBA representative</td>
</tr>
<tr>
<td>Monica Chapatuka</td>
<td>n/a</td>
<td>Village &amp; COCOBA representative</td>
</tr>
<tr>
<td>Dr. Nicholas Hill</td>
<td>ZSL, 1</td>
<td>Marine &amp; Freshwater International Projects Manager</td>
</tr>
<tr>
<td>Martin Kourouma</td>
<td>CARE, Guinea</td>
<td>Technical Coordinator</td>
</tr>
</tbody>
</table>

1. Zoological Society of London

3.4.5 Pilot

FGD guidelines and interview questions were reviewed by supervisors with comments incorporated and were discussed with FZS-CREATE staff to ensure that they were culturally appropriate and understandable when translated into Bemba and Swahili. Interview questions were piloted on three COCOBA members in Katibunga. Interviews averaged 1 hour 10 minutes and changes were made following feedback from Research Assistants, primarily the removal of six questions which prompted duplication of answers from participants, and the refinement of some phrasing to avoid confusion.

3.4.6 Sources of bias

Methodological precautions were taken to reduce bias, however reliance on community perceptions may introduce some sources of bias into the findings of the study (Table 3.3).

Table 3.3: Sources of bias from reliance on community perceptions.

<table>
<thead>
<tr>
<th>Bias</th>
<th>Relevance to study</th>
<th>Study implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social desirability</td>
<td>Research assistants and the author who were present during interviews and FGDs may have skewed responses towards societal norms or desirable answers</td>
<td>Conservation outcomes may be found to be more positive than they would otherwise be due to FZS links</td>
</tr>
<tr>
<td>Acquiescence</td>
<td>Although internal consistencies of statements will be tested, there is still a risk that individuals who were unsure of meaning opted to respond in agreement</td>
<td>Conservation attitudes and wellbeing changes may be found to be more positive than in reality</td>
</tr>
<tr>
<td>Recall bias</td>
<td>Recall bias may be introduced when respondents are asked to recall information after a significant amount of time. Respondents may have found it challenging to accurately recall information from six years ago.</td>
<td>Potential over or under-reporting of wealth and wellbeing changes due to inaccurate perception of change over the previous six years.</td>
</tr>
</tbody>
</table>
3.5 Data analysis

3.5.1 Quantitative

Analyses were conducted in Microsoft Excel or R (version 3.1.1). Due to non-normally distributed data, non-parametric tests were used to analyse statistical differences arising from FGDs and interviews.

Likert scale answers were coded; those supporting a positive conservation attitude were assigned a score of +2 (strong positive) or +1 (positive), and those supporting a negative attitude -1 (negative) or -2 (strong negative), with data regarded as ‘interval’ for analyses. An index reflecting ‘conservation attitude’ for each respondent was then calculated by aggregating the response scores to each of the seven relevant Likert statements and internal correlation was calculated to verify the level of association between responses.

Wellbeing factors in this study were based on the top eight reported status changes arising from Allen & Hobane’s 2004 VSLA Impact Evaluation in Zimbabwe (n=272). Respondents were asked to report whether each factor had improved, reduced or stayed the same since joining a COCOBA (members) or over the last six years (non-members). A ‘wellbeing change index’ was then calculated by assigning a score of +1 for every wellbeing factor for which the respondent reported improvements, 0 where no change was reported and -1 for every factor where a reduction was reported. Participant scores were then calculated by summing the points for the eight factors.

Cronbach’s alpha coefficient was calculated on responses to questions on which ‘conservation attitude’ and ‘wellbeing change’ scores were based, to verify the internal consistency of statements and to ensure that responses could be reliably interpreted in aggregation (Gwet, 2012).

Wealth indicators were adapted from previous and recent research in the Mukungule GMA (Sennett, 2013). A wealth score was calculated by assigning points to respondents based on ownership of 21 wealth indicator items. Points were assigned for each wealth indicator based on FGD data during which indicators were grouped into three categories: ‘Basic’ = 1 point; ‘Comfortable’ = 2 points, and ‘Luxury’ = 3 points, (Appendix X) (unpublished data).

Linear models were used to test the effects of COCOBA and other savings-group membership on wealth and wellbeing change scores.
3.5.2 Qualitative

Text analysis was used for FGD results with visual interpretation for the member location mapping exercise. Results of FGD topics were categorised into themes and sub-themes and a quote was selected which best represented the sentiment of each sub-theme.

FGD free-listing and voting exercise data was analysed by calculating the relative frequency of each free-listed item and the proportional weighting of votes allocated out of available votes during FGDs in which the item was listed (Newing, 2011).

Key-informant interview results were coded into themes with key quotes extracted. Findings either provided additional information or corroborating evidence to support FGD and interview results. Open-ended interview answers were categorised and grouped by common themes.
4 Results

Results are structured around study objectives 1 to 4, whilst objectives 5 and 6 are addressed in the Discussion section.

Although COCOBAs were started in Zambia and Tanzania at a similar time there are several notable differences in group structure, function and composition (Table 4.1). In particular, group capital is over 17 times larger in Tanzania, reflected in substantially larger mean loan sizes. Additionally, training and support provided to Zambian groups has historically been and continues to be considerably less than that in Tanzania.

Table 4.1: COCOBA structure, function and composition in Zambia and Tanzania.

<table>
<thead>
<tr>
<th>Background information</th>
<th>Zambia</th>
<th>Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of groups</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Established</td>
<td>2009</td>
<td>2008</td>
</tr>
<tr>
<td>FZS support (visits &amp; stationery)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Training</td>
<td>3 days</td>
<td>28 days &amp; as required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean membership</td>
<td>15</td>
<td>27¹</td>
</tr>
<tr>
<td>Meeting frequency</td>
<td>Fortnightly / monthly</td>
<td>Weekly</td>
</tr>
<tr>
<td>Group gender</td>
<td>Single gender</td>
<td>Mixed</td>
</tr>
<tr>
<td>Saving method</td>
<td>Group work</td>
<td>Individual shareholding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financials</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean group capital (GBP)²</td>
<td>254</td>
<td>4,328</td>
</tr>
<tr>
<td>Mean loan size (GBP)</td>
<td>21</td>
<td>480³</td>
</tr>
<tr>
<td>Loan term (months)</td>
<td>1</td>
<td>3 / 6 / 9</td>
</tr>
<tr>
<td>Interest rate</td>
<td>10%</td>
<td>5% / 10%</td>
</tr>
<tr>
<td>New-member joining cost (GBP)</td>
<td>4.74</td>
<td>1.70</td>
</tr>
</tbody>
</table>

Notes: 1. Tanzanian data based on 8 COCOBAs across 3 Tanzanian villages which are considered to be representative of COCOBA programme. 2. Currency converted at 2,837 (TZS:GBP). 3. Tanzanian members can borrow 3x their shareholding. Estimated mean loan size calculated using reported mean shareholding (mean group capital / mean number of members), multiplied by 3.

4.1 Key stakeholder objectives

The primary aim of FZS is meeting conservation objectives, with a clear secondary objective to ensure sustainable livelihoods and social development in the ecosystems in which it operates. FZS-CREATE management indicated that the primary aim of the Zambian COCOBA programme is to achieve conservation outcomes across the North Luangwa ecosystem, to the extent that facilitating rural socio-economic development can be an effective way of achieving this.
By contrast, socio-economic development is the primary objective for the majority of COCOBA participants, with conservation outcomes taking a secondary role. For example, during focus group discussions (FGDs) members did not report that they started market stalls in order to reduce their reliance on poaching, instead they stated that they are able to reduce their requirement for poaching as a result of having a more stable and increased income source. Key informants in the Zambian study village commented that members consider COCOBAs a means to achieve socio-economic development and that the resulting livelihood improvements enable an indirect effect of reducing environmentally-damaging activities (Table 4.2).

“Now that I can sell things at the market I can provide the income I need for my family and I do not need my husband to hunt in the bush to provide relish (meat)”

(Female member, Zambia)

Table 4.2: Summary of key stakeholder objectives.

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Linkage</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>FZS-CREATE</td>
<td>Conservation</td>
<td></td>
<td>Livelihood improvement</td>
</tr>
<tr>
<td>COCOBA members</td>
<td>Livelihood improvement</td>
<td></td>
<td>Conservation</td>
</tr>
</tbody>
</table>

The majority of Zambian members and non-members (63%, n=130) stated that poverty was the main reason community members engaged in environmentally-damaging activities such as subsistence poaching or charcoal burning (fig. 4.1). Combined with findings that members believe that livelihood improvements enable reductions in illegal behaviours, this may infer that activities such as charcoal burning and subsistence hunting are adopted due to a lack of alternative viable options. Poaching is considered a quicker and easier way to generate income compared to farming, reflected in ‘laziness’ and ‘impatience’ responses.

“People who burn charcoal and poach animals have no money. They usually know they have bad impacts but they have to do this just to get any income.”

(Female member, Zambia)
Fig. 4.1: Perceptions of why Zambian villagers engage in environmentally-damaging activities (n=130). ‘Lack of awareness / knowledge’ was conservation related, i.e. no understanding of conservation, why it is important or what activities they should do instead. Proportions comprise member and non-member responses because there were no substantial differences between groups.

Zambian members had a high awareness that COCOBAs were established primarily for conservation purposes, which became apparent throughout FGDs when members were asked to choose a picture representing COCOBA objectives (fig. 4.2). Conservation pictures (trees, wildlife and bushmeat) were selected by Zambian members in 32% of choices and at a similar frequency in Tanzania (29%).

Fig. 4.2: Relative frequency that each of the 20 pictures were selected by FGD participants as ‘COCOBA objectives’. Zambian members (n=20), Tanzanian (n=52). ‘Aspiration’, ‘doctor’ and ‘man-shop’ not presented as not selected. FGD pictures shown in Appendix V.
When pictures were selected that did not primarily represent conservation outcomes, explanations often emphasised the recurring theme that conservation is a secondary outcome enabled by socio-economic development.

“The objective of COCOBA is to help people to cultivate their own vegetables, and then they could reduce their dependence on charcoal and poaching.”

(Male member, Zambia)

“The cultivation of cereal can make high profits which you can use to buy livestock so your household has plenty of choice, and the poaching rate will reduce.”

(Female member, Zambia)

One third of Zambian members stated conservation objectives as their sole reason for joining COCOBAs, whereas 48% of respondents offered two reasons – one livelihood improvement and one conservation objective (fig. 4.3). The remaining 20% mentioned only livelihood improvement objectives.

![Fig. 4.3: Proportion (%) of Zambian members reporting reasons for joining COCOBAs (n = 65), proportions total over 100% since multiple answers accepted.](image)

4.2 Wellbeing of COCOBA members and non-members

4.2.1 Individual level

There was no difference in the education level of COCOBA members and non-members with the majority (65% of both) having some level of secondary education.
Tanzanian and Zambian FGD participants were in agreement that COCOBAs are for everyone to join and they are not biased towards one type of person (e.g. depending on wealth, education or certain livelihoods). Unlike in Zambia, in one village in Tanzania members commented:

“We try to promote COCOBAs to people who are hunters. Most of the poachers in the National Park were from this village, and now they’ve joined COOCBAs and poaching has reduced a lot.”

(Female member, Tanzania)

There appears to be little difference between the primary income-generating activities of Zambian members and non-members, with subsistence-crop farming accounting for 69% and 74% respectively. However, the findings indicate some level of diversification as members reported a total of eleven other primary income-generating activities compared to non-members who reported only eight (fig. 4.4).

![Proportion (%) of Zambian members (n=65) and non-members (n=65) who reported primary income-generating activities other than subsistence-crop farming.](image)

**Fig. 4.4:** Proportion (%) of Zambian members (n=65) and non-members (n=65) who reported primary income-generating activities other than subsistence-crop farming.
Zambian members had a significantly higher wealth score than non-members (Wilcoxon rank-sum test; medians: 15.4, 11.6 respectively; n=130; W=2,956.5, p<0.001; fig. 4.5).

**Fig. 4.5:** Wealth scores of Zambian members (n = 65) and non-members (n = 65). Max = 43, min = 2. See appendix X for categorisation of wealth indicators and proportion of asset ownership by members and non-members.

Internal consistency of the eight wellbeing factors used to calculate the perceived wellbeing change score is high (Cronbach’s alpha: +0.82); which indicates those experiencing an improvement in one factor are likely to have experienced improvements in other factors. The internal agreement measure exceeds the acceptability rule of thumb of 0.70, indicating that all the wellbeing factors contribute positively towards measuring the same concept and that they can be reliably interpreted in aggregation (Gwet, 2012).

Zambian COCOBA members had a significantly higher wellbeing change score, and thus had experienced more improvements across wellbeing factors, than non-members (Wilcoxon rank sum test; median scores: 7/8 and 4/8 respectively; n=130; W=3107, p<0.0001). Across all wellbeing change factors Zambian members scored higher than non-members, with significant differences for children’s education, financial independence and household income, assets, and condition (fig.4.6). There was no difference in the scores for respect, food and diet or life in general which indicate that these factors may be influenced by other factors. For example respect may be influenced by age given the six year time-span in the question. Interestingly, members and non-members scored similarly for changes in life in general, despite very significant differences in several other factors.
The effect on wealth and wellbeing change scores of membership of COCOBAs and of other savings-groups present in the Zambian study village was investigated using two linear models, with 23% of members (n=65) and 14% of non-members (n=65) being members of other non-conservation savings-groups. Both models indicated that COCOBA membership was the only factor with significant effects on wealth or wellbeing change scores.

The effects of other membership factors (membership of other savings-groups, and interaction between membership of COCOBA and other savings-groups) were not found to be significant and when removed they had no significant effect on the validity of the models (see Appendix XI for model results). This indicates that membership of other types of savings-groups did not have a significant effect on wealth or wellbeing being, either as a main effect or in interaction with COCOBA membership.

The majority (88%, n=65) of Zambian members believed that their status was now better than non-members who were of similar status to them one year ago. Of the eight respondents who believed there was no change in their status compared to non-members, five were members of Akabangilile, the new male COCOBA that has not yet commenced making loans to members.
“There is a clear status difference between non-members and members because the husbands of non-members are often in prison after being jailed due to poaching.”

(Female member, Zambia)

Most Zambian non-members (62%, n=65) believed that their status was now worse than COCOBA members who were of a similar status to them one year ago and only 8% believed their status was better. Non-members frequently attributed the relative improvements in the status of COCOBA members to their ability to access finance and engage in business activities as a result:

“Members are developing their lives better than us (non-members) as they can get loans and do various business such as shop-keeping.”

(Non-member, Zambia)

Almost all female Zambian COCOBA members (92%, n=48) felt their income-generating activities had been positively influenced by COCOBAs whilst just 35% of male members felt the same. Despite not yet taking loans, male members indicated that they had benefitted in other ways such as via shared learnings on effective farming and livestock practices resulting in some positive changes to their businesses.

4.2.2 Community level

Zambian members were significantly more likely than non-members to perceive benefits to the community from COCOBAs, (Chi-Squared test; n=130; $\chi^2 = 10.9$ df = 1, $p < 0.001$) and the vast majority of all respondents (84%, n=130) reported a community benefit.

Attaining conservation knowledge was the most frequently cited benefit of COCOBAs to the community, according to both members and non-members. This was the most common response for members (45%), whereas non-members perceived a more even distribution across a range of other benefits, particularly those of a financial nature such as borrowing money directly from friends who are members (23%), or through members being able to employ labour during harvest time (10%) (fig. 4.7). Non-members also frequently reported community benefits as a result of members bringing products to the village, reducing the need for villagers to travel to the nearest town, Mpika, some 44km away and representing an important saving of time and money.
Fig. 4.7: Proportion (%) of Zambian members (n=62) and non-members (n=47) reporting perceived community benefits of COCOBAs.

4.3 Conservation attitudes and behaviours

The reliability of using the responses to seven Likert statements in aggregation as a conservation attitude score was tested through an internal consistency measure (Cronbach’s alpha: +0.78; above 0.70 threshold) and degree of association (internal correlation between 0.17 and 0.44). These results indicate that the statements can be reliably interpreted in aggregation as a conservation attitude score.

Zambian members had significantly higher conservation attitude scores than non-members, although attitudes were generally positive with no negative scores (Wilcoxon rank-sum test; n=130; W=3311, p<0.0001; fig. 4.8).
FGDs with Zambian members revealed that participants are not aiming to undertake specific conservation-friendly activities, instead they reported that by generating income through legal means they felt they contribute to positive environmental effects as a result of their reduced reliance on poaching or charcoal burning (three FGDs). Similarly, Zambian members (96%, n=48) perceived that their most recent loan was for an environmentally-friendly purpose although the range of reported loan-uses does not appear to be directly beneficial to the environment (fig. 4.9).
FGDs revealed that Tanzanian members had a high level of understanding about how their actions impact the environment. For example, participants noted that they prevented non-members from grazing near rivers to avoid soil erosion and outlined the environmental challenges of large, monoculture farming methods.

Most Zambian members (97%, n=65) agreed or strongly agreed to the statement “my behaviour towards the environment has changed as a result of the COCOBAs” which supports a positive pro-conservation behavioural effect of COCOBAs. Further questioning of Zambian members revealed the types of behavioural changes (fig. 4.10), with twelve respondents stating that either themselves or their husbands had stopped poaching or selling bullets, and five reporting that bushmeat sellers no longer came to their houses through fear or repeated lack of sale. These positive behavioural changes were further corroborated by both Zambian and Tanzanian FGD participants (seven FGDs).

“I have given up poaching and handed my weapons to ZAWA as it is not a good way to make a living.”

(Male member, Zambia)

Fig. 4.10: Reported behaviour changes of Zambian members as a result of COCOBAs (n=65).

FGDs with non-members in Zambia and Tanzania provided further support for the positive pro-conservation behavioural changes of members (five FGDs):

“None of the COCOBA families need to go and poach, they use their business for money instead.” (Female non-member, Zambia)
“COCOBA members get loans so they can start another business other than going to poach, so they are too busy with their business to go and poach.”

(Female non-member, Tanzania)

Additionally, the behaviours of Zambian non-members seems to have been influenced by COCOBAs; 65% of non-members agreed or strongly agreed when asked whether their behaviour had changed as a result of COCOBAs, with supporting comments suggesting that information and education from members has influenced some local behaviours:

“Before COCOBAs I didn’t know the importance of not killing wild animals or cutting trees but they (COCOBA members) discourage these activities so now I have stopped”

(Male non-member, Zambia)

Virtually all Zambian respondents (99%, n = 129) stated that an increase in COCOBA participation would have a positive effect on the environment. When asked how this would generate a positive effect, participants focused on education regarding conservation awareness and why conservation is important for their community (fig. 4.11). Although there was no significant difference between reasons identified by members and non-members (Fisher’s Exact Test; n=134; p = 0.11), once again non-members placed more emphasis on the financial aspects of COCOBAs with 30% (n=66) noting that the provision of loans would enable community members to engage in businesses other than charcoal making or poaching.

![Fig. 4.11: Proportion (%) of Zambian member and non-member responses indicating how COCOBAs can positively impact the environment (n=134 as four respondents provided two responses).](image-url)
4.4 Key attributes for successful outcomes

4.4.1 Awareness and communication

Awareness of COCOBAs in Katibunga, Zambia was observed to be very low; approximately half of community members could not be sampled because they were not aware of COCOBAs.

This was for two main reasons. Firstly, the initial sensitisation meeting held by FZS in 2009 in Katibunga was not widely publicised to all sub-villages and many villagers did not attend due to a lack of information. It appears to be important during these initial communications to set clear expectations regarding the role of the facilitating NGO, such as the level and type of support that will be provided, if any. This was frequently identified as a source of concern amongst some Zambian members who felt that expectations had been historically misrepresented by FZS:

“They (FZS) told us they would bring goats and seeds but they never came.... And we should be given more capital for our group fund.”

(Female member, Zambia)

The majority of members (58%, n = 65) reported that FZS was responsible for providing capital items such as seeds and livestock, with a further 31% believing that both COCOBAs and FZS were responsible. This contradicts the VSLA methodology on which COCOBAs are based suggesting that members hold misperceptions about certain elements of the programme.

Second, there appears to be continual low levels of communication and publicity about COCOBAs by Zambian members. Lack of awareness or understanding was the most frequently reported reason provided when Zambian non-members were asked why they had not joined a COCOBA (fig. 4.12).

“Members never talk or share the information they have about COCOBAs to us so I don’t know anything about it.”

(Male non-member, Zambia)
Fig. 4.12: Zambian non-members (n=65) reporting why they had not joined COCOBAs

In contrast in Tanzania, key informants and FGD participants (three FGDs) reported that there is very high awareness as a result of community-wide inclusion during initial meetings and on-going publicity by COCOBA members, such as through church announcements, uniformed group work and community conservation projects.

4.4.2 Training

Training was the most frequently listed COCOBA success factor. It was mentioned in seven of eight member FGDs and scored very highly in voting (20% of votes) (fig. 4.13).

Fig. 4.13: Success-factors identified by FGD member participants, showing proportion of FGDs in which the item was mentioned (n = 8) and proportion of votes the item received, out of total votes available in the FGD(s) in which item was mentioned. Data comprises Zambian and Tanzanian responses because there were no substantial differences between the data.
The minimal training in Zambia also received a very high percentage of available votes (37%) when it was listed as a barrier to entry during FGDs with Zambian non-members (fig. 4.14).

![Fig. 4.14: Barriers to entry identified by FGD non-member participants, showing proportion of FGDs in which the item was mentioned (n = 5) and proportion of votes the item received, out of total votes available in the FGDs in which item was mentioned. Data comprises Zambian and Tanzanian responses because there were no substantial differences between the data.]

Zambian members reported in three FGDs that they only received three days of training in 2009 and all participants were in agreement that the amount of training was not adequate for their needs:

“We had a three day workshop but no training materials were left and now we have little information and do not have a good understanding.”

(Female member, Zambia)

Training was also observed to be a key success factor by a FZS-CREATE Project Coordinator, who commented “it is the most important part of what we do for these groups”. Training was the second most frequently reported response (22%, n=65) when Zambian members were asked what improvement they would make to their COCOBA, although increased capital was the most frequent response (51%). Furthermore, 25% (n = 65) of Zambian non-members reported that improved training and support to the groups was a key area which would encourage them to join; whilst the two other reported key areas (capital and member success) seem most likely to be achieved through increased training (fig. 4.15).
4.4.3 External support

The ongoing provision of external support such as regular visits and monitoring was listed as a factor promoting success in five out of eight FGDs with Zambian and Tanzanian members (fig. 4.13). In 2009, FZS staff visited Zambian COCOBAs every two weeks and maintained regular contact with the groups however, members and leavers commented in every Zambian FGD that they perceived FZS to have substantially reduced this level of support to virtually nil, and that this is a barrier to the effectiveness of their groups.

“FZS used to come and help us but now they never come... we feel like children whose parents have abandoned us. Sometimes we have problems and nobody can help us.”
(Female member, Zambia)

This view was shared by non-members who noted that lack of external support for groups negatively influenced their attitude towards COCOBAs:

“If the groups received more support and visits from FZS I would be more likely to join in the future.”
(Non-member, Zambia)

Contrastingly, FZS management in Tanzania commented that they aim to visit each COCOBA at least once a month to provide encouragement, conduct monitoring, and to enable staff to quickly identify and intercept any problems. Although Tanzanian members commented
during FGDs that they perceive this support network to be important, they also stated that they predominantly benefit from the provision of capital items (three FGDs).

“Like a family with a mother and a child, FZS takes the mother role in the family and COCOBAs cannot be there without FZS.” (Male member, Tanzania)

“FZS donated two beehives to our groups and they provide us with all the stationery we need.” (Male member, Tanzania)

4.4.4 Culture

Aspects of group culture and norms were identified by members as a crucial area to explore when considering success; ‘trust and unity’, ‘collaboration’ and ‘commitment and hard-work’ were identified during a success-factor FGD exercise, listed in five, five and six FGDs out of eight, respectively (fig. 4.13). A Zambian key informant noted that “trusting each other and being prepared to work hard is the most important way we can be successful”, whilst the FZS Project Coordinator, Tanzania commented:

“Trust and collective decision making is key for their success, which is why we encourage formation of only trusted groups and provide training on democratic elections for committee members with the right leadership skills.”

Zambian members rated fellow group members highly across three traits which were assessed (honesty, commitment and hard-work), with ‘Good’ being the median rating of all three traits, which is positive given the importance placed on these characteristics during FGDs (fig. 4.16).

![Graph](image.png)

**Fig. 4.16:** Proportions (%) of Zambian respondents rating fellow group members across three traits on a scale between ‘Worst’ to ‘Best’ (n = 65).
4.4.5 Operations

Structure

Zambian COCOBAs are single sex unlike in Tanzania, where FGD participants strongly emphasised the benefits of mixed gender groups, with all 58 participants across six FGDs indicating that they felt groups would be more successful with this structure.

“Coming together in a COCOBA is like building a family – it is much harder when you are separated into men and women, and better when you do things together.”
(Male member, Tanzania)

Similarly, a key informant commented:

“Having both men and women members creates harmony, and both have different skills to contribute towards building a successful group.”
(Martin Kourouma, CARE)

When Tanzanian FGD participants (five FGDs) were asked to discuss the benefits and challenges of meeting fortnightly or monthly as the Zambian COCOBAs do, participants indicated a strong preference to meeting once a week (Table 4.3).

Table 4.3: Tanzanian FGD comments on the topic of meeting fortnightly or monthly.

<table>
<thead>
<tr>
<th>Comments</th>
<th>Number</th>
<th>Representative quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>1</td>
<td>“Twice a month is good as it gives you time to work hard for two weeks to get the money rather than every week.”</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>“Depends if the contribution was doubled from what it was every week so that the Group Fund continued to develop.”</td>
</tr>
</tbody>
</table>
| Negative   | 23     | “In one week you can plan at home easier for your saving than if you just save monthly.”  
“…encourages you to work hard. If you only meet monthly you can get lazy or forget about things, so when the time comes to contribute you might not have it.” |

Katibunga in Zambia has a broadly similar population to the three villages visited in Tanzania. However, it is spread over a larger geographical area and divided in more than ten sub-villages. This means that COCOBA members are more spread out and their community associations are fragmented across their sub-villages. Zambian FGD member participants produced a map of sub-villages that members lived in with walking times between sub-villages, revealing that members are widely dispersed with walking times of up to 1 hour 45 minutes between some members (fig. 4.17).
Zambian members and non-members trusted non-family members living in the same sub-village significantly more than those in a different sub-village (Chi-squared test; n=130; $\chi^2 = 67.7$, df = 4, $p < 0.001$; fig. 4.18). Members in Tanzania shared a similar viewpoint:

“It is important that you live near each other so you will know each other very well and you can help each other with business ideas.”

(Male member, Tanzania)

Fig. 4.17: FGD mapping exercise showing walking time (minutes) between sub-villages where Zambian COCObA members live. Arrows are proportional to time.

Fig. 4.18: Proportions (%) of Zambian respondents rating non-family members living in same and different sub-villages on a scale between ‘Worst’ to ‘Best’ (n=130). Member and non-member responses presented together because no substantial differences in data were found.
Financial

Zambian members in all three FGDs noted that current loan terms are not adequate; particularly small loan sizes due to limited group capital, with 59% (n=61) of members reporting that loan sizes and group capital are too small.

“Our businesses are not always successful as the loans are not big enough and you can’t manage to make a profit with such a small amount.”

(Female member, Zambia)

When this was discussed with Tanzania members, every FGD participant (three FGDs) was in agreement about the financial challenges of the Zambian loan terms.

“You couldn’t do any business with that amount! Nobody here could pay back a 10% interest after one month with their business!”

(Male member, Tanzania)

The majority (61%, n=65) of Zambian members expressed a preference to continue with the current group piece-work savings model (fig. 4.19). However virtually all sampled Zambian members (94%, n=65) stated they could afford to save ZMW 3 per week. This is in line with the Tanzanian minimum weekly individual share purchase, suggesting that it could be financially viable to operate an individual shareholding structure equivalent to that in Tanzania.

Fig. 4.19: Preferences of Zambian members (n=65) between individual shareholdings or saving equally through group piece work.

Tanzanian FGDs members indicated that having flexibility over the weekly saving amounts is beneficial, with 13 out of the 19 comments on the subject indicating that individual
shareholdings are preferable to allow contribution optionality each week and an element of competitiveness between members.

**Continuing business**

During two out of three FGDs, Zambian members identified competition for buyers and a lack of selling differentiation as reasons which are limiting success. Members invest in similar ventures to each other, with 85% of respondents using loans for the same five purposes (livestock, fish, fertiliser, vegetables and maize) and very few investments into ‘novel’ businesses, for example bakery products or clothing (fig. 4.9).

> “Often our business aren’t successful as everyone is selling the same thing like tomatoes and onions and there is too much competition.”
>
> (Female member, Zambia)

The importance of sufficient business differentiation was also noted by a key informant:

> “It is important for the members to think of innovative ideas so the business can be successful but this is difficult in many cases.”
>
> (FZS-CREATE Management, Tanzania)

The investments that Zambian members and non-members would make if they had access to significantly larger loans are similar to current local activities and demonstrate little entrepreneurial or original thinking (fig. 4.20). However, a small number of members and non-members indicated they would purchase second-hand clothes and shoes to sell, which are not currently mainstream activities and represent new and unique opportunities. Surprisingly, non-members suggested a broader range of potential investments than members, including added-value businesses such as carpentry and tailoring.
Fig. 4.20: Proportion (%) of Zambian members (n=65) and non-members (n=65) indicating how they would spend a large loan (ZMW 1,500 or £144 converted 2,837 (TZS:GBP).

Virtually all Zambian members (92%, n=65) stated that new members would benefit their COCOBA with financial gains being the most frequently cited benefit via payment of membership fees and contributions to group capital (73% of respondents, n = 60). Similarly, Tanzanian members reported that new joiners brought overall benefits (three FGDs), although participants did highlight some challenges that can accompany an influx of members such as the requirement for training and an overall reduction in group capital as new members do not immediately replace that removed by leavers.
5 Discussion

5.1 Key stakeholder objectives

Integrated conservation and development projects (ICDPs) are often criticised for a lack of convergence between the goals of implementers and recipients (Wells & McShane, 2004). Creating strong links between conservation and development objectives is conceptually and practically challenging, and without clearly prioritised goals can lead to conflict (Brandon & Wells, 1992). Stakeholders may have different perspectives due to misaligned objectives, which can result in conflicts preventing successful project outcomes (Adams et al., 2003). In this study however, the objectives of FZS-CREATE and COCOBA members converged in terms of achieving biodiversity conservation and sustainable improvements in livelihoods. Conservation is the primary objective of FZS-CREATE and it represented a secondary objective as an indirect outcome for the majority of COCOBA members. Encouragingly, key stakeholders perceived these dual objectives to be highly inter-linked and important, which is favourable for the success and sustainability of the COCOBA programme and provides optimism for similar projects in future.

5.2 Wellbeing of COCOBA members and non-members

There is mixed evidence regarding the extent to which savings-groups benefit participants financially and alleviate poverty (Gash & Odell, 2013). Several studies have shown improvements in asset ownership and reduction of poverty (Allen & Hobane, 2004; Anyango, 2005; Bara & IPA, 2013) while others did not find any effect on asset accumulation or poverty levels (three evaluations from Ghana, Malawi and Uganda: IPA, 2012). This study revealed that Zambian members had higher wealth scores than non-members, and indicated that household incomes of members improved as a direct result of COCOBAs. There is a risk that members may be included on the basis of socio-economic criteria, resulting in elite capture if those who joined COCOBAs were wealthier than other community members. A similar bias was apparent from baseline data from Ghana, Malawi and Uganda which revealed that before joining VSLAs, members had significantly higher asset-based wealth scores and length of education than non-members (IPA, 2012). However, FGDs during this
study revealed that members believed there to be no selection bias in the socio-economic profiles of those who join COCOBAs and no educational bias was detected between members and non-members.

As well as underlying socio-economic differences, it has been noted that there may be differences in behavioural characteristics of VSLA participants such as motivation, organisational skills and entrepreneurial drive (Kuboja et al., 2013; IPA, 2012). Extent of early adoption of new ideas such as COCOBAs may be influenced by the degree to which innovation and risk-taking is supported within a social system (Rogers, 2003) and early-adopters of novel programmes may be predisposed to taking greater financial and/or social risks (Gash & Odell, 2013). Also, cultural and social issues can be involved in early uptake of programmes, for example those who are better socially integrated into society are more likely to have the information and ability to become microfinance participants (Duvendack et al., 2011).

These underlying differences in behavioural characteristics raise questions about the potential to scale-up COCOBAs within a community without excessive dilution of the desirable skills and required group dynamics. There are four COCOBAs in Katibunga as well as other non-conservation savings-groups, and there is strong demand amongst non-members for expansion in the number of groups. However, these existing savings-groups may have already captured those with the optimal behavioural characteristics to be successful members, which may include risk-seeking attitudes and innovativeness, and consequently attempts to scale-up COCOBAs may result in groups without an equivalent potential for success. Having said this, if the overall penetration of COCOBAs and other savings groups is still relatively low in Katibunga, there may still be headroom for further growth before this becomes an issue.

On a positive note, early-adopters tend to hold strong opinion leadership in most communities and as respected individuals with a reputation for success they serve a role of providing advice and information for later adopters (Rogers, 2003). The current early-adopter members may therefore be valuable as COCOBA advocates and thought-leaders during any potential expansion in Katibunga and other communities.

Attempts to measure wellbeing are increasingly being integrated into ICDPs to determine whether they are meeting development objectives and also improving conservation
outcomes by considering local needs (Adams et al, 2004). However, measurements of wellbeing are subject to confusion and variation due to differing concepts of what wellbeing actually entails and consequently the development of a meaningful measure of wellbeing represents an ongoing challenge for researchers (Milner-Gulland et al., 2014). The authors go on to note that measurement of wellbeing change as a result of an intervention is particularly complex, as perceptions of what constitutes improvements in wellbeing are likely to have changed as a result of the intervention itself (Milner-Gulland et al., 2014).

In this study, Zambian COCOBA members perceived greater positive changes in their wellbeing than non-members. This pattern was further evident with social comparison agreement amongst respondents that members had a better status in the community than non-members. These findings are consistent with previous research suggesting that VSLAs can have positive effects on wellbeing, such as improved standards of living, housing and children’s education (Allen & Hobane, 2004; Anyango et al., 2007; IPA, 2012). Despite significant differences in several individual wellbeing factors, members and non-members experienced similar changes in ‘life in general’ over the last six years and since joining COCOBAs. This suggests that respondents may consider additional factors to those included in this study important in determining their overall wellbeing of ‘life in general’, such as family health or resilience to shocks (Gash & Odell, 2013). Whilst the findings of this study indicate positive overall wellbeing effects, the complexity of measuring wellbeing, and particularly measuring changes over a six year time period as result of the COCOBAs means that further refinement of locally relevant indicators would be beneficial.

The results of this study do not support previous findings that access to microfinance can lead to a shift of income-generating activities away from agriculture (Bigsten & Tengstan, 2011). There is no evidence of reduced reliance on agriculture as the primary means of income-generation by members. A possible explanation may be that non-members underreported their current reliance on illegal income-generating activities due to their sensitive nature (Gavin et al., 2010). Members, on the other hand, may have genuinely displaced these illegal activities by generating increased profits from agriculture following investments in fertiliser and seeds. Alternatively or additionally, the small loan size of Zambian COCOBAs may be hindering the ability of members to generate sufficient scale in other businesses to reduce their reliance on agriculture.
COCOBAs are commonly perceived as beneficial for the community which supports the idea that microfinance may facilitate development of social capital, both within groups through bonds and mutual support, and within communities through the establishment of economic links, mutual benefits and social networks (Anderson & Locker, 2002; OECD, 2007). Whilst members primarily reported the benefit of sharing conservation education with the community, non-members perceived a broader range of benefits including financial advantages such as the obtainment of informal loans and employment from members. This may indicate that members in fact under-value the extent and nature of “spillover” benefits which COCOBAs bring to communities. Promoting the wider benefits of COCOBAs could be embraced by FZS during future interventions to instil pride and boost morale of members by highlighting the range of advantages they bring to their community. This could encourage positive attitudes and support towards COCOBAs amongst non-members who may not be willing or able to participate themselves. This may also be of interest to donors as the transfer of benefits to non-members means that overall impact of such programmes may be greater than previously anticipated.

Zambian COCOBA members who were also members of other types of savings-groups experienced wealth and wellbeing change benefits of this ‘multiple membership’. However, the lack of a significant effect of the interaction between membership of COCOBAs and other savings-groups indicates that additional benefits are not as great as they would be for a joiner of just one type of group. This may imply that membership of one type of savings-group is currently satisfying an ‘access to capital’ threshold and that other factors, such as market constraints, are limiting the upside benefits which can be achieved. Multiple savings-group memberships have been described elsewhere in Africa; relatively prosperous members in Uganda reported the need to combine loans for larger capital as well as their desire for increased saving capacity when faced with maximum weekly share purchases (Mine et al., 2013). Although this study reports no negative effects of multiple membership on group function, concerns are noted that borrowing from one group to repay another may lead to a spiral of debt which VSLAs are structured to avoid and further research on potential implications is required.
5.3 Conservation outcomes

There is very limited evidence in general of the effectiveness of savings-groups for achieving positive conservation outcomes, and evidence that conservation attitudes can be influenced by such programmes is mixed. Kuboja et al. (2013) concluded that access to microfinance programmes in Tanzania had little effect on attitudes but anecdotal evidence suggests that there are some situations in which conservation attitudes have been positively influenced (Hartley & Rijali, 2003; N. Hill, ZSL, pers. comm.). This study detected stronger positive conservation attitudes amongst members compared to non-members, contributing to evidence that COCOBAs may be a tool which can influence behavioural intentions, and potentially actual behaviour (Ajzen, 1991).

Previous research on the impact of savings-groups on improving conservation behaviours also presents mixed findings. Hartley & Rijali (2003) found that participation in savings-groups in Tanzania resulted in several positive behaviour changes, such as uptake in high-value agriculture activities (e.g. mushroom growing) to replace wood-cutting, and mangrove planting, whilst neutral (Kuboja et al., 2013) and potentially negative (Anderson & Locker, 2002) outcomes are also reported.

Although this study only investigated perceived behavioural changes, it is encouraging that both members and non-members strongly believe that COCOBAs have positive environmental effects, with members reporting behavioural changes such as quitting poaching and encouraging others to do the same. However, with only 60 participants currently in the Zambian programme the scale of positive environmental effects is limited, highlighting the value of members acting as ‘environmental ambassadors’ promoting pro-conservation behaviours to the wider community (Kashaigili et al., 2009). In turn this reinforces the importance of positive perceptions of COOCBAs amongst the community resulting from the range of external benefits that they provide.

Members taking loans from the Zambian COCOBAs do not appear to primarily consider the effect of their investment on the environment and pro-conservation behaviours most often arise as an indirect consequence of improved livelihoods. It therefore appears that links between COCOBA loans and environmental outcomes could be strengthened, potentially through education and some level of conditionality. The need to strengthen this linkage has also been observed in other savings-group outcomes. Jha & Bawa (2007) note that when
business selection rests with households there is little consideration given to environmental impacts of these businesses and the task of maintaining strong links between loan-use and environmental consideration remains challenging in programmes with similar goals (Hartley & Rijali, 2013; N. Hill, ZSL, pers. comm.). Attaching some conditionality to loan use has been highlighted as one way to improve conservation outcomes (Kuboja et al., 2013) and is used amongst Tanzanian COCOBAs where, despite positive perceptions, there is no empirical evidence to determine whether this has been effective. However, the degree to which local communities can independently choose their livelihood strategies is an important ethical consideration and can minimise conflict and NGO-dependency (N. Hill, ZSL, pers. comm.; Sarkar & Montoya, 2011).

There are many reasons for why people engage in environmentally-damaging practices, and whilst this study is not focused on investigating causes of these behaviours, Zambian members and non-members reported that poverty or lack of capital was the predominant reason amongst their community. The potential for savings-groups to alleviate poverty and provide access to capital therefore suggests that COCOBAs may be an effective tool in conserving biodiversity within the North Luangwa ecosystem.

5.4 Success factors

Study findings were collated into a framework to outline COCOBA success factors across various group life-stages, from initial community sensitisation to ongoing operations (fig. 5.1). Success factors are grouped into five categories - awareness, training, support, culture and operations, some of which are discussed further throughout the course of this discussion.
Fig. 5.1: Framework summarising key success-factors identified in this study across different COCOBA life-stages
5.4.1 Training

Tanzanian COCOBA members receive significantly more training than Zambian members across topics including COCOBA operations, business and entrepreneurial skills and conservation education. This appears to play an important role in livelihood and conservation success of groups, a finding which is observed in earlier studies (Anyango et al., 2007; Kuboja et al., 2013). Zambian members frequently reported their need for further training in COCOBA operations, which was evident through their lack of conformity to the VSLA model. Capacity building in group functions and operations is the key role of facilitators of savings-groups, such as FZS, and is vital to enable groups to reach successful and sustainable positions (Allen & Panetta, 2010).

Savings-groups can even become effective platforms for delivery of additional training and skills accumulation for example health and vocational skills, if their pre-existing structure and organisation is sufficiently well developed (Ashe et al., 2012). However, there is vigorous debate surrounding the benefits and appropriateness of using them as an entry-point to provide other services, either through links to other initiatives or by facilitators themselves, in which case there is a risk that facilitators take on more than they can handle with overall programme quality suffering as a consequence (Athmer & Bosch, 2013).

Business and entrepreneurial training is one additional service of particular relevance to this study. In other VSLA programmes such training is provided by the group facilitator (eg. FZS, Tanzania; JECA; CARE, Tanzania, Guinea) but again there are mixed findings of the effectiveness of their delivery to participants. Evidence suggests that there are advantages to their provision such as positive impacts on productivity and profits (Odell & Rippey, 2011; McKernan, 2002). On the other hand, studies indicate that constraints may limit translation into discernible benefits to business success, although there are reported improvements in participant retention and uptake in practices such as thinking proactively about new markets and opportunities (Karlan & Valdivia, 2011). Ultimately none of this evidence relates specifically to savings-groups nor to sub-Saharan Africa, and in practice the effectiveness of such training is likely to be site-specific and related to the content and delivery methods.
The comments that were received from Zambian members during FGD suggest poor business acumen or entrepreneurial activity. For example, their range of current loan uses and income-generating activities was low. Members were not able to readily identify niches or opportunities for investment of larger loans, indeed non-members identified a broader range of opportunities. By comparison, Tanzanian members identify and engage in several unique businesses opportunities, such as bee-keeping, egg-incubating, solar charging and electrical retailing (fig 5.2), although there is greater tourist presence in this area and FZS support access to some markets. Requirement for training in these skills has been identified elsewhere, such as in Malawi where participants requested business and management training to improve their ability to identify profitable business opportunities (IPA, 2012).

![Fig. 5.2: Examples of Zambian COCOBA business; poultry farming in village, and Tanzanian COCOBA business; electrical shop in local town](image)

Jha & Bawa (2007) note that businesses requiring specialised skills, such as tailoring and masonry, were found to have the best economic outcomes and cause the least pressure on forest resources, which suggests that training in specific skills could be valuable for Zambian COCOBAs. In Tanzania, FZS occasionally provide specific skills training, for example in bee-keeping, where it is directly requested by participants and where sufficient enthusiasm for the activity is expressed, and participants noted that this was very beneficial for their business activities. Specific skills training may also be of value in Zambia, although careful consideration must be given in both countries in order to minimise dependency on FZS and to determine whether the skills are driven by genuine demand of participants (Odell & Rippey, 2011; Wilson, 2012).
Finally, programmes similar to COCOBAs have reported the necessity for effective environmental education (Kashaigili et al., 2009; M. Kourouma, CARE, pers. comm.) as access to conservation information is likely to influence adoption of environmentally-friendly practices (Kuboja et al., 2013). Zambian members had limited understanding of conservation and environmental impacts of their businesses compared to those in Tanzania. For example, Zambian members gave no consideration to effects of land-clearing for cattle grazing whereas Tanzanian members planned additional grazing land and were aware that this should not be close to water sources to minimise soil erosion. This appears to limit the potential of Zambian members to act in environmentally-friendly ways and supports the need to deliver environmental education to participants. This was emphasised by members and non-members who reported that conservation education is the primary way in which COCOBAs can positively impact the environment and that it is the greatest community benefit.

5.4.2 External support

Previous research has indicated that savings-group participants do not perceive the role of ongoing external support to extend beyond the provision of stationery (Anyango et al, 2007), although participants are enthusiastic about maintaining links to facilitating agents (IPA, 2012). Similar results were observed amongst Tanzanian COCOBA members who valued the support network of FZS but felt that primary benefits were through capital items such as stationery. Regardless of the nature of support, Tanzanian and Zambian members frequently listed FZS support as a success factor, which was emphasised by 25% of non-members stating they would be more likely to join a COCOBA if the level of training and support was increased.

It is clear that in order to promote successful outcomes, the level of support by FZS to Zambian COCOBAs should be increased to an ongoing, regular interaction. Support measures could be similar to that provided in Tanzania, such as providing cash-boxes and stationery, monthly problem solving and financial monitoring (F. Julius, FZS, pers. comm.), or could incorporate regular activities such as practical demonstrations of environmental techniques to re-enforce information from initial conservation education (M. Kourouma, CARE, pers. comm.)
Although support from facilitators of savings-groups appears to be important in capacity building and generating successful outcomes, ultimately FZS must ensure that COCOBAs are on track to be in a self-sustainable position where very little external support is required. Previous studies note that it is crucial to limit the time that savings-groups are supported by a facilitator in order to reduce dependency and to be cost-effective (Ashe et al., 2012; Ferrand, 2013), with rule of thumb that VSLAs should be almost entirely independent after approximately one year of training and support (Allen & Hobane, 2004; Odell & Rippey, 2011). However, the dual objectives of COCOBAs which include conservation outcomes means that the longer-term involvement of FZS may be required. Meeting underlying satisfaction requirements of participants, even via low level continued support and partnership, is important for maintaining motivation, which is a strong driver of behavioural change and therefore enhances ongoing conservation commitment (Asah & Blahna, 2013). Consequently basic ongoing support is recommended to maintain relationships and enthusiasm for COCOBAs, which in turn should encourage and reinforce the importance of environmentally friendly or neutral activities (M. Kourouma, CARE, pers. comm.).

Achieving this desirable self-sustainable position is aided by the recruitment and training of Trainer of Trainees (TOTs) who can provide local and affordable support to existing and new COCOBAs in the absence of facilitators (Allen, 2002; Allen & Panetta, 2010; Nelson, 2013). This network is in place for the Tanzanian programme but not for the Zambian. Consequently this study indicates that it may be beneficial to introduce TOTs to Zambia to promote the long-term self-sufficiency and success of COCOBAs.

One aspect of support to savings-groups that the literature indicates is not beneficial is the provision of external funds. As well as being in contradiction of the underlying VSLA model, the provision of external loans can undermine motivations to take savings seriously by reducing ‘buy-in’ and commitment (Allen, 2002). Buckley (1997) goes on to suggest that problems of rural entrepreneurs cannot be fixed by donor-funded capital injections, and that solutions lie in structural changes and in understanding potential cultural limitations. Despite the appeals of Zambian members for funds and capital items from FZS to support their groups, this can create dependencies and foster expectations of NGOs for ‘hand-outs’. Temporary capital injections were provided to some Tanzanian COCOBAs but management note that group and individual benefits were insignificant and so these have been
withdrawn. In light of the evidence it seems pertinent to recommend that FZS do not provide Zambian COCOBAs with external funds.

Similarly, expectations surrounding external funding must be managed very carefully, particularly in Zambia where these have been managed poorly to date. An example of where poor expectation management has brought detrimental consequences comes from a large-scale programme in Zimbabwe where external loans were promised, which created false expectations and severely disrupted savings patterns resulting in a reduction from 270 to 90 groups when loans were not forthcoming (Allen, 2002). FZS should therefore address any continuing misaligned expectations amongst existing Zambian COCOBAs before undertaking further interventions as well as ensure that there is minimal miscommunication during any expansion to other communities.

Although direct financial support from NGOs is not viewed as beneficial, several authors note the potential for facilitating agents to link savings-groups to external sources of credit from commercial MFIs (Ashe et al., 2012; Odell & Rippey, 2011). Links to external credit may provide a long-term ‘win-win’ solution for both savings-group participants and MFIs but they must be driven by the demand of participants who feel their needs exceed the capacity of their group (Athmer & Bosch, 2013). Creating financial linkages to provide access to larger capital and more formal services may be something which could be eventually considered for Zambian COCOBAs after the incorporation of several factors promoting success and considerable expansion. Through this mechanism COCOBAs could ultimately act as a platform on which to build greater institutional financial inclusion and facilitate access to a wide range of financial resources. CARE have established some widely accepted principles to minimise risks associated with creating financial linkage which may provide some guidance in the future (Allen & Panetta, 2010).

5.5 Further considerations for Zambian COCOBAs

A number of recommendations have been outlined throughout this discussion; (1) implement comprehensive training in COCOBA operations, business skills and conservation education (2) provide ongoing non-financial support for groups, particularly to reinforce conservation messages, (3) promote involvement of early-adopter members as motivational thought-leaders during future interventions and (4) emphasise the transfer of COCOBA
benefits accruing to non-participating community members. Additional recommendations arising from the success factors identified during this study (Fig. 5.1) relating to the role of FZS as a facilitator can be found in Appendix XII.

A number of constraining factors were identified during this study which may limit the ability to scale up and the future effectiveness of the COCOBA programme in the North Luangwa ecosystem (Table 5.1).

**Table 5.1:** Factors which may constrain effectiveness of COCOBAs in North Luangwa

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Detail</th>
<th>Potential mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural fit</td>
<td>COCOBAs may be a culturally unsuitable tool, eg, lack of desire to work for personal gain, unwillingness to ‘stand-out’, competitiveness considered culturally inappropriate.</td>
<td>Further social and cultural research in North Luangwa area to ascertain suitability.</td>
</tr>
<tr>
<td>Poverty levels</td>
<td>Underlying poverty levels may limit members’ ability to generate sufficient savings to create viable group capital.</td>
<td>Further research into income, poverty levels and saving-capacity of North Luangwa communities.</td>
</tr>
<tr>
<td>Market limitations</td>
<td>Distance and poor transport connections to local town, and low tourism means that markets are small and inaccessible.</td>
<td>Business skills training to aid generation of ideas for locally marketable products, or devise cost-efficient transport and marketing solutions. FZS could establish marketing links although this requires further consideration.</td>
</tr>
<tr>
<td>Local demand</td>
<td>Current level of savings-groups (COCOBAs and others) in the area may have satisfied demand amongst those with sufficient ambition and entrepreneurial attitude. Additionally increased NGO presence could lead to dependency and high expectations.</td>
<td>This study found that demand in Katibunga remains unsatisfied, although there is no information about other communities. Dependency and expectation management must be considered during planning stages.</td>
</tr>
<tr>
<td>FZS priorities</td>
<td>May not be sufficient resource allocation due to FZS prioritisation to develop the programme to a self-sustaining level.</td>
<td>Future resource allocation consideration by FZS and budget management to be carried out during planning of any future interventions.</td>
</tr>
<tr>
<td>FZS relationship</td>
<td>Poorly managed expectations by FZS in the past may curb strength of future relationships</td>
<td>Clear expectation and relationship management in place before initiating any future interventions.</td>
</tr>
<tr>
<td>Phone network</td>
<td>Regional phone signal is extremely limited which may restrict ease of doing business.</td>
<td>Network masts are under construction and due for completion mid-2015; this study found that 54% of Zambian respondents own mobile phones.</td>
</tr>
</tbody>
</table>
5.6 Future research

Despite evidence to suggest there are potentially important connections between savings-groups and conservation outcomes there is very little M&E research of specific outcomes, particularly environmental ones (Anderson & Locker, 2002). Future research should therefore focus on generating empirical evidence of COCOBA impacts, particularly on conservation. Including this study, there is a scarcity of evidence on this topic which incorporates control or baseline data (Anyango et al., 2013; Kuboja et al., 2013), which would be a highly important addition to the literature and particularly valuable if further interventions or expansions are planned in Zambia. Randomised control trials (RCT) could provide insight into impacts and causality of the effects of COCOBAs, providing substantial further information to the body of evidence on the use of savings-groups for conservation outcomes (Gash & Odell, 2013).

The findings of this study are based on community perceptions, such as perceptions of pro-conservation behavioural changes, which are useful in their own right. However, future research could incorporate investigations of illegal-behaviours of members and non-members using methods such as the randomised response technique (RRT) (Warner, 1965), to improve accuracy when dealing potentially evasive responses (Gavin et al., 2010). As well as considering the human aspects of the programme it would be valuable during any future evaluations to examine effects on biodiversity in the study area after an appropriate time interval.

Potential differences in behavioural characteristics between early-adopter members and non-members provides a valuable area for further exploration, as well as the ability of early COCOBA adopters to improve attitudes amongst later members and communities. The gender aspect of savings-groups is another interesting topic for further investigation, specifically relationships between the empowerment of women and conservation. A range of existing literature explores the impacts of savings-groups on issues such as social inclusion, decision-making power and financial independence of women (Allen & Hobane, 2004; Anderson & Locker, 2002; IPA, 2012), but the direct effects of these impacts on environmental outcomes such as household behaviours remain relatively unexplored.
An understanding of this area would be of value for practitioners making decisions regarding target participants for savings-groups when seeking to achieve conservation outcomes.

5.7 Concluding remarks

Causative links between savings-groups and conservation outcomes remain unclear, predominantly due to a lack of monitoring and evaluation. However, the evidence from this study indicates that COCOBAs have had a positive influence on wealth, wellbeing and conservation attitudes and behaviours amongst participants in the Zambian programme. A number of factors for success have been identified which provide a basis for future management action by FZS and for similar interventions worldwide.

Although savings-groups should not be considered a silver bullet, COCOBAs appear to represent a valuable tool to achieve biodiversity conservation objectives. It is hoped that this study contributes towards a deeper understanding of the dynamics between community-based microfinance and conservation outcomes.
6 References


Appendix I: Common principles of VSLAs

**Structure:** Typically groups of 15-30 members who meet regularly at a frequency chosen by the group (usually weekly but can be fortnightly or monthly). Members annually elect a management committee and decide who may join their group. Groups decide on a constitution which is based on a template but provides flexibility to meet the needs of each particular community whilst not compromising the fundamental principles of the VSLA model. Members can leave at any time, with terms specified in the group constitution.

**Saving:** Members regularly save together and are expected to make contributions at each meeting. Depending on group rules, members may save the same each week or this may be varied. Some groups set the minimum contribution as a “share value” and give members the flexibility to save up to a pre-determined maximum each week (eg. three shares). Depending on the group constitution, members may withdraw their savings at any point during the annual cycle but usually without the accrued interest. Groups are entirely self-funded and require no external borrowings or donations to the loan portfolio.

**Security:** Groups usually keep records at each saving meeting and use lockable cash boxes to keep funds safe. The box often has multiple locks to which the keys are held separately by elected trustworthy members. Elected money-counters are the only people who are permitted to touch group funds.

**Loans:** Savings are used to create a group fund from which members can take interest-bearing loans, as well as funding group-based investments with the agreement of all members. Groups may also choose to contribute to a social fund, which acts as an insurance cover for emergencies. Loan terms are set by the group but are typically between one and three months, with interest rates ranging between 5-10 percent, but can be as low as 1 percent or as high as 20 percent. Interest paid on loans is retained by the VSLA group.

**Share out:** Groups share out all funds between members at intervals decided by the group (usually 6 or 12 months), and groups may choose to roll their funds into the next cycle. Members receive the interest earned on their savings (usually 35-5%). Groups can then reform in a new cycle of savings and lending.

Sources: Allen & Panetta (2010); Odell & Rippey (2010).
Appendix II: Focus group guidelines - Zambian members

Introduction

Hi my name is Victoria. I am from England and currently studying a Master’s degree in Conservation Science. This is Chrispin who will be facilitating today and this is Rachel who will be translating for me. I am very interested in your views and experiences of the COCOBA groups in your village and would like to talk to you about them over the next 2 hours. I would really value your personal views so please feel free to talk openly in our discussions today. Please be assured that what we talk about here is completely anonymous. You do not need to give your name today, but if you wish to then no names will be recorded. I will be looking at my watch from time to time to ensure that we are moving at the right speed, I want to be respectful of your time and not run over. Do you have any questions before we get started?

Participant check – all current members of COCOBAs in Katibunga.

A. Aims of COCOBAs

Ice-breaker exercise
First of all I would like you to take a picture that you think best represents the aim of COCOBAs. We will go around the group in turn, then please take 2 minutes to each explain why you have chosen that picture to describe the aim of COCOBAs. Please also give the COCOBA group that you are in, and your name if you wish.

Provide choice of pictures depicting different aims of COCOBA – eg. picture of children going to school, picture of healthcare, picture of reducing bushmeat hunting, picture of ladies at work, picture of new business / stall, picture of Zambian kwacha etc.

Aim of exercise is to act as an introductory ice-breaker and move into open discussion about the perceived aims and objectives of COCOBAs.

B. Member motivations

Do you think the aim of the COCOBA is the same as the aim of most of the members?

Guiding questions like:

- Do all members in COCOBAs have the same aims?
- Do problems ever arise because of differences in aims between the COCOBA, the Committee and members?
- What are the advantages of saving in such a way?
- What it is that makes members want to attend the meetings?
- What makes members want to stay in the COCOBA?
What types of things do people use COCOBA loans for?

Guiding questions like:

- What makes members want to take out loans?
- What are the different uses of loans from the COCOBA?
- Do people start new businesses with COCOBA funds? If yes, have they been successful? If no, why not?
- Do people start environmentally friendly activities?

What do members use the share-out at the end of the cycle for?

- What sort of things did members use the last cycle share-out income for?
- Who gets to decide in your household what the loans and share-out income is for?
- Is the share-out an important income for member households?

C. Actual impacts of COCOBAs

Do COCOBAs have an impact on your livelihood?

Guiding questions like:

- How do COCOBAs affect the house, family and jobs of members?
- Can you give an example of how a member’s personal or household income or wellbeing has changed as a result of the COCOBA?
- Do you think non-members see COCOBAs as a way to improve their livelihoods and wellbeing? Why / why not?
- Does the village generally support the COCOBAs?

Do COCOBAs have an impact on the environment?

Guiding questions like:

- What is our environment? Just the village area? The wider GMA? The National Park? Plants / animals / water etc?
- Is it an important thing to protect? Why?
- Are COCOBAs meant to help the environment? How are they meant to? For example, rules, objectives, advice?
- What activities have the most damage on the environment?
- What sort of people in the community do these activities?
- Do the COCOBAs help the environment? What examples can you think of where they have helped?
- If not, why do they not help?
- How can they do more to have a positive impact on the environment?
D. COCOBA success factors

Ranking exercise:
As a group please come up with all of the key success factors, or things that are required for success of the COCOBAs.

Write each “success factor” in Bemba and English on a card, and lay out in the middle of the group in a circle. Add an empty tin can to each card. Run through a reminder of what each “success factor” is with members. Provide 3 beans to each participant.

Now please use your 3 beans and place them in the tin that relates to the most important things needed for success of COCOBAs in Katibunga. You may put all 3 beans in one tin if you think this is the only important thing, or distribute them evenly between several things that you think are needed for success. Feel free to leave some tins with no beans if you feel this is not an important part of success of COCOBAs in your village.

Discuss overall ranking – do members agree with the overall ranking?

Aim of the exercise is to ensure creative idea generation of the things needed for success, and to ultimately come up with a weighted ranking of success factors, by counting total number of beans in each tin for each success factor.

What are the best things about the COCOBAs?

- What is it about COCOBAs that makes them successful?

Does your COCOBA face any challenges or any areas that could work better for the members?

- How do these challenges affect the members? Any personal examples?

Close:
Thank you again for your time. This has been a very interesting and useful discussion for me in my research into the COCOBAs. Please let me know if you have any questions or concerns about what we have talked about today, and remember that everything said today will remain anonymous. Please help yourself to a drink and a biscuit.
Appendix III: Focus group guidelines – Zambian non-members

**Introduction:** Hi my name is Victoria. I am from England and currently studying a Master’s degree in Conservation Science. This is Chrispin who will be facilitating today and this is Rachel will be translating for me. I am very interested in your views and experiences of the COCOBA groups in your village and would like to talk to you about them over the next 2 hours. I would really value your personal views so please feel free to talk openly in our discussions today. Please be assured that what we talk about here is completely anonymous. You do not need to give your name today, but if you wish to then no names will be recorded. I will be looking at my watch from time to time to ensure that we are moving at the right speed, I want to be respectful of your time and not run over. Do you have any questions before we get started?

Participant check – all non-members of a COCOBA but are aware of the COCOBA groups.

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**A. Aims of COCOBAs**

**Ice-breaker exercise**
First of all I would like you to take a picture that you think best represents the aim of COCOBAs in this village. We will go around the group in turn, and please explain why you have chosen that picture to describe the aim of COCOBAs.

*Provide choice of pictures depicting different aims of COCOBA – eg. picture of children going to school, picture of healthcare, picture of reducing bushmeat hunting, picture of ladies at work, picture of new business / stall, picture of Zambian kwacha etc.*

*Aim of exercise is to act as an introductory ice-breaker and move into open discussion about the perceived aims and objectives of COOCBAs.*

Additional guiding questions like:
- What do you know about the COCOBAs?
- How did you hear about them? For example, friends, family, FZS?
- Have most people in this village heard about a COCOBA? If not, why not?

**B. Perceived impact of COCOBAs**

Do COCOBAs have an impact on the livelihood of the members?

- Does the livelihood or wellbeing of COCOBA members increase? Why?
- Any changes in friends, family or neighbours since they joined a COCOBA?
- What type of people in the community become members? Educated people, business owners, hunters etc?
- Would you like to join a COCOBA?
- Is the Social Fund contribution of k1 every 2 weeks and group piece work affordable for most people in the community / you?
Do COCOBAs have an impact on the environment?

- What changes could COCOBAs have on the environment? Is this important?
- Just for members or for everybody in the community?
- What sort of activities are bad for the environment?

C. Barriers to membership

Barrier ranking exercise
As a group come up with all of the reasons that people may not be able OR may not want to become a member of a COCOBA.

Write each barrier in Bemba and English on a card and lay in the middle of the group in a circle. Add an empty tin can to each card. Run through a reminder of what each “barrier” is with members. Provide 3 beans to each participant.

Now please use your 3 beans and place them in the tin that relates to the most important reason in your village that people are not members in a COCOBA. You may put all 3 beans in one tin if you think this is the only important reason, or distribute them evenly between several reasons that you think are important. Feel free to leave some tins with no beans if you feel this is not an important reason in your village. Discuss overall ranking – do members agree with the overall ranking?

- Have we talked about all the reasons that people have not joined a COCOBA?
- Are there alternatives to COCOBAs in your village? If you are not a member of a COCOBA where else could someone get a loan or emergency money if they needed it?

D. Best things about COCOBAs

- Does the community see them as an opportunity? What sort of thing for?
- Are there generally positive or negative feelings in the village towards the COCOBAs? Why? Does the village generally support the COCOBAs?
- What are the best things about the COCOBAs ...for the village? ...for the members? ...for the environment?

E. Potential changes to COCOBAs - what could be changed to the COCOBAs to make them more useful for people in the village?

- What are the problems with the COCOBAs? For example, the group rules, the members they recruit, the structure, financial constraints? Time constraints?
- What sort of things could people in the village use loans for?
- What changes to COCOBAs would make them better for the environment?

Close: Thank you again for your time. This has been a very interesting and useful discussion for me for my research into the COCOBAs. Please let me know if you have any questions or concerns about what we have talked about today, and remember that everything said today is anonymous. Please help yourself to a drink and a biscuit.
Appendix IV: Focus group guidelines – Tanzanian members

Introduction

Hi my name is Victoria. I am from England and currently studying a Master’s degree in Conservation Science. This is Florentina who will be facilitating today and this is John who will be translating for me. Thank you for taking the time to be here today. I am interested in your views and experiences of the COCOBA groups in your village and would like to talk to you about them over the next 2 hours. I would really appreciate your personal views so please feel free to talk openly in our discussions today. Please be assured that what we talk about here is completely anonymous. You do not need to give your name today, but if you wish to then no names will be recorded. I will be looking at my watch from time to time to ensure that we are moving at the right speed, I want to be respectful of your time and not run over. Do you have any questions before we get started?

Participant check: All current COCOBA members in village.

A. Aims of COCOBAs

Ice-breaker exercise
First of all I would like you to take a picture that you think best represents the aim of COCOBAs. We will go around the group in turn, then please take 2 minutes to each explain why you have chosen that picture to describe the aim of COCOBAs. Please also give the COCOBA group that you are in, and your name if you wish.

Provide choice of pictures depicting different aims of COCOBA – eg. picture of children going to school, picture of healthcare, picture of reducing bushmeat hunting, picture of ladies at work, picture of new business / stall, picture of Zambian kwacha etc.

B. Member motivations

What types of things do people use COCOBA loans for?

- How do you come up with good ideas for businesses? What is important when considering business opportunities? What about when everybody wants to do the same business – is this a challenge?
- Do people start environmentally friendly activities with COCOBA loans? Are these generally successful? What sort of ideas have you had?

C. Member preferences

- What makes members choose COCOBA over other types of Village Savings and Loan Associations? (VSLAs?)
  - What makes members want to stay in the COCOBAs?
- How does the support from FZS help you? After the training course, how do FZS provide support to you? Why is this important for your COCOBA?
Gender mix:
- How many men and women are in your COCOBA?

- Discuss advantages and disadvantages of having men and women in COCOBAs?
- How would the COCOBA be different if it was just women or men?
- How about effect on environment?

Group work: - The COCOBA members in Zambia only save equal amounts each meeting, they have no choice of amount to contribute. Therefore everybody has the same amount equally saved in the group fund.
- How do you think this benefits or challenges the COCOBA groups in Zambia?

Member location:
- Do all of the members of your COCOBA live in the same village?
- What is the maximum walking distance between the furthest away members?
- What are the advantages of living in the same village as all the other members?
- What do you think the challenges of living in different villages would be?

Mugumu travel:
- How often do you travel to Mugumu for COCOBA business (buying / selling)?
- How much does the travel to Mugumu cost? By what means (taxi, bus etc)?
- Did you share the costs with someone else?
- What amount of your loan do you spend on transport to Mugumu for business?
- If you couldn’t travel to Mugumu or another town, could you still do your business?

Meeting frequency
- What are benefits or challenges to having COCOBA meetings less than weekly?

Loan size and length:
- In Zambia the maximum loan that a member can take out is 250 kwacha. This is the equivalent of 68,000 Tanzanian Shillings. They must repay their loan in 1 month, with 10% interest.

- What do you think about the size of the loan they can take? Do you think this would limit your business opportunities here?
- 1 month loan term compared to 3 -6 month terms here...What are the challenges?
- 10% interest for 1 month loan? What are the challenges?

D. Actual impacts of COCOBAs

Do COCOBAs have an impact on the environment?

- Does COCOBA have effects on the environment? What sort / why not?
- Can you give some examples of effects that COCOBAs can have?
- Who is responsible for doing “conservation”?
- How can COCOBAs have a more positive impact on the environment?

Do COCOBAs have an impact on your livelihood?

- How do COCOBAs affect the house, family and jobs of members?
- If not, why do they not have an impact?
• Can you give an example of how a member’s personal or household income or wellbeing has changed as a result of the COCOBA?
• Do you think non-members see COCOBAs as a way to improve their livelihoods and wellbeing? Why / why not? What is the perception of COCOBAs by non-members?

**D. COCOBA success factors**

• Generally do you think your COCOBA is successful?
  ◦ What makes your COCOBAs so successful?
  ◦ What else is required to make COCOBAs more successful?
• What things would you recommend to new COCOBAs that they need to be successful?

**Ranking exercise:**
As a group please come up with all of the key success factors, or things that are required for success of the COCOBAs.

*Write each “success factor” in Swahili and English on a card, and lay out in the middle of the group in a circle. Add an empty tin can to each card. Run through a reminder of what each “success factor” is with members. Provide 3 beans to each participant.*

Now please use your 3 beans and place them in the tin that relates to the most important things needed for success of COCOBAs in your village. You may put all 3 beans in one tin if you think this is the only important thing, or distribute them evenly between several things that you think are needed for success. Feel free to leave some tins with no beans if you feel this is not an important part of success of COCOBAs in your village.

Discuss overall ranking – do members agree with the overall ranking?

**Does your COCOBA face any challenges or any areas that could work better for the members?** ...Can be ANY problem or thing that you don’t like about the COCOBAs.

• What do you like LEAST about the COCOBA? Suggestions...
• How do these challenges affect the members? Any personal examples?

**Other success questions** (if not covered):

• Is having new members joining your existing COCOBA beneficial? What are the advantages and disadvantages?
• Do you have many joiners to an existing COCOBA
• Do you have village leaders or other important community people in your COCOBA? Do you think that this is important for the success and awareness of your COCOBA?

**Close:**
Thank you again for your time. This has been a very interesting and useful discussion for me in my research into the COCOBAs. Please let me know if you have any questions or concerns about what we have talked about today, and remember that everything said today will remain anonymous. Please help yourself to a drink and a biscuit.
## Appendix V: Pictures of COCOBA objectives selected by FGD participants

<table>
<thead>
<tr>
<th>Conservation</th>
<th>Trees</th>
<th>Wildlife</th>
<th>Bushmeat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Tree Image]</td>
<td>![Wildlife Image]</td>
<td>![Bushmeat Image]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Livelihoods</th>
<th>Lettuce</th>
<th>Stall</th>
<th>Cereal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Lettuce Image]</td>
<td>![Stall Image]</td>
<td>![Cereal Image]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social security</th>
<th>School</th>
<th>Healthcare</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![School Image]</td>
<td>![Healthcare Image]</td>
<td>![Family Image]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Services</th>
<th>Banking</th>
<th>Kwacha</th>
<th>Adult training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Bank Image]</td>
<td>![Kwacha Image]</td>
<td>![Adult Training Image]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Certificates</th>
<th>Saving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Certificates Image]</td>
<td>![Saving Image]</td>
</tr>
</tbody>
</table>

NB. Pictures ‘Aspiration’, ‘Doctor’ and ‘Man-Shop’ not shown as not selected by any participant.
Appendix VI: Location and characteristics of interview respondents

| Table: Gender, sub-village and age category of Zambian interview respondents |
|-------------------------------------------------|---------|---------|--------|
| Interview participants                        | Members | Non-Members | Total |
| Men                                             | 17      | 18       | 35     |
| Women                                           | 48      | 47       | 95     |
| **Sub-village**                                 |         |          |        |
| Macheleta                                       | 17      | 9        | 26     |
| Mwila                                           | 12      | 8        | 20     |
| Mataka                                          | 11      | 22       | 33     |
| Maliko                                          | 10      | 7        | 17     |
| Saili                                           | 7       | 9        | 16     |
| Filamba                                         | 5       | 2        | 7      |
| Other                                           | 3       | 8        | 11     |
| **Age category**                                |         |          |        |
| 18-29                                           | 5       | 13       | 18     |
| 30-39                                           | 29      | 26       | 55     |
| 40-49                                           | 14      | 14       | 28     |
| 50-59                                           | 8       | 9        | 17     |
| 60+                                             | 9       | 3        | 12     |
Appendix VII: Structured interview for members

| INTERVIEWER: ___________________________ | INTERVIEW CODE: __________ |
| DATE: ___________________________ | TIME START: __________ |

Hello, my name is [____]. I am conducting a survey on behalf of a student called Victoria. She is from the UK and currently studying a Master’s degree in Conservation Science. We are interested to find out about the COCOBA groups in this village to understand how they are operating and how to develop them in the future. I would be really interested to hear your views. The survey is strictly confidential and all answers will be kept private and anonymous. The survey will take approximately 1 hour to complete. You do not need to answer any question that you would prefer to not answer. If you do not understand any specific question please tell me. Please take your time to think about the answers. Thank you.

**Participant check**

*Please confirm the following before beginning interview (please tick):*

<table>
<thead>
<tr>
<th>Agree to participate in interview?</th>
<th>Participant above age of 18?</th>
<th>Gender of participant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Male</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>Female</td>
</tr>
</tbody>
</table>

*Please confirm the following by asking participant: Are you a member of a COCOBA? □ Yes*

**Participant details**

*Please ask the participant’s name and cross off participant from the separate list.*

1. Which age category do you fall into? □ 18-29 □ 30-39 □ 40-49 □ 50-59 □ 59+
2. Are you the head of the household? □ Yes □ No
3. What village do you live in?
4. What is the highest level of education you have attended?
<table>
<thead>
<tr>
<th>None</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational training</td>
<td>University</td>
<td>Other (specify):</td>
</tr>
</tbody>
</table>
5. Which COCOBA group are you a member of?
   □ Natwange □ Natwafwane □ Buyantanshi □ Akabangalile
6. When did you join your COCOBA? YEAR: ________________
7. Do you regularly attend meetings? □ Yes □ No - why not? __________________
8. Do you contribute to the Social Fund at every meeting? □ Yes □ No – why not?
9. Are you a Committee Member now or previously? □ Yes □ No
   *If yes: 10. What is or was the Committee position and dates held?*

<table>
<thead>
<tr>
<th>Committee Position</th>
<th>Year from</th>
<th>Year to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Which of the following items does your household currently have? Please tick in the ‘Household Has’ column

<table>
<thead>
<tr>
<th>Item</th>
<th>Household Has:</th>
<th>Item</th>
<th>Household Has:</th>
<th>Item</th>
<th>Household Has:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick house, OR:</td>
<td>Water system</td>
<td>Mattress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mud house</td>
<td>Phone</td>
<td>Wheelbarrow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin roof, OR:</td>
<td>Radio</td>
<td>Chicken(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thatch roof</td>
<td>Television</td>
<td>Goat(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td>Satellite dish</td>
<td>Sheep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycle</td>
<td>Generator</td>
<td>Pig(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car or truck</td>
<td>Solar panel(s)</td>
<td>Dog(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this survey, when we talk about “the environment” we will be talking about the natural resources in your area, including the wildlife, the trees and plants and the water sources.

Conservation attitudes

12. I am going to read you some statements about the environment and conservation, and I would like you to say whether you strongly agree, agree, disagree, or strongly disagree with them. Show the participant the cards with the four options on and place on the floor or hold it up so that they can see it.

Once I have read each statement I would like you to either say or point to the answer that best shows you much you agree or disagree with what I have said. If they say they don’t know or have no opinion, tick “DK”.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. All of the types of wildlife living in the GMA deserve to be protected from hunting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Having wildlife here is our culture so we must look after it for future generations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Most people living here think that conservation is as important as other issues (eg. education, healthcare, security)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Conservation is an important aspect to consider in my daily activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. Only rangers and conservationists have a duty to conserve wildlife, not other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. I care more for the environment than most people in Katibunga</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. I take actions which are good for the environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IF AGREE OR STRONGLY AGREE TO TAKING ACTIONS WHICH ARE GOOD FOR THE ENVIRONMENT:

Please tell me 3 things that you have personally done that are good for the environment:

1.                                                                                                                                                                                                 |
2.                                                                                                                                                                                                 |
3.                                                                                                                                                                                                 |

viii. I would like to do more to help with conservation in my area
There are reasons which stop me participating in conservation activities

**IF AGREE OR STRONGLY AGREE TO REASONS STOPPING ME PARTICIPATING IN CONSERVATION:**
What is the main reason?

### Livelihoods

13. What are the three main income making activities your household does? And who does each one? And which makes the most income?

*Please indicate top income making activity. If participants have less than 3 activities just record 1 or 2*

<table>
<thead>
<tr>
<th>Mark largest:</th>
<th>Income making activity</th>
<th>Who in household does this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Have any of your income making activities been influenced or changed by COCOBAs?

- □ Yes
- □ No

*If yes: How?*

15. Do your income-generating activities help the environment?

- □ Yes
- □ No
- □ Don’t know

*If yes: How?*

16. What is the main reason that stops people in this community from investing in businesses that are good for the environment?

17. Have you taken a loan from your COCOBA?

- □ Yes
- □ No, why not?

18. Please can you tell me about the most recent loan that you have taken - how much was it for and what did you use the money for? Please also think about whether the loan was for a purpose that helps the environment.

<table>
<thead>
<tr>
<th>Loan value</th>
<th>What used for?</th>
<th>Helps environment?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If yes: how?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes / No</td>
</tr>
</tbody>
</table>

19. Please can you give an idea of a business that is **good for the environment** that you could do if you had access to a loan of 1,500 kwacha?

20. Which other Savings Groups have you heard of in the Katibunga area? Are they better or worse overall than COCOBAs?

(1)

- □ Better, why?
- □ Worse, why?
- □ Same
- □ Don’t know

(2)

- □ Better, why?
- □ Worse, why?
- □ Same
- □ Don’t know
21. Are you currently a member of any other Savings Groups? □ Yes, which? □ No
22. Do you have access to any other sources of finance or loans? □ Yes, how? □ No

Social impacts

23. Remembering life before you joined a COCOBA, I will ask you whether since joining the COCOBA your current personal situation has improved, reduced or stayed the same for some items. Please let me know if you cannot remember clearly your situation before joining the COCOBA. Please tick appropriate change.

<table>
<thead>
<tr>
<th>Item</th>
<th>Improved?</th>
<th>Reduced?</th>
<th>Stayed the same?</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Household assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Household condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Children education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Respect and villagers seeking advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. Supply of food and varied diet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. Financial independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. Household income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii. Life in general</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. From the items above, please choose the 2 greatest changes in your life as a result of joining the COCOBA? How have these changes shown themselves?

(1) Greatest change (from list above) __________________________________________

How has this change shown itself? __________________________________________

(2) Greatest change (from list above) __________________________________________

How has this change shown itself? __________________________________________

25. Please think of some people who are not COCOBA members, who had a similar status to you one year ago. Do you feel that your status is now better than them, worse than them or has there been no change?

□ Better status □ Worse status □ No change

If any change: How does this show itself? __________________________________________

COCOBA evaluation

26. Why are you a member of a COCOBA?

________________________________________________________________________

27. Are COCOBAs successful to help members meet their goals? □ Yes □ No

If no: Why not? __________________________________________________________

28. If more people in Katibunga were COCOBA members, do you think this would have an impact on the environment?

□ Yes, please ask: Positive impact / Negative impact (please circle) □ No

29. How can COCOBAs have an impact on the environment? __________________________
30. Do COCOBAs benefit the community?
    □ Yes, how______________________________
    □ No, why not? ____________________________

31. Do new joiners to your COCOBA group benefit you and the other members?
    □ Yes, why______________________________
    □ No, why not? ____________________________

32. Could you afford to save 3 kwacha each week if you didn’t have to take time to do any group work (please remind if you just worked for yourself, no group work)? □ Yes □ No

33. Considering only the Group Capital, would you prefer to choose how much you individually contribute to the group fund each meeting, or contributing equally together through group piece work?
    □ Individual contribution, why______________________________
    □ Group piece work, why______________________________
    □ Don’t know / no preference

34. In the same way as before, I am going to read you some statements about COCOBAs, and I would like you to say whether you strongly agree, agree, disagree, or strongly disagree with them. Show the participant the cards with the four options on and place on the floor or hold it up so that they can see it.
Once I have read each statement I would like you to either say or point to the answer that best shows you much you agree or disagree with what I have said. If they say they don’t know or have no opinion, tick “DK”.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. COCOBAs improve the strength of the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. COCOBAs have no impact on bushmeat hunting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Savings, in some way, are an important aspect of household planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. My behaviour towards the environment has changed as a result of the COCOBAs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

35. Do you think the COCOBAs could be improved in any way? □ Yes □ No □ Don’t know
    If yes: What one main change would you make to the COCOBAs______________________________

36. What is the biggest challenge that your COCOBA faces______________________________
37. Who should provide the following items for the COCOBA Programme? Please choose between ‘COCOBA members’, ‘FZS CREATE’ or ‘Both’. Please tick appropriate column. If participant cannot answer tick ‘Don’t Know’

<table>
<thead>
<tr>
<th>COCOBA members</th>
<th>FZS CREATE</th>
<th>Both</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business ideas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital for group fund</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items such as livestock and seeds</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Please score each of the following items out of 5 (with 1 being the worst score and 5 being the best score) on the following questions. Please show laminated number cards and circle answer

<table>
<thead>
<tr>
<th>i. Thinking about non-family people only, how much do you trust people living in different villages to you?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ii. Thinking about non-family people only, how much do you trust people living in the same village or near to you?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iii. How honest are the other members of your COCOBA?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iv. How much do you trust FZS CREATE as an organisation?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>v. How committed are the other members to your COCOBA group?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vi. How hard-working are the other members of your COCOBA group?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vii. How hard-working are you?</th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

39. Is there anything else good or bad about your COCOBA that you would like to tell me? 

40. Is there anything else in general that you would like to tell me about the COCOBAs in Katibunga?

Thank you very much for your time and for helping me with this research. A copy of my findings will be provided to a representative of each COCOBA when the research is complete.

TIME FINISH: ______________
Appendix VIII: Structured interview for non-members

<table>
<thead>
<tr>
<th>INTERVIEWER:</th>
<th>INTERVIEW CODE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE:</td>
<td>TIME START:</td>
</tr>
</tbody>
</table>

Hello, my name is [ ]. I am conducting a survey on behalf of a student called Victoria. She is from the UK and currently studying a Master’s degree in Conservation Science. We are interested to find out about the COCOBA groups in this village to understand how they are operating and how to develop them in the future. I would be really interested to hear your views. The survey is strictly confidential and all answers will be kept private and anonymous. The survey will take approximately 1 hour to complete. You do not need to answer any question that you would prefer to not answer. If you do not understand any specific question please tell me. Please take your time to think about the answers. Thank you.

Participant check

Please confirm the following before beginning interview (please tick):

<table>
<thead>
<tr>
<th>Agree to participate in interview?</th>
<th>Participant above age of 18?</th>
<th>Gender of participant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Male</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>Female</td>
</tr>
</tbody>
</table>

Please confirm the following by asking participant and ticking if correct:

Are you a member of a COCOBA now or previously? □ No
Is anyone in your household a member now or previously? □ No
Have you heard of the COCOBAs? □ Yes

Participant details

1. Which age category do you fall into? □ 18-29 □ 30-39 □ 40-49 □ 50-59 □ 59+
2. Are you the head of the household? □ Yes □ No
3. What village do you live in? _____________________________________________
4. What is the highest level of education you have attended?

<table>
<thead>
<tr>
<th>None</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Other (specify):</td>
</tr>
<tr>
<td>Vocational training</td>
<td>University</td>
<td></td>
</tr>
</tbody>
</table>

5. How did you hear about the COCOBAs? _____________________________________________
6. Which of the following items does your household currently have? Please tick in the ‘Household Has’ column

<table>
<thead>
<tr>
<th>Item</th>
<th>Household Has:</th>
<th>Item</th>
<th>Household Has:</th>
<th>Item</th>
<th>Household Has:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick house, OR:</td>
<td>Water system</td>
<td>Mattress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mud house</td>
<td>Phone</td>
<td>Wheelbarrow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin roof, OR:</td>
<td>Radio</td>
<td>Chicken(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thatch roof</td>
<td>Television</td>
<td>Goat(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td>Satellite dish</td>
<td>Sheep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycle</td>
<td>Generator</td>
<td>Pig(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car or truck</td>
<td>Solar panel(s)</td>
<td>Dog(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In this survey, when we talk about “the environment” we will be talking about the natural resources in your area, including the wildlife, the trees and plants and the water sources.

**Conservation attitudes**

7. I am going to read you some statements about the environment and conservation, and I would like you to say whether you strongly agree, agree, disagree, or strongly disagree with them. *Show the participant the cards with the four options on and place on the floor or hold it up so that they can see it.*

Once I have read each statement I would like you to either say or point to the answer that best shows you much you agree or disagree with what I have said. *If they say they don’t know or have no opinion, tick “DK”.*

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. All of the types of wildlife living in the GMA deserve to be protected from hunting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Having wildlife here is our culture so we must look after it for future generations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Most people living here think that conservation is as important as other issues (eg. education, healthcare, security)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. Conservation is an important aspect to consider in my daily activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. Only rangers and conservationists have a duty to conserve wildlife, not other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. I care more for the environment than most people in Katibunga</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. I take actions which are good for the environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IF AGREE OR STRONGLY AGREE TO TAKING ACTIONS WHICH ARE GOOD FOR THE ENVIRONMENT:**

Please tell me 3 things that you have personally done that are good for the environment:

1.
2.
3.

viii. I would like to do more to help with conservation in my area |                |       |          |                   |            |

**IF AGREE OR STRONGLY AGREE TO REASONS STOPPING ME PARTICIPATING IN CONSERVATION:**

What is the main reason?
Livelihoods

8. What are the three main income making activities your household does? And who does each one? And which makes the most income?
*Please indicate top income making activity. If participants have less than 3 activities just record 1 or 2.*

<table>
<thead>
<tr>
<th>Mark largest:</th>
<th>Income making activity</th>
<th>Who in household does this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Do your household income-generating activities help the environment? □ Yes □ No □ Don’t know
If yes: how? ______________________________________

10. What is the main reason that stops people in this community from investing in businesses that are good for the environment?
______________________________

11. Please can you give an idea of a business that is good for the environment that you could do if you had access to a loan of 1,500 kwacha?
______________________________

12. Which other Savings Groups have you heard of in the Katibunga area? Are they better or worse overall than COCOBAs?
(1) ______________________________________
□ Better, why? ____________________________ □ Worse, why? _______________________
□ Same                                      □ Don’t know
(2) ______________________________________
□ Better, why? ____________________________ □ Worse, why? _______________________
□ Same                                      □ Don’t know

13. Are you currently a member of any other Savings Groups? □ Yes, which? __________ □ No

14. Do you have access to any other sources of finance or loans? □ Yes, how? __________ □ No

Social impacts

15. Remembering life six years ago in 2008, I will ask you whether your current personal situation has improved, reduced or stayed the same for some items. Please let me know if you cannot remember clearly your situation six years ago (in 2008). *Please tick appropriate change.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Improved</th>
<th>Reduced</th>
<th>Stayed the same</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect and villagers seeking advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply of food and varied diet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life in general</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. From the items above, please choose the 2 greatest changes in your life as a result of joining the COCOBA? How have these changes shown themselves?

(1) Greatest change (from list above) _________________________________
How has this change shown itself? _________________________________

(2) Greatest change (from list above) _________________________________
How has this change shown itself? _________________________________

17. Please think of some people who are COCOBA members, who had a similar status to you one year ago. Do you feel that your status is now better than them, worse than them or has there been no change?  □ Better status  □ Worse status  □ No change

If any change: How does this show itself?

COCOBA evaluation

18. Please explain how COCOBAs work: ____________________________________________

19. Why are you not a member of a COCOBA? Please capture as much detail as possible. ____________________________________________

20. Are COCOBAs successful to help people meet their goals?  □ Yes  □ No

If no: Why not? ____________________________________________

21. If more people in Katibunga were COCOBA members, do you think this would have an impact on the environment?

□ Yes, please ask: Positive impact / Negative impact (please circle)  □ No

22. How can COCOBAs have an impact on the environment? __________________________

23. Do COCOBAs benefit the members?

Yes, how? ____________________________________________

No, why not? ____________________________________________

24. Do COCOBAs benefit the community?

□ Yes, how? ____________________________________________

□ No, why not? ____________________________________________

25. Do most people in Katibunga want to join a COCOBA (be clear about want, not are they able)?

□ Yes  □ No, why not? ____________________________________________

26. If non-members want to join an existing COCOBA, is membership to a COCOBA accessible for everyone?  □ Yes  □ No

If no: 27. What are the two main reasons preventing people from joining?

(1) ____________________________________________ (2) ____________________________________________
28. Would you want to join an existing COCOBA group in the future?
   □ Yes
   □ No, why not?

29. Would you want to form a new COCOBA group in the future?
   □ Yes
   □ No, why not?

30. What would improve your willingness to join a COCOBA?

31. Could your household afford to save 3 kwacha per week? □ Yes □ No

32. To raise group capital in COCOBAs, members work together on piece work and save the money equally together. Would you prefer to choose how much you individually contribute to the group fund each meeting, or contributing equally together through group piece work?
   □ Individual contribution, why?
   □ Group piece work, why?
   □ Don’t know / no preference

33. In the same way as before, I am going to read you some statements about COCOBAs, and I would like you to say whether you strongly agree, agree, disagree, or strongly disagree with them. Show the participant the cards with the four options on and place on the floor or hold it up so that they can see it.
   Once I have read each statement I would like you to either say or point to the answer that best shows you much you agree or disagree with what I have said. If they say they don't know or have no opinion, tick “DK”.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. COCOBAs improve the strength of the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. COCOBAs have no impact on bushmeat hunting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Savings, in some way, are an important aspect of household planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. My behaviour towards the environment has changed as a result of the COCOBAs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

34. Do you think the COCOBAs could be improved in any way? □ Yes □ No □ Don’t know
   If yes: What one main change would you make to the COCOBAs?

35. What is the biggest challenge that the COCOBAs face?
36. What do you think of COCOBA members in general? ____________________________

37. Who is responsible for providing the following items for the COCOBA Programme? Please choose between ‘COCOBA members’, ‘FZS CREATE’ or ‘Both’. Please tick column. *If participant cannot answer tick ‘Don’t Know’*

<table>
<thead>
<tr>
<th>COCOBA members</th>
<th>FZS CREATE</th>
<th>BOTH</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Business ideas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capital for group fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Items such as livestock and seeds</td>
</tr>
</tbody>
</table>

38. Please score each of the following items out of 5 (with 1 being the worst score and 5 being the best score) on the following questions. Please show laminated number cards and circle answer

Please circle score

<table>
<thead>
<tr>
<th></th>
<th>Please circle score</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Thinking about non-family people only, how much do you trust people living in <strong>different villages</strong> to you?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>ii. Thinking about non-family people only, how much do you trust people living in the <strong>same village</strong> or near to you?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>iii. How much do you trust FZS CREATE as an organisation?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>iv. How hard-working are you?</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

39. Is there anything else **good or bad** about COCOBAs that you would like to tell me? ______________

40. Is there anything else in general that you would like to tell me about the COCOBAs? ______________

Thank you very much for your time and for helping me with this research. A copy of my findings will be provided to Chief Mukungule when the research is complete.

TIME FINISH: ______________
Appendix IX: Rating scales

<table>
<thead>
<tr>
<th>Scoring scale responses</th>
<th>Likert scale responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICHIBI SANA</td>
</tr>
<tr>
<td></td>
<td>WORST</td>
</tr>
<tr>
<td>2</td>
<td>ICHIBI</td>
</tr>
<tr>
<td></td>
<td>BAD</td>
</tr>
<tr>
<td>3</td>
<td>ICHIBI PANONO</td>
</tr>
<tr>
<td></td>
<td>AVERAGE</td>
</tr>
<tr>
<td>4</td>
<td>ICHISUMA</td>
</tr>
<tr>
<td></td>
<td>GOOD</td>
</tr>
<tr>
<td>5</td>
<td>ICHISUMA SANA</td>
</tr>
<tr>
<td></td>
<td>BEST</td>
</tr>
</tbody>
</table>

|   | A | Strongly Agree |
|   |   | Ukusumina sana |
|   | B | Agree |
|   |   | Ukusumina |
|   | C | Disagree |
|   |   | Ukukanana |
|   | D | Strongly Disagree |
|   |   | Ukukanininina |
Appendix X: Wealth index details

Categorisation of wealth indicators

<table>
<thead>
<tr>
<th></th>
<th>Basic: 1 point</th>
<th>Comfortable: 2 points</th>
<th>Luxury: 3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mud house</td>
<td>Brick house</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thatch roof</td>
<td>Tin roof</td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicken(s)</td>
<td>Pig(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Goat(s)</td>
<td>Sheep</td>
<td></td>
</tr>
<tr>
<td>Household items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Radio</td>
<td>Mattress</td>
<td>Car or truck</td>
</tr>
<tr>
<td></td>
<td>Dog(s)</td>
<td>Mobile phone</td>
<td>Motorcycle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle</td>
<td>Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solar panel</td>
<td>Satellite dish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TV</td>
<td>5 or more</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water system</td>
<td>‘comfortable’ items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wheelbarrow</td>
<td></td>
</tr>
</tbody>
</table>

Indicators adapted from Sennett, 2013, categories based on unpublished data from North Luangwa.

Wealth indicator ownership of members (n=65) and non-members (n=65):

(a) Housing materials

(b) Household items
Appendix XI: Wealth and wellbeing change models

Wealth model

Results of full linear model showing membership factors explaining the effect on wealth score. Significance code: <0.001: ‘***’

<table>
<thead>
<tr>
<th>Significant explanatory variables</th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Non-membership)</td>
<td>11.1607</td>
<td>0.7297</td>
<td>15.296</td>
<td>&lt; 2e-16 ***</td>
</tr>
<tr>
<td>COCOBA membership</td>
<td>4.6593</td>
<td>1.0624</td>
<td>4.386</td>
<td>2.42e-05 ***</td>
</tr>
<tr>
<td>Other saving-group membership</td>
<td>2.1726</td>
<td>1.9609</td>
<td>1.108</td>
<td>0.270</td>
</tr>
<tr>
<td>Interaction: COCOBA &amp; other group membership</td>
<td>-3.8593</td>
<td>2.5356</td>
<td>-1.522</td>
<td>0.131</td>
</tr>
</tbody>
</table>

Results of final simplified linear model showing significant membership factors explaining the effect on wealth score. Significance code: <0.001: ‘***’

<table>
<thead>
<tr>
<th>Significant explanatory variables</th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Non-membership)</td>
<td>11.4615</td>
<td>0.6781</td>
<td>16.902</td>
<td>&lt; 2e-16 ***</td>
</tr>
<tr>
<td>COCOBA membership</td>
<td>3.9692</td>
<td>0.9590</td>
<td>4.139</td>
<td>6.29e-05 ***</td>
</tr>
</tbody>
</table>

Results of ANOVA tests comparing original linear model to more simplified versions with the following explanatory factors removed one at a time

<table>
<thead>
<tr>
<th>Removed explanatory variables</th>
<th>F</th>
<th>d.f.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other savings-group membership</td>
<td>2.317</td>
<td>1</td>
<td>0.1305</td>
</tr>
<tr>
<td>Interaction: COCOBA &amp; other savings-group membership</td>
<td>0.0118</td>
<td>1</td>
<td>0.9138</td>
</tr>
</tbody>
</table>

Wellbeing change model

Results of full linear model showing membership factors explaining the effect on wellbeing change score. Significance code: <0.001: ‘***’

<table>
<thead>
<tr>
<th>Significant explanatory variables</th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Non-membership)</td>
<td>3.2500</td>
<td>0.4052</td>
<td>8.020</td>
<td>6.25e-13 ***</td>
</tr>
<tr>
<td>COCOBA membership</td>
<td>2.4900</td>
<td>0.5900</td>
<td>4.220</td>
<td>4.63e-05 ***</td>
</tr>
<tr>
<td>Other saving-group membership</td>
<td>1.6389</td>
<td>1.0891</td>
<td>1.505</td>
<td>0.135</td>
</tr>
<tr>
<td>Interaction: COCOBA &amp; other group membership</td>
<td>-0.8456</td>
<td>1.4082</td>
<td>-0.600</td>
<td>0.549</td>
</tr>
</tbody>
</table>

Results of final simplified linear model showing significant membership factors explaining the effect on wellbeing change score. Significance code: <0.001: ‘***’

<table>
<thead>
<tr>
<th>Significant explanatory variables</th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (Non-membership)</td>
<td>3.4769</td>
<td>0.3777</td>
<td>9.206</td>
<td>8.33e-16 ***</td>
</tr>
<tr>
<td>COCOBA membership</td>
<td>2.4462</td>
<td>0.5341</td>
<td>4.580</td>
<td>1.09e-05***</td>
</tr>
</tbody>
</table>

Results of ANOVA tests comparing original linear model to more simplified versions with the following explanatory factors removed one at a time

<table>
<thead>
<tr>
<th>Removed explanatory variables</th>
<th>F</th>
<th>d.f.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other savings-group membership</td>
<td>0.3605</td>
<td>1</td>
<td>0.5493</td>
</tr>
<tr>
<td>Interaction: COCOBA &amp; other savings-group membership</td>
<td>2.7074</td>
<td>1</td>
<td>0.1024</td>
</tr>
</tbody>
</table>

In addition, diagnostic plots were examined for both models which revealed that the assumptions were met satisfactorily.
Appendix XII: Recommendations for FZS

Based on the findings from this study, the additional following recommendations to FZS can be made with regards to future interventions to Zambian COCOBAs:

<table>
<thead>
<tr>
<th>Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide community wide sensitisation meeting before any future intervention</td>
</tr>
<tr>
<td>Highlight the importance of raising the profile of COCOBAs and communicating conservation objectives and information to the community, e.g. church announcements about group activities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver a comprehensive programme of COCOBA training &amp; business skills in Bemba to participants</td>
</tr>
<tr>
<td>Develop programme of environmental education sessions to be delivered to COCOBAs each week / month for the medium-term</td>
</tr>
<tr>
<td>Collate data on specific skills training requested by COCOBAs, and explore how beneficial and practical such training would be for the long-term</td>
</tr>
<tr>
<td>Establish a network of TOTs in Katibunga who have additional training and responsibilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider integrating COCOBAs with other conservation interventions and programmes in the area, eg. NLCP Education Programme, Community Resource Boards</td>
</tr>
<tr>
<td>Depending on resources and capacity, increase number of COCOBAs in Katibunga &amp; determine potentially suitable surrounding communities for future expansion</td>
</tr>
<tr>
<td>Provide groups with standardised cash-box and stationery items, such as those given in Tanzania</td>
</tr>
<tr>
<td>Task appropriately trained and skilled staff-member(s) to be a designated contact person(s) to COCOBAs who can provide regular and ongoing support, encouragement and problem solving</td>
</tr>
<tr>
<td>Determine an appropriate long-term sustainable support level (e.g. minimal, low-level support for morale or education reinforcement)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage COCOBAs to form sub-groups of 5 trusted individuals who live in nearby locations to act as collateral for loan repayment and for first loan approval</td>
</tr>
<tr>
<td>Ensure that any new COCOBAs form with participants from clusters of sub-villages to improve trust and confidentiality between members and convenience of meetings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advise members to address financial barriers (e.g. lump sum joining fee) so that COCOBAs are accessible for new members</td>
</tr>
<tr>
<td>Motivate existing COCOBAs to undertake ‘recruitment drives’ for new members to boost group membership, capital and inject new skills – to a maximum of 30 participants</td>
</tr>
<tr>
<td>Suggest that existing and any new COCOBAs recruit mixed gender participants, highlighting the benefits noted by Tanzanian members and their strong preference for mixed groups</td>
</tr>
<tr>
<td>Discuss switching to individual shareholding method with existing members, given virtually all respondents can afford an appropriate minimum shareholding should be financially viable</td>
</tr>
<tr>
<td>Advise existing COCOBAs adopt weekly meetings to improve saving capacity, motivation, group morale and communication</td>
</tr>
</tbody>
</table>