



**EXPLORING BARRIERS TO COFFEE FARMING:
OBSERVATIONS FROM THE SOLUKHUMBU DISTRICT,
RURAL UPLAND NEPAL**

Charlotte Thomas
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The Glacier Trust

enquiries@theglaciertrust.org

theglaciertrust.org

[@theglaciertrust](https://www.instagram.com/theglaciertrust)

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The Glacier Trust is a UK registered charity (no. 1124955). We enable climate change adaptation in Nepal. We do this through community led projects run in partnership with local NGOs and through our Higher Education programme that helps develop the next generation of climate change adaptation professionals in the UK and Nepal.

REPORT AUTHOR

Charlotte Thomas (University of Southampton)

For more information on the work of The Glacier Trust in Nepal, please visit our website: www.theglaciertrust.org

FOREWORD

DR. MORGAN PHILLIPS (CO-DIRECTOR, THE GLACIER TRUST)

The Glacier Trust has been enabling climate change adaptation in Nepal since 2008. As our work has developed and grown we have become increasingly aware of the way it intersects with the multiple social injustices suffered by Nepali communities. Nowhere are these issues more acute than in the remote mountain communities.

We established our Higher Education Programme¹ to support the learning and research of postgraduate students in the UK and Nepal. In partnership with University of Southampton and Tribhuvan University we enable four students to conduct MSc dissertation research each year. Our aim is to help nurture the next generation of climate change adaptation professionals.

Having successfully submitted her dissertation, Charlotte Thomas produced this report to share her research findings with a wider audience. Charlotte's fieldwork and analysis highlights the social justice issues The Glacier Trust and EcoHimal Nepal must be mindful of in the design and delivery of climate change adaptation work in Solukhumbu.

Climate change adaptation is part of the sustainable development process in Nepal. In the village of Deusa, where a ground-breaking Agro Forestry Resource Centre has been established, development has been rapid for many families over the last decade. Inevitably, this has had a disrupting impact for some.

Charlotte has identified the factors that prevent some female members of the community from benefiting from the recent move towards coffee production. If this is not addressed, inequalities may begin to widen.

The insights this report gives us, will enable us to ensure that project work takes gender equality issues into consideration as agroforestry scales in the region.

¹ The Glacier Trust (2020) Higher Education Programme: <http://theglaciertrust.org/higher-ed/aims-objectives>

INTRODUCTION

This report was produced on behalf of the Glacier Trust, a UK based charity who work with Nepalese NGOs to enable rural agricultural communities adapt to climate change. Specifically, the research for this report was conducted at Deusa Agroforestry Resource Centre (AFRC), an independent NGO which helps coffee farmers in and near Deusa, Solukhumbu. The research was based on the experiences of the farmers who live within this region.

The **aims** of this research were to:

Explore barriers to coffee farming for livelihoods in Deusa, Solukhumbu District, rural upland Nepal. This aim was explored using the following three **objectives**:

- To identify the main livelihoods of Deusa;
- To identify and explore the barriers to coffee farming by understanding who is benefiting from coffee farming and who is not;
- To explore if the role of women has changed as a result of coffee farming.

FRAMEWORK

The Sustainable Livelihoods Framework (Fig. 1) was adopted to assess the extent to which farmers in Deusa can adapt to coffee farming by exploring the extent to which natural, physical, financial, social and human capital act as barriers to coffee farming.

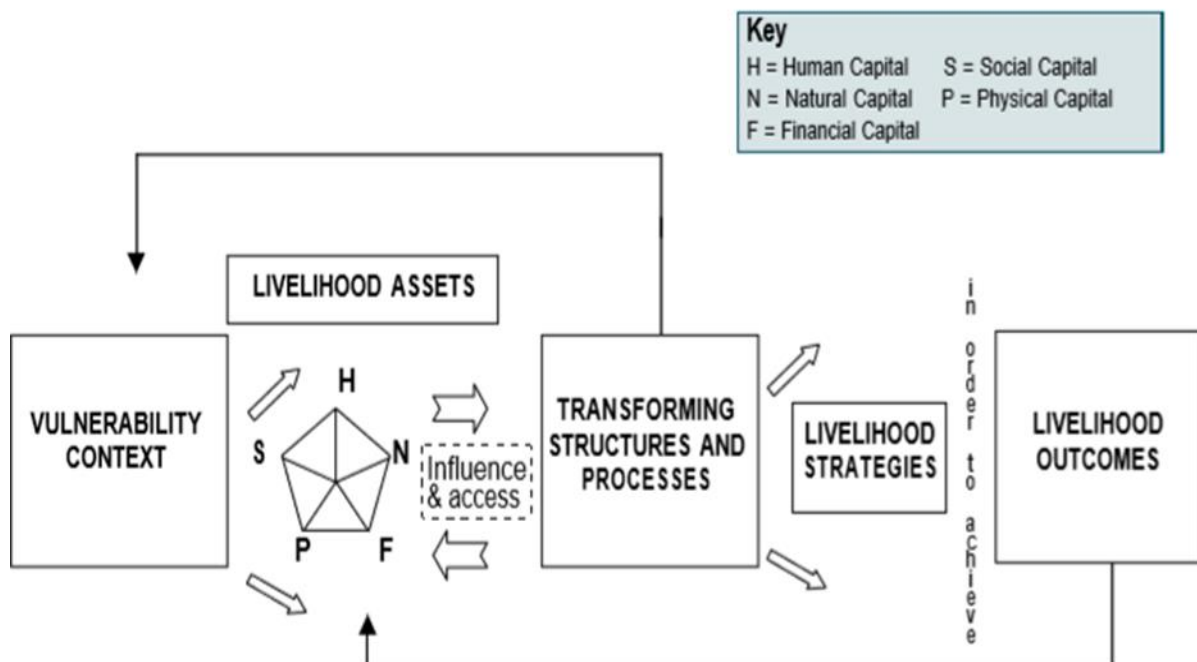


Fig. 1 The Sustainable Livelihoods Framework (DFID, 1999).

BACKGROUND

CLIMATE CHANGE AND AGRICULTURAL LIVELIHOODS

This research has been conducted to assess how climate change and enabling the production of coffee, has impacted the lives of the community and households in Solukhumbu. Climate change has significantly accelerated throughout the 20th and 21st century (IPCC, 2018) and has an impact on global ecosystems and biodiversity (Pei and Zang, 2014). Agricultural livelihoods have been the most vulnerable to this change due to their reliance on climate stability for their economic and social security (Carswell, 1995; Adams et al., 1998). In fact, many are at risk of losing their livelihoods completely due to their inability to adapt to these changes, referred to as barriers to adaptation (Shrehtha & Aryal, 2010; Adams et al., 1998; Sissoko, 2011; Jha et al., 2017).

CLIMATE CHANGE AND COFFEE FARMING

Nepal is an example of a country which has undergone changes to their agricultural practice due to climate change. Areas of low, mid and upland Nepal are now more able to grow coffee due to the changes in the climate providing optimal conditions to grow coffee crops (Tiwari *et al.*, 2014). Coffee now accounts for 0.14% of the country's total exports. Although some communities have been able to introduce coffee farming into their agricultural practices, scholars have witnessed significant barriers to this type of farming in areas of Nepal. Barriers include social, financial and other relating to gender (Gaudel, 2007; Jones & Boyd, 2011; Mishra & Sam, 2016). Therefore, this research is important to The Glacier Trust in identifying whether and what key issues lie within coffee farming in Deusa, Solukhumbu (Fig 2). This will ultimately enable them to take appropriate intervention and reduce such barriers.

METHODOLOGY

The field work and data collection for the paper was collected between the 13th-27th of June 2019. For this research, two qualitative methods were chosen, semi-structured interviews and Focus Group Discussions. In total 56 people within 26 semi structured interviews and 3 focus group discussions (FGD) were recruited for this research. All of the participants were recruited by staff at Deusa AFRC. These participants were specifically selected by the AFRC as a result of their involvement within agroforestry and coffee farming. Both men and women were interviewed to help gain a non-biased overview of gender roles within coffee farming. Interview and focus group discussion questions were centred around the impact of coffee farming, gender roles within farming and challenges within coffee and agroforestry farming, all carefully produced to identify the key barriers to coffee farming.

Additional ad hoc informal discussions also took place with members of the local community, often conducted on journey's to and from organised interviews. For ethical reasons the interviews and FGDs took place in the participants home or local area as it was peak cultivation season and we therefore did not want our research to impact their productivity. Fig. 2 maps the locations of interviews and FGDs. The interview and focus group

questions were derived before field work commenced, however, these interviews and FGDs were conducted by two Nepalese students from Tribhuvan University. The information was then fed back to the researcher once interviews had been conducted.

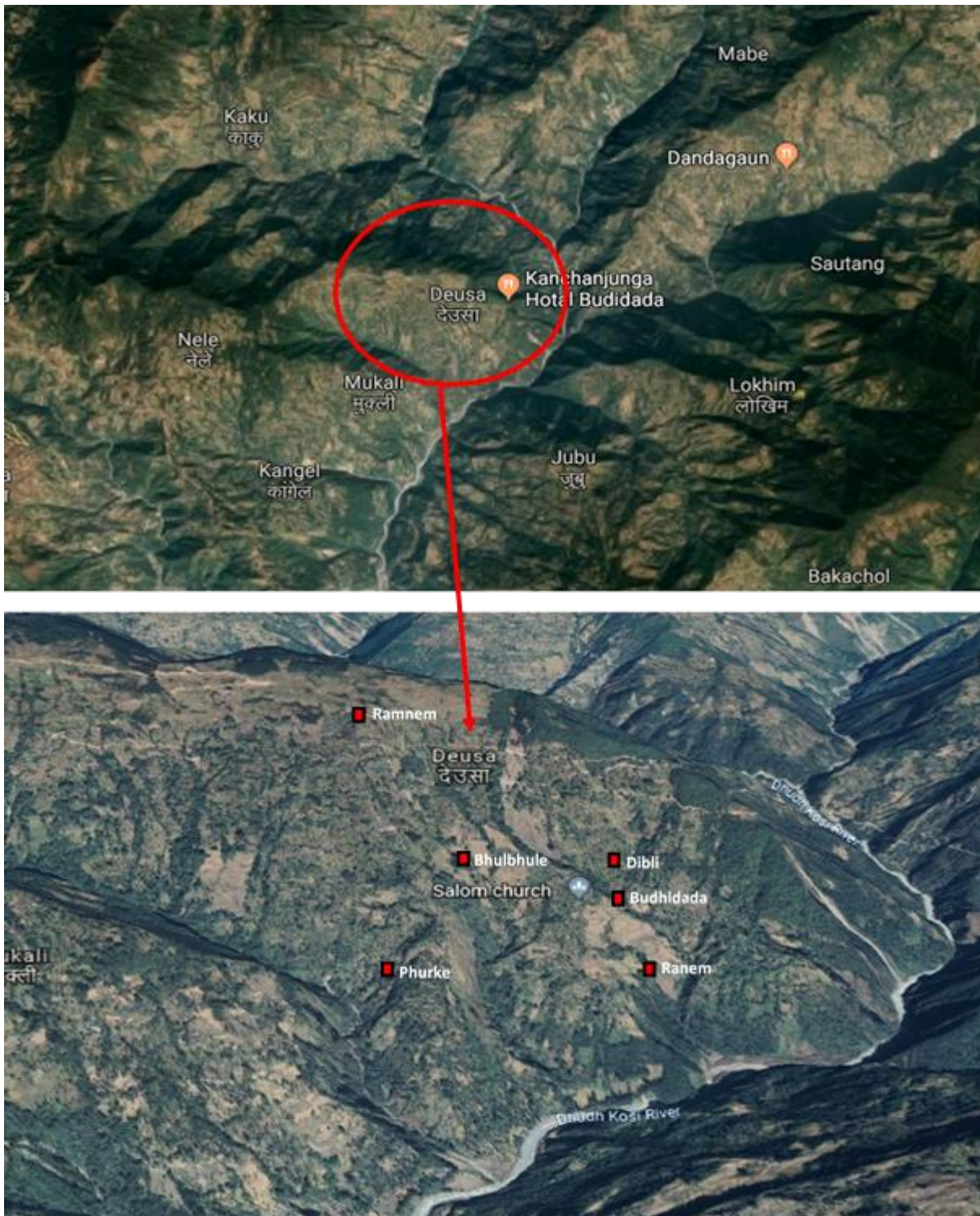


Fig. 2 Google Earth screen shot of the case study site, situation of Deusa AFRC and main interview locations in Deusa (Google Earth, 2019).

KEY FINDINGS

Radar plots and matrices show how livelihood and gender type impact barriers to coffee farming in Deusa (Fig 3&4).

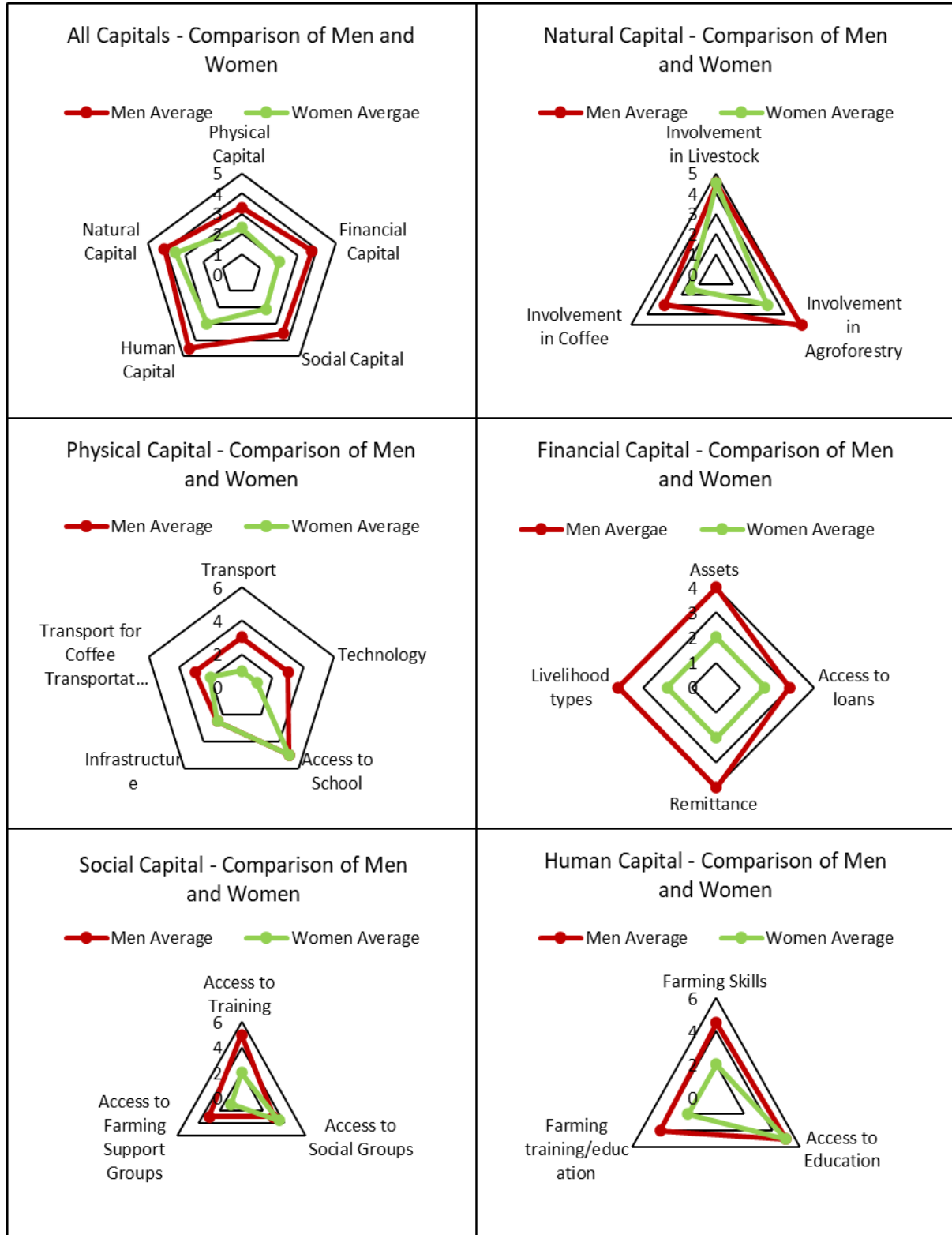


Fig.3 Radar plots outlining barriers to coffee farming of men and women regarding each capital of the SLF.

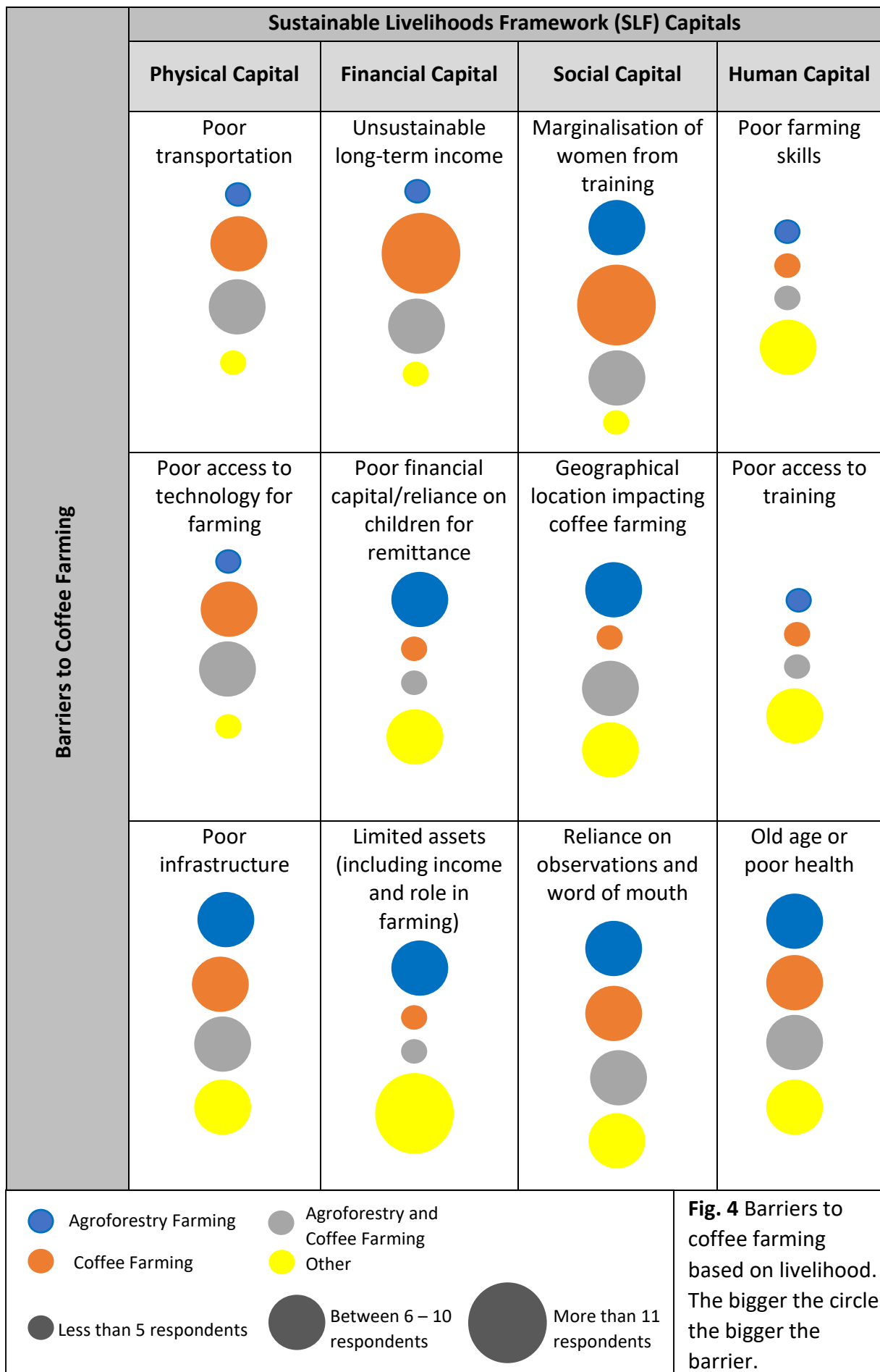
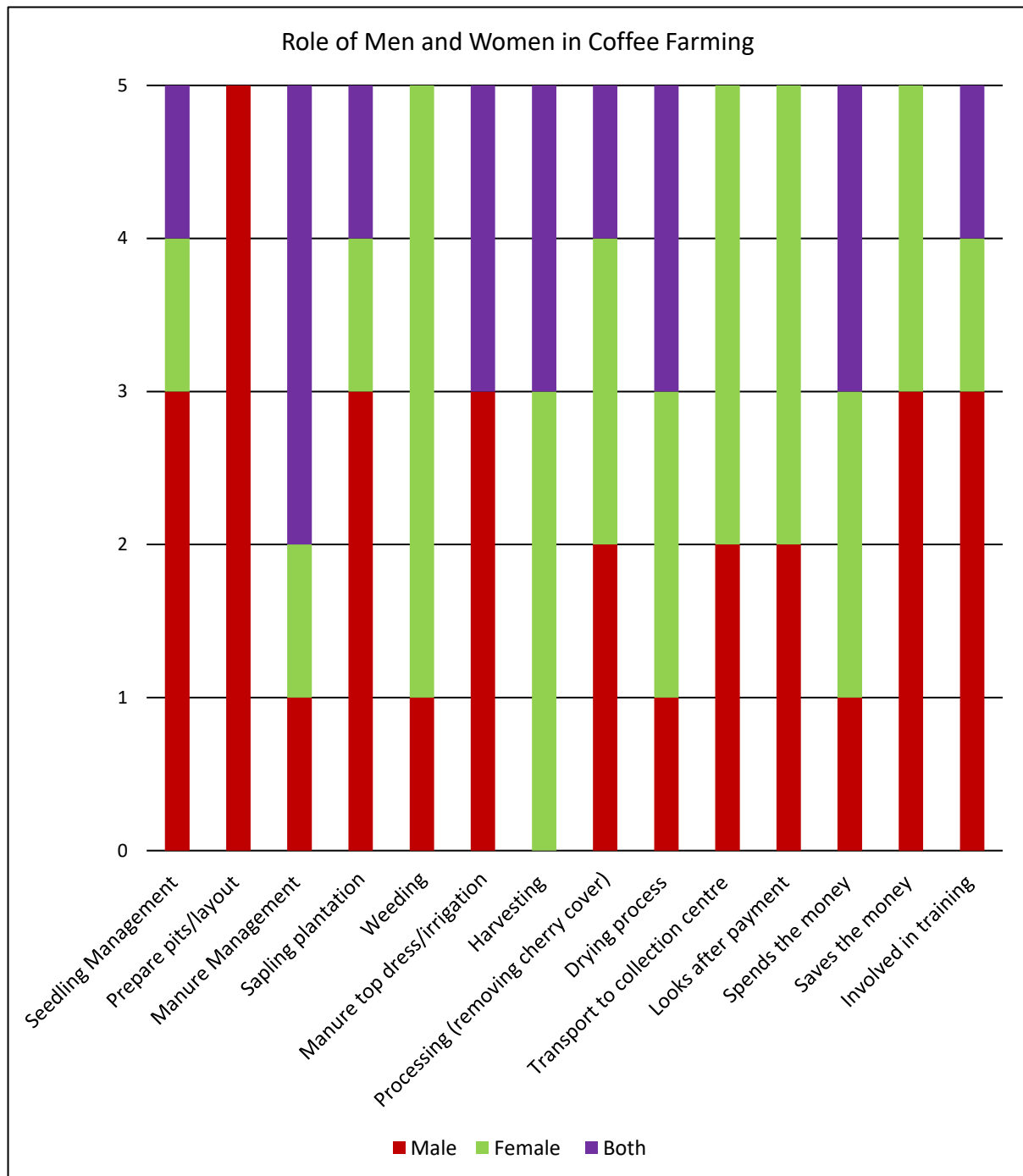


Fig. 4 Barriers to coffee farming based on livelihood. The bigger the circle the bigger the barrier.

The following graph also shows that the role of women in coffee and agroforestry farming. It highlights that men dominate farming roles.



Graph outlining the roles of men and women in coffee farming.

Three other graphs were formed for the results section. One showed the main livelihood types in Deusa, one outlined the main reasons of households for trying, giving up or not engaging with coffee and another showed the relationship between elevation and coffee farming. These results enabled 7 weakly supported hypotheses to be formed from the data:

1. Farmers located outside of the optimal elevation are isolated from coffee farming (**Natural Capital**).
2. Poor physical capital is the main constraint in coffee farming livelihoods (**Physical Capital**).
3. Coffee is the least stable livelihood long-term (**Financial Capital**).
4. Single women are the poorest group in Deusa (**Financial Capital**).
5. Agroforestry, women and elderly are the most reliant on money from children working abroad to sustain their livelihood (**Financial Capital**).
6. Women are the most marginalised group from coffee farming due to lack of training (**Social Capital**).
7. Households are watching to see the success of other farmers in their villages before deciding on whether or not to grow coffee, suggesting training is not reaching all areas (**Human Capital**).

DISCUSSION

NATURAL CAPITAL

Although natural capital such as elevation was also identified as a barrier to coffee farming, those below 800m and above 1600m were not within the correct conditions to grow coffee plants, however, this was identified as the weakest barrier to coffee farming as other barriers including social and financial capital influenced where households were located.

PHYSICAL CAPITAL

Physical Capital such as lack of technology, transport, poor infrastructure, lack of machinery, poor roads, electricity were identified as barriers. However, often these were generic to all coffee farmers. However, it was identified that other capitals such as financial capital was found to impact the availability of physical capital including machinery, infrastructure and land. This highlighted that physical capital is a barrier if a household has poor financial capital.

FINANCIAL CAPITAL

Financial capital was a significant barrier to groups such as women and agroforestry farmers. Firstly, although coffee farming showed potential to provide an increased income opportunity, it was not as sustainable long term as agroforestry farming. Therefore, many lower income farmers could not risk it and therefore decided against growing coffee plants at all, or only grew a few plants on the side of their agroforestry crops for additional income. Those who produced coffee were also concerned about fluctuation in the market price of coffee and with the fact their coffee was sold for the same market price as commercial coffee such as Nescafe. This made the time and expense of growing coffee less appealing. Women, especially single women, lack financial capital, restricting them from investing in land for coffee farming. These women and poorer households also relied on remittance payments and from children's earnings, identifying that they did not have the financial capital, and therefore

physical capital, to engage in coffee farming. There was a link between gender, livelihood and remittance payments.

SOCIAL AND HUMAN CAPITAL

Social and human capital also acted as major barriers to women in farming and further marginalised them from coffee farming. Firstly, many women interviewed had a role of housewife or looking after the household. This therefore effected their attendance at coffee farming training. This in the long term impacts their skills and knowledge required for farming. This was further isolating women from coffee farming and general agroforestry farming. In addition to this, it was identified that many farmers in general were reliant on word of mouth regarding coffee farming and how to treat the coffee plants, rather than from training, This suggests training is not reaching all areas and in some cases had led to large scale failures of coffee plants, putting off other farmers who had experienced and observed these failures.

CONCLUSION

WOMEN: FINANCIAL, SOCIAL AND HUMAN CAPITAL BARRIERS

Overall, the key findings of the research found that there were two main groups who were isolated from coffee farming. Firstly women, particularly single women are suffering due to poor financial capital and assets, including land, which is restricting them from investing money into coffee farming. Women within agroforestry and coffee farming livelihoods are also facing barriers due to lack of personal financial capital. This is as a result of their position being within the household, whilst men earn the income. Many women within these households are now reliant on remittance payments from their children working abroad as a form of income. In addition to this, women taking a role within the household and relying on remittance from children is a catalyst of poor social and human capital. Poor social and human capital are barriers due to the marginalisation of women from training in Deusa. Although training is open to women, cultural differences and gender roles, might be preventing women from wanting to attend training with men. By not attending training, women have been unable to learn the skills required for farming. Overall, this has formed financial, social and human capital barriers to coffee farming for women.

AGRICULTURAL AND OTHER LIVELIHOODS: FINANCIAL AND SOCIAL CAPITAL BARRIERS

Secondly, research found that Agroforestry and other households are also vulnerable livelihoods. This is because women, elderly, and therefore poorer households are mostly involved in agroforestry farming and previous data showed they were most reliant on remittance payments and lacked financial capital. This made entering coffee farming a risk, especially as it was found to currently be an unstable long-term income. Social capital heightened this risk because training is not reaching all areas of Deusa, meaning farmers are unsure of how to treat coffee. This has led to large scale failures of coffee plants and poor

uptake of coffee from other agroforestry farmers because many are relying on observations and word of mouth for training.

Identifying these barriers will help The Glacier Trust to reduce further issues regarding social inequalities whereby the rich become richer (coffee farmers) and the poor become poorer (women and agroforestry/other livelihoods). It will hopefully help encourage empowerment of women and poor agroforestry farmers, and ultimately reduce vulnerability and poverty through the breaking down of these barriers.

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