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Central European University in part fulfilment of the
Degree of Master of Science

Moving through the city: gender and floods at play

A case study in Sweet Home Farm informal settlement,
Cape Town



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Juliette DIXON

CENTRAL EUROPEAN UNIVERSITY

ABSTRACT OF THESIS submitted by:

Juliette DIXON

for the degree of Master of Science and entitled:

Moving through the city: gender and floods at play

A case study in Sweet Home Farm informal settlement, Cape Town

Month and Year of submission: May, 2013.

This research examines the situation of poor women's threefold role, as breadwinners, care givers and role in communities in daily survival strategies when **floods** occur in the informal settlement of Sweet Home Farm in Philippi, Cape Town. These gender-differentiated roles entail different experience and understanding of the flood hazard. As **gender** and the **city** co-generate in a recursive manner, **mobility** before and during the floods will be the focus and tool for evidencing and assessing the gender-city interactions in the context of increased floods events. To that effect, I will study the daily routine patterns of men and women living in Sweet Home Farm, developing survival strategies, gendered, both according to and shaped by their mobility, and see to which extent the environmental hazard of flooding, disrupt their livelihoods?

I will raise this question: Does environmental hazard reinforce gendered social and urban orders? And more specifically here, to which extent do floods reinforce gendered mobility in Sweet Home Farm?

1. Vulnerability to floods is not gender-neutral. Vulnerability to environmental hazard is understood and experienced differently according to gender.
2. Not only are floods a stressor but they as a matter of fact reflect human-made poor infrastructure and almost create the disaster.

Keywords: vulnerability, gender-sensitive analysis, floods, feminisms, South Africa, urban poor, mobility.

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CONTENTS

INDEX	III
INTRODUCTION	1
CHAPTER 1: THEORY	5
Focusing on women as vulnerable slum-dwellers	5
Choosing two variables for the environmental hazard and urban dynamics: Flooding and mobility	13
Shifting our focus from women to a feminist approach.....	16
CHAPTER 2: CONTEXT	18
Mobility in South Africa	18
Gender in South Africa	19
Urban poverty in Cape Town	21
Introducing Sweet Home Farm.....	23
CHAPTER 3: METHODOLOGY	26
Analytical framework	26
Case study and site location	29
Data collection	30
Sampling procedure	35
Data analysis.....	35
Limitations/error sources.....	36
CHAPTER 4: ANALYSIS	38
Intra- household: at home.....	39
<i>Productive</i>	39
<i>Reproductive</i>	41
<i>Community</i>	43
Inter-household: walking around Sweet Home Farm	44
<i>Productive</i>	44
<i>Reproductive</i>	49
<i>Community</i>	52
DISCUSSION	57
CONCLUSION	60
REFERENCES	62
APPENDICES	66

LIST OF FIGURES

Figure 1: Research question and associations sub-questions guiding the case study.	4
Figure 3: Frameworks depicting two interpretations of vulnerability to climate change :(a) outcome vulnerability; (b) contextual vulnerability (O'Brien & Eriksen 2007, 76).....	6
Figure 4: Landsat image of Cape Town and the Cape Flats (Source: Bouchard <i>et al.</i> 2007)....	8
Figure 5: Gender and climate vulnerability (UN-Habitat 2011).....	9
Figure 6: The gender, climate change and cities linkages(Alber 2011).....	10
Figure 7: Sweet Home Farm outside delimitations (left) (Source: Sacks 2012) and inside delimitations(right)(Source: Fliccer 2013).....	23
Figure 8: Research components	27
Figure 9 Two levels of analysis for finding: throughout scale and the triple role of women...	38

LIST OF TABLES

Table 1: List of interviewees and basic related information for the first session	31
Table 2: List of interviewees and basic related information for the second session	32
Table 3: List of interviewees and basic related information for the first session	33
Table 4: Main themes throughout the semi-structured interviews.....	33
Table 5: Mobility patterns and costs in daily routines of interviewees.....	44

ABBREVIATIONS

ANC	African National Congress
IPCC	Intergovernmental Panel on Climate Change
SHF	Sweet Home Farm
UNFPA	The United Nations Population Fund
UN-HABITAT	The United Nations Human Settlements Programme

INDEX

Shebeen	Illegal pub
Skollies	Criminals
Ordentlikeit	Decency

INTRODUCTION

“La maison brûle et on regarde ailleurs.”

Jacques Chirac, President of France
Sept.2002, Johannesburg Summit.

In the chosen words by President Jacques Chirac in 2002, at the Johannesburg summit *“Our house is burning and we look elsewhere.”* Such striking words are expressing what is at stake nowadays in shifting the effort from mitigation to adaptation to this warming world.

Part of the adaptation has focused on the concept of “vulnerability to climate change”. This term is used to define coping strategies as a result of a specific effort in adapting to climate adaptation. Vulnerability is defined as a function of the way “a system is exposed, its sensitivity and its adaptive capacity relative to climatic change” (UN HABITAT 2011: 5). It has been put forward as it attempts to reconcile the nature-human interactions, and therefore target at best the areas or/and populations most “at risk”. The underlying idea is to target right by identifying who and where our global warming environmental hazard is going to impact first, and hardest the areas and which population are most at risk. Vulnerability to climate and environmental hazard is determined by perceptions and understanding of the threat. How is the risk of flood in informal settlements perceived and understood? Vulnerability we will see is a scientific construct embedded in diverging discourses.

The urban poor living in informal settlements (Simon 2007: 77). They live and work in the most hazardous locations (low-lying lands.) They are more exposed both to short-term

extreme events (more frequent and severe events (i.e. disasters) and to long-term mean temperature change (sea-level rise). While their capacity to cope with this changing environment impacts is lesser (loss of income, absence of safety nets, death, injury, etc. (Dodman and Satterthwaite 2008: 69).

When dealing with urban vulnerability, not everybody is impacted in the same way when facing hazards aggravated by climate change. Various factors including gender contribute to the (lack of) capacity to cope and adapt (UN-HABITAT 2011, 81). Among these vulnerable urban poor, women are overrepresented (Alber 2011: 23; Denton 2002: 12). I argue that gender can be an informative lens to understand vulnerability in the city. Putting forward the right answers to the challenge of climate change comes first by identifying the threat, and by localizing the risk. Gender can therefore improve significantly our understanding of vulnerability.

From “vulnerable women” to gender-blindness

Sex not a variable *per se* (Clair 2012:13). So the sex of the interviewed people is of less interest than their socio-economic situations. Sex is a descriptive category and when we focus this study on women it is to perceive gendered patterns for both men and women and see the domination patterns which unveiling vulnerability and resilience potentials in this study on floods in townships.

Indeed women face multiple barriers related to gender, which undermine their capacity to cope and adapt to climate hazard: gendered roles, access to resources, and inequalities stemming from gendered social dynamics. In order to limit these barriers and, on account of adaptation efficiency and gender equity (Terry 2009: 6) unveiling how this manifold gendered order interacts with environmental hazard can potentially give an incisive insight of our understanding of vulnerability.

What I aim at is to draw a picture of vulnerability of the urban poor with a specific emphasis on the gender awareness firstly. Secondly, I aim at showing how valuable this lens can be to understand vulnerability as a concept embedded in discourses. This study will do so by exploring the conditions experienced and embodied by women in their daily survival strategies with mobility as a vantage point in the context of environmental hazard. I do not

intend to resort to an idealized, say romanticized, view of the daily struggle of women in emerging South Africa, nor adopt an essentialist approach linking nature and women's responsibilities and roles.

Bennett (2009: 19) and Lotus (2007: 43) identified that development strategies do not include gender as an important determinant of poverty. Along with the critique of neo-liberalism, they do not include gendered labour division stemming from gendered access to resource along with class and race. Also, if the gender-environment nexus has been researched on in the rural realm, it has not been dealt with enough in the urban context. Therefore with the help of the following case study in an informal settlement in Cape Town, particularly prone to flooding, I intend to depict the various layers of gendered vulnerability to the environmental hazard.

Mobility as the interface between co-constituting gender and city

One of the fundamental assumptions of this thesis includes the co-constitution of the urban and gender orders (Jarvis, Kantor & Cloke 2009: 12). Cities shape gender encapsulating the “production, consumption and reproduction of gendered norms and identities”. And vice-versa, gender shapes aspects of urban life “at home, in public and on the move” (Jarvis, Kantor & Cloke 2009: 14). Although not acknowledged enough according to the same authors, gender studies and urban studies can provide a promising field of research when being researched hand in hand. I chose mobility, more exactly daily routines commuting as an aspect of urban life of women in the Sweet Home Farm settlement. Daily routine mobility acts as an interesting point of entry into the gender-city interactions and the extent to which gendered livelihoods can be disrupted by the environmental hazard.

This thesis contributes to the bodies of literature on gender, development and environment investigating the overall question of gender and vulnerability in the urban context. I am then narrowing down this rather broad questioning by focusing on mobility as “microscope” to investigate the gender-urban interactions. And I intend to give some insights on this question by depicting a case study at the level of an informal settlement in Cape Town.

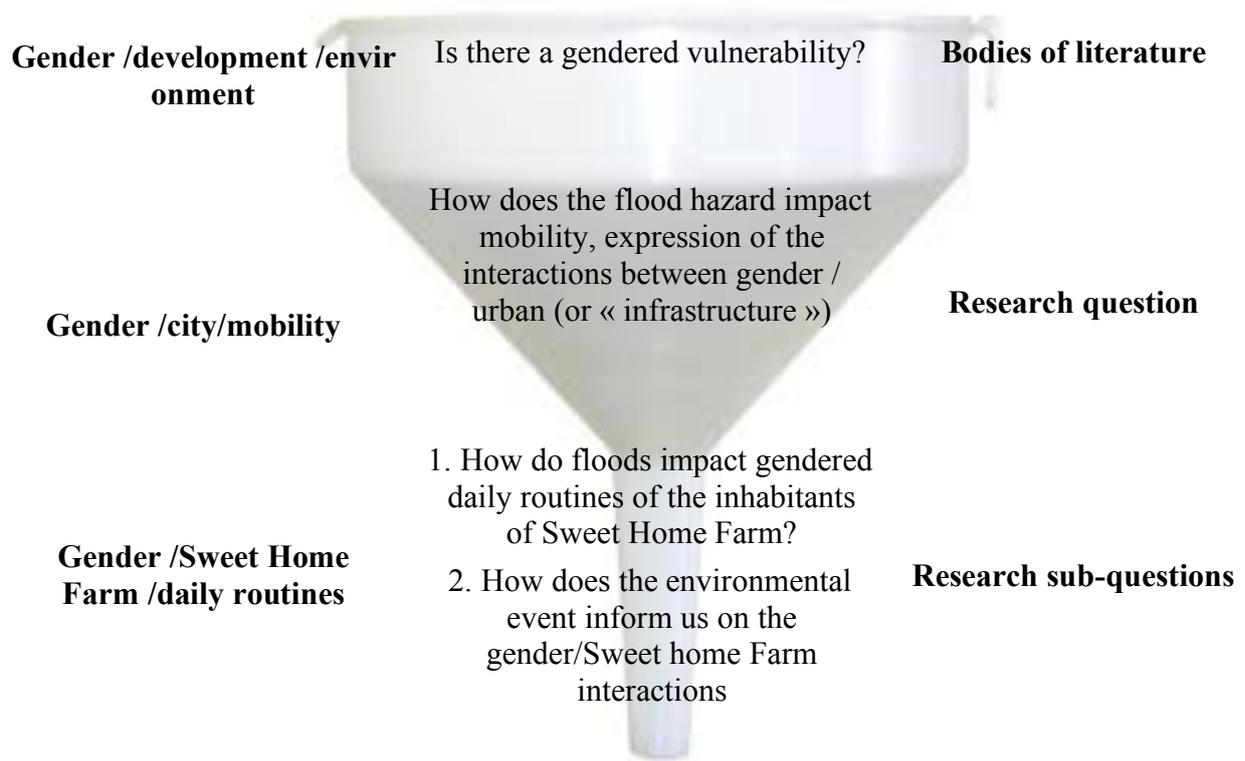
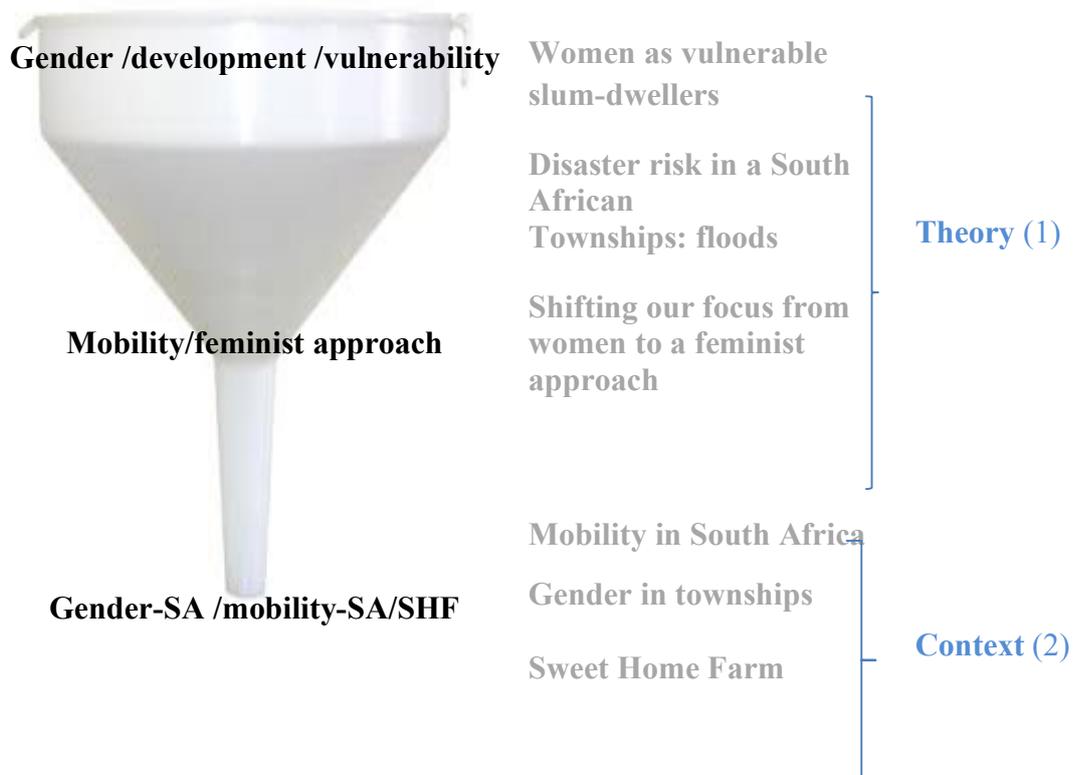


Figure 1: Research question and associations sub-questions guiding the case study.

CHAPTER 1: THEORY

Figure 2: Literature review structure and associated outline



Focusing on women as vulnerable slum-dwellers

Vulnerability is defined as a function of the way a system is exposed, its sensitivity and its adaptive capacity relative to climatic change(UN-HABITAT 2011: 5). The term itself is quite uncontroversial and widely used but unveils radically different interpretation.

Yet the concept of vulnerability is explained according to two schools of thought depending on the questions it asks.

The authors in this article for instance identify two interpretations of vulnerability through their methodology (See Figure 1): "outcome vulnerability" (scientific framing) versus "contextual vulnerability" (human security framing) (O'Brien, Eriksen *et al.* 2007: 77).

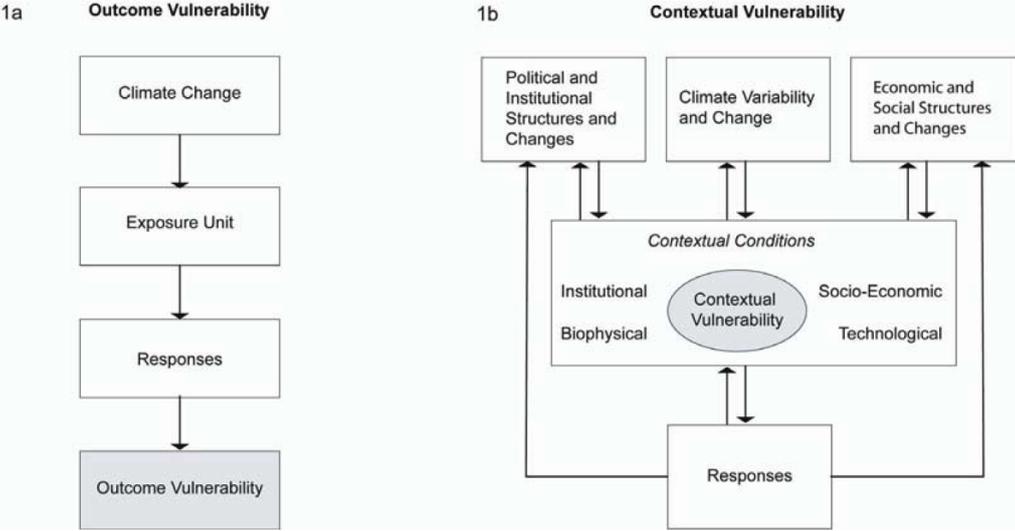


Figure 3: Frameworks depicting two interpretations of vulnerability to climate change :(a) outcome vulnerability; (b) contextual vulnerability (O'Brien & Eriksen 2007, 76)

Differing system boundary definitions do reflect various prioritisations of different types of knowledge resulting in types of policy responses. These interpretations embedded in deeply rooted and rarely radically differing global environmental change discourses are explicit in the above mentioned papers. This article offers a diagnostic tool (1) and concludes there is *in fine* no possible integrated framework, but rather two necessary and complementary issue framings.

The Intergovernmental Panel on Climate Change Third Assessment Report (IPCCC, Niang *et al.*:442) for instance “defines climate change vulnerability to be a function of exposure, sensitivity and adaptability” (McCarthy, Canziani *et al.* 2001: 12). As such, it is a largely impacts-led understanding where man impacts nature. As opposed to the human-security one which features complex institutional, social, economic interactions and relation in which society and nature are one.

A combination of multi-disciplinary combined approaches remains possible but no integration based on fundamentally differing environmental discourses. Both “contextual” and “outcomes” approaches are necessary, and even complementary but up to this day, the “outcomes” one spear-headed by the IPCC dominates the NGO- and social-movement-led contextual approach. This research highlighting gendered dynamics leans towards the “contextual” one as it is focused on social processes more than the sole evaluation of impacts.

How does one achieve an overreaching understanding of vulnerability? The extensive use of geographic information systems (GIS) in order to overlay sets of social-economic and biophysical data refers to a rather positivist view of science. It puts an emphasis on drawing spatial correlations with quantitative data mostly with the help of maps (Staheli and Kofman 2004: 32). Once again the system boundary challenges remain as well as the difficulties encountered in attempting to visualize spatially variables such as, institutional relations, social capital, etc. Finding the right scale is also determinant and results vary so widely at different scales of analysis (Eakin and Luers 2006: 374).

The plethora of climate vulnerability indexes and indicators which were promoted in recent literature by different disciplines and scholarship illustrates a great variety of answers and a certain lack of consensus (Sanchez-Rodriguez 2009: 204). More than the degree of vulnerability itself, these attempts to assess vulnerability reflect certainly their authors’ ethos and worldviews.

Vulnerability and the urban poor

The urban poor are most exposed, least resilient, and least able to cope with a greater frequency and intensity of disasters as said earlier on. They are more exposed both to the physical impacts of short-term extreme events (more frequent and severe events (i.e. disasters) and also to long-term temperature change, particularly sea-level rise. These direct physical threats put additional pressure on poverty reduction and development.

They are threefold: firstly there are direct physical impacts caused during disasters (severe events), secondly there are indirect impacts illustrated by post-disaster increased morbidity and thirdly there are macro-economic impacts or insurance and “fiscal impacts”

created by pressures on budgets (Prowse & Scott 2008: 43). The urban poor is pushed to live on wetlands for instance or environmentally hazardous urban areas (next to disposal sites for instance). Land tenure conditions do not allow them to settle down anywhere else (Dodman and Satterthwaite 2008: 68). Cape Town is situated in wetlands, there is little space available, and it is expensive. The urban poor are relegated to the most exposed to environmental hazard and unwelcoming parts of town. The areas are illegally squatted and are waiting sometimes to eventually be formalised and allow formal housing. Therefore Cape Flats displays a large spectrum of formal and informal tenure along with formal and informal housing. Also “slums” concentrate a sixth of the world population and as such as worth all our attention (Satterthwaite 2008: 22).



Figure 4: Landsat image of Cape Town and the Cape Flats (Source: Bouchard *et al.* 2007).

The areas focused on are situated in the Cape Flats, Western Cape (See Figure 6). Cape Flats reach the sea level and 65m for the highest sand dunes (Harris, Bruce & Roger 1999:16.) They display a large spectrum of formal and informal housing on formal and informal tenure. Yet, most of these informal settlements are positioned on wetlands which turns them in a particularly flood prone areas. The urban poor are *de facto* particularly exposed to danger. The city of Cape Town illustrates this significant correlation between urban poverty (land tenure and income) with the exposure to environmental hazard. The boundaries of Cape Flats almost perfectly overlay the limestone topography, more prone to floods (Davis 2006: 60).

Gender and climate in the urban context

“Gender and city co-constitute.” (Jarvis, Cloke et al. 2009: 5)

Scholarship differs on whether the design and experience of the city put more pressure on women or liberate them. However it establishes a gendered order. As a matter of fact, it describes the self-influencing relationship between gender and the city: “gendering the urban and spatialising gender” (Bondi and Rose 2003: 230). UN-habitat reports that women are more at risk in the urban because of a context of diverging roles, livelihoods, production, and consumption patterns(UN-HABITAT 2011: 53). “Time poverty” and “normative constraint restraining physical space and access to opportunities” are some aspects of urban vulnerability which are mentioned among others and detailed in Figure 5 (UN-HABITAT 2011: 54). For instance, in urban areas, women engage in informal business located at home or in their neighbourhoods, which makes them more vulnerable when floods or any weather event disrupts any of these survival strategies.

Aspect of vulnerability	Contribution to urban vulnerability	Contribution to climate vulnerability
Gendered division of labour and 'poverty of time'	Women have prime responsibility for 'reproductive' labour; lack of time to engage in 'productive' labour	Limited financial assets to build resilience and to cope with disaster events
Gender-ascribed social responsibilities	Women have prime responsibility for 'reproductive' labour; lack of time to engage in 'productive' labour	Additional domestic responsibilities when access to food, water and sanitation are disrupted; additional time required to care for young, sick and elderly
Cultural expectations of gender norms	Constraints on women's mobility and involvement in certain activities	Higher mortality from disaster events due to lack of skills and knowledge
Unequal entitlements to land and property	Limited access to productive resources	Limited ability to invest in more resilient land or shelter
Higher representation of women in informal sectors	Lower wages and lack of financial security	Damage to homes and neighbourhoods affects women's incomes more severely as income-earning activities are often undertaken at home
Safety and security in public spaces	Limited freedom to use public space	Particular problem in temporary accommodation/ relocation sites; high rates of sexual abuse and violence
Limited engagement of women in planning processes	Urban plans fail to meet particular needs of women and children	Climate adaptation plans fail to meet needs of women and children; failure to incorporate women's perspectives may result in higher levels of risk being accepted

Figure 5: Gender and climate vulnerability (UN-Habitat 2011)

These aspects of vulnerability translate from “gender division of labour” (productive and reproductive roles resulting in a “poverty of time”) favouring reproductive, non-remunerated activities over accumulation of financial assets, cultural expectations of gender norms, constraining women’s mobility for instance; unequal entitlements to land and property,

greater representation of women in informal sectors resulting in lesser household income security, limited safety and security in public places, limited participation of women in planning processes(IFRC 2010: 210).

Women experience and understand the city differently as both men and women act within the gendered structure and space left for them as agents. Gender dynamics are therefore an important variable in understanding the complexity of urban vulnerability.

Gender and climate change in the city

A major report named ‘Gender, cities and climate’ and supervised by Gotelind Alber for UN-HABITAT highlighted features the most up-to-date characteristics of the literature displaying the linkages between climate change, gender and the city. The binary interactions are known and acknowledged, the gender-city relation, ever since the sixties in the North in areas such as mobility. The climate change-city literature is also more and more abundant in many aspects. As well as the gender climate relation although mostly in the rural realm(Alber 2011: 27). However Professor Alber states that very little, let alone no research addresses these three aspects simultaneously (See Figure 2). Women are over represented among the urban poor(Moss, Wolf *et al.* 2003: 34).

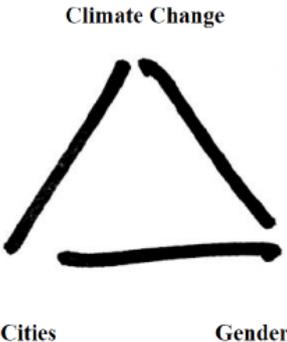


Figure 6: The gender, climate change and cities linkages(Alber 2011)

Gender in action

Moser's "triple role framework" focused on the gender distribution of roles within households in low-income households which has tremendous consequences in grasping the urban vulnerability at a household level (Moser 1989: 1808).

Literature on gender in the Third world suggests that: gender awareness consists in demonstrating the way men and women's relationships are socially constructed for they have gender-differentiated roles. These roles are strictly specific to the space and time and Moser forthright puts it "gender divisions cannot be read on checklists (Moser 1989: 1812)".

Literature on the double role of women productive and reproductive is now well established. The double role comprises of productive and reproductive work. Productive refers to "income-earning activities"; reproductive relates to domestic and care activities". Therefore most of women's work is statistically invisible (Pahl 1984: 32) of the nature of this work: unpaid labour to family, informal sector for instance.

Moser adds an additional responsibility to the acknowledged "double burden": "the community role" in the Third World countries. In the absence of adequate provision of service or infrastructure, traditionally the prerogative of the state, women endorse responsibilities of managing provision of housing, basic services (water, health, e tic.). Seen as an extension of their domestic role as mothers and wives, they organise protest groups for instance. Therefore women « implicitly accept this prescribed labour division and nature of this gender subordination » (Moser 1989:1802). "Community management" to "collective aspect of production" is also defined as the "community organisation and provision of elements of collective consumption. It covers both "category of resources (formally and informally constituted) and the kinds of social relations through which resources are produced"(Moser 1989: 1814). Both men and women may endorse these three responsibilities at the same time, but in differentiated way.

While Moser details and advocates the recognition of this triple role of women, in planning, she also underlines the importance of distinguishing "practical" and "strategic needs". "Strategic needs" refers to the feminist agenda of tearing down the subordination of women when achieving gender equality as opposed to the "practical gender needs" formulated by women themselves resulting from women's engendered position as subordinates within the sexual division of labour, expressed by basic needs such as shelter,

water, etc. (Moser 1989: 1820). This distinction will prove to be important to make when drawing conclusions from this research.

Critique and potential pitfalls of the gender approach

This literature review is also a moment to step back and be aware of how a sole gender-focused study can lead us astray; or more exactly blind to other elements. I keep in mind that “gender relations are interwoven into the broader responsibilities, claims and obligations between social groups of women and men within any given society(Kabeer 1994: 122)”. I acknowledge that being a woman, and related gendered roles and responsibilities are important dimensions of disadvantage while trying not to forget about the complexity of social interactions.

Arora -Jonsson (2011: 745) identifies the difficulties that the gender discourse may lead us into. Their discussion helps to understand strengths and weaknesses of this feminist approach. Women are firstly considered as vulnerable and secondly have a virtuous in their relationship to the environment. They also argue that this mind-set reflects a North-South discourse, and overlooks more deeply rooted inequalities and power relations. Firstly, women are allegedly the poorest, secondly endure higher mortality rates during calamities and thirdly are more environmentally conscious. Arora-Jonsson challenges these views while arguing the lack of empirical evidence. There is first no direct correlation between poverty and gender, second, disasters exacerbate already existing patterns of discrimination (not just poor and gender, race, ethnicity, employment, etc.) and third, pro-environmental behaviours may rather predetermine women as economically and socially marginal. The combination of a competing world agenda where gender and poverty have to battle to be tackled led to academia and advocacy groups to oversimplify the gender-climate relation. The author thus invites the readers and academics to put both virtue and vulnerability in context otherwise it might lead into unintentional reproduction of simplifications.

The discourse “women are vulnerable” encapsulates the essentialist pitfall which dismisses the role of gendered access to resources resulting in sex-differentiated inequalities (1) but also adds up responsibilities to the already on-going double role of both productive and reproductive (Cohen, Chaperon *et al.* 2012: 17). The gender discourse is not one. Different streams exist, the main ones are: ecofeminism (essentialist), feminist materialism, and socialist feminism, feminist post-structuralism and liberal feminism. Yet three topics pave the

way to these debates: the gendered knowledge, gendered rights and responsibilities and gendered environmental politics and economics (Rocheleu, Thomas-Slayter *et al.* 2006: 53). I am drawing from these and bear in mind that the fact that women are overrepresented among the poor for instance can orient this scope of this research but shall not be an endpoint in itself. Such simplification takes the attention away from examining power dynamics and gendered institutional disadvantages specific to the context (Arora-Jonsson 2011:746; Demetriades and Esplen 2008: 22): location, class structure, age, education, race and so on.

Choosing two variables for the environmental hazard and urban dynamics: Flooding and mobility

Which climate change-related threat? Flood hazard and risk in urban Africa

Patterns of flooding in Africa are in the process of being altered by climate change (IPCCC 2007: 445) Modelling revealed that “pattern of rare large floods is going to change much more than long-term average rivers flow. Heavy rains are predicted for instance to increase both in volume and occurrence. Extreme floods have been recorded in many African cities, particularly in South Africa”(Douglas, Maghendani *et al.* 2008,: 76). The various physical impacts of these floods in human settlements in four African cities as well as the perceptions of the risk they entail are listed and analysed by Douglas *et al.* (2008: 77). He suggests that climate change works as a multiple stressor as it “aggravates the problems cause by urban flooding that poor people in African towns and cities regularly face”.

Why a city on the African continent?

Africa is the most vulnerable continent to climate change (IPCCC, Niang *et al.* 2007: 435). Most Africans’ future is urban: 50% of the African continent will be urbanized by 2040, 60% by 2040(UNFPA 2007:155).And they live mostly in settlements (UNFPA 2007: 156). As mentioned earlier on, these slum-dwellers are most vulnerable to climate change (Simon 2007: 77).

This population, more exposed than ever to disasters increased frequency and severity has led adaptation efforts towards the focus on disaster risk reduction: “The broad development and application of policies, strategies and practices to minimize vulnerabilities and disaster risk through society, through prevention, mitigation and preparedness” (Twigg 2004: 55).

Flood as such is considered as a “small disaster”. It is a daily, smaller, more frequent disaster, which is more related to development capacity than anything else and more frequent). Disaster to long-term urban risk is a spectrum. If storms are generally considered as punctual natural disasters, floods are in the case of Cape Town more repetitive, not significant enough whenever they occur to be labelled as such, yet they remain extremely disruptive.

Mobility as a vantage point in urban-gender dynamics

At first glance, associated to a positive understanding of freedom and possibly nonchalance, mobility provides an interesting vantage point to see whether a capacity to “move around” is of importance. As Domosh and Seager remind us (2001:46):“getting from one place to another takes times, money confidence, and often some machinery of some kind – and it can also take sheer endurance and will”.

Indeed mobility results from “an outcome of various economic, geopolitical, gendered and racialised relations and is constitutive of people’s locations as social and political subjects (Hyndman 2004:88)”. As such it can be defined as “all types of territorial movements(Hyndman 2004:87)”. Migration and (weekly, daily, occasional) commuting consist in the two main core studies. I chose to focus on the daily aspects of mobility.

In developing countries, mobility goes beyond the sole study of “going to” and “from the city”, as it illustrates the pressures related to survival strategies (Jarvis, Cloke *et al.* 2009:156). The “push and pull” movements between the urban economic centre and the suburbs for commodities such as access to work, health and leisure become prescribed by one’s ability to move. From this point onwards, the following statement was observed, and shall be the starting point of this research question: the poorer, the more constrained mobility is (Jarvis, Cloke *et al.* 2009: 158). Mobility can be represented by a spectrum. At both ends, one can find for instance the high-flying business man enjoying the perks of globalised connectivity and moves at will and with efficiency and the “single mum” struggling to combine the caring responsibilities with physical and financial limitations in a series of fragmented trips tied to daily routine (Jarvis *et al.* 2009:159). These different gradients of mobility are even more acute in developing countries.

Culture of auto mobility as the *raison d’être* of urban modernity and utopia weighs on the daily routine movements of the urban poor in South Africa. While in the context of neo-

liberalization, access to commodity defines more and more social reproduction (Bakker 2007:542).

Yet if the relation between social exclusion and travel patterns is acknowledged by planners, there appears to be a lack of gendered understanding of relations between “gender, class and spatial mobility in urban studies” in the global South (Jarvis, Cloke *et al.* 2009:156). This case study therefore aims at adding one illustration of these relations at play in the Sweet Home Farm informal settlement, Cape Town.

Indeed mobility does not solely result from a presumed rational choice. It lies in a “more tacit economy of power, one driven by norms and expectations about the places particular people should move through and occupy”(Cresswell 1996). It unveils the spectrum of varying livelihoods with different degrees of reliance on daily commuting. The emphasis is put on emerging countries where livelihoods, particularly survival strategies rely mostly on daily mobility.

Mobility displays a ‘puzzle of push and pull’(Jarvis, Cloke *et al.* 2009:157) factors leading to movement across time and space. It can be represented as a spectrum including at both its extremes refugees, the homeless and high flyers at the other end (previously mentioned) (Domosh and Seager 2001). In developing country, mobility is intimately intertwined with daily survival strategy. Also is always constrained. As displayed by urban poor in which mobility is intimately intertwined with survival strategy.

Mobility can be used as a “barometer” of socio-political relations: in particular interacting race, gender and other social and power relations particularly are favoured by the feminist approach. There are different equations of agency and structure in the « political economy of mobility ». But « One’s mobility [remains] the expression of power relations, but mobility also shapes power in a recursive manner(Hyndman 2004:87) ».

I focus on routine circulation which includes daily local circulation, daily distance commuting, occasional distance commuting. Long-distance migration movements are acknowledged to understand the background and history of interviewees but is not the object of this research (as it could be the object of a study alone).

The gender-differentiated experience and access to the city (because of productive-reproductive divide but also “forbidden” and “permitted use of space”) result in lesser access

to financial assets, education, and political participation. There is a disconnect between access to transportation and women's needs: part-time work, nightscape constraints, household care-burdens, costs, safety and security. It results in less connectivity and mobility, in spite of the clear contribution of women to the urban prosperity momentum on the global South (Chant 2013).

As mobility is now acknowledged as a concept bridging urban and gendered experience, we can move on to the approach the core of the question when reviewing the following bodies of literature on feminism.

Shifting our focus from women to a feminist approach

The feminist approach

Feminism has many definitions. It refers traditionally to “the struggle for the equality of women, (...) but can be defined rather as a struggle against the multiple forms from which the category “woman” is constructed in subordination (Mouffe 1992:34)”. Less known, is the field of investigation considered progressively as a larger ground for critical studies: “analysis, experiments and efforts to theorize and remains the nature of politics and power(Martin 2004: 56).” The aspects of feminism I am interested in for the purpose of this research are: firstly the focus on the mechanisms of knowledge production, and secondly the masculine discourse on climate change –development nexus(Terry 2009:12). Regarding knowledge production, modelling of climate change-development for instance is shaped by the dominant masculine discourse. It leads to in the sheer absence of gender in understanding social issues with climate change. This produced knowledge is also disconnected from social issues (Terry 2009:7).

Shifting the object of research

This mapping of interactions between gender and the city refers much to a feminist approach of research which brings to the “foreground the silenced politics of the self”: body, the private sphere, nature, work practises to help reinforce a political map of women(Staehele & Kofman 2004:12). It is then not only the object of the research which aims at shedding the light on unspoken social dynamics but also on the way knowledge is produced while questioning masculinist production of knowledge.

This theoretical framework will be particularly helpful to go beyond the binaries, which prevent a true gender-sensitive understanding of the urban experience: women-men; residential-commercial; private-public space.

It will therefore help go beyond two major pitfalls identified by the literature on gender and urban planning which are our andocentric and westernized biases of research (Jarvis, Kantor *et al.* 2009: 24). Instead of reviewing the characteristics of the literature taking for granted that the gender lens is an asset in achieving better understanding of vulnerability, this article questions the two assumptions underlying this eco-feminist illustrated so far. I will therefore as part of the “feminist roadmap”, keep the post-colonialist bias in mind. Post-colonialism is defined in the following words: “The time following the establishment of independence in a colony and the social, political, economic, and cultural practices which arise through resistance to colonialism. Post-colonial theorists critically reflect on the legacy of European conquest, US hegemony, geo-politically uneven development and ethnocentric discourses and writing on cities, gender and development, seeking to recover agency and voice for colonized people(Jarvis, Cloke *et al.* 2009: 57)”. This trait of research will be particularly resonant and important to develop this research on the African continent.

Shifting in the method of research

This said the definition of political geography is to first and foremost study power struggle over resources(Staehele & Kofman 2004: 9). It is therefore closely focusing on issues of antagonism and distribution. Because the under representation of women is a fact, the sheer attempt of mapping women, in spite of the aforementioned difficulties remains necessary. Men in political geography have traditionally focused their attention on the study of elites, who have institutional power, typically men(Staehele & Kofman 2004:58) as opposed to feminist approaches which privileged the structures and processes producing marginality. That is the reason why this research design focusing on women experiencing gendered daily urban routine can work as a proxy to study marginalisation, as a source of climate vulnerability in the urban policy context. The way research is done becomes an end in itself, as the process of research aims to emancipation. I will detail the ways in which this approach is conducted in the methodology section.

CHAPTER 2: CONTEXT

Mobility in South Africa

Mobility is a particular interesting topic in the context of contemporary South Africa in terms of Apartheid legacy, urban development, and economic structure.

First, the ability to move and commute to the centre of the city has a particular resonance in South Africa for historical reasons: the control over the movement of population was central to the Apartheid regime and strategy (Staeheli & Kofman 2004:78). Spatial segregation and work booklets defined one's mobility, largely for the Blacks and the layout of the South African cities, and rural-urban distribution (Ross 2010:26). The Land Act (1913) and the Natives Act (1923) the first one proscribing Africans from purchasing any land outside of the reserves designed for them and the second creating residential separated areas not allowing Africans to come to the city unless for sole needed labour from the White. Containment of Black Africans is secured by the 1949 Population registration Act, followed by the 1952 Abolition of Passes and Consolidation of Documents Act: No Black African can move without a permit from the local authorities. Black Africans were therefore removed and contained in hostels at the border of the city, in townships. The 1986 allowing families to be reunited led these townships to get quickly overcrowded.

In spite of the end of the legal regime of Apartheid, the legacy of spatial divide remains almost untouched. The divide is based on location crystallising a still-up-today social divide rather than based on race. Space therefore works as a « *modus operandi* for differential access to resources »(Hyndman 2004:86).

Secondly, South Africa displays certain urban development features, comparable to the US such as urban sprawl, a largely motorized culture with suburbs expanding wide beyond the inner city adds several and additional hours to daily commuting (Bénil & Morange 2006:13). The increased crime rates and associated fear reinforce the uncontested and incontestable central role of the car as a means of transportation. This aspect dips partly into the western-

centric dominant development model and practise of moving through space. The overall preference for the car is found both in the US and South Africa. The quest for modernity is part of the western colonial rule and dominant urban theory (Jarvis, Cloke *et al.* 2009: 57). “Rural” is for example labelled as “backwards and under-developed, which refers directly to a Western-centric view. The unquestioned reign of the automobile embodies the perception of linear progress illustrated by the pursuit of economic growth and is still up-to-day in South Africa.

Thirdly, on a more economic note, the abolition of the Pass Laws in 1986 along with the de-industrialisation and increased flexibility of the job market have also had an important impact on mobility patterns. Domestic workers for instance stopped living in backyard shacks in the garden of their employers and move in on the outskirts of the city in shacks to find affordable housing (Bénil and Morange 2006:12). This created the space for a housing-job access dilemma, where most domestic workers for instance chose housing in Cape Flats with the which led for instance domestic workers’ mobility to be more scattered and extended by additional hours (Bénil and Morange 2006:14) along with an increase pressure to find housing. The land indeed available for the ever-increasing influx of migrants coming from impoverished neighbouring Eastern Cape province to look for job opportunities does not grow bigger. This issue of land tenure with a state of current housing crisis in South Africa expels the urban poor ever more inland, further from the city centre.

Also, race is not the one and only denominator defining inequality in contemporary South Africa (Seekings & Natrass 2002:3). The Gini coefficient remained stable and rose slightly in the past years. The authors deduct that intra-racial inequality increased significantly while inter-racial inequality declined (Seekings & Natrass 2002:28).

Gender in South Africa

Historical legacy of women in settlements

There is a strong sense of belonging to a place and space in townships, Apartheid denied and resisted the presence of women and their significant role against this regime in Crossroads for instance (Benson & Nagar 2006:583). African were relegated to specific rural areas (*Banthu*), denied access to the city. African were “perpetual minors”, guarded by fathers, husbands and brothers (Salo 2007: 77). Women are visible and present in protests and struggles, including in today’s “new social movements” but may not speak in meetings or hold any high positions

as inferred in this article. The patriarchal power relations pertain, women are still praised for their sense of kinship, care and support (Pointer 2004: 272). Women remain prescribed to the gendered-space of expressions and action, within their gendered roles.

As mentioned earlier South Africa illustrated the tight race, space and law relations under the Apartheid State. The colonial system secured a pool of low-paid male migrant labour-force while this same legal-raced regime ensured reinforced roles for women to take of the family confined in neighbouring Lesotho and Swaziland. This Apartheid division of labour still pertains (Benson 2009: 59).

Ordentlikheit (“decency”) and the local respectability

“*Ordentlike*” refers to the local respectability, where traditionally women stayed close to home (Ross 2010: 17). This gendered the lines of a sex-differentiated division of labour whereby women would engage in jobs directly extended from their reproductive responsibilities: house keeping, manufacturing and micro-businesses (clothing and food). This illustrates firstly how gendered spatial rules (staying in your settlements, if transgressed might be subject to sexual violence) are further embedded in local conceptions of respectability and manifested in gossip and sanctions to women’s visibility and secondly mobility, women develop routines and patterns of movement including visits to neighbours and family, water tank and to the tuck-shops and *shebeen*. Movements outside of this routine are frowned by community leaders and most residents. This is illustrated for instance by the figure of the young “coconut girl”, the Black young woman trying to adopt the norms and codes of the White middle class. She adopts the codes of behaviour of the integrated urban centres, challenge this morality by putting tight-fitting clothes, heels and go out in town, and who, in the event they sexually-assaulted, see this event as the justification of their transgression of this morality (Salo 2009:13).

Ordentlike women keep their homes tidy and neat, catered for men fold needs. No walking around from these paths. Strolling the streets can be seen as an invitation to men and entice gossip. Men have mostly access to backyard structure for instance which is supposed to be articulated with the need for privacy and also evokes the “greater social control of young women’s socialization and sexuality (Oldfield 2005: 238)”.

The “matriarchal society”

Adolescent women are supposed to be “straitjacketed into an ideology of femininity” largely monopolized by “*moeder*”, the mothers (Ross 2010: 17; Salo 2009; Benson 2009). Young women go across the social boundaries (to the city for work, in the way they dress and move across the boundaries challenge this social establishment). *Moeders* ensure the learning process of femininity by constraining young women’s mobility (1), or vilifying those who do not abide by the defined boundaries with social stigma “slut” (*Sleg*) label. Young men constrain their physical mobility therefore ensuring no relationship can be formed with men outside the community (3). This may result in tensions between young women and first generation matriarchs. The elderly are understood to be venerable persons and are far up the ladder of respect as opposed to the young, virtually invisible.

Change in breadwinner’s gender

Feminization of the labour force blurs the traditionally separate spheres of formal and informal employments, of the public, private spaces with increasing neo-liberal work environments home working, outworking and subcontracting practices. Female employment remains a key area of gender and development research(Laurie and Calla 2004:90). There is a high reliance on welfare (See Annex 1): child support is targeted at mothers (not to households), reinforcing already existing gendered order in the township (Salo 2007:24).

Urban poverty in Cape Town

Cape Flats area largely marginalized and impoverished from the economy of Cape Town. The increasing population stems from rural migration from Eastern Cape motivated at large by the possibility to reduce vulnerability by finding a job in town. Yet Cape Town’s urban economy is structurally unable to absorb a fraction of this labour influx.

Cape Flats concentrate population highly at risk of « being confined to long-term poverty traps(De Swardt, Puoane *et al.* 2005:103). Wealth and economic growth concentrates in Northern and Southern suburbs, from which Cape Flats are spatially marginalized but also fairly disconnected in terms of transportation. Therefore budget and time costs related to jobs search and job commuting weigh much in the already rather low income of 1463 rand a

month for employed household and 502 rand for unemployed households (De Swardt, Puoane et al. 2005:104).

According to the same survey conducted in Nyanga and Khayelitsha in 2005, more than « 40% of breadwinners take more than an hour to reach their workplace ». The train (40%) comes first as a means of transport, then taxi (17%), thirdly the bus (15%). For 60% of the interviewees, the return journey costs 20 Rand. Informal forms of income related to selling goods and food, although not taken in account in this survey; should account for a negligible share of the disposable income (estimated to 8%).

Even when the multiple sources of income (grants, self-employment, temporary employment) are consolidated, most household still « fall below the food poverty line of 560 Rand per adult-equivalent(De Swardt, Puoane et al. 2005:105).

Health records are poor as HIV is largely spread around, yet unreported and Tuberculosis levels run high. Health and education statistics go along the same trend, displaying the degree of poverty the population living in Cape Flats experience (see box above) low levels of education with poor health records firstly, and symptomatic diseases related to poverty secondly.

Education

- One third speaks exclusively Xhosa
- One-fifth of respondents completed “matric”?

Health

- 81% have “little food available”

(De Swardt, Puoane et al. 2005)

Introducing Sweet Home Farm

Geography

Sweet Home farm is an informal settlement, situated in Philippi, Cape Flats. 4000 schaks were reported in the last census concentrating approximately 17,000 people. It is a rather large settlement by South African standards. 16.5 hectares large, which is surrounded by Vanguard Drive(Southwest), Nyanga Junction rail tracks (East), Lansdowne Rd (North) and Duineontein Rd(West). It is situated close to agricultural land (south and west) settlements and suburbs such as Brown's Farm(East)and Manenberg(Northwest).



Figure 7: Sweet Home Farm outside delimitations (left) (Source: Sacks 2012) and inside delimitations(right)(Source: Fliccer 2013).

History

Sweet Home settlement was born in 1992, when shack-dwellers expelled from the inner city settlement came down on this previous illegal dumpsite for farming, industrial and construction rubble for recycling income generating opportunities(UCT 2009:7). The City of Cape Town gradually acquired sections of this private land with acquisitions which can be physically be traced as one walks along the alleys: infrastructure upgrading is differentiated according to different sections.

As a particularly under-serviced settlement, living conditions in Sweet Home are “appaling”(Sacks 2012:2). The area is particularly subject to fire hazard due to the supply of electricity through informal, naturally extremely dangerous connections or the use of paraffin and crime. Exposure to disease is high as water provision is irregular and open-air drains get blocked rather easily while toilets are in extremely poor conditions. This area is also particularly prone to flooding, as the center of the settlement displays a significant depression turning into a pond in the winter season(UCT 2009:8).

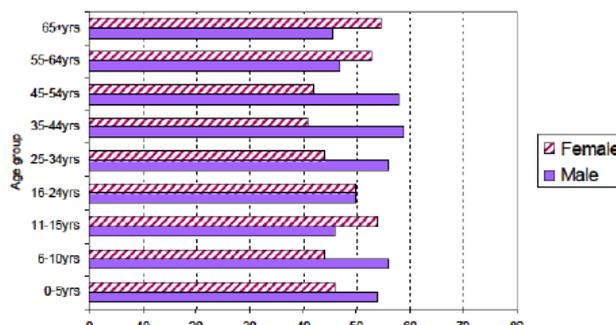


Figure 2: Sweet Home, Age group by gender (Source: City of Cape Town 2005)

Sweet Home Farm shack-dwellers exhibit characteristics of dire poverty resulting from structural violence. As illustrated in the table in Annex 1, the population is stricken by unemployment. A vast majority suffer hunger on a regular basis. Education levels are low while access to health(clinic) and to jobs(in town) and education(schools for children) is unfairly dispatched and far off. Originating from poor rural Eastern Cape, most of the inhabitants rely on multiple menial sources of income: self-employment in informal trading and services, part-time employment in services in town, then comes family and relatives support. Tuberculosis and high blood pressure, along with high rates of unreported HIV high rates show the poor health conditions of the population. One can notice that Sweet Home gender balance displays more men than women(See Figure 2) in Sweet Home¹.

Community governance history

Sweet Home farm has been for a long time been in the hand of the ANC under the rather corrupt leadership of prior leader called Forest. Until 2011 when a community chair person, Syia, not ANC-affiliated was appointed. Tensions are still running today as to who of the two has the keys of Sweet Home Farm. This competition between the two competing leaders is still palpable today(Sacks 2012:3).

¹ The report by the City of Cape Town infers that it is due to sex work out of the settlement which induces living in town, and not living permanently within the settlement itself.

Addressing housing imperatives conflicting cultures of negotiation from the City and the inhabitants of informal settlements (Drivdal 2013) was challenging in this research. Understanding the local leadership forms and how they influence and are influenced by gender took some time. For each interviewee, it proved important to know their position within Sweet Home and their “allegiance” informed for instance by their housing strategy (how they obtained a shack, who, from the community they know, etc.) during the first month when meeting the interviewees for the first time.

There is also an important role of infrastructure claims in contemporary South African citizenship: Historical importance of social movements to ask for more infrastructures in post-Apartheid South Africa (Wafer 2012:234). Claiming the access to education, or access to employment opportunities under the Apartheid regime. Today still, service provision is at the heart of claims for informal settlements inhabitants. The high number in demonstrations, (*toitots*) and toilet degradations for instance illustrates today still shows this central role of infrastructure. This is particularly true in Sweet Home as the 2011 protests showed. Service provision is central to the politics of Sweet Home and determinant in the shaping of gendered mobility.

CHAPTER 3: METHODOLOGY

How the urban context shapes gender and vice-versa. How gender and the city co-generate (Jarvis, Cloke *et al.* 2009: 35) and observe a gendered experience of the city through mobility. This study used 11 in-depth interviews (1) and participatory observation (2) along with participatory workshops on asset identification when floods occur in order to triangulate findings (3).

Analytical framework

Mobility works as the interface here, allowing me to investigate the interactions within the gender-city nexus. This approach focused on interactions distinguishes itself from past approaches in its effort to “recognize contextualization and interconnectedness as a conscious attempt to ‘map’ multiple discriminations and geometries of oppression(Valentine 2007:13)”.

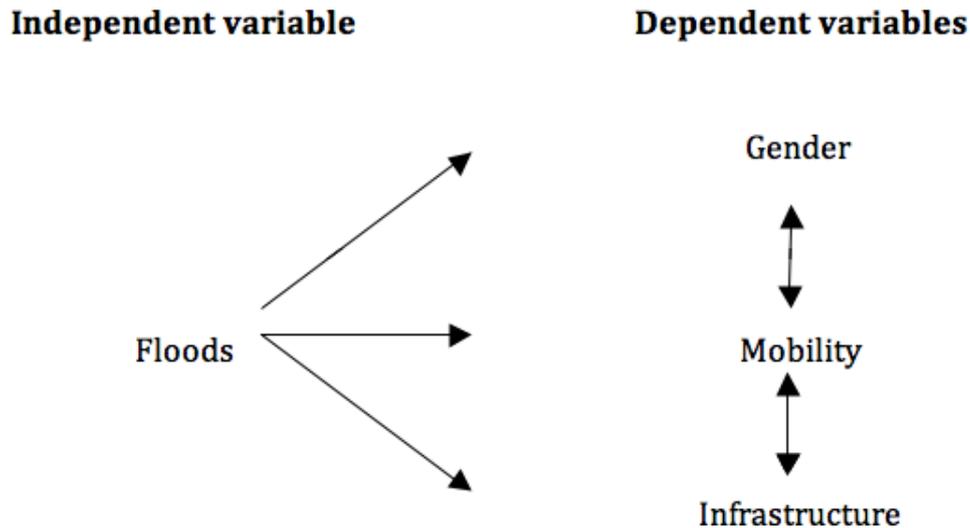


Figure 8: Research components

The aim of this study is to describe the significance of gender in the making of political geographies while emphasizing the “political” that underlies theory about “vulnerability”. This can be done with the help of a gender-sensitive lens and location firstly (mobility in Sweet Home Farm) and also questions knowledge creation secondly (with the help of situated knowledge and engagement between the world and scholarship).

The feminist approach

The focus is on processes, structures and institutions producing marginality. There are four fundamental aspects to this feminist approach: geography of positionality (1), scale (2), situated knowledge (3) and engagement (4)(Staehele & Kofman 2004: 16). I will draw upon the three first elements, while engagement with research design with the interviewees was excluded as it turned out not to be feasible in terms of time and space constraints.

Positionality: The object of my research is mobility in the gendered urban order and context of floods. The focus is on the processes/structures producing marginality 1. (Construction of political objects) and 2. Agency ability of diverse subjects to act).

A geography of positionality: “how one moves through this place firstly and how to gain an understanding of that place secondly (‘thereby gains an understanding of that place – is shaped by gender, age, (dis-) ability, family status, sexuality, race, etc. This entails geographical positionality of course but also comprises other sorts of capitals (social, symbolic, cultural, etc.) ‘colouring’ my understanding as a White, educated student for instance. Those differences may affect the features people perceive as significant or people who look and seem similar to oneself”(Staehele & Kofman 2004:17).

In order to do so, I have studied the situation and embodied daily routines (Situation refers broadly to infrastructure, temporal, and spatial capacities of provision of transportation). But also the embodied daily routine, the individual, physical, cultural, and moral limitation of mind and body(Staehele and Kofman 2004:16).

Standpoint, in the way I question knowledge production (understanding of vulnerability while highlighting the gender bias). This is reflected in the attempt to step away from the claim to universalism and impartiality, which is embedded in masculinism.

Situated knowledge is an interesting tool for political geographers in order to “produce rich analytical frameworks that explore the material and symbolic constructions of identity, power and difference in space and place(Nagar 2004: 67)”. For there is not one single objectivated truth, but multiple ‘lived realities’ as our understanding and experience are embedded in our personal values, encounters, experiences and expectations.

Focusing this research on **oral accounts** first and foremost is not just a relevant mode of collecting data. It also shifts the focus stemming from the masculinist view studying exclusively with holders of power generally throughout an event of power struggle to the ordinary and less visible actors, in their ordinary life. It is both desirable from an engaged attitude to write politics of “voice/lessness(Benson and Nagar 2006:582)”. But also because this setting provides at least as much in terms of visible and invisible powers at play (Jarvis, Cloke *et al.* 2009:17).

<i>My</i>	<i>research</i>	<i>motives</i>
I do have a clear activist agenda, which strongly directs me to work on power struggle issues.		
I am therefore conducting research, which bases itself much on participatory action research		

as my study aims at shedding a new light on gendered relations. Even if I acknowledged space and time constraints which make an ethnographic study impossible in a narrow sense, this research puts a strong emphasis on understanding the context first in order to avoid ‘dull’(Manning 2013) or “sexed-up” ethnography (Manning & Marks 2013). This will be enriched by ongoing literature review and understanding of macro dynamics, the “bigger picture” when dipping in such a micro study of a daily commuting interactions.

Urban

ethnography

This study relies mostly on accounts of lived experience as oral accounts, life histories are more appropriate to serve the above mentioned purpose(Slater 2000:38; Staeheli & Kofman 2004; Benson & Nagar 2006:583) as they are better suited to grasp the meaning and experience of mobility and its representation and understanding by different actors(Jarvis, Cloke *et al.* 2009:18).

Case study and site location

The case study

As I intend to study the Nature-Human interactions in the fashion described above, the case study comes as an obvious relevant way and scale to investigate these. Incorporating a gender lens to mobility entails a strong emphasis on understanding and focus on context. And as previously mentioned in the theoretical section, there is no systematic check-list to go through when investigating gendered relations(Moser 1989:1808), context first and foremost should pave the way of the research path. Here again, the case-study comes as the right answer to this imperative (Yin 2003:24). This case-study could be described as of the “explanatory” type as it answers to a “how” and “why” rather than a “what” question(Yin 2003:25). Also, the particular need for more case-studies as a research method to illustrate the poverty-gender-environmental hazard linkages has been identified as a knowledge-gap by Alber(Alber 2011:15).

Sweet

Home

Farm

I was offered a tremendous opportunity to get a privileged access to the field. Sweet Home Farm (SHF) has not been researched much so I did not find too much of a research fatigue

amongst interviewees. Along with Laura, the PhD student, I gained access to the interviewees, and to the place.

Difficulties encountered in the data collection

“Community development is highly-politicized”(Marks 2001:15). Researching on floods within a marginalized community is a clear illustration of this. It is important not to fall into ANC local politics for instance and understand the position of the interviewee within the community. Moreover the context of growing frustration among inhabitants resulting from little service provision provided by shifting sub-contractors (illustrated in the distress and increased crime experienced in these past few months) obviously added some complexity.

Firstly I had very much to understand quickly and secondly, to keep in mind the existing power relations at SHF when doing my fieldwork. This was a key point in order to mitigate this most patent bias, particularly in presence of an extremely informal leadership and violent dynamics at works I have tried to sharpen my understanding of this most peculiar context by putting an emphasis on asking who “the leader” was, not necessarily mentioning any position, or location to it, which was answered in various ways: along the ANC/non-ANC divide (1) embodied by Syia (one community leader) and Forest (the past and still fighting leader); according to housing strategies(2), as your contacts within SHF to have access to a shack are very telling in such a community. I had also a close look at shack upgrades (concrete-made doorstep, soil material, access to licensed electricity box, important details which tell much about the inhabitant’s status). Secondly I used one entire part of the workshops to identifying “who is important in SHF” when asking participants to identify “insiders” and “outsiders” first and assess how important they (2) in order to consolidate some intuitions.

Data collection

Clearly data leans more towards qualitative and primary data.

The interviews consist in open-ended questions, which can be modified to reflect emerging theory. Broad questions in the frame of a semi-structured interview narrowed down my area of interest (mobility). (See Appendix 1: list of the core questions and commented purpose and expected outcome). The interviews took place in roughly three rounds. (See Appendix 3: Detailed list of interviewees and background information).

The choice of interviewees tried as much as possible to reflect the guidelines described in the theoretical background as how to depict “gender”. Women and men alike were interviewed (even if in terms of number female interviewees clearly overtake), but I tried also to reflect the imperative intersectional and not become myself “gender-blind” by having sex only as the one-dimensional aspect to understand vulnerability and livelihoods. I tried to do so by selecting interviewees (not) earning a living from formal/informal economy, from different ages, different marital statuses, working mostly onsite/downtown. I trust this helped me to paint a little deeper picture of profiles and voices of the ones through which I try to understand mobility.

	Gender	Names (changed)	Age	Marital status	Activity
1	F	Andiswa	26	Single, one child	Sells chicken feet
2	F	Gcobisa	30	Married, one child	Housewife, food informal business at time
3	F	Boniswa	26	Married, one daughter	Housewife (same in following interview, different setting)
4	F	Nomkhita	49	Single, no children	Sells clothe she collects and washes (R50)

Table 1: List of interviewees and basic related information for the first session

The first round of interviews in a group on daily routine took place right before a scheduled workshop. Interviewees key information is presented in table 1. I did not want to impose or emphasize any particular aspect (access to water, sanitation, etc.). I wanted the angle to trickle down from this conversation, to stem first and foremost from these women’s concerns. The interviews helped to identify mobility as an interesting entry point to display urban-gender interactions as transportation costs, walking around and physical (lack of access) due to safety came over and over again.

	Gender	Name	Age	Marital status	Activity
1	M	Vuyo	~35	Single, with 2 kids	Groom at the staples (informal job)
2	F	Buhle	28	Married, two children	Housewife
3	F	Nandipha	26	Married, no children	Housewife
4	F	Vuyo's girlfriend	29	In a relationship with Vuyo	Employed worker at a market
5	M	Ayabonga	30	Married, one baby	Recently unemployed (before mini-bus driver)
6	F	Boniswa	28	Married, one daughter	Housewife
7	F	Nontobeko	27	Single with 2 children	Recently unemployed
8	F	Nileswa	46	Single with 3 children	Toilet cleaner at SHF (formal job)

Table 2: List of interviewees and basic related information for the second session

The second round of interviews occurred in a deliberate different setting. Key information about the interviewees can be found in table 2.

The idea then was to set up the right context for both myself and the interviewee to make the interviewees speak most and elicit detailed answers. My intention was clearly to step away from the questionnaire or systematic survey. As such, I have tried to keep my questions as grounded as possible.

So it became clear to me after the first interview which turned out to be timed and rather short (1), arranged shortly before a focus group (2), outside of their home (3), in a group (4), it was not the right setting.

9	F	Zukelwa	31	Single with children	Sells chicken on the market
10	M	Mongezi	34	Single, living with someone	Officially no job, unofficially <i>Shebeen</i> owner
11	F	Jeff	31	Single living someone	Roof cover

Table 3: List of interviewees and basic related information for the first session

This round occurred during a three-day immersion stay in SHF. Table 3 gives key information about the interviewees. I stayed all along with Buhle’s family and extended enclosed shack arrangement. I participated to the family’s daily routine and interviewed related family, neighbours and extended entourage stopping by at her shack. I made sure not to conduct any interview on the first day as I wanted to introduce myself properly and get people coming in and out of the shack to get acquainted with my presence. The second day while helping out doing the chores, I started to conduct “conversations” rather than an interview (after providing a full explanation of my research goals getting the explicit tape-recorded consent of the interviewees). Most interviews were conducted in people’s homes and most of time interrupted by people coming in.

Life stories are better suited to illustrate the details of gendered vulnerability, especially trying to unveil reproductive and community roles (invisible as non-monetary) and the embodied constraints (physical and mental) of the use of gendered spaces.

Table 4: Main themes throughout the semi-structured interviews

Origin	<ul style="list-style-type: none"> • Where do you come from? (Open enough to see how they define their origin) • How did you arrive in Sweet Home Farm? (Housing strategy, networks and capital to reach SHF)
Daily routine	<ul style="list-style-type: none"> • If interviewee has a job: transportation patterns (time, costs, any obstacles) • If at home, which neighbour, family he or she is visiting?

Floods	<ul style="list-style-type: none"> • What changes when the winter comes? To go to work? To walk around in the settlement? Anything special? Anything different from you have described me before?
End	<ul style="list-style-type: none"> • Anything you want to tell me? • Anything you feel I should know?

The third and last round of consisted of three at-home interviews aimed at reinforcing (or contradicting) findings resulting from my second round. In order to do so, I decided to interview men and women in sections of SHF with weaker service provision. As the core of my research focuses on interactions of urban infrastructure (city) and gender (experienced, embodied), I felt comparing two sections with different degrees of infrastructure within SHF could help me contrast my findings. I interviewed then a woman working exclusively in the informal economy and living in section R at her place (See Appendix 2) and two men also inside their shacks on another occasion living in section C, exposed to more significant flooding.

The focus group inspired by the participatory asset identification workshop also changed in use. Initially designed and organized to conduct a climate vulnerability assessment. It turned out to allow very little space and time for participants to detail their lived experience and perceptions. I decided to use the data collected at this workshop to triangulate it with the core of the findings resulting from the interviews and participatory observation rather than the vulnerability assessment per se.

Participatory observation

“Most time economical as the highly specific focus and systematic checking of the elements of behaviour” (Gillham 2008). Participatory observation proved to be precious in mapping out the daily routines of the interviewees. Asking about times and schedules of interviewees sounds like a rather ‘dull’ question to the interviewee while difficult to nail the reality of daily rhythms. When for instance dipping into the access to sanitation, observing when and where people go to the toilets is easier and clearer than asking formal questions about it.

Observation was also helpful in gaining a greater understanding of the context of interviews particularly see how facilitators direct answers of the interviewees.

Focus group interviews

With the help of another student working on disaster management, we carried out three workshops throughout this fieldwork. Designed to identify assets in the most participatory and accessible way, we asked mainly about the assets before, during and after the floods and attempted to pin point and rank the actors and initiatives when dealing with floods in SHF.

Sampling procedure

Participants were informed before any discussions of interviews about the purpose of the research and systematic consent was asked formally to tape-record.

As for focus groups, and initial interviews, myself and the other student doing research on disaster management were formally introduced to the community by Charlotte, a facilitator living close-by and a well-respected figure, as a pioneer in saving scheme in the area. We first paid her a visit at her place to discuss the details and organization of the research. Then we held a first meeting to inform the community of our arrival.

Only then we were able to introduce our research and reach out some potential participants.

Data analysis

As interviews were tape-recorded and systematic explicit consent was secured before each session. The resulting data was systematically coded in order to identify main themes and issues.

Triangulation was used a way to cross-check information within the settlement (by comparing section R and C with the second round of interviews firstly, and cross-check the content of the interviews (one-to-one) with the content of the workshops (group, general questions) secondly. Trends and first findings from the interviews are checked against the content of focus groups. As the shape and format of the interview may shed the light on new aspects of a question. Answers to same question in these two interviewing formats reveal other additional elements.

In addition, I wrote memos as an intermediate step between scanning the interviews and identifying trends and relevant citations coding and first draft of complete study.

Limitations/error sources

Structural limitations

Based largely on oral accounts, this study displays the classic potential pitfalls data collected from interviews: Information can be withheld and distorted. Also in this research especially, I do not speak Xhosa, which required using at times, a translator. It also may have hindered mutual understanding and data interpretation, as for instance there is no word in Xhosa for « research » for instance.

This research focuses on the environmental hazard and event of floods. And unfortunately the timeframe did not allow me to collect and compare in due time (the winter season) data throughout the summer and winter season (when most floods occur).

As far as the secondary data used in the contextual section is concerned, one has to bear in mind that as it is provided by the state, it is not sex-segregated(Corner 2005:16).

Reflecting on my positionality

Conducting such a research in a post-Apartheid context poses a few challenges. There are indeed a number of factors affecting the way in which the residents and other outsiders interact (Dereveux and Hoddinott 1991: 35). I am most likely seen a representative of academia. UCT benefits from a good reputation among people of SHF as opposed to other external actors of the community which are often associated to the City, which, in the context of the perceived lost promise of better service provision in the aftermath of Apartheid, is met with resentment and frustration in most cases. What sort of attitudes people would adopt towards a researcher? Female? I am not associated to the staff working for the City for instance.

I do not live in the area. I also might have been perceived slightly as embodying a sort of British colonizer, or the least White Capetonian living downtown I am a White, educated western student. I therefore tried to keep these concerns in mind when trying to negotiate my role. The best way to deal with the limitation is to write them upfront in my notes as acknowledging helps mitigating the bias(Laurie & Calla 2004; Benson and Nagar 2006; Cohen, Chaperon *et al.* 2012).

Ethical concerns

To which extend and how this study can influence the interviewees and the life in Sweet Home Farm?

I tried as much as I could to mitigate « gossip » in a spatially and marginalized group; opportunities embodied by researchers can indeed create tensions and draw the attention in a dangerous way. It was made clear after interviews that they would not lead to any job opportunities. (Harsh as it may sound, this was the best way to spread out the word and minimize the attention paid to us).

Safety

In partnership with the facilitators, we agreed on the “least disruptive” time to conduct our interviews and workshops. The meetings would take place exclusively in the morning, at worse beginning of the afternoon, never on weekend or close to end of the month or public holidays.

Yet, half way through study, in spite of our efforts, an unfortunate encounter of one researcher or our team with an armed *Skollies* (criminals) triggered some more thinking as how to ensure the safety of all and mitigate the risk.

CHAPTER 4: ANALYSIS

Mobility is central to gendered survival strategies, which are precarious. The rain event disrupts these mobility patterns defined by gendered roles. This perspective focused on interactions displays the space and bodies shaped by gendered orders and, provide an interesting lens illustrating the environmental event as a symptom rather than the cause of vulnerability. With the help of experiences and understanding of mobility before and during the rain event, I intend to draw a sketch of physical and embodied mobilities giving insights on visible and expressed but also invisible and not spoken-up gendered vulnerability.

This analysis is structured along two axes, essential to a thorough gender analysis: distinguish the triple role of women in the Third World(Moser 1989:1808) as expressed in Sweet Home Farm in daily routines and mobility(2), throughout scale, which is an essential element of analysis in the feminist road map and approach as seen in the literature(Staheli & Kofman 2004: 78).

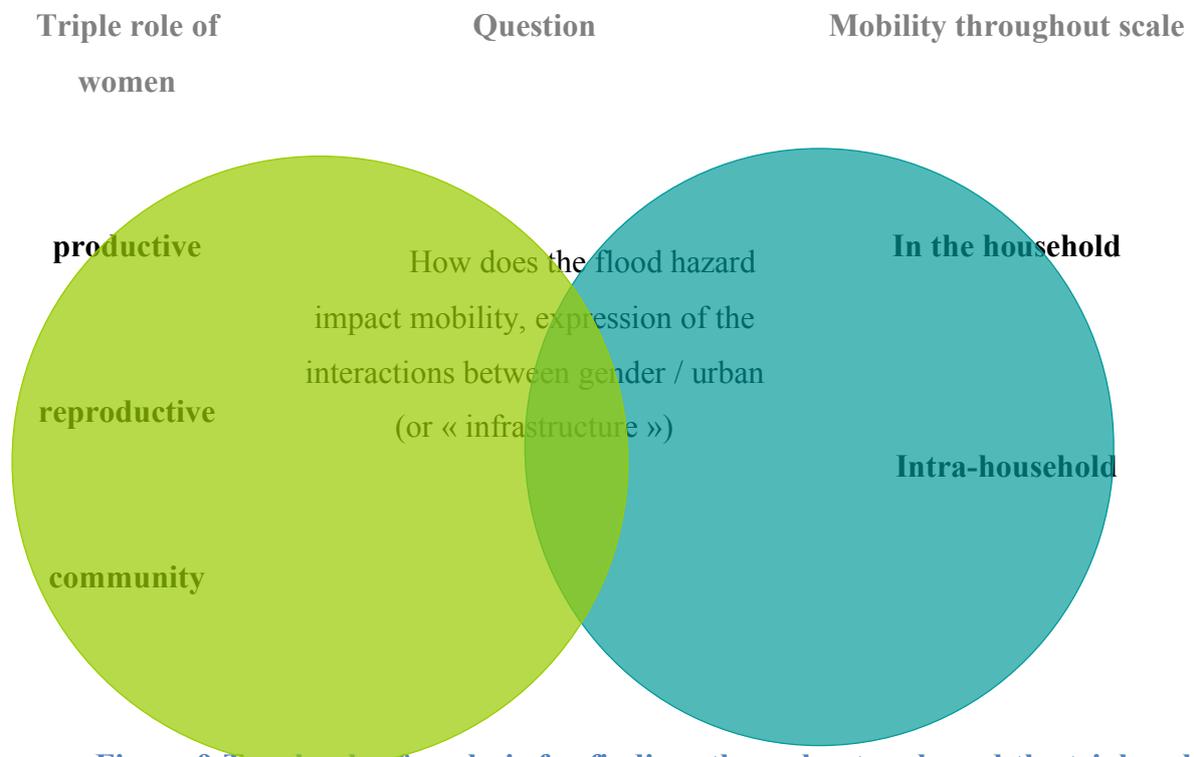


Figure 9 Two levels of analysis for finding: throughout scale and the triple role of women

Intra- household: at home

Productive

Constrained mobility to ensure survival

Mobility is the expression of constrained livelihoods, highly determines one's capacity to move around to look for income-earning activities while time, costs related and other various constraints (we will depict later) to mobility weight significantly in the household.

As explained in the theoretical section, mobility for the urban poor is constrained to the point of being experienced as "displacement" (Jarvis, Cloke *et al.* 2009:79).

Vuyo's girlfriend is in her thirties, has a child being brought-up in Eastern Cape, she explains this imperative to move: "You want a job, no job around here". Buhle, 28, used to work as a housekeeper in Camp's Bay on the other side of the national park, central to Cape Town, literally on the side of the mountain and expresses in her own words this utmost necessity: "If you need a job, you are try by all the best to get transport to go there. Because you need the transportation".

The constraint to income-earning activities is twofold: The areas where better jobs are concentrated are not in Sweet Home Farm (other than just agriculture and manufacturing), in other words are circumscribed in areas other than onsite, and the means of transportation to reach these areas are themselves tremendously challenging.

Vuyo's girlfriend walks to the station to go to the chicken market in another settlement; she explains that the means of transportation in Sweet Home (taxis and the train stations) are difficult to access: "...Nyanga Junction is far away from us. And the other one is Philippi. It's working but it's far. And the *skollies*[criminals] are too many".

And when the rain comes, one puts some plastic bags covering your body, boots on and goes.

Gendered and limited spectrum of job employment opportunities

From informal jobs, anything to most frequently micro-businesses to formal jobs, with or without contracts, long or short-term, these also reflect a gendered division. Most of the time along the classic gendered divide: Security for men, house-keeping for women.

Mongezi, used to work in security, it a fairly good position as employment continues regardless of the season of the weather conditions. Construction works for instance stops and is precarious. He is currently unemployed: « so security is a good job. Yes, for me, but now I'm not working. Is it difficult to find a job in security. Yes it's difficult because I go around looking for another job. » He also happens to informally own, a *shebeen* (illegal pub) and a grocery shop. But here again the floods impact his business very much.

Mongezi, 34 years-old, settled down in Sweet Home Farm in 2009, like most of the inhabitants of the Cape Flats, from Eastern Cape to come and find a job. He heard about an available shack and moved in at the time as a friend, in the G section, fully warned that water was coming in at wintertime having no other choice than moving in. He started to work in security in neighboring Delft for and do 12-hours night or dayshifts. These working hours required commuting very late at night or very early in the morning.

Yet in the absence of this security job, Mongezi engaged in business that he suggests to go and see a short while after our interview is finished. On the other side of the street where his shack is situated, a wooden fence is delimiting two contiguous shacks. One is a *shebeen*, these illegal pubs typical of townships, and the other is a grocery shop. Not even remotely mentioned at our first meeting, Mongezi insists on showing me around. He points to the water that comes and floods the common inside courtyard facing the two shops, when it rains, hindering any customers from coming in. Most of the time, children are sent to buy grocery, and when it starts raining, they are precluded at home, along with potential visitors to his bar.

As usual when it's dark, *skollies* pose a threat: “There a too many *skollies*. Sometimes you are scared to go there” in the first part of the interview, when talking about working insecurity and commuting to the taxi stops, Mongezi explains he used to fear for his safety. As opposed to the second part of the interview standing in his informal business estate, asked about the same *skollies*, he insists that they do not pose a threat, walking around in Sweet Home is safe.

Access to transportation is gendered as expressed in these **trade-offs in choosing the means of transportation.**

Andiswa explains, “Transport is too far. The train, the taxi.” Taxi to reach for instance Mowbray in town; stop quickly on the nearby national road one has to cross the equivalent of a national road up a bridge. In the rainy season, visibility decreases and induces more accidents. Switches train to taxi, at the expense of her transportation budget. Worked as a receptionist from 2010. Used to take the train from Nyanga junction and then moved to taking the taxi because it was safer.

Andiswa put an end to her housekeeping activity. She is 28, married, two children, arrived in Cape Town and lived in Samora all along high school until she met her husband and moved in this initially two-room shack, which eventually extended to most peculiar fenced, and collection of four shacks bound together by their relation to the head of the family, all brothers of the latter. She used to work as a housekeeper in Camp’s and illustrated how the cost-benefit choice comes in the decision to take formal job in town given the high share of transportation costs. All the money goes in the transport. In spite of all, she decided to stay but her husband objected that she must leave it: “. It uses the money. And you work and you didn’t get anything. R1500 per month and I was using R800. Yeah when I count it 800 rand a month, because if you take the train and the taxi. I use 2 transports. When I want to go to Camp’s bay, 2 transports.” And working hours from 8 to 5 and necessary transportation time made Andiswa comes late, and eventually dark at wintertime. “We are always scared that people will rob us. We can’t stay safely here.”

Reproductive

As detailed in the literature, housing strategies, primal in the post-Apartheid housing shortage and politically-charged housing realm, informs us again on gender notably how the interviewees accessed a shack in Sweet Home. Two different life paths and associated marital statuses exemplify gendered housing strategies firstly and the gendered responsibility for shelter secondly.

Boniswa, marrying, escapes from daily commuting

Marriage over informal work in the city can be a way to escape constrained commuting to the city. Boniswa illustrates one housing strategy reflecting one of the gender contracts at play.

Marriage can be a way to ensure financial stability and compliance with the local respectability. Firstly, being able to get married and pay the “*lobola*” (dowry) and as such already gives an indication in the settlement on the state of finance of each household interviewed. Secondly, an “*ordentlik*” wife, spends times at home, preferably does not work, as the man is the breadwinner.

Marrying Elvis was a relief for Boniswa, 28 years, old. She moved from Mthatha (Eastern Cape Province) aged 14, when her mother passed away and she had to support her younger sister. She was informally employed downtown selling glasses at the station for a Nigerian man until the age of 22. Working from 8:30 in the morning to 5:30, she had to walk in the dark in the winter season to the train station to Nyanga Junction. So when one day of the year 2004, when she got her bag and cell phone stolen, again. She did not come back the following morning and quit her job. “It’s better. Because I’m forced to go and look for a job. I’m staying here with my husband. He’s working”.

Clearly, working in the related commuting conditions was purely led by necessity: “At the time I was forced because I was hungry”. I don’t know at what time I am going to cook later. But now I know because my husband is working. Yes. (...) Yes I stay in one place now. And I’m not forced to move to another place. I stay. I like it. Yes”.

Marrying is a status, a financial stability, greater physical safety (with less commuting with trains, and walking to the station). Marrying also means a permanent shack, which for the case of Boniswa, moving in and out of related family’s shacks along with their own marital status and changes used to be a constraint.

Nileswa, fleeing from her boyfriend gets “[her] own place”

Within constant feeling and experience of displacement, the cement-made house is the long-awaited endpoint particularly for women.

Finding a shack is often related to the change of marital status. The one from one’s mother, sister, daughter, or following divorce, or separation as experienced for

Nileswa, (Domosh and Seager 2001), who formulated a request to the street committee after physical violence from her boyfriend. The street committee provided her with a shack placement where she finally got “her own place”. Getting a shelter for the family is an important gendered prerogative of women while access to housing remains more difficult for women than men (income inequalities, prevalent gendered-norms, etc.). Housing is an important asset, thus when secured, getting this shack was an important step in Nileswa’s life for it gave her a sense of greater stability.

She also acknowledges infrastructure upgrade (service provision and sanitation upgrade), but the idealized endpoint, is a cement-made house. The squatter camp embodies the temporary nature of their livelihoods with resulting related additional burden in reproductive and community tasks: “But we don’t want to stay in shacks. What we are willing to have is a house. You see. Because you are staying in a shack and it’s not healthy.”

Community

As reviewed in the literature, service provision and advocacy add up to women’s burden in the context of a small welfare state, and little service provision. In Sweet Home farm, this pattern is particular visible at a household level as women become responsible for basic needs provision and their daily routines are carved along these imperatives.

Buhle: responsible for the access to water

Labelled as part of the reproductive responsibilities, water and sanitation for instance explicit the community management character of women’s daily routine, therefore daily mobility.

Ensuring water supply for the entire household and for the many uses of this water: cooking, cleaning clothes, cleaning the shack, and sanitation is an entire day job. As illustrated by the daily schedule of Buhle, who luckily enough has her home right next to a water tap. Yet, the ceaseless roundtrips to the tap carrying this 30 Litres plastic container inside the house start early in the morning. When Buhle prepares her husband for work: fetching the water, boiling each litre in the kettle to prepare the bath. Then, the water for the breakfast, which dishes are carefully stored in a cupboard to be washed later in the day, when the rush of the early morning is over. Then, she prepares her child in the same fashion and gets the small Anele boy to the nearby crèche, and the same happens all over again with her baby-boy she has been

carrying on her back from the first minutes she got up. The day is a perfectly choreographed along this permanent water responsibility at home in the absence of running water.

Constrained from the inside

Women are also mostly responsible for taking the water out of the shack when it rains. Boniswa explains how she waits at home for the water to leak in by new corners, no space or time to plan anything but staying at home: “I am busy waiting for the rain. Because the rain is not coming to one place. Today, it’s coming behind my bed. Tomorrow it’s coming next to my cupboard. I don’t know where it’s raining where. That’s why I am waiting at that moment. But now I’m free I go every time where I want to go. There’s nothing I am waiting for. There’s a big difference now, there’s a big difference (Boniswa)”.

The environmental event (rains) constrains from the inside as women to stay inside because they are responsible for keeping the shack as dry as possible, **and from the outside** as most collective areas (roads) are flooded (which we will see in the further section 2.2).

Inter-household: walking around Sweet Home Farm Productive

Table 5: Mobility patterns and costs in daily routines of interviewees

	(Names were changed)	Mobility patterns	Transportation costs, and time i daily routine mobility
1	Vuyo	He walks to work and goes home for the midday meal	R2500 a month
2	Buhle	When housekeeping in Camp's Bay	R 24 round trip to town, 2 to 3 hours (walking to Nyanga Junction, train, taxi)
		Night school	Caporasha, R14 round trip, from 4 pm to 8pm
3	Nandipha	Mostly within SHF	
		Goes to the Clinique	R16 round trip
4	Vuyo's girlfriend	Works at the chicken market(formal), walks and takes the train	
5	Ayabonga	Unemployed. Just settled down in Sweet Home	
6	Boniswa	Housewife, seasonal informal food business on site	2 hours. Walks to Nyanga junction+train+walks in town
		Used to work in town (informal)	
7	Nontobeko	Used to work downtown(formal)	R 2500/month with R500 in taxi
8	Nileswa	Toilet cleaner (formal) and sells cigarettes(informal) Informal food business Informal house-keeping in town(Table View)	R80/day train weekly pass R40 and R9/single. 2 hours commuting. Walking to Nyanga (long because asthma condition) to Maitland (taxi) to Blouberg
9	Zukelwa	Sells chickens in other Khayelitsha's market	Walking to the taxi, by the robots (30 min), R20 return
10	Mongezi	Currently unemployed, owns an informal shop and <i>shebeen</i>	Mainly in SHF
		Security (before) in Delft, took the train and walked	
11	Jeff	Brick layer around (in the summer season), walks and works around.	Works in SHF around and walks around for job opportunities. "His job pays well, better than security" (Boniswa)

Access to transportation under the triple responsibility of women

As described in the theoretical section, the choice to travel cannot be understood through the sole: ‘cost-benefit’ rational choice of time as described in Neliswa’s and Vuyo’s mobility choices.

The transportation budget related to mobility to get access to health or employment for instance illustrates visible and less visible constraints. But for each situation described in Table 5 summarizing transportation patterns and numbers, these display more subtle orders and constraints related to this triple role as described more in detail in Nileswa’s and Vuyo’s mobility choices.

Neliswa, 3 jobs, 3 mobility patterns, 3 trajectories

There are so many hours in a day in spite of three strenuous roles, related responsibilities and tasks. These tasks are being negotiated against time and space constraints, which are both physical and embodied. Ndikela’s work history and understating of mobility illustrates in bright colours the many variables to her “trade-offs” **between different scales and responsibilities**. It informs us on the different work settings which resulted in different distribution among the three-fold responsibility as a worker, carer and community manager in service provision and yet, not one of these situations seems to be optimal.

Working mother of three who has experienced working from home (informal business of food), currently works as a sub-contractor for SHF sanitation for a 6-month contract) and also used to be employed in house-keeping in town. “Funnily-enough” these three different “productive” activities go along the lines of the reproductive divide, respectively centred on food, sanitation and care.

As most of Sweet Home Farm inhabitants, Nileswa left the native Eastern Cape province to look for a job. Hurried up by the birth of her first child she dropped out of school, and came to Paal with her family. By the time she reached Sweet Home Farm she had children and was living in her boyfriend’s shack. She worked first as a maid in Blouberg, Table View. The transportation costs came as a first reason to quit this position. Nileswa was earning at the time R80 a day while she had to spend to R40 for the weekly train pass from Nyanga to Cape Town main station and then R18 roundtrip taxi to reach Table View. Notwithstanding the commuting time, which amounted to two hours for each trip, single: It was work worthy. But, the, uh, uh... [*Stutters*] the reason I lost my job is the money:” Because from here [Sweet Home], it’s 30 rand a single. R80 a day [for the job]. So I say this money is not enough because most of the time I use it for the transport. She identifies herself

her reproductive role as a mother and carer being jeopardized: “So my kids are suffering from school so it’s better to stay and do something. If I can”.

The tasks involved from the productive role come in this situation at the expense of the reproductive and community tasks. Nileswa mentions the on-going pressure, feeling failed in endorsing these roles: “That’s why I leave the job. Because I saw now. It put on pressure now. When it comes to my mind, I... Didn’t see the money, you see, but I’m working every day”.

Her previous employer discovered the violences perpetrated against Nileswa every time she would come and work covered in bruises and with a swollen eye. When she quit the job her employer bought her a fridge to help Nileswa embark on her new food-micro-business based on cooking chips and meat-based snacks and selling sweets and refreshments. She encapsulates the instability of income related to informal job: “It’s better! Because I’m not taking [transportation] ... It’s better but it’s not better. It’s better because I can provide *something*, you see? [*Chuckles*]. And business (...) So maybe the other day nobody is coming and buy.”

Then her fridge broke down. Luckily enough she found a job locally as a cleaner for the sub-contracting company employed by the city to clean the drains, manage the toilets and monitor water taps. This job is a rather good position, she does not have to commute while benefiting from the perks of a formal contract-based job, but for only for 6 months (the positions rotate as these jobs should benefit to the greatest number). So again the pressure and stress related to planning the future when still responsible for three children are born in mind at all times:” You see, my, my contract is nearly finished now. So I have to think what I am going to do. You see?”

Again, rain crystallises the difficulties and related mobility patterns of each type of employment. As a maid, she would feel compelled to stay around in the shack to ensure that the water is not flooding her belongings, or that her shack gets broken into. As a micro-businesswoman, she would not be able to fetch the necessary meat to make her snacks, notwithstanding the sheer absence of customers as her shop is made inaccessible by flooded paths. All these situations lead to the same challenge: “You stay and at the end you don’t have something to eat.”

Buhle, puts an end to her maid activity

Buhle (28), married, two children, arrived in Cape Town and lived in Samora all along high school until she met her husband and moved in this initially two-room shack, which eventually extended to most peculiar fenced, and collection of four shacks bound together by their relation to the head of the family, all brothers of the latter. She used to work as a housekeeper in Camp's and illustrated how the cost-benefit choice comes in the decision to take formal job in town given the high share of transportation costs. All the money goes in the transport ? In spite of all, she decided to stay but her husband objected that she must leave it: "It uses the money. And you work and you didn't get nothing. R1500 per month and I was using R800. Yeah when I count it 800 rand a month, because if you take the train and the taxi. I use 2 transports. When I want to go to Camp's bay, 2 transports." And working hours from 8 to 5 and necessary transportation time made Buhle come late, and eventually dark at wintertime. "We are always scared that people will rob us. We can't stay safely here.

Vuyo, groom around around Sweet Home

Vuyo, 35 years-old man has a job on the Philippi Training center as a groom and rider. He has to clean the boxes, fill-up the water buckets for the horses, feed the horses and train them. He works from 5am to 10:30am and then from 2:30 pm to 5:30. He earns « peanuts » R500 a week, « No signed contract but if you make a mistake, and you have to sign ». His job is like « gym ». **Vuyo can walk to his job and come back home for lunch break, which saves on the transportation budget.**

He feels deeply threatened by *skollies* having to walk alone so early in the morning when it's dark. « If you are alone, the *skollies* will catch you. They take everything, phone, and shoes. ». He started riding horses in 1991, got his back injured: « My body is going down ». Vuyo is also HIV-positive: "My blood is dirty." He is hoping to get a driving license to drive a taxi.

Vuyo resents the little understanding and flexibility offered by his employers: « If you have a problem at home, he [boss at work] does not believe you. ». Vuyo mentions difficulties related to *skollies* and floods. « If your house is burning, they say you're a liar ». If the water gets inside, you are responsible ». Vuyo concludes « It's difficult to plan ».

Informal employment is highly precarious.

In the winter time, some accesses to employment are impeded by the rain. Business, because cannot produce the thing (cook chicken), no customers anymore (no people at the market). “There’s no business, there’s no money”(Zuklewa).

Tell the story of the woman living in section R (Zukelwa). She cooks chickens. Commutes to get the chickens, prepares them a day before early in the morning or then commutes to a market of a neighboring township. “There’s no business, there’s no money”. Because cannot produce the thing (cook chicken), no customers anymore (no people at the market).

« When it’s raining, business stops » (Andiswa)

Reproductive

Walking around is a gendered social practise

Walking is a social practise and as such is subject to be the social control, itself also shaped by gendered orders. It is sanctioned by (lack of) respectability in case the code of conduct is infringed. As identified in the theoretical section focused on respectability in townships, a righteous, respectful mother, wife, daughter stays preferably indoors. The contrary entails gossip, social pressures such as explained by Vuyo’s concern about his girlfriend. In our interviews he tells me that he suspects her to cheat on him, because she is walking around in Sweet Home. The social sanction is immediate as expressed through Vuyo’s understanding of her mobility: She is a « slut ». He has to have an eye on her because « Old guys are laughing at me ».

Conversely, the respectability in Sweet home Farm and related gendered expectations for women invites women to have a clean home and household, tasks which preclude women to an indoors daily routine.

Shifting labour division

The post-Apartheid Capetonian economy has witnessed significant changes in the nature of its economy, focused from now on, on services and manufacturing. Women become more and more the breadwinners within the household. From a secondary income, the

multiple revenues of the working women become the main and primary source of income. Yet the gap between the “respectable”(Salo 2007:29). Xhosa woman-mother-wife and the actual reality of female primary-income earners is widening. This results in the situation such as the one described above, Vuyo’s girlfriend, walking around, working, who gets pointed at and which behaviour gets sanctioned by men.

Running an errand in Sweet Home requires planning

Even at daytime, going for a stroll in SHF supposes minimum planning, Nandipha details the procedure: “Look if you want to go to other sections. You must leave the phone in the home and the money. Because if they [criminals, *skollies*] see you answer the phone, they will take the phone. And take your money. And then they must go.”

Here again going shopping for instance, even at the daylight is jeopardized in the winter season. The nearby supermarket requires women to cross the rail tracks on the eastern part of the settlement. Going past the railway station, favored location by criminals puts them at greater risk.

Constrained and confined inside by the “outside”

Less money coming in, more money coming out in the winter. The understanding of enhanced vulnerability during the winter season and associated floods is gendered as it highlights each gender’s most practical needs themselves defined in the boundaries of their roles and related tasks. Boniswa recalls how her main fear “When the winter comes I’m scared because I know it’s a tough time for me”. Three elements come again as redundant shapes of a fear: water coming in the house, children’s health, decreased incomes and greater exposure to petty crime.

The house getting all flooded

Nomkhita, 49 years old, goes to Hanover Park, nearby settlement and sells clothes once washed for R50 a piece. She details the different costs related to her activity: cost of soap and R9 for the taxi. She proudly explains how with her boots, in spite of the rain, she walks around everywhere although **she is constantly worried about her house.**

Children get sick

Women are more in charge of children, gendered division of labour within the household which is reflected in their perception of vulnerability and the consequences associated to the rain: children sickness is their primal concern Boniswa, mother of one daughter, prone to asthma crisis sees her condition worsen with increased humidity in indoors:” And my child also when comes the winter, I have to, to, to, manage to get some money for my child. Because my child, she has a chest problem. In the wintertime, that chest problem comes. It’s worse.”

In this context of rain, mothers’ role also includes constantly looking after the children and pay particular attention that they do not go out and touch the water leading to likely water-born skin disease or keep the children as dry as possible within the shack as the likelihood of a respiratory disease increases.

When eventually, a disease appears, women are responsible for taking the children to the hospital, or to the mobile clinic when available. Some do not go because they cannot afford the doctor, or even the taxi to get there. Gcobisa, 30 years old explains that when heavy rains occur, it is very difficult; the crèche is too far, so children stay at home. While she is in charge of getting the water out, the husband needs to fix the house. Flu eventually gets to a member of the family but she does not have money for the taxi to get to the clinic. Same goes for Zukelwa who explains the trade-offs she makes in terms of mobility: “It’s possible to go to the clinic but at that time the money is not enough for the taxi. I’m supposed to go with my legs, my feet. When I come back maybe I’m going to take a taxi”.

Gendered spaces

But crime still tops the agenda in Sweet home farm, as expressed by Nontobeko: ”Sometimes you get sick because of these leaking rooms. So it is a problem. But the biggest problem is crime.”

This results in almost a real “geography of fear”. According to Vuyo’s girlfriend, reaching the train station is the moment when one’s most at risk: “So once you reach the station, there are some people and you are fine (...) But trust no one. Because the *skollies*[criminals], you don’t know who these guys, maybe *skollies*. You think they are going to work and they rob you (Vuyo’s girlfriend)”. Being alone is perceived as an invitation to be mugged or harassed.

And again women are more exposed to this violence and harassment, according to Buhle: “Women. Yeah, also men. But especially women”.

Skollies[criminals] as an ongoing threat are underlined during winter. Streets are less frequented, night falls earlier which makes the same shack-dwellers more prone to be attacked: “Summer is better, because when it’s winter, it’s dark, you see. But in the winter time it’s dark past 6 and the *skollies* are waiting to take our phones and my pay, my money you see (Vuyo’s girlfriend).” Nandipha confirms this trend: “They rob more than like now”.

This geography of fear finds illustrations in space but also in time. The span of both dimensions reduces as night falls earlier, and rain expels the passers-by off the collective spaces: “Because it’s winter time no. If you come at that time, it’s not right. There are a lot of *skollies* (Vuyo’s girlfriend)”.

Weather events coming along with the winter means are synonym of decreased visibility, and greater exposure to criminals and collisions with trains on the rail tracks and vehicles on the road. Coming back from the taxi from town in the winter having to cross the rail tracks from Nyanga station, because of the winter blizzard “the cloud” (Nandipha).

Community

Health and savings

Some savings’ groups do exist and are managed by women. But these groups require high level of trust and a legacy, which enables them to build on past learning processes. Most of the women interviewed in Sweet Home are or have been participating in the past to saving’s groups. As Nileswa explains: “Yeah but sometimes, It’s not working because you save the money. Every month, you go there, put the money. But at the end, maybe some, one or two women (*snaps her finger*) goes with that money. You’ve got nothing.”

The Health Club was also mentioned by Boniswa focused on increasing prevention and sanitation awareness actions and led by Charlotte along with the help of an American NGO. Charlotte has a strong history of community involvement and who in spite of not being part of Sweet Home is highly respected. As one of the first woman able to build concrete- made shack with the help of her savings within a savings’ group.

These groups are illustrations of this additional burden to women, resulting from lack of service provision, traditionally endorsed by the (welfare) state. The initiatives are mentioned more than studied in depth, as they would deserve an entire thesis to themselves. The point of this section being, to draw the boundaries of this triple role more than dig into each one in details.

Caring for the elderly

Here again, women endorse the additional role of community management. The elderly for instance needs more support than ever. Here again caring for them consists again in an additional burden from the ‘moral economy of the household and kinship’ of women. When it rains Buhle checks on the lady living in the section close by to Boniswa’s that she gets enough water and food.

Yet most of the time, it was mentioned several times that the winter season is also synonym with far lesser social interaction and with the neighbors and family. The looming danger posed by criminals, the flooded roads filled with waste, topped by the fierce disdain of South Africans for the rain see the sense of community sort of being challenge.

Living in the sheer absence of infrastructure, service provision

Rain means the disappearance of collective areas, shacks become small islands as roads and paths become covered in water. The whole settlement becomes a peninsula both in physical and embodied terms. As such section R, again, provides insights on how the absence of infrastructure widens the boundaries of the responsibilities given to women to ensure survival.

Zukelwa, 31, is single, mother of two. She lives in **section R, the section that does not exist as “They do not belong here (Boniswa)”**. If formality and informality form a spectrum, Zukelwa is on the very other side of it, leaning towards complete informality. She lives in an informal shack, on an informal land (not part of the recently acquired land for the inhabitants of Sweet Home Farm acquired by the City).



Figure 11: "flush toilets"(above) and "blue toilets"(below) (Source: Fliccer 2013).

This area works as a bright contrasting “test experiment” of what the sheer lack of infrastructure can mean in terms of vulnerability to environmental hazard.

Squeezed between the very rail tracks and the legal delimitation of Sweet Home, these shack-dwellers do not have any “numbers”, in other words, their arrival and shack has not been registered by the street committee and therefore not acknowledged, neither eligible

for any future upgrade in any ways. The inhabitants of section R are the expression of informality in this recently formalized settlement with informal housing. There is not the slightest trace of infrastructure, no access to water, but water is secured from the taps situated in the legal part of Sweet Home; no blue toilets, no drainage.

Zukelwa’s daily routine starts before the crack of dawn, when she wakes up at 5, prepares her child for school, prepares the meat, then takes a taxi on the south eastern part of Sweet Home. That is the moment she dreads most.”When you go, you don’t go alone, because it’s not safe.”

So having this micro-business with these other women is good for business but also for safety reasons. Organising groups in order to commute mitigates the exposure and therefore the risk posed by *skollies*.

This level of the soil is slightly lower than the rest of the settlement, so this area is more prone to flooding; the nearby crumbling shacks suffer from landslips. With her neighbors and her sister, Zukelwa works together to sell chickens. When one strolls the alleys of this area,

Figure 10: Water tap in section H (Source: Fliccer 2013).



women are sitting outside their shacks, bent on their basins, cutting, washing the meat. When it rains, Zukelwa cannot keep the fire necessary to cook the chickens she sells burning in front of the rail tracks. So business stops before even reaching the marketplace, ” There’s no business, there’s no

money” . When it rains, her brother drives and picks her children otherwise they would get wet and be sick, but the water runs so high that his car cannot reach the shack, so children do not go to school.

When the water has reached a certain level, she cannot stay in the place any longer and relies on her brother living in Khayelitsha, she brings the TV in the car, some clothes and herself and her children will live at her brother’s for a short while.

In case of emergency, Zukelwa, living in section R, has no one but herself to count on in order to ensure alternatives, not the City at least. As the land belongs to the Metrorail and is adjacent to the rail tracks, there is no possibility of the tenure of this land being ever formalized. “(Boniswa) When we call this, we call this an ‘intersite land’. There’s no councillor come here. There’s no one come here. And when there’s flood, there’s no one come here. There’s no one who came to help them.”

Zukelwa calls her brother, who hosts herself and her children for some time. She relies on her network and has to fulfil all the responsibilities of service provision, all made far more difficult in the context of such a degree of informality.

Endorsing service provision: Gendered access to sanitation

Toilets are in Sweet Home Farm the perfect example of both physical and embodied gendered access to sanitation at an inter-household level. A divide appears upfront when entering Sweet Home, the sections provided with concrete-made toilets and the “blue toilets”. The flush toilets, public and provided by the City, embody the upgrade in infrastructure, and are attributed to areas high up on the formalizing agenda of the City. They feature a status and associated sanitation standards. They allow some privacy firstly and secondly cannot be removed (displaced at will like blue toilets are at times). As opposed to the “blue toilets”(See Figure 11) which incarnate the precariousness of informal housing and tenure as they can be moved around, can be opened at will, anytime, get easily clogged. Vuyo depicts through his frustration touches upon the main issues associated to these toilets: ”Look at this. These toilets. They are smelly. No keys. Flies. Dirty. People get sick “, in other words, health concerns, privacy and safety along with dignity. This difference results in sex-differentiated experience of access to sanitation which is shaped by the nature and access to infrastructure.

If women having access to flush toilets (See Figure 11), identify the nightfall as the time and space constraining the access to sanitation, the ones with “blue toilets” are more exposed to harassment, potential attack and diseases. Toilets in section R encapsulates the climax of gendered vulnerability. There is about no sanitation infrastructure, women go and defecate behind their shacks along the rail tracks. As opposed to other users mentioned above, the sheer lack of privacy leads them to go preferably in groups and in the dark, so as to ensure a little dignity. Yet this increases the exposure, as the night is just more dangerous. The women in section R have to trade off privacy at the expense of their safety, as the numerous mentioned sexual harassment and aggression events show.

As level of infrastructure decreases, the access to sanitation reveals a sex-differentiation. In the presence of gender specific needs, the divide throughout this span of decreasing sanitation infrastructure reveals a wider divide in both physical and embodied access to resource in terms of: safety, security, dignity, health and privacy.

DISCUSSION

These photographs of gendered vulnerability at different scales (inter-intra household) and according to the triple role of women show firstly how the environmental event perceived as a source of vulnerability. This also shows us secondly that floods act as a symptom of vulnerability and reinforces already existing vulnerability.

Now is time to draw from the analysis to ‘talk’ to the main issues identified throughout the initial literature review: first, women as vulnerable slum-dwellers; second, floods as a ‘not-so-natural’ disaster, and third the feminist approach as a tool to identify better resilience opportunities.

Triple role underlined by the environmental event



Figure 12: Blocked drain in section G in March (summer season) (Source:Fliccer 2013).

Mobility displays a game of push and pull for these urban poor, among which women, have the smallest choice left. Environmental hazard acts as a highlighter of this vulnerability, both as a palpable reality (gendered access to resource) but as a construct (triple role).

In other words, **women are vulnerable not because they are among the poorest for instance, but also because their manifold roles in society** (the construct) weights tremendously. The additional burdens attributed to their gendered role are a strong reason for the greater gendered-vulnerability.

In ‘productive’ terms, more women work in informal jobs, so their livelihoods are more precarious and subject to weather change while endorsing greater responsibility. In ‘reproductive’ terms, the time and tasks related to mostly non-monetary activities of care

within the household bite in the time and space available for productive activities first. Then the ‘community management’ responsibilities add up to this double burden. These three-layered responsibilities constrain women, in gendered roles themselves shaping the limits of their own agency. Women act therefore in this space and time left for them to maintain their daily survival. Their patterns of their daily mobility gave bright examples of these constrained space and time. Gender acts then in the context of the environmental hazard defines some boundaries and restricts particularly women’s mobility and capacity to respond to such a stressor and adds a layer of restrictions within this confined place left for potential resilience.

Floods in SHF: from the punctual ‘natural disaster’ to the long-term lack of planning

If the environmental hazard of winter season rainfall underlings rather is the source of vulnerability, what is? Inhabitants of Sweet Home, women and men alike identify the winter with “difficult times” for the reasons described above, but some of them also acknowledge the structural aspects of vulnerability, when being asked what a “good job” is, a good position for shack, and identifying assets. Boniswa and Ayabonga understand how the grey water lies on the street regardless of the season and point out the poor drainage system: “ If floods or no floods, It’s always blocked”(Boniswa); “It’s always like this. It’s a *big* green water. You gonna see”. Nileswa knows that the water comes to her shack from the floor, because most settlements are situated on wetlands. Mongezi and Jeff knew their shacks were leaking when they initially moved in, but here again; there was little choice for any other alternatives. Broader structural social dynamics (Apartheid, tenure, (lack of) employment opportunities to mention a few) are powerful determinants of the vulnerability of the urban poor and reduce the scope of their agency. These above mentioned examples show how both female and male agents here acknowledge the reasons of their own vulnerability: poor drainage system (See Figure 12), lack of waste collection, the nature of tenure, etc. Yet they also understand there is little they can do about these structural limitations. I believe this case study also helped inform the literature on disaster management on one point: the flood disaster may be natural in the sense, that increased rainfall leads to floods in a wetland. Yet that most conditions leading to the disruption of livelihoods, are related to the lack of human-made infrastructure. This case study focused on the triple role and across scale reminds us that most environmental disasters are human-induced and that the environmental hazard works as a stressor of these

structural weaknesses in planning, and social dynamics generating exposure to risk along with little capacity to respond to the risk.

I trust the depiction of gender orders as an experienced reality and resulting from socially constructed gender roles detailed in this case study proved that the environmental hazard, flooding, is a stressor, and certainly not the initial source of vulnerability.

The rain as a symptom, not the cause: from practical to strategic gender interest

In order to make this case study relevant and purposeful, conclusions should be drawn and given directions as how to use them. Too often, practical needs, such as illustrated in this study have been acknowledged at the expense of women rather contributing to the improvement of their situation. Women are painted as victims in the worst case and as heroines in the best case but when making this triple burden a given dimension and then reinforced. This triple burden is to be acknowledged, as “practical needs” (Moser 1989:1808), as such recognizes women’s roles and contributions, which has long remained invisible. Some improvements and action can be taken in a wide range of realms in order to meet these practical needs, this is gender awareness in the first hand, and gender mainstreaming in the second.

Yet, gender is not cast in stone. May there be no misunderstanding as how to understand this case study. Practical needs is not an end in itself, it shall lead to questioning the mechanisms of the fabric of gender and social reproduction, such as illustrated in the urban poor and vulnerability picture. Therefore “strategic gender needs” (Moser 1989:1808) should come next, as a step towards identifying the “bigger picture” and therefore enhance potential for resilience as needs (also gendered) are better acknowledge.

CONCLUSION

Climate event brings gendered vulnerability at its climax

This triple role reviewed at different scales enabled us to go beyond the victimizing and mostly essentialist view of “women, as the poorest of the urban poor”. Women are indeed more at risk because of sex-differentiated access to resources, and material inequalities, but this case study enabled first and foremost to depict the social construction of gendered vulnerability through the triple role assigned to women particularly in the Third World countries.

For this “sketch” attempted to show how the fabric of gender is manifold and is produced and nurtured at different scales.

It therefore points to a gendered vulnerability *de facto* as displayed by women’s experience of mobility (1) and a gendered vulnerability in the making as illustrated by the understanding of the disruption of gendered precarious livelihoods (2), which contours are underlined by the weather event(3).

Research to be continued

Rendering this gender-differentiated is indeed necessary, and I trust this case-study gave a clearer extend of how the urban context and gender orders construct each other, and how the environmental event acts as a highlighter of these urban and gendered orders. One of the initial ideas of this research was to, of course, see whether this gender aspect was understood by other actors of Sweet Home farm governance (NGOs and the City of Cape Town) firstly and secondly taken into account in urban planning and other related city level policies secondly. The first and foremost goal of gender-awareness is to trigger **gender-mainstreaming** actions notably in urban planning, which is key to urban adaptation to climate change.

This study has also contrasted the contours of the community management role women endorse in the settlement, particularly in the context of poor, let alone lack of infrastructure. Urban poor do in spite of their scarce resource make effort to improve infrastructure. Therefore one can imagine that taking this triple role of women in the context of acute environmental hazard can increase the flexibility of donor-oriented programmes and institutions to reduce urban poverty (Mitlin 2003:407) when responding better to arising or already existing needs. In terms of long-term urban planning or donors, the stakeholders present in Sweet Home Farm and other urban poor settlements can benefit from a pragmatic gender lens in addressing better both pragmatic and strategic needs (Moser 1989:1808).

Because responding to already-existing needs remains the best way to lift urban poor from chronic poverty, and related environmental vulnerability, I trust this research showed how gender presents an added value in better identifying these needs.

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APPENDICES

Appendix 1: Sweet Home Farm and other surrounding neighbourhoods in numbers (Source: DeSwardt, Puoane *et al.* 2005).

Indicator	Categories	Sweet Home 3 settlements (Joe Slovo, Nonquebla, Sweet Home)	
Gender balance	Male (%)	53.7	50.57
	Female (%)	46.3	49.43
Household size	Members per household	3.2	3.4
Education	Population who obtained matric (%)	8	15.6
Health	Treated for illness in 2003-4 (%)	34.5	36
Migration	Average number of years lived in the settlement	4.6	5.3
	Born in Eastern Cape (%)	90.5	94.2
Language	Speaking isiXhosa as a first language (%)	Vast majority	98
	Speaking English as a second	44	55.2

language (%)			
Occupation	Unemployed adult population (%)	39.5	39.5
	Average monthly household revenue (Rand)	1271.90	1277.5
	Main source of revenue relying on (%)...	34: male partner 26:state grant 12:brother 11: other relatives 8: sister 5:female partner 5: mother 2: father	34: male partner 22:state grant 21.6:brother 11: other relatives 11,33: sister 7: female partner 5: mother 2.3: father
Hunger	“Go hungry” (go to sleep with not enough food) (%)	63.8	53.7
Sanitation	Bucket system (%)	73	71
	Flush type (%)	14	21

Pit-home-made (%)	8	3
None, surrounds (%)	5	5

Appendix 2: Illustrating Sweet Home Farm



Image 1: Sweet Home Farm, view from the nearby chicken farm (Source: Fliccer 2013).



Image 2: Illegal industrial waste dumping site right at the entrance of Sweet Home Farm (Source: Fliccer 2013).



Image 3: Section G flooded when rain events occur, even in late summer (Source: Fliccer 2013).