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Africa Community Access Partnership



Gender Mainstreaming in Rural Road Construction and Usage in Ethiopia: Impact and Implications

Inception Report



MetaMeta, The Netherlands
Mekelle University, Ethiopia

ReCAP ETH2044E

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Cover Photo: Women and men working on construction of a feeder road, in Ethiopia's northern Tigray region. Image courtesy: MetaMeta Research and Mekelle University.

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Abstract

The project examines gender mainstreaming in rural road construction and usage in Ethiopia's Amhara and Tigray regions. During the Inception Period of the project, analysis of data from 529 households revealed key differences between male and female-headed households, in terms of how they benefit differently from road construction and access to transport. Consultations with local stakeholders helped validate these findings, elucidate the socio-economic context behind them, and identify the most promising solutions and areas of intervention. Key findings show that female-headed households bear a higher risk of losing their land to road construction while having lower mobility along completed roads; that road usage is very low in general which also reflects the paucity of available rural transport options; that women have less access to available options; and that Intermediate Means of Transport (IMTs) show a high potential for filling the transport gap. Based on the findings, the research methodology and questions were fine-tuned and tested. Research was initiated among communities along four feeder roads constructed through Ethiopia's Productive Safety Net Programme. This sets the tone for Phase 2 where the bulk of the field research will be carried out.

Key words

Gender, safety nets, feeder roads, mobility, environmental impacts, Ethiopia, Amhara, Tigray, Intermediate, Means, Transport

AFRICA COMMUNITY ACCESS PARTNERSHIP (AfCAP)

Safe and sustainable transport for rural communities

AfCAP is a research programme, funded by UK Aid, with the aim of promoting safe and sustainable transport for rural communities in Africa. The AfCAP partnership supports knowledge sharing between participating countries in order to enhance the uptake of low cost, proven solutions for rural access that maximise the use of local resources. The programme follows on from the AFCAP1 programme that ran from 2008 to 2014. AfCAP is brought together with the Asia Community Access Partnership (AsCAP) under the Research for Community Access Partnership (ReCAP), managed by Cardno Emerging Markets (UK) Ltd.

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Acronyms, Units and Currencies

\$ / USD	United States Dollar (US\$ 1.00 ≈ ETB 22.1)
£ / GBP	Pound Sterling (£ 1.00 ≈ ETB 27.6)
ADB	Asian Development Bank
AFCAP	Africa Community Access Partnership
ASCAP	Asia Community Access Partnership
ERA	Ethiopian Roads Authority
ETB	Ethiopian Birr (£ 1.00 ≈ ETB 27; US\$ 1.00 ≈ ETB 22)
FHH	Female-Headed Households
FGD	Focus-Group Discussion
GPS	Global positioning system
IMT	Intermediate Means of Transport
MHH	Male-Headed Households
MOU	Memorandum of Understanding
PWD	People with Disabilities
PSNP	Productive Safety Net Programme
RECAP	Research for Community Access Partnership
SSI	Semi-structured Interview
UK	United Kingdom (of Great Britain and Northern Ireland)
UKAid	United Kingdom Aid (Department for International Development, UK)
URRAP	Universal Rural Roads Access Program
WHH	Women Heads of Households
WS	Women Spouses

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1 Executive Summary

Ethiopia's Productive Safety Net Programme (PSNP) aims at enabling chronically food-insecure rural households to increase their resilience to shocks, create assets, and become food-secure. Members of targeted households participate in the development and maintenance of community rural infrastructure, including low volume roads, in return for wages or food for work arrangements. The PSNP reaches more than 7 million people with an annual budget of USD 600 million (World Bank, 2016). An estimated USD 200 million is spent annually under PSNP on low volume roads. As of February 2016, 39,000 km of low volume roads had been developed under the programme.

The construction of these rural roads has several impacts on women in terms of employment (during construction and maintenance), mobility and access to services, as well as in terms of land lost or damaged due to road construction. Importantly, there are significant, well-recognised differentials between the nature and magnitude of these impacts on Women Heads of Household (WHH)¹, Women Spouses (WS) in Male Headed Households (MHH), and men. Data from 529 households analysed under this research programme reveals that along the same roads, MHH members are more mobile and more likely to own transport; while the financial burden of transport on Female-Headed Households (FHH) is higher and they are more likely to lose land to road development as compared to MHH. To take these differentials into account, PSNP has provision to maximise employment opportunities such as quotas, equal wage guarantees, and flexible working hours for women; as well as provision to maximise the participation of FHH and WS in decision-making and planning of the works. However, widely recognised gaps continue to exist between the provisions and implementation (MOFED, 2002). Most notably, wage differentials do exist in practice, and although women participate in the planning meetings, their influence over decision-making is limited.

This research will improve upon the current understanding of the nature of engagement of women (WHH and WS) and men with PSNP, in the area of rural road development. It will also provide practical, actionable recommendations and solutions for gender mainstreaming, and identify high-impact themes for further action and research, for deepening gender mainstreaming in rural road and transport development

The research will be conducted among communities along four feeder roads constructed through Ethiopia's Productive Safety Net Programme, two each in the Tigray and Amhara regions. MetaMeta Research (The Netherlands) and Mekelle University (Ethiopia) are the co-implementers. They will work closely with Amhara Bureau of Agriculture and the Tigray Bureau of Agriculture and Rural Development, the main implementing organisations of PSNP in the region, as well as the Ethiopian Roads Authority.

During the Inception Period, a *Literature Review* was undertaken to add more substance to the theoretical underpinnings of the project, broaden its perspective from its immediate focus on Ethiopia and PSNP. A *Scoping Study* analysed data from 529 households, with data reported at the household level, rather than disaggregated by individual household members. Subsequently, a *Preliminary Assessment* was carried out, based on semi-structured interviews with WS and WHH at the project locations. The assessment brought out themes, issues, and narratives that shape the inequalities faced by women. At the *Stakeholder consultations* and the *inception workshop*, the project was introduced to the local stakeholders, and the project design, methodologies, and

¹ WHH – 'Women Heads of Households' refers to the individual (woman) who is head of the household
MHH – 'Male-Headed Households' refers to all members of a household that have a male head
FHH – 'Female-Headed Households' refers to all members of a household that have a female head

scoping study findings were presented and validated. The consultations also helped fine-tune the methodology and review the research questions and themes.

Based on findings from the Inception Period, the field research of the project has been extended until March 2017 in order to devote more time to testimonials and personal narratives of WHH and WS. Accordingly, the subsequent phases have been altered, as described in *Section 2*. However, the overall project timeframe and intermediate milestones remain unaffected.

2 Introduction

2.1 Project Objectives

Against the backdrop presented in *Section 1*, this research project will:

- 1) Improve upon the current understanding of the nature of engagement of women (WS and WHH) and men; with PSNP in the area of rural road development
- 2) Provide practical, actionable recommendations, practical solutions, and tools for gender mainstreaming at the levels of planning and implementation of works, and in creating impact
- 3) Contribute to guidelines and policies on gender mainstreaming being prepared by government institutions in the road development/transport sector
- 4) Document and disseminate stories of rural Women Spouses and Women Heads of Households, who built upon opportunities available in rural Ethiopia to reach positions of social and economic strength, to inspire other women to do the same
- 5) Identify high-impact themes for further action and research, for gender mainstreaming in rural road development and transport.

2.2 Location of the Intervention

The research will be carried out in Ethiopia, in its Amhara and Tigray Regional States. Field work will be done in three woredas: Kobo (in Amhara) and Kiltawlaelo and Saesie Tsaeda Embai (in Tigray). Four road segments of recently completed feeder roads (less than five years old) will be investigated. The sites for the interviews and focus group discussions will be selected by a random transect selection along and away from the road segments chosen.



Figure 1: Project Research Locations

Amhara region is located in the north-west of Ethiopia, bordering Sudan to the west and Tigray region to the north. According to the 2007 population Census, the region has a population of about 17 million. Tigray region is located in the north of Ethiopia bordering Eritrea to the north, Sudan to the west and Amhara region to the south-southwest. The 2007 population Census shows a population of about 4.3 million in Tigray region.

In addition to the fieldwork, interviews will be carried out with key respondents who have responsibilities related to planning and implementation of road development and/or transport systems, many of whom are located in Addis Ababa.

Implementing Agencies and Partners

The selection of both Amhara and Tigray regions is predicated on the research partners— MetaMeta Research and Mekelle University-- having extensive experience here and strong working relations with the main implementing partners of the PSNP programme, i.e. the Amhara Bureau of Agriculture and the Tigray Bureau of Agriculture and Rural Development. These relationships are formalised through MoUs on joint research and development (in addition to an MoU between MetaMeta and the Ethiopian Roads Authority). The implementing partners also have good working relations with the Bureau of Transport and Roads in the two regions, which are entrusted with the implementation of the PSNP's Roads programme and often combine these with investments under the Universal Rural Roads Access Program (URRAP).

Both MetaMeta Research and Mekelle University have worked in the two regions over the past three years on road projects such as, '*Inclusive Growth Aspect of Feeder Road Development*', and '*Optimising Road Design for Groundwater Recharge and Retention*' (Rammelt and Leung, 2015). Tigray region especially has a longer track record in implementing labour-intensive rural roads infrastructure projects. With the number of PSNP beneficiaries in the two regions being relatively high, Tigray and Amhara are seen as regions that set examples in dovetailing the need of developing rural infrastructure; as well as generating productive, inclusive (with respect to women, the elderly, and people with disabilities) employment opportunities for rural populations. This creates the opportunity to study and learn from both the successes and failures of gender mainstreaming efforts in rural road development.

2.3 Inception Period Activities and Key Results

The research programme began with the following activities between October and November 2016:

- **Literature Review:** undertaken with a view to add to the theoretical underpinnings of the project, broaden its perspective from its immediate focus on Ethiopia and PSNP, and to add to the baseline information about PSNP, road development, and gender participation in Ethiopia (Please see *Section 5*).
- **Scoping Study:** Gender disaggregated data collected in the period 2015-2016 from 110 Female-Headed Households (FHH) and 419 Male Headed Households (MHH) through past studies was analysed. The analyses outline the differential impacts, experiences, and engagement of the two groups with respect to road development and rural transport. The study posed questions related to benefits and losses as a result of road development in terms of employment opportunities, land loss, mobility, availability of services, and other economic opportunities. Conclusions have contributed to the research questions and themes for the research.

- **Preliminary Assessment:** based on semi-structured interviews with around 15 respondents, including WS and WHH, at the project locations. The assessment brought out themes, issues, and narratives that highlight the inequalities faced by women in public works planning and implementation. Findings from the scoping study and the preliminary assessment helped identify the key areas for research and intervention through the remainder of the project activities.
- **Discussions** with several leaders from stakeholder institutions on road development, including the Gender Focal Person at the Ethiopian Roads Authority
- **Methodology Testing- Photo-Voice and Well Being Survey:** The participatory photography methodology was tested at a road-adjacent community in Kiltawlaelo Woreda in Tigray. The exercise provided insights into women’s experiences in accessing rural transport on feeder roads, and how the methodology could be adapted to best suit the project objectives for further implementation. The 'Well-Being method' (please see *Annex A*) for Semi-Structured Interviews and Focus Group Discussions was tested in interview sessions and subsequently refined.
- **Inception Workshop and Meeting:** The research programme design and results of inception activities were discussed and validated at the inception workshop, organised in Mekelle, Tigray on 16 November 2016.
- A **Consultation Meeting** was co-organised on Intermediate Means of Transport on 19 November 2016.
- **Dissemination and Outreach:** The dissemination and outreach activities were started with outreach to key stakeholders at the inception workshop and during the baseline survey/photo-voice exercises. A blog on Intermediate Means of Transport was published on TheWaterChannel, as was a video interview conducted with a key respondent (Wout Soer, Formerly with the PSNP Donor Coordination Unit hosted at The World Bank).

Further details on the Inception Period activities can be found in *Section 5*.

2.4 Key Dates

The project activities will be carried out over 12 months through five phases (Please refer to the Activity Grant Chart in *Annex B* for further details).

Table 1: Key Project Dates

Phase 1: Scoping, Methodology Testing and Fieldwork Planning, Inception report	October-November 2016
Phase 2: Fieldwork	December 2016- March 2017
Phase 3: Data analysis; generation of actionable recommendations, practical solutions, and tools for gender mainstreaming in planning and implementation of road development and transport systems, discussion/validation workshops with stakeholders; progress report	April - June 2017
Phase 4: Guidance Note	July-September 2017
Phase 5: Drafting and revision of research outputs and final report and draft academic paper	August-September 2017

The total cost of the project is GBP 47,200 (see *Section 8*).

3 Background

As of February 2016, 39,000 km of low volume roads have been developed in Ethiopia under the PSNP. These roads are being built by both members of targeted households within the PNSP (under cash/ food for work arrangements) and with community contributions. An estimated USD 200 million is spent annually under PSNP on low volume roads, often these are inter-village roads whereby the bridges and culverts are constructed under the Universal Rural Access Programme, with work on the rest of the road infrastructure done under the PSNP.

The construction of these rural roads has several impacts on women in terms of:

1. Employment,
2. Access to services, and income opportunities
3. Land lost or damaged due to road construction.

An important distinction is between WHH (widows, divorcees, single mothers) and WS. FHH make up a large part of the population – 24% in Tigray region and 11% in Amhara – and have a much larger chance (factor 2) of falling below the poverty line. Besides, WHH are disproportionately engaged in the PSNP (Holmes and Jones, 2011).

3.1 Employment

PSNP has provisions built-in to maximise the benefit to WHH and WS in terms of employment opportunities:

- Explicit quotas for women, WS as well as WHH
- Guarantee of equal wages as men
- Provisions for women's involvement in decision-making and planning of works
- Flexible working hours, to be able to balance domestic work and care responsibilities
- Provision of support for community childcare (crèches).

However, review of literature on PSNP as well as discussions at the inception workshops point to several gaps between gender mainstreaming provisions and their implementation. While the participation of WHH and WS in the prioritisation and planning of works is significant, this does not translate into their influence over decision-making (Jones et al, 2010). This has to do with socio-cultural norms as to the role of women. With limited influence on the decision-making process, the works chosen and a bulk of the employment opportunities might not take into account the needs and experiences of women with respect to transport and mobility (they might be different than those of men) and their capacity to avail employment opportunities in road construction (the works chosen are invariably labour-intensive, infrastructure-related) (Subbarao, 2003). As of 2008, the overall PSNP expenditure on women remains much lower than that on men (World Bank, 2008).

The provision of employment and payment of wages is at the household-level, and thereby intra-household inequalities in terms of access to resources and distribution, faced especially by Women Spouses, persist (Holmes and Nicola, 2010).

3.2 Access to Services

In terms of access to services, rural roads constructed under the PSNP that connect communities to main feeder roads are key for access to healthcare, education, daily supplies, social networks, market access for agricultural produce, extension services, farm inputs, and employment. The scoping study based on the analysis of data collected from 529 households (110 Female-headed Households, 419 Male-Headed Households) shows that of these, the dominant purpose of travel is

social services (mainly education and health), closely followed by access to markets, for agricultural activities, and for employment. Female-Headed Household members make shorter, fewer trips in comparison to Male-Headed Household members who are arguably more mobile (see Figure 2 and Table 2).

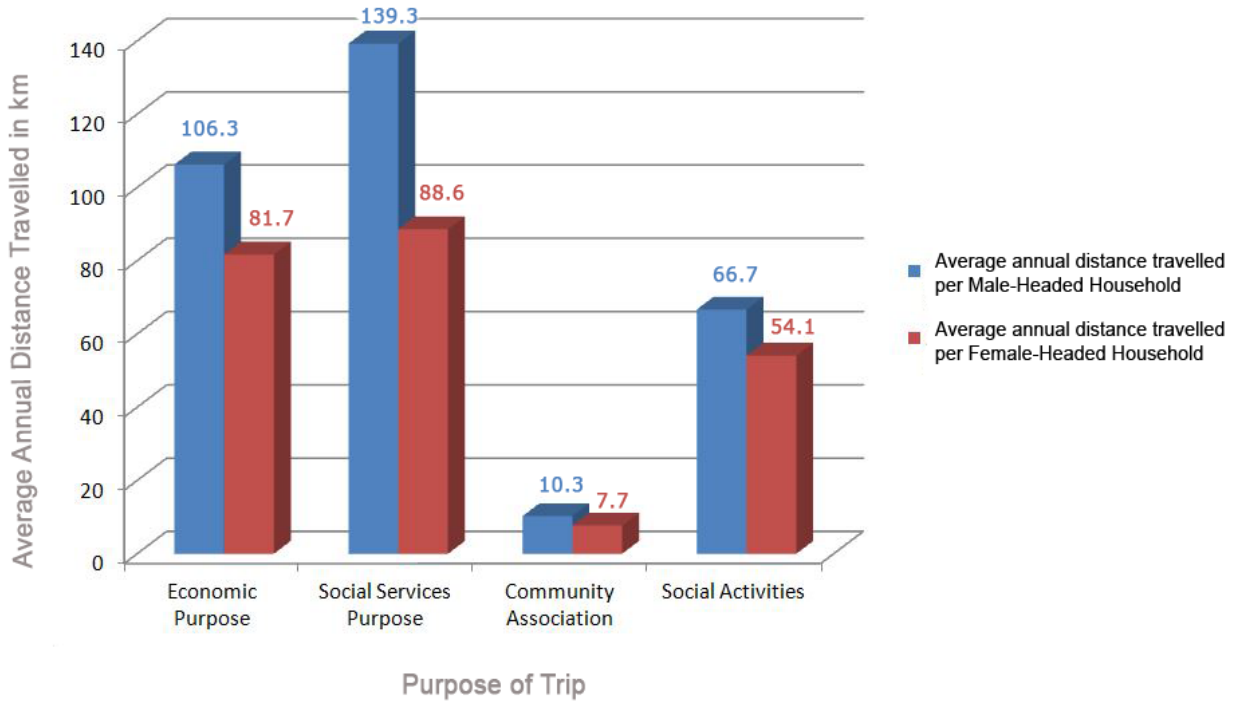


Figure 2: Annual Distance Travelled by Purpose

Table 2: Annual Number of Trips by Purpose

Purpose of Trip	Average Annual Number of Trips per Household	
	Male-Headed Households	Female-Headed Households
Economic Purpose	34.5	23.2
Social Services Purpose	30.0	20.1
Community Association	3.8	3.6
Social Activities	13.1	10.6
Over all	81.4	57.5

The data on modal split also shows that rural Ethiopia continues to be an overwhelmingly walking world, i.e. 80% of trips are undertaken on foot. Motorised public transport accounts for 16% of all trips (see Figure 3).

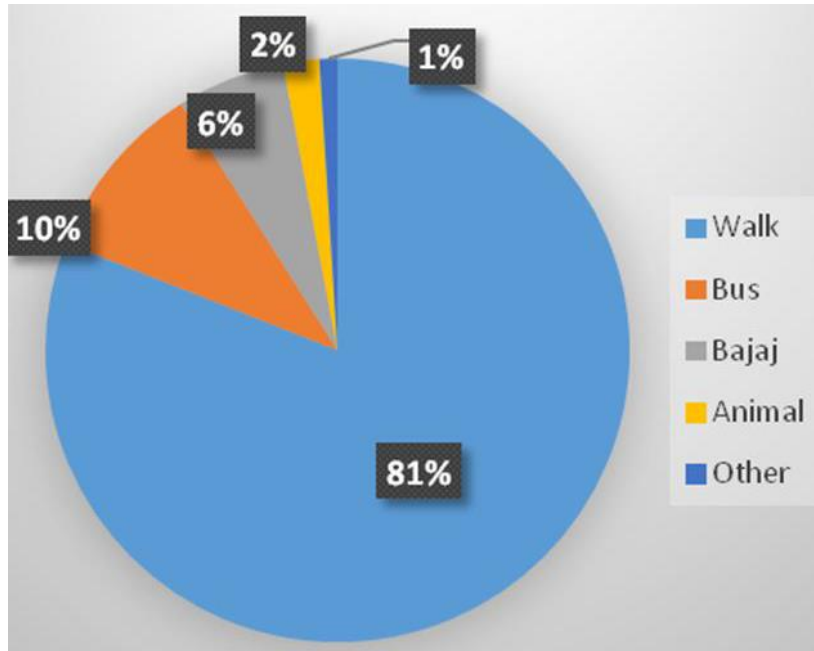


Figure 3: Modal Split for all Trips

In general, however, the use of roads is very modest. The Transport Survey undertaken in Tigray by the Bureau of Construction, Roads and Transport established that on most feeder roads there are fewer than 3 vehicles per kilometre per day (see Figure 4).

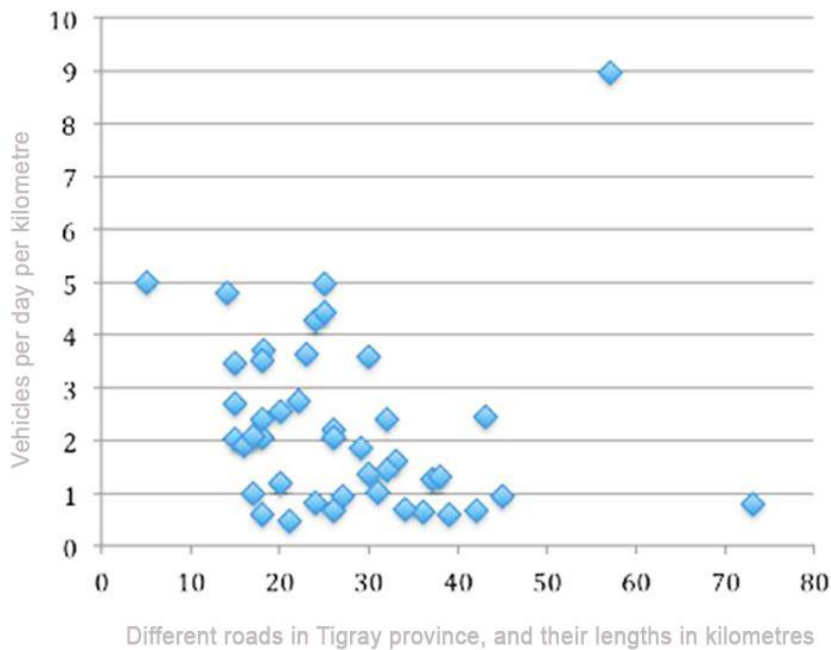


Figure 4: Daily Vehicular Traffic on Feeder Roads in Tigray Region
(Source: Tigray Bureau of Construction, Roads and Transport)

Among rural households ownership of motorised means of transport is negligible (around 1%). Ownership of non-motorised transport (pack animals, animal carts, wheelbarrows, bicycles) is more common but mostly restricted to pack animals. The ownership situation however is much skewed. FHH surveyed owned only pack animals (16%). In comparison 53% of Male-headed Households own

pack animals with another 5% owning bicycles, carts or wheelbarrows). Moreover, the financial burden of travel on women is disproportionately high. For example, MHH members make 50% more trips to avail of social services, but FHH spend 40% more. Preliminary findings from the field surveys (see *Section 4.3.1*) point to several ways in which this disproportionate burden falls on women. Women often have to travel with babies and toddlers, which can incur extra fares and additional time. Additionally, bus operators often raise fares arbitrarily depending on the number of passengers, and women are less inclined to haggle over the price.

Table 3: Average Cost of Transport by Purpose

Purpose of Trip	Average Cost of Transport (ETB)	
	Male-Headed Households	Female-Headed Households
Economic Purpose	85.96	70.54
Social Services Purpose	28.52	39.67
Community Association	1.10	0.56
Social Activities	28.37	29.42

Table 4: Ownership of Non-motorised Transport Modes

Non-motorised Transport Modes	Household type	Number and percentage of households	
		Number	Percentage
Pack animal	MHH	224	53.5
	FHH	18	16.3
Animal cart	MHH	10	2.4
	FHH	0	0
Wheelbarrow	MHH	5	1.2
	FHH	0	0
Bicycle	MHH	5	1.2
	FHH	0	0
Total non-motorised ownership	MHH	228	54.4
	FHH	18	16.4

Table 5: Ownership of Motorised Transport Modes

Motorised Transport Modes	Household type	Number and percentage of households	
		Number	Percentage
Motorcycle	MHH	3	0.7
	FHH	0	0
Bajaj	MHH	3	0.7
	FHH	1	0.9
Total motorised ownership	MHH	6	1.4
	FHH	1	0.9

3.3 Land Lost to Road Construction

In terms of land lost to road construction, 5% more among the FHH were affected. However, FHH were also 5% more likely to receive compensation. Representatives from the Tigray Bureau of Agriculture and Road Construction at the inception workshops pointed out that compensation provided is in terms of money, or as replacement land in areas where such land is available at a

reasonable distance to the original plot. As to damage to land due to road construction, there is currently no provision for compensation.

There appear to be significant gaps between the provision for gender mainstreaming provided in the PSNP programme design; and its implementation. There are also key knowledge gaps in the understanding of Gender, Transport, and Mobility in Rural Ethiopia. This project will contribute towards filling the knowledge gaps, as well as providing suitable policy approaches and solutions, by working with rural communities and public/private stakeholders in the sector. It will contribute to ReCAP's immediate focus on strengthening the evidence base around cost effective and reliable low-volume transport services for women in particular, by influencing policy and practice.

4 Approach and Methodology

4.1 Research Objectives

This research project will:

1. Improve upon the current understanding of the nature of engagement of women (in FHH and MHH) and men; with PSNP in the area of rural road development
2. Provide actionable recommendations, practical solutions, and tools for gender mainstreaming at the levels of planning and implementation of works, and in creating impact
3. Contribute to guidelines and policies on gender mainstreaming being prepared by government institutions in the road development/transport sector
4. Document and disseminate stories of rural Women Spouses in MHH and Women Heads of Households, who built upon opportunities available in rural Ethiopia to reach positions of social and economic security; to inspire them to do the same.
5. Identify high-impact themes for further action and research, for gender mainstreaming in rural road development and transport

The relevance of these topics is predicated on the fact that they were identified jointly with key stakeholders such as the regional bureaus of agriculture, rural development, road, and transport; and with the Ethiopian Roads Authority. This also boosts the prospects of uptake of these recommendations, solutions, and tools among these organisations.

4.2 Research Questions

In order to meet the research objectives, the study will seek to answer some of the following research questions, separated by those relevant to the Productive Safety Net Programme, with regards to the planning and implementation of road works; and questions related to gender, transport and mobility at the household level.

PSNP and Gender

(Planning of works)

- What are the gaps in the implementation of gender mainstreaming provisions of PSNP?
- What are the social, cultural, economic, administrative factors that limit the influence of women in decision-making?
- Among women, what are the differences between the involvement of WHH and WS in the decision-making? Are there differences between the levels of influence they exert? What accounts for those differences?
- What are WHH's and WS' priorities with respect to road development? Do they differ from each other? How do they differ from the larger community's priorities?
- In what ways do WS/WHH organise themselves? Can women's groups and organisations be leveraged to negotiate for WS/ WHH priorities and interests?

(Implementation of works)

- What is the level of participation by women in the implementation of road works?
- Are there differences between the nature and levels of participation of WHH and WS? What accounts for those differences?
- What kinds of labour do women provide during road works?
- What tools do women use for different types of road work activities?
- Are there road works activities that are deemed unsuitable for women? Why/ why not?
- How do labour conditions differ between men and women, and are wages comparable?

Gender, Transport and Mobility

- What are the most common reasons to travel, for men, WS, and WHH?
- What are the most common means of transport available?
- What are the most common issues faced in travel, for men, WS, and WHH?
- How do women's and men's travel/transport experiences differ from each other?
- How good is the first mile connectivity (residence to road)?
- What Intermediate Means of Transport (IMTs) are available in the region?
- How closely do available IMTs match the needs of men, WHH, and WS?
- What are the trends in the IMT sector? How are IMTs likely to evolve as a viable modal choice in rural Ethiopia, and for men and women?

4.3 Data Collection

The methodological approach to data collection caters to the research objectives laid out in *Section 4.1*. It involves a mix of quantitative and qualitative methods to allow for triangulation of data collected, as well as to cater to the complementary yet multiple objectives of:

1. Plugging knowledge gaps
2. Co-producing data with WHH and WS which reflects their experiences and priorities
3. Providing practical recommendations for gender mainstreaming and ensuring their uptake by key stakeholders
4. Identifying, testing, and disseminating practical tools and solutions

Table 6 provides an overview of methods, which will be described in the following sections.

Table 6: Research Methodology - Methods and Research Questions/Topics

	Semi-structured Interviews	Focus Group Discussions carried out through the Well-Being method	Key Informant Interviews with implementing organisations	Photo - Voice	Validation and Consultative Workshops	Special Studies
(1) Planning of Works						
Gaps in implementation of gender mainstreaming provisions		X		X	X	
Factors limiting WHH and WS participation in decision making		X	X	X	X	
WHH and WS organisations: current role and scope for contribution to gender mainstreaming	X	X	X		X	
WHH and WS own priorities		X		X		
(2) Implementation of Works						
Current status of participation of WS and WHH	X		X		X	
Differences between participation and experiences of WHH and WS	X	X		X	X	
Tools being used	X	X			X	
Improved tools						X
(3) Gender, Transport and Mobility						
Current travel options and patterns	X	X	X	X		
Time budgets of men, WHH, and WS		X		X		
Differences between transport experiences of men, WHH, and WS		X		X		
Socio-cultural norms regarding transport & mobility		X		X		
Gender-inclusiveness provisions in PSNP road works planning	X			X		
(4) Practical Tools, Recommendations and Solutions						
IMT : status, potential, solutions	X				X	X
Others	X	X			X	

4.3.1. Semi-structured Interviews

Semi-structured Interviews (SSIs) at the household level will contribute to a substantial share of data collection. Through open-ended discussions, SSIs will allow respondents to reflect, retract, challenge, and counter; rather than just respond to questions. This will create scope to gain insights about gendered impacts of road construction and gendered experiences of transport. The methodology will be employed with men and women in both MHH and FHH.

Findings from the interviews pertaining to each research question/topic will be summarised per interview. This will create a systematic collation of research questions/topics pertaining to gender mainstreaming, as well as help identify patterns in how they play out. Thus, the results can be used to build a menu of actionable recommendations; practical solutions; and tools for gender mainstreaming at the levels of planning and implementation of works.

4.3.2. Focus Group Discussions

A number of Focus Group Discussions (FGD) will be carried out at all four sites. FGDs conducted with the different groups will be particularly used to highlight disparities in engagement with PSNP and in access to transport, underlying causes and ways to overcome inequalities. Additionally, the research will investigate institutional, organisational, and operational changes within PSNP implementing organisations as a result of gender mainstreaming efforts.

The approach used for the FGDs will be based on the ‘well-being’ method for social survey called ‘*El Buen Vivir*’ practiced in Latin America. The methodology departs from usual interviews and FGD methods by providing a personal interaction focusing on a wider range of topics than the topic being researched (roads, mobility, PSNP in this case). This method is elaborate and demands more time, but provides a wealth of information and places the road construction and mobility-related findings drawn from the respondents within the wider context of their ‘well-being’. Please refer to *Annex A* for a description of the approach, and *Annex C* for field notes from selected interviews.



Figure 5 Women Interviewed using the ‘Well-Being’ Method

The survey size for the FGDs and SSI will be approximately 200 women (WHH and WS) and 100 men from the four feeder road project sites in Amhara and Tigray regions.

4.3.3. Key Informant Interviews

Key informant interviews will capture the perspectives of policymakers and implementers of PSNP, road development, transport services, and gender mainstreaming. Apart from partner organisations

(Tigray and Amhara regional states' bureaus of Agriculture and Rural Development, Road and Transport; and Ethiopian Roads Authority), respondents will be drawn from the private sector, and international aid organisations that contribute to the financing and implementation of PSNPs.

4.3.4. Photo-Voice

Photo-Voice is a methodology that uses participatory photography to visually capture qualitative data and insights of respondents. It is aimed at men, WS, and WHH from road-adjacent communities. The methodology has been field-tested during the Inception Period. Further details and results are provided in *Section 5*. In the research it is foreseen that results from Photo Voice will also be used in policy meetings – with different women presenting outcomes - and examples are used in the preparation of guidelines and training material.



Figure 6: Participation in the Photo-Voice Exercise in Aynalem Village, Kilteawlelo Woreda

The close involvement of government organisations is essential to the methodological approach. At the 4 road sections selected, transect walks will be conducted to select the locations where the SSI, FGD and PV will be held. Permission will be sought to undertake the research in the concerned field areas and similarly permission will be sought from the persons interviewed.

4.3.5. Validation and Consultative Workshops

These workshops will be conducted with stakeholders including representatives of road-adjacent communities at various stages of the project. They will serve to validate research findings, disseminate results, and identify and test practical tools and solutions related to road construction and transport. A further workshop will be organised in Phase 3 of the project (April-June 2017).

4.3.6. Special Studies

Special studies will be carried out to address key topics that emerged during the stakeholder workshops in November 2016 (see section 5.7). In specific, an assessment will be carried out of existing IMTs available to different groups of people (i.e. men, WS, WHH, people with disabilities), their value chains. This assessment will contribute to solutions briefs on how to improve mobility especially women.

4.4. Gender Analysis

The point of departure of the gender analysis of this research project is to look at the well-being of women and men within the framework of their social positions and roles. Redefining gender roles may contribute to well-being, but is not the only or even most promising strategy.

The objective is to understand:

1. To what extent has the rural roads component of the PSNP produced changes in the aforementioned aspects
2. How these aspects influence engagement of WHH and WS in decision-making, planning and implementation of rural road development within the PSNP, and
3. How these aspects determine differentiated control over benefits accruing from the road development component of the PSNP.

A preliminary gender analysis had been conducted, based on gender-disaggregation of data collected from 529 households, through past studies conducted in the project area.

In addition to the SSI and FDGs, 'Storytelling through photo-voice' will be used as a method for Gender Analysis. Photo-voice will be used to capture people's perspectives on their current and future situations. It involves providing people (in this case women) basic orientation on taking pictures and video clips using basic devices such as their own phones, and motivating them to do so over the project period. This serves two distinct purposes:

1. Develops a steady stream of visual data over the project period, which can be used for analysis as well as documentation and dissemination purposes, and
2. Elicits a higher degree of participation of women in the project activities, thereby also contributing to a sense of empowerment.

The rationale of incorporating this tool in the overall methodology lies in its potential to capture quantitative data as well as involving women more actively in the research activities. It draws on the concept of 'Participatory Video', which has been used around the world to capture the perspective of disadvantaged groups through a participatory process that also serves to empower them. This is an effective method using photography to empower people to document elements such as their needs and resources from their own point of view. The method was tested as part of the Inception Period. Examples of the results are presented in *Section 5*.

The use of photo-voice is to encourage women/groups to learn from each other – by confronting and mirroring experiences. Often, different women /groups do not have contact with other groups to see how the situation was and to see solutions from others. Care will be taken to discuss and ask consent for use of the visual material of the women who prepared it and own it.

In the research it is foreseen that results from Photo Voice are also used in policy meetings – with different women presenting outcomes - and examples are used in the preparation of guidelines and training material.

4.5. Understanding the Policy Context

The SSI, FGD and PV will provide inputs to understanding of the policy context, to guidelines on the engagement of women in PSNP roads programmes, and on ways to improve their impact in terms of mobility, access to social services, income opportunities, ability to utilise environmental opportunities, to build a natural resource base and reduce natural resource losses (such as Road Water Harvesting). The aim is to generate and disseminate actionable recommendations, practical solutions, and gender mainstreaming tools that will improve the well-being of women with feeder roads and rural mobility as the instrument.

4.6. Institutional Analysis

The objective is to understand policy, organisational, and operational provisions and changes within the PSNP aiming at mainstreaming gender. Through SSI and FGDs with management and technical staff of the PSNP implementing organisations we will investigate:

1. Existence and level of integration of pro-active gender policies within the PSNP and Road Authorities, as well as their actual implementation
2. Gender-responsive empowerment and engagement strategies, activities, and monitoring tools, and
3. Programmes and projects with relevance for gender mainstreaming and creating impact on gendered well-being.

Key points for the institutional analysis are:

- Existing positive discrimination and pro-active gender provisions and programmes
- Assessment of bias towards different sections among women (WHH or WS; rich or poor)
- Actual implementation on the ground
- Methods of engagement: directly, or through groups and intermediaries
- Organisational arrangements (staffing and capacity) for implementing gender policies

4.7. Recommendations, Practical Tools and Solutions

Apart from knowledge gaps in the understanding of Gender, Transport, and Mobility in Rural Ethiopia, there is also a gap in approaches and solutions that can help deepen gender mainstreaming both in terms of rural road development and transport benefits. This project will also contribute towards filling the policy, approaches, and solutions gaps by working with rural communities and public/private stakeholders in the sector. The outputs will be actionable recommendations, practical tools, and solutions.

Based on preliminary research findings, and consultations carried out with governmental stakeholders during the Inception Period, we aim to provide the recommendations, solutions and tools in the form of Solutions Briefs and Research Briefs on 'Special Topics.' The Solutions Briefs and Research Briefs will be integrated into a Guidance Note. Provisionally, the following topics have been identified:

Solutions Briefs:

1. Facilitating women's participation during the planning of rural roads: hand out
2. Time/effort saving tools
3. Intermediate Means of Transport in Ethiopia and Gender: Filling the Gap
4. Dust: Effects on road-adjacent fields and mitigation strategies
5. The first mile: Connecting rural households to roads

Research Briefs on Special Topics:

1. Women's Organisations as Labour Collectives: Comparison with Labour Contracting Societies in Bangladesh – results of a discussion
2. Small Case Studies: Success stories of women farmers and agri-entrepreneurs
3. Visualising Mobility: Results of Photo-Voice carried out in Tigray and Amhara

4.8. Dissemination and Outreach

The Recommendations, Practical Tools, and Solutions produced in the project will be disseminated through policymakers and implementing organisations. The project is well embedded in the local context formed by key institutional stakeholders such as the bureaus of Agriculture. It is these stakeholders that will eventually take up and apply the project's findings and it only makes sense

that they are engaged in the project's activities. MetaMeta has a long standing relationship with the Amhara Bureau of Agriculture and the Tigray Bureau of Agriculture and Rural Development.

Further, the insights and analysis from the research will be disseminated throughout the course of the project, in the form of blog posts, video clips, and photos. The platforms of online dissemination would include the ReCAP website, as well as TheWaterChannel (<http://thewaterchannel.tv/>), which has an online reach of 90,000 per month.

The continuous dissemination through the course of the project will serve two purposes that can enrich the research process itself by:

1. Ensuring continuous engagement of stakeholders through the course of the project, creating ownership of the research process and deliverables among them
2. Online dissemination, which will create a channel of feedback from a global audience.

In line with research protocols in MetaMeta and Mekelle University, preliminary and final results will be shared with both community members, men and women – WS and WHH – and governmental organisations during participatory workshops, where we shall seek feedback on and validation of the research outcomes. As far as possible, the interview respondents will be involved in the feedback and validation process.

4.9. Links to RECAP Logframe

Outcome 1: Contribution to the base of actionable evidence on low volume rural road and transport services, that are cost effective and reliable for both men, Women Spouses, and Women Heads of Households; Promotion of the evidence generated to influence policy shapers

Indicators of Outcome 1:

- Partner governments and other financiers co-funding research with ReCAP
- Concrete examples of change (applied or formally adopted) influenced by ReCAP research that will be applied to #km of roads
- Number of citations in academic articles of ReCAP Peer-reviewed articles and/or working papers, conference papers etc.

The choice of Tigray and Amhara regional states in Ethiopia was predicated on the basis of Memorandum of Understandings (MoUs) between the project partners (MetaMeta Research and Mekelle University) and main implementing organisations in road development and PSNP (Regional Bureaus of Agriculture and Water, and Ethiopian Roads Authority). Therefore, the co-funding by these partner government institutions in kind is a given. It has already materialised in the form of their support to activities carried out during the Inception Period (please see *Section 5*).

As indicated earlier in the document, the project seeks to contribute towards filling the knowledge gaps, as well as the policy, approaches, and solutions gaps by developing practical solutions and providing actionable recommendations. It is also an objective to contribute to guidelines on gender mainstreaming in PSNP/road development sector, such as those currently being prepared by ERA. The close involvement of these organisations increases the impact and probability of actual change being implemented. The source of verification of change would be the involvement of these organisations in the preparation of these practical solutions and guidelines, and their formal adoption.

At least one peer-reviewed paper will be produced through the project. Their citations will be actively tracked and reported.

Output 1: Research and Uptake

- 1.1. Peer reviewed paper
- 1.2. Manuals and guidelines
- 1.3. Engineering Research

At least one (1) academic research paper will be submitted to an international peer-reviewed journal relevant to the transport sector. The paper will summarise the research findings and provide policy recommendations on their basis. They will be made available in open access format, disseminated through the ReCAP website as well as TheWaterChannel (www.thewaterchannel.tv).

Further, it is envisaged that the research will produce a large number of practical recommendations on both the process of road planning and the design of roads that will improve participation, empowerment and consultation procedures. We expect that these practical recommendations will concern:

1. How to effectively engage WHH and WS in decision-making, planning and implementation of rural road development that reflects their needs and priorities
2. Ways in which the development of rural road infrastructures within the PSPN can contribute better to improved livelihood and common well-being of WHH and WS, and
3. How to facilitate the development and up-scaling of gender practical improvements at various levels to promote gender mainstreaming and inclusive feeder road, and transport facility development

These recommendations will be documented and disseminated in the form of guidelines. To ensure wide acceptance and uptake, the guidelines will be practical, hands-on in nature; and will be co-developed along with partner government agencies.

In terms of Transport Study Research, special studies will be carried out on the current availability of IMTs, the scope for improving existing options, and introducing new options suitable to the local context. This process was started at a special consultation on IMTs organised on November 19 in Mekelle, Tigray, after IMTs were identified as a key topic at the inception workshop on November 18. The joint execution of the study with Ethiopia Roads Authority will be key to ensuring its uptake.

Output 2: Capacity Building

- 2.1. African experts or institutions taking lead roles in the research project
- 2.2. Inputs from female researchers at a senior technical level

As one of the co-partners in the project, Mekelle University has taken a lead role in project design, and will continue to play this role in the remainder of the project. Mekelle University is a premier research institution in the region, and in the area of social aspects of road development. Built into the research methodology is close involvement of government bureaus of roads and transport in the Mekelle and Amhara region states. They will be closely involved in activities pertaining to research, dissemination and uptake of findings.

Female researchers Cecilia Borgia and Letty Fajardo Vera have been closely involved in development of the project proposal and will continue to do so in the rest of the project. Their planned involvement in the project amounts to 45 days.

Output 3: Knowledge Generated Disseminated

- 3.1. Dissemination at high-level international conferences
- 3.2. Knowledge disseminated through workshops and training that is rated by participants as effective

The project's theoretical underpinnings and select findings from research carried out during the Inception Period were shared at a side event at the COP 22 conference in Marrakech titled 'Turning Risk into Reward' (November 10, 2016).

A webinar will be co-organised with the International Roads Federation (months 11-12) on the popular webinar platform hosted by TheWaterChannel (www.thewaterchannel.tv/webinars). The webinar is interactive, providing the participants chance to provide live as well as deferred feedback.

Continuous dissemination of insights and deliverables generated through the project will be disseminated in the form of blogs and short videos, through TheWaterChannel (www.thewaterchannel.tv).

Most importantly, dissemination at the local level will be carried out through workshops, consultations, and meetings carried out with stakeholders at various points (most notably during Phase 1 and Phase 4).

5 Inception Period

The following activities were carried out during the Inception Period:

5.1 Literature Review

A literature review was undertaken with a view to broaden the perspective of the project from its immediate focus on Ethiopia and PSNP. Based on cases from Asia and Africa, a number of ideas were identified as potentially having relevance to this research project. One of them, the role of IMTs and the scope of their expansion in Ethiopia, has been actively explored during the Inception Period. Local stakeholders from the roads and transport sectors expressed much interest in carrying out special studies on scoping IMTs in the project area.

Findings from the literature review informed the discussions, particularly with regard to the benefits and disbenefits of IMTs for WS and WHH. For instance, Mwankusye (2002) indicates that much effort is required in the promotion of IMTs through the mass media, demonstration projects, and community development initiatives for them to be really effective in improving rural accessibility. A review of the literature also helped articulate the idea of 'mobility' being a result of social, cultural, political, and economic factors and not just a function of availability of roads and transport options (Seddon, 2003). At a practical level this helped re-frame research questions and themes that were presented in the project proposal.

A review of PSNP-related literature shed light on the gendered perception of certain types of road works as being fit only for men (excavation, concrete-work, masonry, operation of machinery), thereby limiting employment opportunities for women (Holmes and Jones, 2011). This was discussed with women in SSIs carried out in the preliminary assessment. While a majority of the women agreed with such assertions, they also expressed willingness to learn some of the skills necessary to carry out such tasks if training was made available to them. The fieldwork will explore whether provision of certain training will create more employment opportunities for WS and WHH, and through what means they can be carried out.

The literature review will be updated at various points of time during the project, as new issues emerge that warrant further examination. The literature selected and reviewed represents two distinct areas:

- a) Gender mainstreaming in PSNP planning and implementation (PSNP is Ethiopia's flagship rural employment programme through which a bulk of the rural roads are constructed), and
- b) Relationships between women, gender, and rural transport.

Fieldwork conducted during the Inception Period provided the opportunity to extrapolate some of the insights from the literature review and examine their relevance to the project context. Conversely, some of the insights gathered from the fieldwork (semi-structured interviews/ data analysis/ participatory photography) validated conclusions on gender mainstreaming in rural transport in Ethiopia as found in the literature.

5.1.1 Gender Mainstreaming in Road Development in Ethiopia

As mentioned before, a bulk of rural road development in Ethiopia takes place through the Productive Safety Net Programme (PSNP). It aims at enabling chronically food-insecure rural households to increase their resilience to shocks, create assets, and become food-secure. Members of targeted households participate in the development and maintenance of community rural infrastructure, including low volume roads, in return for wages/ food for work arrangements.

As of February 2016, 39,000 km of low volume roads had been developed under the programme, with the annual expenditure on low volume roads standing at USD 200 million (World Bank, 2016). Therefore, women's engagement with PSNP is key to the study of gender mainstreaming in rural road development. Gender mainstreaming in this case has two distinct aspects:

- a) Women's participation in the planning of road works
- b) Employment opportunities created for women in road development work

Planning of Works

Women's representation in public works-related decision making structures is often inadequate to promote their voice (Dejardin, 1996). However, in PSNP programme design there is a marked recognition of the need to encourage women's participation in the planning process. The Programme Implementation Manual asserts as much, and instructs implementers to 'promote the participation of women as well as men in decision-making structures' (MoA, 2014). However, inequality between men and women is deeply embedded in the culture (Erulkar, 2007) and this translates into women having limited influence on decision making despite their participation in significant numbers in planning meetings. Apart from cultural views on women's participation in planning of public works, another factor that limits their participation is the relative time poverty of women as compared to men. Women are overly taxed in terms of the time they have to spend on care work and domestic tasks (Harvey and Taylor, 2000) which affects their ability to budget time for attending such meetings.

Women's participation in the planning of works is significant not only from the point of view of their empowerment, but also in that it is key to good planning. As mentioned before, the road works planning under the PSNP programme is as much a process of infrastructure development, as it is a source of generation of employment opportunities. When the decisions taken are not informed by women's concerns and interests, the employment opportunities created are biased towards men. The bias is in the form of favouring certain kinds of works involving hard physical labour where men have a distinct advantage, as well as choice of tools/techniques used (Holmes and Jones, 2011).

Employment in Road Construction

As in the planning process, PSNP has provisions built-in to support the ability of women to benefit from the employment opportunities that are created for them. These provisions are in the form of (Holmes and Jones, 2011):

- Explicit quotas for women, as well as Female-Headed Households
- Guarantee of equal wages as men
- Flexible working hours, to be able to balance domestic work and care responsibilities
- Provision of support for community childcare (crèches)

The provisions certainly boost the benefits accrued to women. A large number of women have been reached. Women represent 46% of the programme beneficiaries in Tigray regional state, and 37% in Amhara (World Bank, 2008). PSNP has helped increase household food consumption, and helped cover the cost of clothing, education, and healthcare (GoE, 2008). Incidents of distress sale of assets and premature harvesting of crops have also declined considerably (Holmes and Jones, 2011).

However, gaps remain at the level of implementation. Most notably, it is in the implementation of the guarantee of equal wage rates. In practice, women earn lower wages (Sharp et al, 2006). The greatest difference is in places that are close to urban areas where there are bigger labour markets with demand for male labour. As of 2008, the total PSNP expenditure on women remained much lower than that on men (World Bank, 2008). An aspect of gender mainstreaming which the current implementation framework fails to address are intra-household inequalities, as allocation of work and payments from PSNP are made at the household-level.

A key constraint to realising the provisions in the programme design is lack of awareness, both at the community-level and at the level of the field officers responsible for implementation, about the various gender mainstreaming provisions (GoE, 2008). Holmes and Jones (2011) also point out that while there is a rather large number of organisations forming the 'gender policy infrastructure' in Ethiopia, especially the 2008 Ethiopian Women's Package for Development and Change and the 2006 National Action Plan for Gender Equality, there was limited coordination between various programmes, and various sectors/organisations entrusted with implementing them.

Resonance with the Project Framework

The project has so far taken special note of certain themes arising from the literature review, such as the gap between participation and real influence of women over decision-making in road works planning. Insights gathered through investigation of this aspect as a research theme will be used to produce a Solutions Brief that will help facilitators to elicit women's participation at planning meetings (using participatory facilitation techniques). Another key insight drawn from the literature review is the need to increase awareness about existing gender mainstreaming provisions. Recognising this, the project has placed much emphasis on dissemination activities in general. Among the outputs, Solutions Briefs and Research Briefs have been planned as easily disseminable knowledge products that can share the project findings among a wide range of stakeholders.

5.1.2 Women, Gender and Rural Transport

Literature on gendered effects of, and access to, rural transport in the context of Ethiopia is rather limited. While considerable work has been done in the area of the effect of rural transport on livelihoods, gender-disaggregated data and analysis is scarce.

However, an examination of the research done on the topic in other countries in Africa and Asia helps identify some themes that apply to a wide range of contexts. The applicability of these themes to Ethiopia in general, and to the project area in particular, has been considered through the various inception activities (field interviews, stakeholder consultations, data analysis). Some of them that have found greater resonance than others are discussed here.

Seasonality

Transport needs arise in response to social and economic activities which, in most rural societies such as Ethiopia, are seasonal in nature. Apart from the more obvious needs related to harvests, marketing of produce, and transport of agricultural inputs, a number of off-season activities are key to the mix of livelihood strategies that helps mitigate agrarian risk (Fernando and Porter, 2002). Importantly, the affordability of transport is also seasonal (Porter, 2002).

Safety

Safety is fast becoming a major issue in the transport sector globally. Over 70,000 people are killed and more than 10 million injured in road accidents annually. 70% of this toll is in the Global South (Global Road Safety Partnership, 2016), which means a significant burden on public and private health budgets. Safety issues arise from the quality of road infrastructure, as well as the safety standards of the vehicles that make up the transport system. From a gender perspective, the concept of road safety also takes on a wider meaning to include personal security (i.e. sexual harassment), and safety measures (i.e. street lights) to avoid hazards (Kwamusi, 2002).

Intermediate Means of Transport

IMTs are transport technologies that fall between walking and four-wheeled motorised transport such as cars and trucks. They include pack animals, animal carts, bicycles, rickshaws, motorcycles, three-wheeled scooters, etc. IMTs can often prove to be the difference between mobility and immobility in rural areas with road infrastructure. The global transport sector is therefore paying much attention to these intermediate modes (Starkey, 2000).

Resonance with the Project Framework

In Ethiopia, seasonality has a marked impact when post-harvest incomes enable people to take the bus rather than walk 10-15 kilometres (as shown by preliminary findings of the fieldwork undertaken during the Inception Period of this project). The project will examine in greater detail how the transport needs and options of women in Tigray and Amhara change across the year, and what implications that has for interventions aiming to improve their mobility.

During the preliminary field work, participatory photography and semi-structured interviews conducted with respondents highlighted some of the ways in which women negotiate safety concerns during transport, and how that affects their mobility. Overcrowded buses and bumpy roads deter pregnant women from taking them (see *Section 5.4*). Fears of sexual abuse restrict women to using the road only while it is not dark.

Intermediate Means of Transport are conspicuous by their absence on rural Ethiopian roads. There is a marked difference comparing Ethiopia with some Asian countries such as Bangladesh, for example (Matin et al, 2002). At consultations held during the Inception Period, governmental stakeholders recognised the opportunities presented by IMTs, and pledged to testing, documenting and promoting various solutions, partly in conjunction with some of the project activities.

5.2 Scoping Study

The scoping study investigated the differential impacts, experiences, and engagement of the two groups with respect to road development and rural transport, by analysing data collected from 110 FHH and 419 MHH. The results are explained at length in *Section 3.2*.

5.3 Preliminary Assessment

The preliminary assessment was conducted to help test and refine the gender and institutional research tools and understand the main constraints and opportunities and implementing modalities of the PSNP rural roads programme. The preliminary assessment was based on 15 semi-structured interviews with key informants and women (both WS and WHH) in two of the research locations (see *Annex A* and *C* for a detailed explanation of the methodology and field notes).

Some of the key themes emerging from this preliminary assessment are reproduced in Table 7.

Table 7: Key Insights gathered from the Preliminary Assessment

<p>General</p>	<p>WHH, especially divorcees, are very vulnerable to prostitution. Extra-marital relationships among husbands are not uncommon.</p> <p>There is relatively little by way of solidarity mechanisms among women as compared to men. This refers to formal women organisations, as well as informal social mechanisms of solidarity and assistance.</p> <p>Women in FHH have more freedom to engage in income and training programmes than women in MHH.</p>
<p>Engagement in construction and road maintenance</p>	<p>There is keen interest by women in particular to be part of the PSNP</p> <p>53% of the routine maintenance work is offered to women.</p> <p>There is much interest among women to be enrolled in skills development programmes, even in seemingly traditional male occupations such as concrete work and masonry.</p> <p>Women’s inputs to consultation are subdued. This is related to the way meetings are organised and the (cultural) perception of women and men. A significant contribution can be made towards correcting this by producing practical guidelines for facilitators who conduct such meetings.</p>
<p>Mobility and access to services</p>	<p>In several areas the ‘first mile’ (distance from residence to the feeder road) remains a serious constraint even after feeder road construction.</p> <p>Many of the feeder roads are empty – with sporadic bus services. Most feeder roads have fewer than 3 vehicles per road kilometre per day.</p> <p>80% of road users are pedestrians and travel on foot. 10% of travel is by bus and 6% in three-wheeled motorbikes (locally known as <i>Bajaj</i>).</p> <p>The Bajaj is however inappropriate for use on rural roads (mostly due to safety concerns) and is officially not allowed.</p> <p>FHH are less likely (by a factor of 3) to own a means of transport (bike, cart, wheelbarrow).</p> <p>The availability of regular bus transport is crucial for long distance access</p> <p>Buses are expensive and there is much haggling on the price of transporting commodities to the market – which sometimes discourages women from using the buses.</p> <p>Women have difficulty reaching the empty seats on buses – especially on the corridor type of bus models.</p> <p>Perhaps the most important function of roads is that they make ambulance services possible.</p>
<p>Mobility and access to income opportunities</p>	<p>There is a large demand for more appropriate intermediate means of transport – also to be used for carrying agricultural commodities.</p> <p>The presence of roads has given opportunity for road side businesses to expand (up to three-fold in some cases). Among other things, roads become sites for hawking and selling produce to people on the move.</p> <p>There are several examples of inspiring women farmers/ entrepreneurs –</p>

who could be a learning resource for others.

Due to lower access to productive assets such as draft animals, Women Spouses/ Female-Heads of Households have a lower ability to exploit opportunities such as Road Water Harvesting.²

Environmental effects of land

FHH are more likely to lose land for road construction but they lose less land as compared to MHH.

Dust from feeder roads is a serious problem – affecting crop growth and health of humans and livestock.

5.4 Methodology Testing: Photo-Voice

As planned in the project proposal, the participatory photography methodology *Photo-Voice*, was tested with a group of 9 women from Aynalem village, 10 kilometres from Woukro, on November 13, 2016. The women represented the age groups 25-35, and 60 and above. One of the participants was a 12-year old schoolgirl (*Figure 7*).



Figure 7: Gidna Hawos at the Photo-Voice Exercise

The community is located along a feeder road that was constructed in 2005 by a private contractor, outside the aegis of the PSNP programme. Nevertheless, the community representatives and the district administration impressed upon the contractor the need to create opportunities for women, the elderly, and people with disabilities to participate in the construction in return for daily wages. As a result, some nominal work was created for these groups even though the overwhelming majority of the people who took part were able-bodied young men.

The exercise was carried out through the following steps:

1. *Introduction:* The participants were introduced to the facilitators, and the objective of the exercise. It was stressed that the inputs of the women would contribute to research that could bring their roads transport-related needs to the attention of the relevant authorities

² Being hard surfaces, roads have a high runoff coefficient. Road Water Harvesting refers to the practice of diverting runoff from roads when it rains, for recharging groundwater, storing as soil moisture, or to store in ponds/reservoirs. This is done by constructing a variety of harvesting structures along roads (such as diversion canals and percolation ponds), and integrating certain elements in road design (such as culverts) that can help direct the runoff. In the project area (Tigray and Amhara regions), Road Water Harvesting has been systematically practiced by road-adjacent communities and government authorities for around 3-4 years.

2. *Group-Discussion:* In order to get the participants thinking about the topics at hand, and to decide what to shoot, a discussion was facilitated guided by the following questions:
 - What kind of work was made available to women during the construction of the feeder road?
 - What changes did the feeder road bring about: economic, social, or otherwise?
 - How can the road be improved?
 - For what reasons do you usually travel, to where, and how?
 - What kind of transport options are usually available to you to travel?
 - What issues do you face in course of travel?
 - What improvements would you like/ do you wish for?
 - Would your transport experience be any different if you were men? How so?
3. *Basics of how to use a camera*
4. *Shooting exercise:* This included explanation of how to use the cameras, and forming groups of three that would go around the village/along the road to shoot. The participants also decided to spend some time discussing what they wanted to shoot.
5. *Show and tell:* After the shooting exercise, the participants came back to the village bus stop to show and explain the pictures that they shot.

Key findings from the exercise included:

- The key reason for travel was to avail health services. This was followed by buying supplies, to attend social functions (baptisms, graduations, weddings, funerals), to visit relatives, and for recreation.
- The only mode of transport available was ‘medium-sized buses.’ The mini-buses omnipresent in Ethiopian towns find it difficult to ply on the non-asphalt feeder road.
- The biggest issue they face during transport was overcharging by the bus conductor. Since buses are short in supply, the bus operators have a high bargaining power.
- If they were men, the women could also elbow their way through the crowded bus and be better placed to capture empty seats.
- Since it is relatively difficult to find seats in buses—many drive by the village without stopping—women end up walking to Woukro many a time.
- It was of high priority to the women that the feeder road was asphalted, mainly to minimise the dust that flies around during the dry season, making it difficult to use the road. They were also hopeful of them or their family members being able to find employment in the asphaltting of the road.
- *“We work a lot during the Soil water Conservation campaigns. This shows that we can work on roads too,”* said Gorgis Tahsay, 35.
- The rocky nature of the walkways connecting their residences to the feeder road was extremely prohibitive to walking to the feeder roads to take the bus to Woukro, especially for pregnant women.
- The general opinion of the village’s women was that better transport affects operation and maintenance of water supply, as the roads and frequency of the buses determines how easily water point mechanics could be called for—and how easily they could reach.
- Many women who were not provided employment opportunities by the road contractor, made money by selling coffee, lunch, and snacks to those who did find work.

The women pre-planned what to shoot in the village to highlight what they thought was worth highlighting about their road/transport related issues. The images in Figure 8 are representative of the shoot.



“If the road is asphalted, if there are more buses.... We can call the mechanic quickly when the hand pump needs maintenance, and the mechanic can turn up quickly too.” - Kebraleme Arzawi and Group

“Forget the (feeder) road. The walkway to it from our homes is so difficult. Pregnant women will have to think many times before using it.” – Melesh, Haregu, and Group



“More important than road is electricity. The pole and the wires have been up for months. One day power will come too.” – Gidna Hawos and Group

Gidna Hawos, photographed by Gorgis Tahsay

Figure 8: Photos from the Photo-Voice Exercise

5.5 Inception Workshop

The Inception workshop was organised in Mekelle, Tigray on November 16, 2016. Attending the meeting were representatives from the Bureaus of Agriculture and Rural Development from the project areas (main implementing organisations of PSNP), as well as those from the Bureau of Roads and Transport. At the day-long workshop, the research programme design and initial results were shared by the project team. The participants validated and challenged the findings, suggested certain research questions and themes, and discussed modalities of contributing to the project activities in the coming phases.



Figure 9: Inception Workshop in Mekelle, 16 November 2016

5.6 Consultation Meeting

A consultation meeting on Intermediate Means of Transport was organised on November 19 in Mekelle, Tigray. It was attended by representatives from local Bureaus of Agriculture, Rural Development, Road and Transport, and the Ethiopian Roads Authority; who have special responsibilities with regards to transport or gender. At the meeting the existing IMTs in the project area were discussed, along with examples from other countries like Bangladesh. Participants at the meeting expressed willingness to carry out joint studies on IMTs in the region, and in testing prototypes on rural roads in course of the project period.

5.7 Dissemination and Outreach during Inception Period

Dissemination at the local level was kick-started with the inception workshop and the consultative meeting on IMTs. Wider outreach was carried out through the following activities:

Blog: A blog was published on TheWaterChannel (<http://thewaterchannel.tv/thewaterblog/427-tesla-rickshaws>) on the use of IMTs in Bangladesh and scope for their promotion in Ethiopia. Between October 17 and 27, the blog had received 173 views.

Videos: A video was produced based on interview with key informant Wout Soer (Former Manager of PSNP's Donor Coordination Unit hosted at The World Bank Ethiopia) on the considerations behind PSNP's design aspects meant to provide productive employment while at the same time trying to reach the most vulnerable with unconditional support. Until November 9, 2016, the video had received 209 views.

<http://thewaterchannel.tv/media-gallery/6373-the-two-tracks-of-ethiopia-s-productive-safety-net-programme>

Another short video based on the *Photo-Voice* exercise carried out at Aynalem village was produced. The video documents some of the insights gathered from the exercise.

<http://thewaterchannel.tv/media-gallery/women-mobility-and-roads>

6 Revised Workplan

The key facet of the implementing strategy of the project activities is the close involvement of the regional bureaus of agriculture and rural development—the main implementers of PSNP in the region—as well as the Ethiopian Roads Authorities. During the course of the Inception Period, working relationships have been established with the regional bureaus of Roads and Transport. These organisations will be involved not just as targets of outreach of the project results, but also as joint implementers of several activities. This will:

- 1) Ensure that the project's focus stays within the ambit of practical needs and solutions throughout

- 2) Help maximise uptake and impact of project results, and influence on regional/federal policies on gender mainstreaming.

Based on findings from the Inception Period, Phase 2 of the project was extended until March 2017, in order to spend more time on fieldwork. The decision was informed by the idea that more time needs to be devoted to testimonials and personal narratives of WHH and WS in order to tease out the differences between the two in terms of the effects and experiences of road infrastructure and transport. Accordingly, placement of the subsequent phases (except the final phase) on the project timeline has been altered. However, the overall project timeframe and intermediate reporting milestones remain unaffected (please see *Annex B* for the revised workplan).

7 Technical Inputs and Budget

Please refer to *Annex D* for a detailed layout of technical inputs. No significant changes have been made to the plan initially proposed. Minor adjustments have been made to the division of work-in terms of the number of days-within the project team. Frank van Steenberg, Road Development and Transport Specialist, has been included in the team. None of the changes affect the overall financial layout.

8 Community Access

Gender lies at the core of the research topic of the project. An additional topic being explored is the transport needs and mobility of People With Disabilities (PWDs) and their inclusion in the PSNP programme. Preliminary findings suggest that:

- 1) PWDs' two main sources of support are their families and government assistance through which they receive 15 kg of grains, 6 times a year.
- 2) Owing to the inadequacies of the road and transport infrastructure even for able-bodied people, mobility of PWDs is between nil and negligible.
- 3) The pilot Photo-Voice exercise revealed that often communities impress upon the road contractors the need to create employment opportunities for PWDs, in response to which a few simple jobs could be set aside for them (such as attendance registration).

The specifics of where PWDs will fit in the larger project framework are still under discussion within the project team. For the time being, PWDs-related questions are being brought up in FGDs and SSIs where possible. It is probable that the testing of tools that improve ease of effort in certain road works could also help include PWDs in road construction through PSNP.

9 Monitoring and Evaluation Plan

Monitoring of project progress will be carried out through periodic reports:

- 1) Inception Report
- 2) Interim Report: Month 6
- 3) Final Project Report- Month 10.

The reports will serve to document project progress. The ReCAP secretariat will validate their conclusions and evaluate progress.

As mentioned in the logframe, the source of verification of contributions made by partner government organisations will be verified by their in-kind and core contribution to the research process and the dissemination events. These will be documented, validated, and reported in the relevant reports.

Two key markers of evaluation of the technical literature and peer-reviewed article(s) generated by the project will be (a) the number of citations, and (b) their endorsement by stakeholder organisations involved in PSNP implementation.

As to the key events of the project—including both project-organised events as well as conferences where project findings are presented—the proceedings will be recorded through minutes as well as reflective blog posts. Analysis will be made in the relevant reports as to the added value of organising/attending the events based on the discussions that took place and the follow up.

The final report will provide an analysis as to the policy impact of the project activities. The indicators would be either an actual change in policy and practice at the local, regional, or federal levels; or endorsements by policymakers of project outputs and outcomes.

A key part of the overall M&E approach adopted in the project would be interactive monitoring and evaluation through dissemination, as described in earlier sections.

10 Risks

Since testimonials and personal narratives form a significant part of the data that will be collected and analysed, there is some risk of personal biases diluting the quality of data and subsequently the quality of analysis. To guard against this, research questions will be examined using multiple methods which will allow for triangulation, i.e. validating the consistency of outcomes. The different methods will also be used in a sequential manner – so that outcomes under one method can feed into the next method. Triangulation and validation will also be done by confrontational mirroring – asking member of one group/ community as to why their experiences with road development and transport are different or similar to other groups interviewed, especially in FGDs.

External risks include those potentially emanating from the restive socio-political environment in some parts of Ethiopia. The close involvement of regional government authorities and other local stakeholders in the project activities means that the project team can assume to continue being well-informed of the security situation as it develops.

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Annex A: 'Well-Being' Method for Social Survey



Figure 10: A survey being conducted using the 'Well-Being' method in November 2016

This note briefly described the 'well-being' method for social survey, based on 'El Buen Vivir', method as practiced in Latin America.

Whereas social survey is often very instrumental and aloof, the well-being method creates a connection between the persons interviewed and the person interviewing. It is in fact best described as sharing each other lives for a while and mutual learning.

In the well-being method there are number of points of departure:

- Both parties are equal. Hierarchy is removed by the way one is introduced, how one moves around (taking interest in the activities in the house), body language (not sitting separately, no alienation by using note books) or the mutual asking and comparing one's lives (showing family pictures for instance)
- Well-being is the central interest – what drives people in their personal life, what are their interests, hopes and concerns.
- The social research themes are understood in the context of the lives of the people and not separate from them

The advantages of the method are:

A rich understanding of the lives of the persons interviewed

- Themes understood in the context of people who are concerned: minimising the predetermined bias of pre-defined questions and room for matters not pre-conceived before

- A personal chord is struck with more reflection and awareness and future ability to be articulate
- Creates strong authentic examples to articulate the points.

A1. Introduction

The survey should be seen as a learning visit, a mutual event. As in any visit, it may be good to bring a small gift (can be sugar, coffee for instance) to the visit – at the minimum to compensate for the hospitality and the time taken. Apart from that it is important to introduce one self and one's interest in coming here to talk and also how the discussion will be used – so that people who are busy or otherwise not interested have the opportunity to decline.

A2. Learning visit

There are three stages in the learning visit with three different types of questions being asked:

- Common human interest
- Reflections
- Discussion on the themes

A2.1 Common Human Interest

The first stage concerns the establishment of common human interest. As humans, there are many areas that touch us all deeply, whatever our background: our health, our autonomy and security and the future of our children. This we can share and discuss and exchange our experiences

A number of questions that can be asked at this stage:

- How is your health and what are your concerns?
- How do you see the life and future of your children?
- Do you feel safe and secure? Can you manage with your income?
- How do you feel from day to day?
- What risks do you see for your family?

Not all questions need to be asked – what is important is the natural flow of the conversation and the understanding that is jointly developing.

It is important to do this as equals and exchange experience – with interviewer/ visitor comparing one's own life with that of the interviewee and also encouraging mutual questions

This stage of questions established the human connection. It and also triggers thinking about what is important for one's self and the choices one is making. It also needs to the next round of questions.

A2.2 Reflections

Following common human interest stage, more reflective questions can be asked. These encourage light analysis of one's situation and that of others and give a lot of mutual of often unexpected holistic insight.

Examples of such reflexive questions are:

- How are things done
- How do other help each other
- How is your relation with members of family
- How is your relation with neighbours

- How you look at things in your life, how you look at others; how you look at yourself
- What are your roles, are you content with these
- Would you say that people help each other
- Do you think things will be different in the future?

One can also ask to give examples and relate to what is in the house or immediate environment to illustrate the points.

What is important is to listen to what is behind something out of empathy. This will often generate new perspectives/ understanding of priorities. It will help one to understand what is driving how decisions are made and what are the boundary constraints.

A2.3 Thematic Discussion

From these two stages one can move to topics that originally triggered the learning visit (road construction programme, mobility and access and environmental effects) and that one wants to understand better. One can raise these in a conversational way and see how they relate to well-being. By this time there is a good, deep understanding of each other's lives and the thematic question can relate to these interests. Best is to use of a checklist that one either has memorised or can quickly glance at. In the attachment is the checklist used for the Gender Mainstreaming in Roads research in Ethiopia.

The 'well-being' method can be used for any topic and allows one to put this in a holistic perspective.

A2.3.1 Community well-being method

The method can be used for individual survey and for community discussion. In the last case the setting will be like that of a focus group discussion. The same principles apply – though the question may be phrased slightly differently. There should also be room for discussion among the community members and in a playful way the visitor should avoid pre-prepared or propaganda type of answers or single persons talking.

A2.3.2 Reporting: storytelling and collage reporting

The well-being method is qualitative – it does not lead to tabular calculations and statistical analysis – but gives deep insights and opinions. It is important to catch the reporting – recommended is to (on daily basis preferably):

- Develop personal stories of the persons interviewed – it is good to accompany this with photos. If agreed by interviewee these can also be used and shared
- Summarise the main points on the checklist in a sheet – allowing to report with a collage of deep insights. These may also be presented as mood boards with quotes.

A2.3.3 Analysis

The semi-structured interviews and focus group discussions will make use of the checklist but not all topics will necessarily be covered or addressed at the same depth whereas some discussion will yield important insights beyond what was mentioned on the checklist – or will raise new issues.

To capture the results of the SSI and FGH the stories and main points should be used to build a menu of actionable recommendations, practical solutions, and tools for gender mainstreaming at the levels of planning and implementation of works, and in creating impact. Against each topic (on the checklist) main points are summarised per interview. These create a palette of issues and allow one to see the patterns. From this menu, feasible practical interventions can be identified and other proposals can be detected.

Annex B: Updated Workplan

Activity Grant Chart

Activity	Month 1-Oct '16	Month 2-Nov '16	Month 3-Dec '16	Month 4-Jan '17	Month 5-Feb '17	Month 6-Mar '17	Month 7-Apr '17	Month 8-May '17	Month 9-Jun '17	Month 10- July '17	Month 11-Aug '17	Month 12-Sep '17
Activity 1. Methodology Design and Research Planning												
1.1. Scoping Study												
1.2 Preliminary Assessment												
1.3 Methodology Testing												
1.4 Literature Review												
1.5 Inception Workshop and Consultations												
<i>Milestone 1: Inception Report</i>												
Activity 2. Field Research												
2.1 Field Surveys												
2.2 Interviews and Focus Group Discussions												
2.3 Photo-Voice												
Milestone 2: Progress Report												
Activity 3: Data Analysis and Validation												
Milestone 3: Multi-stakeholder workshop												
Activity 4: Preparation of Recommendations, and												

Annex C: Field Notes from Selected Interviews using the Well-Being Method

1. Shishay Haileselassie

32 years old, Mother of 2 sons and 2 daughters



Figure 11: Shishay Haileselassie clearing her field of stones

I live with my parents.

My eldest child (son) lives in Woukro (the closest town, about 10 kilometres away) with his uncle. He wants to live in Woukro.

Younger than him is a daughter. She is in the 8th grade. She lives with me. She walks an hour to school everyday. She starts at 7 and is back by 2.

I have two oxen and a cow. She uses them to farm this little piece of land (where the interview was conducted- a 100 square metre parcel), very close to her home. It's a small plot; so her family needs emergency aid from the government from time to time.

This year, my Sorghum crop got afflicted with rust. So even though this year we had better rains than the last (a drought year), the output was the same.

It's a 15-minute walk to the river and to the water pump. The water pump is our drinking water source. The river is where we take our livestock to drink water; that's where we do our laundry. We pay ETB 10 a month to use the water pump.

We get our firewood from about 30 minutes away. Besides, we cake the dung of our animals for use as fuel. We've also got a eucalyptus tree of our own. Usually my daughter collects the firewood.



Figure 12: Sorghum suffering from rust

We are not in PSNP. But we did use the government's emergency aid this year (on account of the poor yield)

This road next to my field is about 13 years old. I did participate in the construction even though I was pregnant at the time.

I was paid @ ETB 80plus 3 kg of grain, month.

Men and women got paid equally in kind. The cash payment to men was twice that to women, though.

Why? Because men can break the bigger stones. Is it unfair? No, because when we were given the chance to break big stones we could not.

We use the road to

- purchase rations
- Access health services, especially during pregnancy
- To take chicken and eggs to the market to sell them
- My husband sells sheep from time to time

We go to Woukro (the closest) urban centre with a Bajaj. We have to pay ETB 15 one way. Or we walk.

The Bajajs are not really allowed to ply on this feeder road; as they are three-wheeled and therefore quite unstable. When the policemen are lax, they let them through.

There is a bus to Woukro every Tuesday (that's the market day in Woukro). The fare for that bus is ETB 15 too. The bus also comes to the village in the event of funerals etc.

Will a bicycle help? We cannot afford one; but it is otherwise a good idea.

I know of 2 boys and 2 girls in the village who bike.

We usually go to the market, sell our produce, and then we usually have enough money to come back in the bus.

While in the market, we usually buy garlic, pepper, tomato, potatoes.

My husband is the one who buys clothes for children. That's because I do not make enough money to buy them clothes from selling chicken eggs (my husband on the other hand sells sheep). So while I buy day-to-day rations, my husband makes the bigger expenses.

Problems due to the road:

The dust. It covers our houses, and has several bad effects on our health. We often find it difficult to breathe. However, all-in-all, the road is still a blessing, mostly because it helps us reach doctors/hospitals in time when we need them.

I do not feel too well at the moment. My legs often ache. I have been to the doctor but he could not diagnose the problem. I have been going to the church to pray, to get healed by the holy water. It is helping a bit.

I am member of a women's organisation, called 'Selam.' We discuss how to improve our yield. Selam's members include 40 women and 5 women leader. We meet on the 7th of every month. We share what we know, discuss issues if any, and drink Talla.

Does Selaam help? Yes, we learn new things about things like household sanitation, child care etc.

Any People with Disabilities in the village?

Such people stay indoors the whole time.

I know of a woman who got divorced. Her daughters care for her.

As far as PWDs are concerned, relatives take care of them. Government provides aid (by way of food grains). Nobody from the community feels any responsibility to take care of them.

My parents are blind, on account of old age. I take care of them and government gives them aid.

PWDs usually don't travel.

Hopes and dreams:

I want to be able to grow trees, like bananas, oranges, etc.

I have orange trees. I want to care for them better, expand the plantation, and improve yield.

Overall, I want to increase productivity; which is growing more crop with less water.

2. Harifeya Madera, 90



Figure 13: Harifeya walking to her daughter's house

I have a son and a daughter. I am on my way to meet my daughter now. This is usually the only reason I travel.

I have never visited Woukro (the closest town, over 10 kilometres away). Why would I? My son provides me everything I need.

My daily routine includes sleeping, and sometimes going to the trees and sitting under them. I eat a bit of what my son and his wife prepare for themselves.

What changes have you experienced over your 90 years?

- We, the elderly, now receive benefits from the government. We also get foodgrains (about 15 kgs of grain 6 times a year).
- People these days incur a lot of debt, over payments made for buying fertilisers for example.

My husband and I used to sell firewood in the market. That's how we used to make a living. Now, my son ploughs the land. Out of it, we get 50 kilos of grain for me, and 50 for him. That's barely enough for our own consumption.

Nobody helps the elderly. The community does not help old people. They see that she already has relatives... so why should they?

(How does she go to seek medical help when needed?)

Once I needed to get my eyes checked. My son took me to Mekelle. He had to take a loan to be able to afford that.

Since then, heartache, stomach ache, and tiredness persist.

(Why not visit the local health extension worker?)

Because they don't have proper medicines: they only have some basic vaccines, birth control, anti-malaria pills, etc.

The Health extension worker has only been around for 10 years.

My favourite part of the year is the summer, when everything is green.

3. Wezef Asema, 35 **Bee Keeper, Entrepreneur**



Figure 14: Wezef Asema

I have 2 sons and 2 daughters. The youngest one is 10, the oldest one is 20. All but the eldest one (a daughter) live with me. The eldest daughter lives in Woukro; she is married.

My husband passed away 4 years ago. He was working when he abruptly fainted. He died immediately. What led to his death is not clear.

I have chicken and a donkey.

My usual source of animal feed is a patch of land close to my house which is now closed for restoration. So we have to cut and carry from elsewhere. Usually my children do that; every weekend between July and November.

My drinking water source is a water pump nearby. But that has been around for only a year. Before that, I would use river water.

I can source firewood from my own eucalyptus trees.

I go to the closest city (Woukro) every Tuesday. It is the market day.

I source my food/ cooking supplies from the market.

I also sell honey at the market.

I used to have 9 bee hives (they are the box-kind). 8 of them dies out due to the outbreak of a pest called 'Titgi' (could possibly be the *Pharaoh Mite*). Other beekeepers in the area were affected too. The honey I produce is called the *Girbiya* honey (a red-colored honey produced by bees feeding on cacti).



Figure 15: Some of Wezef's cactus and eucalyptus trees

To improve my economic situation further, I am planning to add to my herd of chickens, buy another cow, and get 4 more bee hives. I can finance all that by working as a daily wage labourer from time to time. I want to sell some of my 40 Eucalyptus trees. My late husband had planted some of them. I am also trying to sell some of my cactus plants; but it has been difficult to find takers.

I benefited from the government's emergency aid programme this year, because the yield last year was lower than usual.

I am still involved in road maintenance work. I am paid 3 kilograms of grain for every day of work. In road construction/maintenance work, Female Heads of Households do not get any preferential treatment.... Well actually, we do get some additional information, some extra training etc.

We received bee-hives from the government on credit (ETB 1500 for 2 hives).

As a widow, I also received 12 chickens from the NGO 'Abe-Melaku.' Unfortunately 8 of them died.

My eldest daughter lives in Woukro. She got married as she did not score high enough in high school. The next available options were private colleges, which were and still are too expensive.

I visit her from time to time. Sometimes I take the 3-wheeler *Bajaj*; often I just walk.

The main issue is money. When I can afford it, I prefer to take the *Bajaj*. The one-way fare is ETB 15. It is a 2.5-hour walk.



Figure 16: A field adjacent to a feeder road

Having the feeder road is nice; but it does have some harmful effects. The dust covers the crops in adjacent fields. We believe this can cause a rust outbreak. Children get sick with all the dust. They can inhale it and develop breathing problems. Asphaltting the road might help. I will be happy to contribute labour to the asphaltting process. Tree planting is not a feasible option as there are fields too close to the road on both sides. The tree roots will interfere with the crops; also the shade will block the sunlight and the crops will not grow well.

Of course, despite all the issues, the road is a great help on balance. It saves us a lot of time that we can then use for childcare, and to tend to our cattle. Even though I most commonly use the road only to walk alongside... the walking time is reduced as the road is smoother than unpaved ground. The road is my shop. I can just display my products by the road, and the people walking by will buy them. The road is also health. The ambulance can now reach me; and that is a big help. (How do they call the ambulance? First we try to call the ambulance ourselves, using a neighbour's mobile phone. If we can't get through, the Tabia Health Extension Worker tries to connect. If that does not work out either, we call a Bajaj. When the ambulance is available, it takes about 15 minutes to reach us.

Annex D: Technical Inputs

Technical Adviser Input schedule

Position Title	Technical Adviser	Total Number of Inputs	Indicative Input schedule
Gender Expert	Cecilia Borgia	20 days	15 Jan -25 Jan 2017- 11 days (in Ethiopia) 23-27 Feb 2017- 5 days (in Ethiopia) 01-04 June 2017- 4 days (home base)
Socio-economist	Kebede Manjur Gebru	30 days	14-20 November 2016- 7 days (home base- Ethiopia) 05-14December 2017- 10 days (home base-Ethiopia) 05-07 January 2017- 3 days (home base-Ethiopia) 05-09 March 2017- 5 days (home base- Ethiopia) 15-19 June 2017- 5 days (home base-Ethiopia)
Community Engagement Expert	Letty Virginia Fajardo Vera	15 days	15-20 November 2016- 6 days (in Ethiopia) 15 Jan - 21 Jan 2017- 6 days (in Ethiopia) 01-03 August 2017- 3 days (home base)
Social Development and Communication Expert	Abraham Abhishek	17 days	11-19 November 2016- 9 days (in Ethiopia) 15 Jan -16 Jan 2017- 2 days (in Ethiopia) 23-24 Feb 2017- 2 days (in Ethiopia) 28 – 29 April 2017- 2 days (in Ethiopia) 05-06 July 2017- 2 days (home base)

Social and Gender Specialist	Nardos Masresha Tadesse	25 days	14-20 November 2016- 7 days (home base- Ethiopia) 07-10 December 2017- 3 days (home base-Ethiopia) 05-07 January 2017- 3 days (home base-Ethiopia) 01-08 February 2017- 8 days (home base-Ethiopia) 05-08 March 2017- 4 days (home base- Ethiopia) 22-25 April 2017- 4 days (home base-Ethiopia) 15-17 June 2017- 3 days (home base-Ethiopia) 01-05 August 2017- 5 days (home base-Ethiopia)
Road Development and Transport Specialist	Frank van Steenbergen	5 days	16-20 November 2016 - 4 days (in Ethiopia) 01- August 2017- 1 days (in Netherlands)

Annex E: Revised Budget

Items					Totals (GBP)
For Component of Fixed fee					
Position Title	Expert	No. of Days Input	Fee rate		
Gender Expert	Cecilia Borgia	20	320		6,400
Socio-economist	Kebede Manjur Gebru	30	160		4,800
Community Engagement Expert	Letty Virginia Fajardo Vera	15	320		4,800
Social Development & Communication Expert	Abraham Abhishek	17	300		5,100
Social Development Expert	Nardos Masresha Tadesse	25	160		4,000
Road Development and Transport Specialist	Frank van Steenbergen	5	340		1,700
Subtotal Fee Component					26,800
Expenses Component					
Item	Description/Comment	Unit	No. of Units	Unit Price	Totals (GBP)

International travel (field research)	4 Flights	Flight	4	900	3,600
Local travel (field research)	(Lump Sum)				4,000
Accommodation research missions	Research Missions	Per night	80	50	4,000
Workshops and Meetings	(Lump Sum)				4,500
Guidance note on improvements	(Lump Sum)				2,000
Webinars (International Roads Federation or TheWaterChannel)			1	2300	2300
Subtotal Expenses Component					20,400
TOTAL (Subtotal Fee Component+ Subtotal expenses Component)					47,200

Annex F: Contribution to ReCAP Log Frame

Intervention Logic	Indicator	Source of Verification	Baseline (Date)	Milestone Phase 1 (November 2016)	Milestone Phase 2 (March 2017)	Milestone Phase 3 (June 2017)	End of Project Target (Phases 4 and 5) (September 2016)	Assumptions
<p>Outcome:</p> <p>Sustained increase in evidence base for more cost effective and reliable low volume rural road and transport services, promoted and influencing policy and practice in Africa and Asia</p>	<p>1. SUSTAINABILITY: Partner Government and other financiers co-funding research with ReCAP.</p> <p>Contributions in kind (K) and Core Contributions (C)</p>	<p>Tigray Bureau of Agriculture & Rural Development, Amhara Bureau of Agriculture & Rural Development, and Ethiopian Roads provide in-kind support: staff time for field research and validation workshops, logistical support,</p>	<p>November 2016 (Month 2)</p>	<p>Field research initiated with support from these organisations</p> <p>Kick-off workshop, preliminary consultations, initiation of field research with support from these organisations</p>	<p>Field research completed</p>	<p>Data analysis; validation of findings carried through workshops with support from these organisations</p> <p>Co-creation of guidelines, practical tools, solutions along with these organisations</p>	<p>Adoption and Dissemination of guidelines, practical tools, solutions along with these organisations</p>	<p>Continued peace in the Amhara region, which has of late been given to political disturbances</p> <p>Work by Ethiopian Roads Authority on national-level gender mainstreaming guidelines continues within a timeframe that matches with the project timeline</p>
	<p>2. Concrete examples of change (applied or formally adopted), influenced by ReCAP research that will be applied to #km of road in focus countries.</p>	<p>Practical Recommendations for gender mainstreaming adopted and implemented by road construction/ transport organisations,</p> <p>Practical tools to ease load of work identified under the project validated, field tested</p> <p>Project contributes to national/ regional guidelines on gender</p>	<p>November 2016</p>	<p>N.A.</p>	<p>Research completed, that would form the basis of recommendations</p> <p>Scoping, testing of tools carried out</p> <p>Field research relevant to guidelines completed</p>	<p>Practical recommendations prepared and disseminated</p> <p>Practical tools identified, tested, disseminated</p> <p>Recommendations for national/ regional guidelines on gender mainstreaming prepared</p>	<p>Practical recommendations formally adopted</p> <p>Suggestions of Practical tools validated, formally adopted</p> <p>Contributions to guidelines approved, adopted by government organisations</p>	<p>Continued cooperation with and logistical support from governmental implementing organisations</p> <p>Work on national/regional gender mainstreaming guidelines continues to be compatible with project timeline</p>

Intervention Logic	Indicator	Source of Verification	Baseline (Date)	Milestone Phase 1 (November 2016)	Milestone Phase 2 (March 2017)	Milestone Phase 3 (June 2017)	End of Project Target (Phases 4 and 5) (September 2016)	Assumptions
		mainstreaming						
	3. Number of citations in academic articles of ReCAP peer reviewed articles and/or working papers, conference papers etc.	Collation of citations in mid-term and final reports	(Citations since November 2016)			Citable literature produced	Citations collated and reported	Citations occur within the project period
<p>Output 1: RESEARCH and UPTAKE: Generation, validation and updating of evidence for effective policies and practices to achieve safe, all-season, climate-resilient, equitable and affordable LVRR and transport services in African and Asian countries.</p> <p>(Low Volume Rural Roads : LVRR / TS – Transport Services)</p>	1.1 LVRR: Number of peer reviewed papers generated from ReCAP supported or related LVRR research projects made available in open access format.	<i>Collation of published articles in mid-term and final reports</i>	(Papers published since November 2016)	Field research initiated	Field research completed		At least 1 (one) peer-reviewed paper produced	The peer-review process does not extend beyond the project period.
	1.2. TS: Number of peer reviewed papers generated from ReCAP supported or related LVRR research projects made available in open access format.	<i>Collation of published articles in mind-term and final reports</i>	November 2016	Provisional research findings shared in the form of blogs/short videos	Provisional research findings shared in the form of blogs/short videos	Provisional research findings shared in the form of blogs/short videos	At least 1 (one) Peer-reviewed paper made available through the ReCAP and TheWaterChannel websites	Field research process can be carried out as planned with no unforeseeable disruptions of socio-political nature
	1.3 Engineering Research: National policies, manuals,	Endorsement by regional agriculture bureaus, Ethiopian Roads Federation	November 2016	Field research initiated with involvement of staff of these	Field research concluded	Validation workshops carried out with involvement of	Guidelines, tools, solutions endorsed by	

Intervention Logic	Indicator	Source of Verification	Baseline (Date)	Milestone Phase 1 (November 2016)	Milestone Phase 2 (March 2017)	Milestone Phase 3 (June 2017)	End of Project Target (Phases 4 and 5) (September 2016)	Assumptions
	<p>guidelines and/or research outputs that have been fully incorporated into Government/Ministerial requirements, specifications and recommended good practice as a result of ReCAP engineering research (including climate change adaptation and AfCAP and SEACAP adaptations).</p> <p>To include introduction of new policies and modification to existing policies.</p>	<p>of the facilitators' guidelines, practical tools and solutions, generated under the project</p> <p>Contribution made to regional/national guidelines on road development</p>	November 2016	<p>organisations</p> <p>Field Research initiated</p>	Field Research completed	<p>these stakeholders</p> <p>Contributions to guidelines prepared and shared</p>	<p>stakeholders</p> <p>Contributions to guidelines endorsed and formally adopted</p>	Work on national/regional gender mainstreaming guidelines continues to be compatible with project timeline
	<p>1.4 TRANSPORT SERVICES Research: National policies, regulations and/or practices for rural transport services modified or introduced as a result of ReCAP research (including road safety and gender and AFCAP and SEACAP</p>	<p>Scoping study on Intermediate Means of Transport in the project area, including existing solutions and recommendations of new solutions</p> <p>Study to be carried</p>	November 2016	<p>Field research initiated with involvement of Ethiopian Roads Authority</p> <p>Field research initiated with</p>	<p>Field research concluded</p> <p>Field research</p>	<p>Validation workshops carried out with involvement of these stakeholders</p> <p>Policy impact reported in</p>	<p>Guidelines developed, disseminated, and endorsed by stakeholders</p> <p>Policy impact reported in Final</p>	Continued involvement of Ethiopian Roads Authority in project activities

Intervention Logic	Indicator	Source of Verification	Baseline (Date)	Milestone Phase 1 (November 2016)	Milestone Phase 2 (March 2017)	Milestone Phase 3 (June 2017)	End of Project Target (Phases 4 and 5) (September 2016)	Assumptions
	research) To include introduction of new policies and modification to existing policies.	out jointly by the Ethiopian Roads Authority, which implies high policy impact		involvement of Ethiopian Roads Authority	concluded	Progress report	report	
	1.6. LVRR and TS information generated for dissemination, and disseminated, that is not peer reviewed. Total to include research papers, final research reports, workshop reports, manuals and guidelines.							
Output 2: CAPACITY BUILDING: The building of sustainable capacity to carry out research on low volume rural roads, and rural transport services in African and Asian countries.	2.1. African / Asian experts or institutions taking lead roles in ReCAP Research Projects.	Mekelle University, based in Tigray, is one of the service providers in the project Tigray and Amhara Bureaus of Agriculture and Water will be closely involved in the research process, as will the Ethiopian Roads Authority	N.A.	Field research initiated with involvement of these organisations	Field research concluded	Validation workshops carried out with involvement of these stakeholders	Practical recommendations, tools, and solutions tools generated under the project, for benefit of all organisations involved in PSNP programme	Continued involvement of the Agriculture Bureaus and Ethiopian Roads Authority in the project activities
	2.3. Research projects with female researcher	2/5 researchers in the consortium are						

Intervention Logic	Indicator	Source of Verification	Baseline (Date)	Milestone Phase 1 (November 2016)	Milestone Phase 2 (March 2017)	Milestone Phase 3 (June 2017)	End of Project Target (Phases 4 and 5) (September 2016)	Assumptions
	inputs at senior technical level.	women						
Output 3: KNOWLEDGE: Generated evidence base of LVRR and transport services knowledge is widely disseminated and easily accessible by policy makers and practitioners (including education and training institutions).	3.2. ReCAP generated knowledge presented and discussed at high level international development debates and conferences	Webinar co-organised with the International Roads Federation Presentation drawing upon inception period research presented at COP22 conference side event in Marrakech (November 2016)		Presentation made at side event			Webinar organised, months 11-12	The webinar platform is accessible to participants from Ethiopia. This will be re-examined closer to the webinar date and changes will be made as necessary.
	3.3. ReCAP generated knowledge disseminated through significant workshops and dedicated training, virtually or physically, that are rated by participants as effective.	Webinar co-organised with the International Roads Federation Feedback collected from webinar participants Continuous dissemination of research outcomes and deliverables throughout the life cycle of the project through TheWaterChannel; feedback collected from audience	November 2016	1 blog+ 1 video interview with a key informant, produced and disseminated through TheWaterChannel	1 blog+ 1 newsletter on a topic related to the research findings 1 video interview with a key informant, produced and disseminated through TheWaterChannel	1 blog+ 1 newsletter on a topic related to the research findings 1 video interview with a key informant, produced and disseminated through TheWaterChannel	Webinar organised, months 11-12, Feedback collected and documented in final report 1 blog+ 1 newsletter on a topic related to the research findings 1 video interview with a key informant, produced and disseminated through TheWaterChannel	The webinar platform is accessible to participants from Ethiopia. This will be re-examined closer to the webinar date and changes will be made as necessary.

Annex G: Risk Matrix

Programme Risk Assessment and Mitigation Matrix			Very High	High	Medium	Low
Potential Risk	Risk Grading ³		Description of risk	Proposed Management and mitigation actions		
	Probability	Impact				
A. Programme Management Risks						
A1: Implementation delays due to hazards / risks at country level	M	H	<p>A number of natural and man- made factors (e.g. climatic shocks or conflict/security) could occur during the course of programme that could impact on country engagement and the achievement of objectives.</p> <p>The Inception Period coincided with a period of considerable political turmoil in Ethiopia. However, due to the close involvement of government organisations in the project activities, the project planning was always well informed of the developments and could adapt accordingly.</p>	<p>Close involvement of the Ethiopian Roads Authority, Tigray Regional State Bureau of Agriculture and Rural Development, Amhara Regional State Bureau of Agriculture, and Amhara Road and Transport Bureau will continue through the length of the project. While delays due to unforeseen developments might not be avoidable, the project can assume to continue being well-informed of the security situation as it develops.</p>		
A2: Financial fraud	L	M	<p>The improper use of resources is unacceptable and will also impact negatively on the achievement of programme objectives.</p>	<p>MetaMeta and Mekelle University will be responsible for ensuring the sound financial management of the programme.</p> <p>Both organisations have established strong financial management and monitoring systems and practices which will be tailored for use within the project. These measures will include:</p> <ul style="list-style-type: none"> - Anti-bribery and anti-corruption undertakings in all supplier contracts - No advance payments to suppliers, until there is a clear, compelling case to do so - Payments of expenses against original third party receipts - Payments of fees against timesheets countersigned by members of the project team - Payment of suppliers consistent with sub-contracts 		

³ **Probability** = the likelihood of this risk occurring despite the management and mitigation activities being in place. **Impact:** = the effect on the ability of the programme to achieve its objectives without major revision or review.

Programme Risk Assessment and Mitigation Matrix			Very High	High	Medium	Low
Potential Risk	Risk Grading ³		Description of risk	Proposed Management and mitigation actions		
	Probability	Impact				
B. Risks associated with Research						
B1. Disruption/delay of research activities due to hazards/risk at country level	M	H	<p>A number of natural and man-made factors (e.g. climatic shocks or conflict/security) could occur during the course of programme that could impact on research activities.</p> <p>The Inception Period coincided with a period of considerable political turmoil in Ethiopia. However, due to the close involvement of government organisations in the project activities, the project planning was always well informed of the developments and could adapt accordingly.</p>	<p>Close involvement of the Ethiopian Roads Authority, Tigray Regional State Bureau of Agriculture and Rural Development, Amhara Regional State Bureau of Agriculture, and Amhara Road and Transport Bureau will continue through the length of the project. While delays due to unforeseen developments might not be avoidable, the project can assume to continue being well-informed of the security situation as it develops.</p> <p>Due permissions will be taken to conduct fieldwork in various locations, and produced to community representatives in course of introduction.</p> <p>Any foreseeable delay will be reported to the project management team and methodological adjustments can be made/ milestones shifted if necessary.</p>		
B2. Bias among respondents could dilute the qualitative data/ personal narratives they provide	L	H	<p>A significant number of data points include testimonials and personal narratives. A certain amount of bias is inevitable.</p>	<p>Information from testimonials and personal narratives will be triangulated with various qualitative and quantitative data from various sources.</p>		