Flexible Sustainabilities: Continuity and Change in an MNCH Project in Eastern Kenya

by

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Abstract

In current global health parlance, sustainability is a key concern of funders and implementers alike, tied to growing concerns with accountability and, relatedly, the demand for precise measurement. Concerns over sustainability relate to vertical programming, fragmented care and short funding cycles. Communities who participate in successive programs may become disillusioned by the continual turnover and shifting priorities. In this thesis, I analyze the central role of program discourses, evidence production regimes and knowledge practices in the everyday life of a global health project to illuminate power imbalances that emerge within international partnership formations. Furthermore, within the context of a multi-partner maternal, newborn and child health (MNCH) project in Kenya, I illustrate how local communities engage with global health projects to ensure sustainability on their own terms.

Methods: I conducted a 13-month ethnographic study of a MNCH and nutrition project in Taita Taveta County, eastern Kenya, following a project ethnography. Data collection took place between July 2014 and August 2016. Because the social dynamics of the project unfolded in multiple locales, I conducted my ethnographic fieldwork in Winnipeg, Canada, and in Nairobi and Taita Taveta, Kenya. In addition to participant observation, I undertook primary and secondary archival research to gain a deeper understanding of the history of development in Taita Taveta. I also conducted key informant interviews with university scientists and analyzed secondary qualitative data from the MNCH project. Data analysis occurred through an iterative process that triangulated the findings from the various sources.

Results and Conclusions. Evidence is a central preoccupation in global health practice, with respect to 1) how scientists and program implementers attempt to meet funders' demand for

standardized, quantitative metrics and 2) how local people and communities position themselves to benefit from global health projects. Prolonged engagement with development projects cultivate “local intervention knowledges” that inform how people think about and engage with projects. I demonstrate how people in Taita Taveta strategically engage with discourses around sustainability, actively participating in the formation of the discourse while contesting and remaking the principles and activities of programs to better meet local exigencies. This I refer to as flexible sustainabilities.

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Glossary

ADC	African District Council
ANC	Antenatal Care
ASAL	Arid and Semi-Arid Land program
CCHIP	Community Childhood Hunger Identification Project
CFGB	Canadian Food Grains Bank
CHA	Community Health Assistant
CHV	Community Health Volunteer
CIDA	Canadian International Development Agency
DANIDA	Danish International Development Agency
DFATD	Department of Foreign Affairs, Trade, and Development
FANTA	Food and Nutritional Technical Assistance
FAO	U.N. Food and Agriculture Organization
FTC	Farmer Training Centre
GHME	Global Health Metrics and Evaluation
HFIAS	Household Food Insecurity Access Scale
HFSS	Household Food Security Survey
IGA	Income Generating Activity
K.E.P.I.	Kenya Expanded Programme on Immunization
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
LNC	Local Native Council
MMATT	Mwanzo Mwema assessment and tracking tool

MIPP	Muskoka Initiative Partnership Program
MNCH	Maternal Newborn and Child Health
NGO	Non-governmental organization
NORAD	Norwegian agency for Development Cooperation
PMF	Performance Measurement Framework
PMOH	Provincial Medical Officer of Health
SIDA	Swedish International Development Cooperation Agency
TBA	Traditional Birth Attendant
UN	United Nations
UNDF	United Nations Development Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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INTRODUCTION

On a Wednesday in August 2014, I sat by my laptop in a living room in Nairobi, Kenya. I was two months into the fieldwork for my PhD research, conducting a project ethnography of a maternal newborn and child health (MNCH) and nutrition project, known as Mwanzo Mwema, implemented by the University of Manitoba with local project partners in Kenya. As part of my fieldwork, I participated in weekly project meetings that took place each Wednesday—late afternoon, for the Kenyan staff based either in Nairobi or Taita Taveta County (where the project was being implemented), and early morning, for the university scientists in Winnipeg. The implementing staff from each partner organization attended these meetings. It was an opportunity for staff based in the field to provide updates on project activities, and receive feedback and instruction from those in Nairobi and Winnipeg. Staff also discussed any new activities they had initiated. I had come to dread these meetings for a variety of reasons, not least of which was the awkwardness and technical difficulty of electronically connecting people across continents. Internet connections of varying speed, and natural phenomena such as rain contributed to delays, dropped calls, or noise on the line, making communication difficult.

In August, at the time of the call, the Mwanzo Mwema project was in the process of winding down and local staff were preparing to wrap up. On the agenda for this particular meeting, other than the usual reporting, was a discussion of food security project activities to be implemented in the remaining months. The project's food security field officers had compiled a list of potential activities for discussion, including a demonstration garden at the implementing partner's office in the Taita Taveta town of Mwatate. The land for the proposed garden was

located along the lower slopes of a hill, spanning the area between the organization's office and the highway from Mombasa to Taveta (and the Tanzanian boarder). The organization's staff wanted to create a garden with the same vegetables and fruit trees that the project had been supplying to the beneficiaries. The garden would serve as a demonstration plot for the project's beneficiaries while allowing its staff to promote the conservation farming methods and skills at the core of the project's food security interventions to a wider population. Meeting participants discussed this idea, and the university scientists subsequently agreed to raise the suggestion to the organization that funded the food security component (also located in Winnipeg) to gauge its acceptability.

The university scientists discussed the proposed demonstration garden with staff members from the funding organization and reported back to the group at the next weekly project meeting. The scientists informed the rest of the project team that the demonstration garden idea was not acceptable to the funder based on the argument that, in the project time remaining, staff would neither be able to assess the garden's impacts nor its sustainability. The major concern that the university scientists relayed at that meeting related to the garden's sustainability and maintenance upon completion of the project. There was also an apparent concern with being able to measure and evaluate the impact of the garden before the project ended. Over the coming months, the local desire for the demonstration garden would continually resurface, much to the frustration of all involved. Local staff were invested in the garden and upset by what they perceived as the university scientists' dismissal of their idea. University scientists, on the other hand, reiterated that there was no time left to evaluate such an activity and that funds had to be spent in a "meaningful and responsible way."

In January 2015, months after the initial discussion of the demonstration garden, I was visiting the local partner's office in Mwatate for planning meetings with the health and nutrition field officers, and beginning the qualitative component of the project's endline assessment, which I was tasked with leading. On one particularly windy afternoon, I dragged a chair into the local project coordinator's office to join her, the field officers, and the project coordinator from Nairobi for a meeting. The windows had to remain closed due to the wind and the office was rather hot and congested, especially with seven of us gathered in there. From my little space at the corner of the coordinator's desk, I looked up: there, on the wall right across from her desk, was a plan for the demonstration garden (see Figure 1). Hand drawn on two pieces of flip chart paper taped together, the plan depicted twelve equally-sized square plots, each labeled with the crop that would be grown there, and "enterprises" further explained in a legend along the side. According to the legend, space would be allocated for chicken coops and rabbit hutches as well as a retention ditch for irrigation. As the meeting wrapped up I asked the staff gathered there about the map. The health and nutrition field officers were not directly involved in planning the demonstration garden, but the project coordinator quite enthusiastically discussed the plan with me.

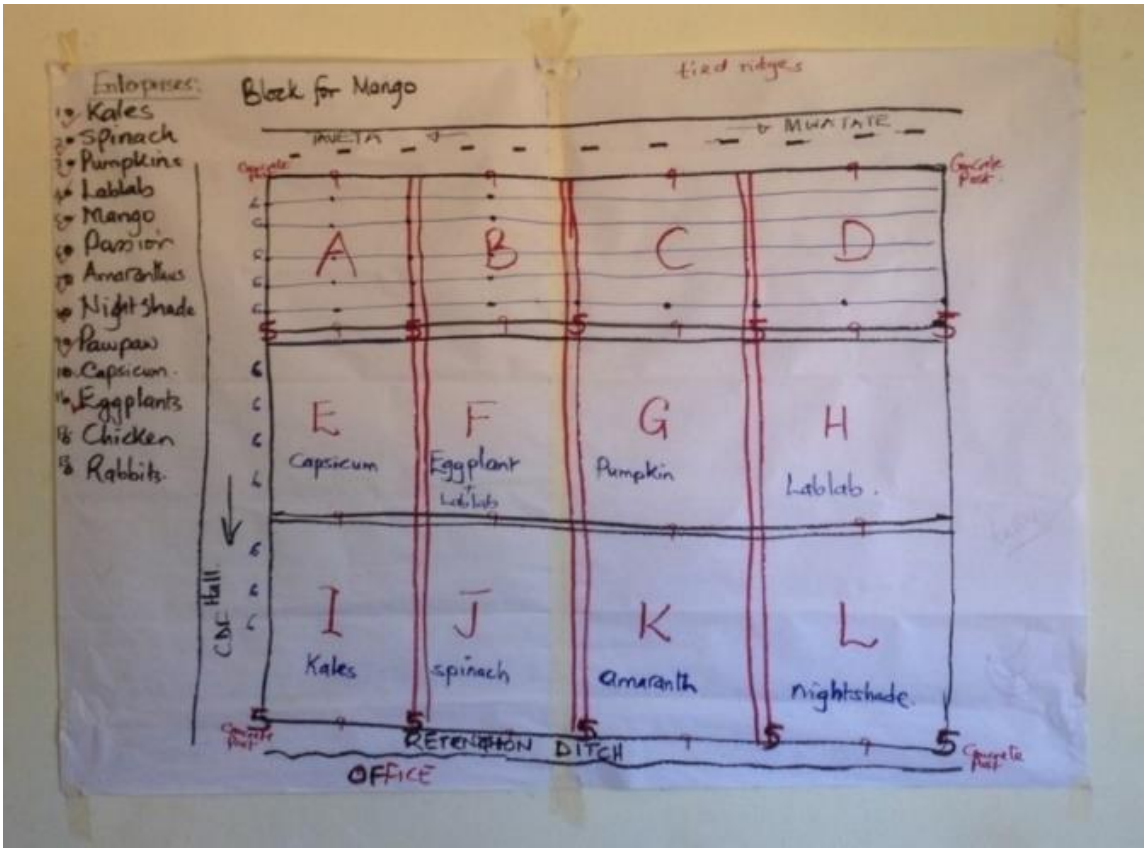


Figure 1. The plan for the demonstration garden. Picture taken by author during a visit to the local partner organization's office in Mwatate.

She pointed out that the proposed piece of land received a lot of "foot traffic" as people cut across it heading to the town centre on the other side of the hill, or the Anglican Church and government offices on the higher slopes. To the field staff, this made the piece of land ideal for continuing to promote the project's messages to a wider audience since they would not be limited by the project's inclusion criteria; the garden would be bypassed by many people who would inevitably observe the conservation farming techniques they were promoting. All staff were quite excited by the idea, she said, and once the project was completed, the organization

staff (whether or not they had been employed by the Mwanzo Mwema project) had pledged to take care of the garden and demonstrations.

The lingering presence of the plan for the demonstration garden and my discussion with the project coordinator led me to reflect on the implications of persistent tensions surrounding it. In my discussion with project staff from the partnering organizations, it slowly became clear to me that the different perspectives on the demonstration garden were in part influenced by their conflicting understandings of what "sustainability" meant in the context of global health and development. That the demonstration garden continued to exist only as a drawing on a wall in Mwatate signified, to me, the unequal distribution of power in global health—it signified whose definition of sustainability was privileged in the project, to the exclusion of the local knowledge and experience of project staff. It is with these questions of power, knowledge, and sustainability that I am preoccupied in this thesis.

In the broader global health discourse, sustainability is of concern to funders, implementers, and program managers alike, tied to growing concerns with accountability (Yang, Farmer and McGahan 2010). My aim in this thesis is not to assess whether the project I studied can be considered sustainable, per se. Rather, I explore the ways in which a particular set of historically rooted knowledge practices create and recreate forms of continuity amidst perpetual project turnover, inconsistent funding flows, and various migrations and exits of interveners. These knowledge practices are what I refer to as flexible sustainabilities. Based on a 13-month ethnographic study of a global MNCH and nutrition project in Taita Taveta County, Kenya, I demonstrate how forms of continuity, rupture, and reassembly of intervention knowledges and techniques take shape in a sea of inconsistency, contestation, and social and political change. As such, my specific research objectives were as follows:

Objective 1: To construct a genealogy of development in Taita Taveta from 1948 to 1992, with specific focus on maternal and child health, nutrition, and food security.

> Rationale: Under this objective I sought to explore and document the intervention discourses that resonate with current development and global health projects. Attending to reigning global health policy discourses allowed me to situate Mwanzo Mwema within its broader historical policy context. Moreover, this historical context provided a rich interpretive backdrop against which to understand the emergence of particular conflicts, alliances, and health outcomes in contemporary MNCH interventions in Kenya.

Objective 2: To study the implementation of modern surveillance and measurement practices in a global health project as well as how implementation affects the results obtained.

> Rationale: Specifically, this objective focused on how these intervention procedures are deployed in intervention, as exemplified in baseline assessments, ongoing project tracking, and end of project evaluations. These activities are often considered the most technical or academic of intervention practices and an area where I observed the greatest discordance between partners' respective understanding of the activity. If fieldworkers view these practices as purely for research purposes and irrelevant to local development, this view may influence how data is collected on the ground, calling into question the meaning of the numbers generated. Focusing only on pre-specified quantitative indicators may neglect the unintended, but very real, effects of the project.

Objective 3: To explore the interaction between partnership dynamics and the process of implementation.

Rationale: The implementation of an intervention is not only influenced by the historical policy context, but also by the social dynamics of the partnerships orchestrating the intervention. Partners from different ideological and geographical backgrounds may have diverse interests in and expectations of the project; negotiations to facilitate shared understanding of project outcomes may produce unexpected outcomes. These partners include funders, scientists, project staff, community health volunteers (CHVs) and the beneficiaries of Mwanzo Mwema.

Sustainability

Before elaborating on the approaches I employed to explore flexible sustainabilities, it is helpful to look at a genealogy of the term itself, and to consider how a particular constellation of logics have come to inform contemporary global health practices.

Sustainability is often conflated with concerns about the environment and 'sustainable development'. Many authors have written about the ideas underlying "sustainable development," tracing its long history to the mid-18th through the late 19th century (Harlow, Golub, and Allenby 2013), exposing its underlying Christian ideals and values as well as the term's roots in Western rationalism and the idea of linear progress. Current understandings of sustainable development are informed by *Our Common Future*—also known as the Brundtland Report,[1] released in 1987—which defines the term as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (as quoted in Haines et al. 2012, 2189). The Brundtland report was an attempt to bring together the various

1. The report was the end result of the deliberations of the Brundtland Commission, formally known as the World Commission on Environment and Development, established by the United Nations in 1983. It is known as the Brundtland Commission because the chairperson was Gro Harlem Brundtland. The commission disbanded in 1987 after releasing their final report. Although the focus was on the environment and natural resources, Brundtland was reportedly picked for her background in public health.

understandings of sustainability and "discursively unite the opposing concerns of Northern supported environmental conservation and Southern desired economic development" (Harlow, Golub, and Allenby 2013, 271) by putting forward a single definition of sustainable development.

Authors such as Luke and Harlow and colleagues have argued that the Brundtland report's achievement was not in proposing a single definition of sustainable development, but in establishing the rhetoric of sustainable development that still guides us today (Luke 2005; Harlow, Golub, and Allenby 2013). As such, Luke considers it the opening act in the performativity of sustainable development, establishing a rhetoric that not only guides action but is reified and reinstantiated through those actions while obscuring the origins, political and ideological, of the concept (Luke 2005).

While the Brundtland report provided a guiding discourse of sustainable development, the definition of sustainable development has not been applied in a singular and consistent way, with differences emerging not only between academic disciplines and fields of practice, but also internally between the various actors involved in any program design or implementation (Redclift 2005). These different definitions of sustainability are not merely academic, but reflect underlying assumptions or commitments that will influence what and how people engage in various activities (Redclift 2005). Redclift argues that as these different conceptualizations of sustainable development were taken up, it not only broadened understandings of sustainability, but succeeded in separating the notion of "sustainable" from its environmental roots. This separation allowed for the emergence of new discourses around sustainability across disciplines, shifting the focus from 'needs' to 'rights'. In turn, this shift has opened the idea of sustainable development to social science, inviting "questions of power, of distribution, and of equity"

(Redclift 2005, 218). This broadening of scope also paved the way for sustainability to become a consideration in global health and development projects.

The transition from the Millennium Development Goals to the Sustainable Development Goals in September 2015 is perhaps the greatest indication of the importance of sustainability in current discourses of development. In the context of the Sustainable Development Goals, health is often discussed in terms of the health benefits of other initiatives, e.g. low emission vehicles or reductions in the use of coal stoves (see for instance Haines et al. 2012). However, an editorial published in the Lancet in 2012 highlighted the fact that global health would take up sustainability in its own right, stating that there needed to be a "major strategic shift in global health, away from development and towards sustainability" (Lancet 2012, 193). In the editorial, the authors advocate for an approach to global health that adheres to five shared principles, including sustainability.

The increased importance of sustainability has been attributed to a number of factors. According to Yang and colleagues (2010), it stems at least in part from a move away from vertical, i.e., programs that focus on a single, specific disease or health concern and often technological solutions (Biehl 2016), to an approach that accepts that structural or systemic changes may be needed in order to address any individual diseases effectively, and that addressing these underlying conditions is an ongoing activity that exceeds project cycles (Yang, Farmer, and McGahan, 2010). Focusing on sustainability was seen as an alternative to vertical programming that would advocate for addressing the root causes of poor health; however, shorter funding cycles and the redirection of funds toward emergency needs poses difficulties to affecting any real structural or systemic changes. Additionally, concern over sustainability also speaks to project staff's frustration with "discontinuities in the provision of care" (Yang, Farmer,

and McGahan 2010, 129) that occur as a result of fragmented projects and project time frames. Faced with short project time frames (and funding cycles), project staff often invest considerable time, energy, manpower, and money into a project that may end before its activities can have any impact on the health of their target population. Communities who participate in program after program may also become disillusioned by the turnover and lack of results, which reduces community support and trust for future projects (Shediac-Rizkallah and Bone 1998).

The rise of sustainability in global health has also been attributed to the increasing importance of accountability, especially given the critique that resources have historically not been spent effectively (Lancet 2012; Yang, Farmer, and McGahan 2010). Funding agencies are often accountable to the people in their own countries whose tax money is used in global health programs. Being able to show that a project has lasting, positive impact as a result of the large investments made in global health programmes demonstrates accountability to these tax payers (Kim et al. 2013; Sarriot, Swedberg, and Ricca 2011). Although not the only concern in priority setting, these considerations will likely become of even greater importance as economic uncertainty increases globally, both in terms of competing needs and priorities, and donor organizations concentrate more on accountability (Sarriot, Swedberg and Ricca 2011; Shediac-Rizkallah and Bone 1998).

Sustainability in global health

The perceived importance of the sustainability of global health interventions has steadily increased to a point where it has become a central criterion against which funders judge public health programmes (Yang, Farmer, and McGahan 2010). Yet despite this growing importance, little consensus seems to exist around what sustainability means or how it should be

operationalized in projects (Edwards and Roelofs 2006; Shediac-Rizkallah and Bone 1998). What then do we mean when we refer to the "sustainability" of a global health project?

Drawing on the field of management, Yang and colleagues (2010) define sustainability as the "achievement of compounding, positive effects over time in the attributes of an organisation that make it distinctively valuable" (130). The shift to this management-informed definition reminds us of the increased influence of business and managerial rationalities in global health with the rise of philantrocapitalism and logics of accountability and cost-efficiency (Adams 2013; Lorway 2013).

In their study of project sustainability, Shediac-Rizkallah and Bone (1998) provide a list of terms that project planners and funders use synonymously with the idea of project continuation. The definitions the authors include in their study share an overarching focus on the integration of projects into existing infrastructure and routine practice, as well as the importance of 'local ownership' of the project.[2] The authors also point out that, although the terms are often used interchangeably, different definitions of sustainability are not actually synonyms and vary according to what project planners consider most important to continue. Some definitions focus on the continuation of health benefits (project outcomes), while others consider the 'institutionalization' and continuation of the program itself as paramount (Shediac-Rizkallah and Bone 1998); or, as in Bossert's 1990 study, a combination of both. Bossert argues that health benefits are the most important, and project activities themselves only need to be sustained in as much as they contribute to the improvement of health conditions, with the caveat that some health benefits would not need activities to continue in order to maintain the results (Bossert

2. Notably, the earliest definition for sustainability Shediac-Rizkallah and Bone include in this publication dates back to 1989, preceding the Lancet editorial by about two decades. This highlights the long history of sustainability ideals in global health, if not the exact discourse of sustainability that currently dominates.

1990). Other authors have argued that not only do the health impacts, organizations, and services need to continue (Yang, Farmer, and McGahan 2010), but that knowledge and skills vis-à-vis capacity building must also increase and continue (Kim et al. 2013). Defining what is to be continued is important, as different goals would require different approaches or methods of study; these disparate strategies may include planning, training, community engagement, and local ownership. Bossert also argues that evaluation is important, as the "reputation" of the results (whether project activities were acceptable to the participants and considered "effective") would influence the willingness of local individuals or governments to continue supporting the activities.

The authors I mention above also raise a number of critiques about the current focus on sustainability. One such critique asks us to consider whether a program or program activities need to be sustained, as Bossert argued. These scholars identify scenarios in which programs do not need to be sustained—for instance, if the health condition intervened upon has improved according to one project's objectives, but subsequently needs another type of intervention or shift in focus (Shediac-Rizkallah and Bone 1998; Yang, Farmer, and McGahan 2010). Within the current focus on sustainability, therefore, a program that is not needed anymore and that has served its purpose, may continue to obtain funding if it can somehow 'prove' sustainability. An example related to health would be the discovery of a more effective or cost-efficient intervention for a particular health concern (Kim et al. 2013). According to Yang and colleagues, considerations of efficacy are often outweighed by proven "continuity over time," and projects receive continued funding, despite the fact that they should be discontinued or adapted to changing circumstances (Yang, Farmer, and McGahan 2010, 129). While the authors may focus too narrowly on issues around sustainability to the exclusion of broader political considerations,

their arguments do highlight the ways in which the commodities, skills and assets more directly implicated in overall positive health outcomes are ignored. They also contend that basic service delivery is negatively impacted by a focus on sustainability as funders would rather direct funding to infrastructure improvements, technical assistance or the development of organizations and administrative costs. The authors insist that the onus of sustainability should not be with program implementers but with funding and regulatory bodies.

Bossert's 1990 study of USAID-funded projects in Africa and Central America also shows that, while some strategies to ensure sustainability may be effective in some contexts, they may not contribute much to sustainability in another context. In his findings, community-involvement was an important factor in determining project sustainability in Central America, but had less of an effect in African contexts. Despite evidence that supports the idea that building the capacity of local implementing institutions is paramount to sustainability, according to Bossert, none of the USAID funding was dedicated to this; rather it was dedicated to vertical programming to avoid dealing with "weak existing institutional structures" (Bossert 1990, 1022). Yang, Famer, and McGahan (2010) also criticize the continued funding of disease-specific interventions, advocating instead for the strengthening of health systems to help address the root causes of illness. They also point out that there is a mismatch between the stated objective of sustainability and the length of funding cycles.

What my ethnographic study shows is that there are multiple definitions of sustainability present in the work of global health, and that some understandings become privileged over others—an inequality that reinforces unequal postcolonial power relations. However, my focus is not on this larger terrain of uneven power relations, as such, but on the ways in which people within the Mwanzo Mwema project engage with and navigate around these politics of

sustainability. I show instead how multiple, irregular and hybrid forms of sustainability are reproduced and enacted through the knowledge practices of local social actors who become entangled in an array of interventions over time.

Theoretical framework

The theoretical basis of my dissertation draws on science and technology studies and the anthropology of development; however, it is primarily informed by critical global health. In critical global health studies, scholars attempt to highlight the processes and relationships that situate population health within its broader social and economic context. It also focuses on development culture, the experiences and desires of the individuals "targeted" by population health projects, issues of power and inequality, the discourses that drive global health apparatus as well as the assumptions that frame and underly global health "problems" and responses (Crane 2010, Maes 2018). According to Biehl, critical global health can also challenge the tensions between practice and theory, rejecting theory as a "totalizing enterprise or as the privileged domain of elite knowledgemakers" (Biehl 2016, 135) while focusing on developing alternative frameworks for considering global health. In my analysis of a global MNCH project, I primarily concern myself with issues related to power and inequality, genealogies of intervention, discourses and practices, and governance-building in order to further contribute to the existing field of critical global health studies.

Defining Global Health

As Didier Fassin has pointed out, global health is an important emerging academic discipline as well as an area of research for anthropologists (Fassin 2012, 107). However, no singular definition of "global health" guides work in this area. Following a meeting of the Consortium of Universities for Global Health (CUGH) held in the United States, Koplan and

colleagues defined global health in a Lancet editorial as "an area of study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide" (Koplan quoted in Crane 2010 p. 87). Central to this definition of global health, and what the authors believe sets it apart from earlier international health or colonial medicine, is the idea of partnerships. Crane has critiqued this definition as being a North American construct, arguing that what is considered "global health" by American institutions may be "business as usual" in their 'partner' countries. She also cautions that steep inequalities persist in the relationships between North American institutions and their African partners, although that does not negate the ways in which the partnerships are mutually beneficial. As Brada (2008) notes, global health is more about the ways in which global health actors are able to configure space and time as well as the claims to expertise and morality that accompanies these configurations[3]. Focusing too narrowly on the positive outcomes of partnerships, however, and not taking into account different meanings and activities under the umbrella of 'partnership' obscures the ways in which these partnerships sometimes come to reflect the more traditional funder/recipient

3. Brada argues that space is configured in global health by creating "the local" in opposition to "global health". Time, she argues, is configured in the sense that the sites for global health intervention (the local) are often described as being both the past and the present for the donor countries. Brada illustrates this by pointing out that global health practitioners or international medical students visiting the hospital in Botswana where she worked, would describe the drugs prescribed or the practices in the hospital as what used to occur in hospitals in their home countries decades ago. At the same time, however, health threats from the local sites could also be described as 'the future" of the home countries (ebola comes to mind) thus positing the sites of global health as both the past and potential future of the students' home countries. Claims to expertise and morality accompany these configurations as those working in global health are positioned as experts, coming to the local countries to provide technical support while their work is seen as a form of transnational humanitarianism. Exemplified by the calls for "equity" in global health definitions, global health is here seen as a moral act, one of compassion and rooted in a desire to reduce inequities in health – both between and within countries. (Crane 2010, Fassin 2012; Biehl 2016).

relationships. This dynamic is further complicated by the rules and policies set by funding organizations (Crane 2010).

Janes and Corbett (2009) propose an alternative definition of global health from the field of anthropology, as "an area of research and practice that endeavours to link health, broadly conceived as a dynamic state that is an essential resource for life and well-being, to assemblages of global processes, recognizing that these assemblages are complex, diverse, temporally unstable, contingent, and often contested or resisted at different social scales" (169). Adams and Biehl (2016) also view global health as an assemblage but contend that, in critical global health studies, our attention is diverted from the assemblage to "questions about people, the politics of truth and accountability, and critical social theory. The global of global health must be interrogated as both a political accomplishment and a means of producing other kinds of evidence" (Adams and Biehl 2016,124). This "peopling" of global health allows us to generate alternate theories and ideas about global health and to interrogate fundamental concepts in global health, such as evidence, standards and sustainability – as I do in this dissertation. Focusing on individuals and the complex web of history, politics and culture within which they are situated allows us 1) to consider individuals as more than mere victims or passive recipients, often hidden from view by statistics and 2) to move away from the binary of oppressor/oppressed, enabling a more nuanced analysis of how global health actually operates (Biehl 2016).

Critical global health studies

In addition to offering their own understandings of global health, anthropologists working within the framework of critical global health have also raised a number of critiques of global health, opening other avenues of inquiry. Janes and Corbett (2009), for instance, suggest four principal areas of critical analysis that include: looking at health inequities in their political-

economic contexts; examining how local contexts interact with the science and technology that circulate globally; studying individual global health initiatives and programs by focusing specifically on unintended consequences, power distributions and the role of expert knowledge in policy formation; and tracking how these global health programs change social relationships.

Anthropologists have also criticized the very definition of global health, what it entails and the power inequities present in attempts to define global health. As mentioned above, Crane argues that many circulating definitions of global health are primarily North American constructs, but she also points out that current definitions are inherently positive and, as such, ignore colonial legacies and post-colonial power dynamics (Crane 2010, Biehl 2016; see also the work of Warwick Anderson). Other scholars have criticized the ways in which global health policies and practices strengthen the position of a capitalist, neoliberal world order (for instance, see the discussion of Farmer and Birn's work in Biehl, 2016). Another stream criticizes the way in which global health logics make new regimes of governance, surveillance and intervention possible, for instance through increased enumeration, the introduction of technology or on the basis of access to health care (Biehl 2016, Sharma 2008).

A line of critique most closely associated with the work of Didier Fassin, focuses on the positioning of global health as a form of transnational humanitarianism. Exemplified by the calls for "equity" in global health definitions, global health is here seen as a moral act, an act of compassion that is rooted in a desire to reduce inequities in health – both between and within countries (Fassin 2012; Biehl 2016). This view of global health as a humanitarian endeavour can also accompany North American or European medical schools' activities in global health, where the diseases or other health concerns are reconceptualized not only as humanitarian crises but as academic opportunities to learn for the students, medical residents and faculty members of these

schools. In other words, as Crane argues, epidemics are "simultaneously envisioned as a socio-medical ill and instrumentalized as a scientific asset" (Crane 2010, 79).

Along with Crane, Biehl and Fassin point out that a preoccupation with 'compassion' or 'good intentions' does not mean global health is beyond reproach. Power imbalances, inequities and even violence are still present, perhaps exacerbated, and global health can be depoliticizing if these issues are not acknowledged and addressed. However, Biehl cautions us that, while this line of critique allows for a more nuanced understanding of not only intervention but also morality and rationality, a too narrow focus on these questions of morality, rationality and intervention will keep us from engaging with daily project activities, and therefore keep us from nuanced understanding of project planning, implementation and acceptance by the target populations (Biehl 2016). It will also lead us to neglect the ways in which people in the "global south" actively engage with global health agendas and alter it to suit their own needs in many different ways. (Biehl 2016) The ways in which people engage with global health agendas and policies to maintain long-term benefit, even outside the objectives and purview of Western donors and other development actors, is one of the topics I engage through the notion of flexible sustainabilities.

Scholars such as Ruth Prince and Phelgona Otieno have focused on health care systems, specifically turning their attention to the impact global health initiatives and programs have on local health systems. Based on their research in western Kenya, Prince and Otieno argue that health care providers working in the public hospitals are in the "shadowlands" of global health. In comparison to their peers working in clinics funded by global health initiatives, they have to improvise while dealing with poorer infrastructure and limited access to medical technology which affects their professional commitment and ambitions (Prince and Otieno, 2014; see also

Livingstone 2012). The work of Susan Reynolds Whyte and colleagues in Uganda also examines local healthcare delivery, specifically how multiple, fragmented, and diseases-specific interventions produce a "projectified landscapes of care" (Biehl 2016, 129) and, in turn, exacerbate local inequities by allowing some to access services that others in their communities cannot access (Prince and Otieno, 2014).

Another significant area of research that has received attention in critical global health studies relates to the integration of business logics and management principles into global health. Specifically, scholars have attributed the increasing reliance on quantitative indicators in global health not only to the rise of evidence-based medicine and evidence-based public health (which I discuss in more detail in chapter 2) but also to the rise of philanthrocaptalism (Bishop and Green 2008, Lorway and Kahn 2014, Moran 2009). The business of global public health has taken centre-stage in international aid programs with dramatic increases in funding for global health initiatives—the greatest increase occurring via private funding from organizations such as the Bill and Melinda Gates Foundation (McCoy, Chand and Sridhar 2009, Pfeifer and Nichter 2008). Although much of this funding has been allocated for HIV prevention projects, focus has recently shifted to MNCH projects and specifically those that incorporate nutrition (Lancet 2013). The growing role of private organizations in global health has created a context that melds entrepreneurial logic with charity, a phenomenon that has been termed 'philanthrocaptalism' (Bishop and Green 2008).

Apart from drastic increases in funding, philanthrocaptalism is also characterized by greater emphasis on accountability and transparency. Donor investment in health development is monitored through ongoing mandatory reporting, enumerative procedures and the employment of business metrics, which define progress and performance of projects in quantitatively

measurable terms (Adams 2010; Erikson 2012; Lorway and Khan 2014). The statistics generated by the mandatory reporting of quantifiable terms, Erikson argues, "increasingly accord the sense of business-like discipline and accountability in otherwise unruly health domains" (Erikson 2012, 367). This reliance on quantitative indicators—whether for the purpose of reporting or building an evidence base—tend to render not only the unintended effects of an intervention invisible, but also eliminates the voice of participants who do not "speak in the language of statistics or epidemiology" (Adams 2010, 57). Including other forms of knowledge would strengthen global health projects by increasing their relevance and allowing them to adapt to unanticipated effects.

Accountability and transparency within global health projects is gaining purchase in a time of declining global resources. In the context of AIDS research, demographer and anthropologist Philip Setel (2009) insists that funding agencies need to demonstrate that they are funding interventions in ways that contribute to reducing the HIV epidemic. This is no less true in other areas of global health, including the Muskoka Initiative which funded the Mwanzo Mwema project I studied. It is unfortunate, according to Setel, that accountability refers primarily to funders rather than program beneficiaries. Large-scale program evaluations tend to over-emphasize the measurement of pre-set indicators to satisfy funders; and they do so at the expense of learning why interventions may or may not have reached projected outcomes. Furthermore, the privileging of concern for accountability to funders over beneficiaries proliferates vertical programs oriented toward specific diseases or specific technological solutions (Biehl 2016)—an all too common reality in global health that is now widely reflected in the fragmentation of African health systems.

Introducing the Mwanzo Mwema Project

Meeting Critical Health Care and Nutritional Needs to Improve Maternal, Neonatal and Child Health in Vulnerable African Populations —referred to throughout as Mwanzo Mwema— was a multi-partner, large-scale MNCH and nutrition project funded through the Canadian International Development Agency (CIDA)[4] Muskoka Initiative for Maternal, Newborn and Child Health Partnership Program. Then Prime Minister Stephen Harper announced the Muskoka Initiative in June 2012, committing $2.85 billion dollars over 5 years (2010 – 2015).

Nutrition also occupied a particular focus in the initiative.[5] The emphasis on nutrition grew out of previous commitments made during a meeting at the 2010 UN summit in New York, where leaders from countries across the globe (including Canada) pledged support to programs that focused on 'the 1000 day window of opportunity'—that is, the period of time from conception to a child's second birthday (Horton 2008; Maternal and Child Nutrition Study group 2013). Good nutrition during this time is considered critical for optimal mental and physical development.

To qualify for funds from the Muskoka Initiative, Canadian organisations had to submit their proposal in partnership with organisations in the country of implementation (IDRC 2014). For the Mwanzo Mwema project, the Canadian partners were the University of Manitoba (hereafter referred to as "the university") and the Canadian Food Grains Bank (CFGB), which made additional funds available for food security interventions. Through the CFGB's existing

4. At the time of the Muskoka Initiative announcement, the organization was known as the Canadian International Development Agency (CIDA). For a brief period near the end of the project they were known as Global Affairs Canada before becoming the Department of Foreign Affairs and Trade (DFATD). Since the organization's name was CIDA when the call for proposals came out, this is the name I will use in my dissertation.

5. According to Bhushan (2014), 28.1% of funds allocated through the Muskoka Initiative supported basic nutrition services.

networks, the university established a partnership with World Renew Kenya ("the local partner") and their implementing partner in the geographical area of interest, Anglican Development Services Pwani Region ("the implementing partner"). Staff members from the University of Nairobi School of Public Health also provided ongoing technical support.

The Mwanzo Mwema project was implemented in Taita Taveta County in Southeast Kenya, aiming to integrate maternal and child health with nutrition, addressing the latter through a food security intervention. According to the project proposal, composed by the university, the project was framed as targeting a recognized gap in MNCH, nutrition, and food security programs in Kenya, addressing needs prioritized by the Government of Kenya. Project logic followed on the assumption that previous projects addressing MNCH, nutrition, and food security in Kenya had done so in a vertical manner with few linkages between the areas, despite the well-documented relationship between poor nutrition and adverse MNCH outcomes (see Lancet 2013).

According to the proposal, project activities were expected to target four specific groups: pregnant women, women who were breastfeeding, women with children under five, and women of reproductive age not included in the previous categories. The Mwanzo Mwema project aimed to develop a framework for creating synergy between existing MNCH, nutrition, and food security services that could then be "scaled up" and implemented across Kenya.

During the actual implementation of the Mwanzo Mwema project, the first project activities consisted of community consultations and a baseline assessment. Eight paid field officers, located in the four sub-counties of Taita Taveta, attended meetings with village chiefs and elders, local public health officers, and community members to build community relationships and to raise awareness of the project and its various planned activities. The first of

these activities was the baseline assessment conducted in November 2012, which consisted of a household survey (over 1,000 households), a health facility assessment, and a qualitative component consisting of 10 focus groups. Local project staff hired and trained women from the community to act as enumerators and administer the household survey.

After the university scientists analyzed the baseline data, senior staff from all the partner organizations met in Nairobi to discuss the data and select the project's interventions. They considered interventions if they addressed a gap identified by the baseline data, were in concordance with Government of Kenya strategic priorities, were supported by 'sound evidence', and were not being implemented by other organisations.

The project activities were then divided into two components: the health and nutrition interventions were initially implemented in 13 sub-locations across Taita Taveta's four districts with the aim of reaching 3,000 women, while food security interventions targeted a subset of 1,600 of the 3,000 beneficiaries. Figure 2 provides an overview of the project activities.

The goal of the health and nutrition intervention was to strengthen the existing CHV system, part of the Government of Kenya's Community Health Strategy (Republic of Kenya n.d.). Supporting government priorities and working within existing government structures was central to the Mwanzo Mwema approach to project sustainability, and also played a key role in the selection of food security interventions. Mwanzo Mwema staff members also worked in close collaboration with local government officials (health, agriculture and livestock), local community health units, and community leaders (chiefs).

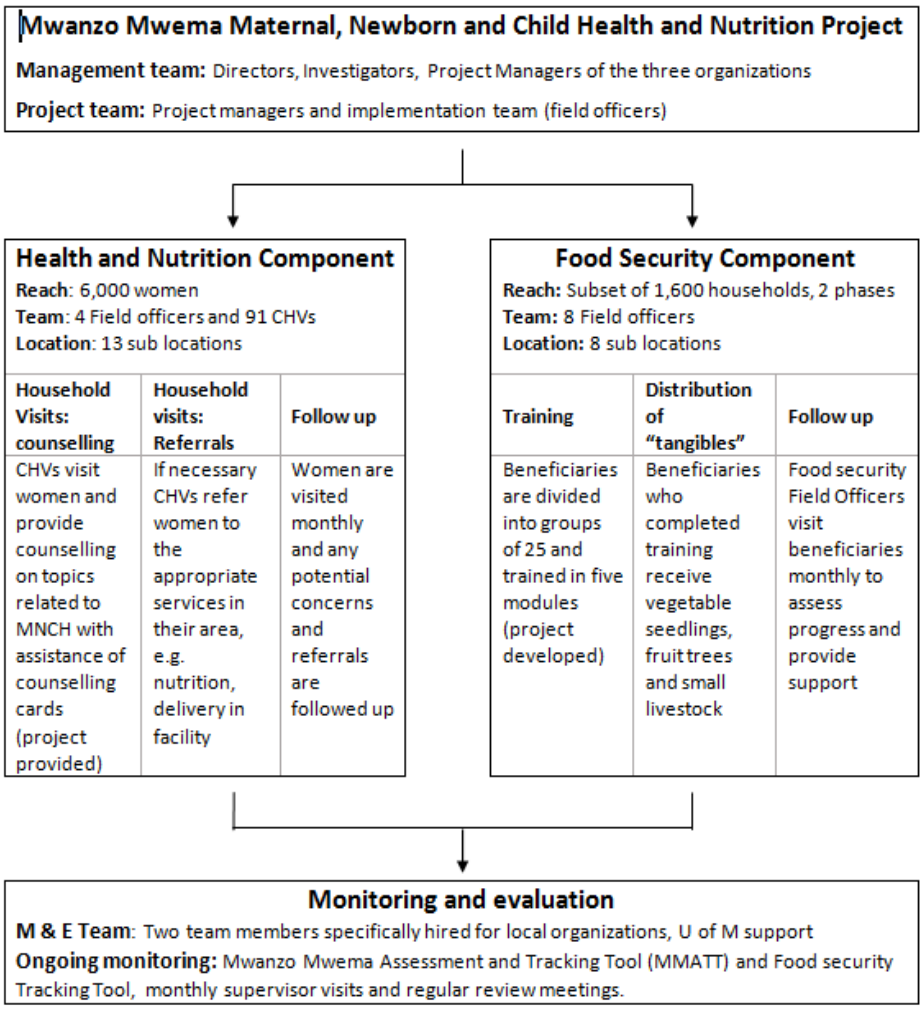


Figure 2. Mwanzo Mwema project overview

For the health and nutrition activities, project staff trained CHVs to deliver counselling services to women and provide referrals to health facilities as needed. The training CHVs received followed the current Government of Kenya Community Health Volunteer curriculum, but provided more in-depth information on topics (in the curriculum) identified as critical by the MNCH technical team. The training modules were developed by project staff and student interns in conjunction with the local community health staff, including Community Health Assistants (CHA) and the Community Health Strategy focal persons. During CHVs training, time was

devoted to dispelling ‘local misconceptions’ (e.g. uvula cutting in childhood as prevention for coughs and colds) and conveying the ‘correct’ Western biomedical knowledge. This information was captured in ‘care cards’—a collection of laminated, A4 sheets (which were colour coded by target group) designed by project staff (also with assistance from student interns) to assist CHVs with their daily service delivery activities.

CHVs were trained in using the project’s assessment and tracking tool. In its final iteration, the tracking tool took the form of a book in which CHVs were expected to document the services they had provided to women and the counselling topics they had covered, as well as some health indicators. The intention was that CHVs would use the information they collected in these tools to guide their own practice and to assist them in setting priorities and tasks (Avery et al. 2017). The data was then to be collected and summarized monthly, to serve the same purpose of guiding activities for the project as a whole. The information collected also served as the backbone of the project’s monitoring system, providing the dual purposes of collecting quantitative information on the care women had received and monitoring individual CHVs’ performance. The health and nutrition field officers followed up with the project’s CHVs, ‘shadowing’ them regularly to provide supervision, support, and feedback on any performance issues.

Food security activities were initially (phase one) implemented in one sub-location in every sub-county, selected on the basis of need. In phase one, the project provided food security inputs and training to 800 women who were enrolled in the health and nutrition arm. In phase two, an additional 800 women were selected for a total of 1600 beneficiaries reached. The food security inputs that beneficiaries received included vegetable seedlings, fruit trees, and small livestock (rabbits and chickens). To be included in this arm of the project, women and their

families had to be identified as more vulnerable by community leaders and the CHVs working in their community. Once approached, the women had to commit to attending meetings and trainings before receiving inputs. They were also required to possess the necessary land to plant the seedlings and fruit trees. Furthermore, to receive the small livestock inputs, they also had to build their own chicken coops and rabbit hutches, and were expected to provide their own materials. This requirement was later changed so that the project provided materials while beneficiaries had to build the structures. It is important to note that beneficiaries were also required to possess enough land to build these livestock enclosures. The trainings for the food security interventions were conducted by Ministry of Agriculture or Ministry of Livestock staff (agriculture extension workers) with assistance from the Mwanzo Mwema food security field officers.

Project governance. The project had three partner organizations directly involved in the implementation of project activities: the implementing organization based in Taita Taveta, the local partner based in Nairobi, and the university team, based in Winnipeg, Canada—many of whom travelled periodically to Taita Taveta to provide "technical input". Field officers formally employed by the implementing partner were most directly involved with delivering services to project beneficiaries. Food security officers initiated conversations with community leaders to identify beneficiaries, participated in trainings, and provided support to beneficiaries through follow-up visits. Health and nutrition field officers provided support to CHVs through monthly meetings and supportive supervision visits. They also met with local leaders to plan public education meetings at schools and churches.

There were a number of administrative positions at the local level in Taita Taveta: a project coordinator that oversaw spending, reporting, and other administrative duties, and a

monitoring and evaluation coordinator supported by a data entry clerk. Major activities for the monitoring and evaluation team included the development of the monthly monitoring tool to be filled out by CHVs monthly, development of a database for data entry, and the project's evaluation. The field team worked closely with a project coordinator from the local partner's office in Nairobi, who travelled to the implementation site once a month (for up to two weeks) to work with the local team on budgets, work plans for implementation, and new activities. In addition, the local partner also provided monitoring and evaluation support to the field team.

All partners (including staff from the university) met once a week to discuss progress and next steps. At the outset of the project, the university's role was envisioned as that of 'technical support" —to provide input on the interventions to be delivered, and monitoring and evaluation, without direct responsibility for implementation. As the project progressed, however, they became more involved with the implementation activities and the project meetings reflected this. In addition, there were regular meetings between the finance staff of all three organizations and a management meeting with senior staff from the partner organizations.

Methodology

Overall approach: Defined by Creswell (2009), "Ethnography is a strategy of inquiry in which the researcher studies an intact cultural group in a natural setting over a prolonged period time by collecting, primarily, observational and interview data". (Creswell 2009, 13). As a methodology it is flexible, typically changes in response to context and is considered an appropriate method for studying groups of people and how groups develop "shared patterns of behaviour over time" (Creswell, 2009 p.16). In my research the group of people were individuals from different organizations who all participated in the Mwanzo Mwema project in some way, while the relationships between individuals and groups as well as the meanings and behaviours that developed during the course of the project was the focus of research. Ethnography was

therefore an appropriate method for this study. More specifically, this ethnography studied a group of people implementing a single global health project and project ethnography, as described by Evans and Lambert (2008), provided the framework for data collection and analysis.

Central to project ethnography is a conceptualization of projects "as social arenas made up of different social actors and intersecting ideologies, relationships, interests and resources. The interactions between different actors (including the project and its staff) and the changes that occur over time as a result of these interactions form the focus for understanding intervention processes" (Evans and Lambert 2008, 469). The theoretical framework underlying project ethnography was originally proposed by Lewis and colleagues (2003) for the ethnographic studies of development projects. As such, it not only focuses on context, but also on the practices involved in implementing an intervention, the agency of those involved in the project, and the distribution of power within projects (Evans and Lambert 2008; Lewis et al. 2003). The aspects of the framework that dealt with "meaning" were particularly salient to my research, especially the ways in which meaning is produced in projects as well as any fragmentation or convergence of meaning that may take place during the project.

In describing these aspects of the framework, Lewis and colleagues (2003) suggest that we should examine how key project stakeholders think about what they are doing and how they attribute meaning to different project aspects, and we should identify any contestations or reworkings of these meanings. Meanings constructed in the everyday life of the project as well as those made explicit in broader project discourses should be considered. Other aspects of the theoretical framework align closely with institutional ethnography, and its focus on the effect

that the activities and work practices of one group of people have on the coordination and organization of activities of another group (Mykhalovski and McCoy 2002; Smith 2001).

To gain a better understanding of how project staff implement interventions, my data collection and analysis focused on the everyday practices of implementation, the role of those performing these practices and the knowledge and meaning(s) generated by staff and project participants within the project.

Although the group of people studied in my research were all involved in a specific global health project, project partners and participants occupy multiple social, ideological and geographical locations As such, methods for collecting data were guided by the methodological concerns underlying multi-sited ethnography (Marcus, 1995). This approach moves away from anthropological work that traditionally emphasized the study of smaller and more bounded groups and locales (i.e., "village studies") (Hannerz, 2003) to include all sites that are implicated in the research question. As this project focused on an intervention that was governed across the national boundaries of Canada and Kenya, an approach to data collection guided by multi-sited ethnography allowed me to follow the migration of intervention techniques, practices and discourses as they circulated and became embedded in the various social contexts over time.

My research extended beyond project ethnography, however, by including a more in-depth, historical exploration of the project's context through archival research. This exploration was based on an assumption that the historical development of intervention policies and practices would have a profound effect on the logics and techniques currently implemented, and would shape the willingness of individuals to participate in interventions.

I obtained ethical approval from the University of Manitoba's Health Research Ethics Board and the Kenyatta National Hospital/ University of Nairobi Ethics and Research Committee.

Data collection. The data collection process was guided by a set of methodological concerns that underlie multi-sited ethnography (Marcus 1995). This approach moves away from anthropological work that traditionally emphasized the study of smaller and more bounded groups and locales (i.e., "village studies"; Hannerz 2003). I considered a multi-sited methodological approach to be necessary as the project partners and participants occupied multiple social, ideological, and geographical locations. Also, as this project focused on an intervention that was governed across the national boundaries of Canada and Kenya, I had to be able to follow the migration of intervention techniques, practices, and discourses as they circulated and became embedded in various social contexts over time.

Although I was involved in the Mwanzo Mwema project, in some capacity, for over three years, the data contained in this thesis was primarily collected between July 2014 and August 2015 (a period of 13 months, see table 1). In addition, interviews with university scientists involved with the project were conducted in April 2016. No interviews with project staff or beneficiaries were conducted for the sole purpose of this research. However, as part of my involvement with the Mwanzo Mwema project, I led the qualitative components of both the baseline and endline assessments which included focus group discussions with community members, project beneficiaries and CHVs. At endline I also conducted some key informant interviews with government employees. The university scientists leading Mwanzo Mwema agreed to let my use the data collected for my own purposes as well, and it is included as secondary data in my dissertation.

Table 1. Outline and timing of data collection activities.

Data collection activity	Objective	Timeline
Archival research	1,2,3	August – December 2014
Participant observation	2,3	July 2014 – August 2015
Key informant interviews with university scientists	1,2,3	April 2016

Table 2 provides an overview of all the data I considered in this research, including the sites of data collection and my role in its production.

Table 2. Overview of data analyzed.

Type of Data	Data Source	My role in data production
Primary archival documents: Annual Reports for Taita Taveta District (now County). Listed below	Kenya National Archive	Identified, collected, and analyzed material
Other primary archival documents. Listed below.	Kenya National Archive	Identified, collected, and analyzed material
Secondary sources, including Government of Kenya and WHO policy documents	Internet	Identified, collected, and analyzed material
Mwanzo Mwema Project documents	Project staff	Examined and analyzed
Ethnographic fieldnotes	Participant observation while engaged with the project	Composed and analyzed
Photographs	Photographs I took while in Taita Taveta	Took photos, interpreted and analyzed
Interview transcripts: university	Key informant interviews with	Designed data collection tool,

scientists	university scientists	conducted interviews and analyzed
Interviews transcripts: government employees, including community health assistants and agriculture extension workers	Secondary data obtained from the Mwanzo Mwema project; key informant interviews conducted during end-line assessment	Designed interview guide, planned and executed data collection strategy, conducted majority of interviews with a Kenyan colleague
Focus group discussions transcripts: men and women from Taita Taveta	Secondary data obtained from the Mwanzo Mwema project; focus groups were conducted as part of the baseline assessment	Designed focus group guide, planned and executed data collection strategy, observed focus groups
Focus group discussions transcripts: Mwanzo Mwema CHVs and project beneficiaries (health and nutrition, and food security arms)	Secondary data obtained from the Mwanzo Mwema project; focus groups were conducted as part of the endline assessment	Designed focus group guide, planned and executed data collection strategy, observed focus groups

Archival research. The bulk of my archival research focused on examining primary archival materials at the Kenya National Archive. I had initially set out to construct a genealogy of maternal health interventions over the three decades leading up to the Kenyan government initiative that instituted free antenatal care in June 2013. The focus on maternal and child health (versus nutrition and food security) was informed by the scope of the project and my own background: given the size and scope of the Mwanzo Mwema project, I elected to focus on the MNCH health aspect as this aligns with my public health background.

These plans soon changed upon my arrival in Kenya. During my first month there, I met with the directors of both local organizations as well as a local advisor at the University of Nairobi (also involved in the Mwanzo Mwema project). They made several suggestions with regard to the archival searches that I incorporated into my data collection plan. The University of Nairobi advisor suggested that I include nutrition in my archival research because of its importance in the Mwanzo Mwema project rationale, as well as in the Muskoka Initiative. The

director of the local partner organization suggested that I consider events in health and development more broadly, as they also influenced current projects. He explained that although CHVs are now mostly tied to MNCH projects in the region, their original enlistment had little to do with MNCH, but traced all the way back to Alma Ata.

I started working at the National Archive in Nairobi in August 2014. In my initial meeting with one of the librarians, she presented me with my first two hurdles: first, the archives did not house documents and material produced more recently, which covered all the decades I had planned to include in my research. Indeed, the most recent document I looked at while at the archives was a Taita Taveta County Development plan for 1997—2001. Second, maternal child health was not always indexed on its own, which meant I would have to look through health documents more broadly to find my topic. This became even more problematic if I narrowed the focus specifically to Taita Taveta. Prior to 'devolution,' Taita Taveta was designated a district of Coast Province (not its own county) and any material archived for Taita Taveta would therefore be listed under Coast province. Nevertheless, the librarian showed me the volumes that served as indexes for the older archived material (for Coast Province), as well as where I could access the computers that indexed newer documents or documents that had already been digitized. All documents I collected from the archives were labeled and filed. I would label all hard copies of documents (photocopies requested at the archives) with the following identifying information: Shelf, Box and File Number, File Name and Date Requested. Any photos taken during the day (I occasionally took pictures of the document pages) would be downloaded to my computer and labelled according to the file number (e.g. BY/21/12/) _Document number, i.e. the document numbered 160 in the file numbered BY/21/12 would be labeled as BY 21 12_160. If the document had more than one page, page numbers were added in parentheses e.g. BY 21

12_160(1). For the Annual reports, photographs and hard copies were labelled as TT(yr), then page number, e.g. TT79_01 (See appendix A).

Initially, I requested files across a number of topics and categories, partly to familiarize myself with how the documents were organized. I also did not limit the files requested according to the time period initially set out as very few files fit those criteria. The librarian also helped me identify files on topics related to maternal health, but not from Coast province, in order to identify national policies or decisions. I started working with the librarian my first day in the archives and I am not sure I would have accomplished much had it not been for his knowledge and assistance. Once he discerned my actual topics of interest, he would bring me documents I did not know to look for, and other documents not yet catalogued. These included family planning brochures, monographs based on previous archival work which included both a PhD dissertation and a M.Sc thesis about agriculture in Taita Taveta, ethnographies of Taita written in colonial times and, most significantly, the Taita Taveta Annual Reports from 1948 to 1992.

Initially, I only accepted the annual reports because of his enthusiasm and efforts to track these documents down, but the annual reports soon became the backbone of my archival research. Spanning back to colonial times, these documents included reports from every department of the district administration and later district government including health activities, farming reports, and training and development. I had never intended to delve this far back in Taita Taveta's history, but I soon recognized that in order to more fully understand aspects of the current development context in Taita Taveta, I needed to confront its formative colonial past. The documents accessed during the months spent focused on the archival work include:

1. Taita/Taveta Annual Reports [1948 – 1992]
2. Taita Taveta District Development Plans [1973 – 2001]

3. Monographs (including study reports, theses, and ethnographies)
4. Health visitor's reports (By/9/400) [December 1973 – February 1976]
5. Monthly reports: District Health Officer (By/9/400) [May 1974 – January 1976]
6. Monthly Reports: Public Health Nurse (By/9/400) [May 1975 – February 1977]
7. Monthly Report: Community Nurse (By/9/400) [October 1975 – February 1977]
8. Monthly Reports: Voi Hospital (By/9/400) [January 1974 – August 1975]
9. Monthly Reports: Taita Hospital (By/9/400) [Dec 1975 – June 1976]
10. Monthly Reports: Taveta Hospital (By/9/400) [1974 – 1977]
11. Monthly Reports: Nutrition (By/9/400) [All files missing]

The dates in parentheses indicate the earliest and most recent document I examined. Missing files became a major hurdle in terms of looking at nutrition, as all nutrition files I requested were missing, and the only information on nutrition programs or policies I could gain access to was contained in the annual reports.

Documents collected at the archives were reviewed in conjunction with secondary sources in order to locate them within the larger context of Kenyan health, global health and development. These documents included current Kenyan policy documents and guidelines, WHO policy documents, guidelines and fact sheets and scientific literature.

Lastly, I collected all project documents to build a repository of materials that display intervention discourses, goals and outcome measures. These include meeting minutes, reports, workplans, as well as the materials used in the project (for instance, the care cards or field security manual). Examining these resources provided insight into the project activities, decision-making, and motivations during the course of the intervention.

Participant observation. In this study, I built on my previous involvement with the project, although I became more involved in the everyday practices of the Mwanzo Mwema project through attending meetings, training sessions, and field visits. Grounding the research in these everyday activities of project implementation allowed me to focus on the "identification of the ways quotidian matters and interorganizational relations affect the design, presentation and implementation of projects, and the assumptions embedded within them" (Markowitz 2001, 42). Participant observation also allowed me to reveal aspects of implementation that the project staff may not be aware of, or find difficult to articulate (Mosse 2011). Observations were recorded first as jottings and then developed as detailed fieldnotes (Cook 2005; Emerson et al. 2011) with emerging themes or observations of interest captured in memos that were also included in analysis.

In composing fieldnotes, I followed the data collection and analysis procedures outlined by Emerson and colleagues (2011, 2nd edition), recording my initial impressions of the situation or context, focusing on my "personal sense" of what was important or out of the ordinary, and then moving beyond these personal reactions to pay attention to what people around me seemed to react to as significant. I wrote notes systematically for those days that I participated in project activities or interacted with project staff.

In my research, the first step involved composing jottings on a daily basis. These mostly consisted of key phrases, names or pieces of dialogue I considered crucial to remember. These jottings were, for the most part, captured in small notebooks, but I occasionally used my smartphone. Cell phones are quite ubiquitous in Kenya and the rules and etiquette around their use meant it was acceptable to sit in a meeting and text. However, I only used the smartphone if I wanted to record ideas while in a car or some other physical environment that made writing

difficult. I did this in a program called One Note that could be accessed from my smartphone as well as my computer.

Emerson and colleagues detail a number of decisions ethnographers have to grapple with in terms of their fieldnotes, including when and where you write your notes and jottings, whether you do so openly, and what is included in the jottings and subsequent fieldnotes. These decisions are often context specific (as my cell phone use discussed above) but would also depend on your relationship with those you are studying. I had decided to take notes openly, and met with all the field staff to detail what I would be doing, and why I would be writing notes. I obtained verbal consent from everyone involved. I was fortunate in the sense that much of my participant observation took place in contexts where taking notes was acceptable—that is, in meetings my almost feverish scribbling did not attract undue attention. I also started writing notes from my first interactions or meetings with project staff in the hope that people would come to accept my note taking as part of what I do.

In keeping with project ethnography and my research questions, I focused on the mundane daily activities of project implementation in my observations. At the same time, dramatic or unique events were included, but not to the extent that I examined 'the ordinary' (Das 2006). To try and keep my jottings more secure and private (to protect anonymity), I made my jottings in Afrikaans and a short hand that only I understood. In a few instances where words escaped me, I took pictures with my phone to later act as prompts. These were almost never of people and if they were, I asked permission or used the picture only for my own interpretive purposes. I made every attempt when composing my fieldnotes to focus on description, dialogue and characterization, but encountered some challenges. This was a study of one project, with a defined and small group of staff involved in the project. As such, my concerns with protecting

anonymity and providing some semblance of confidentiality made me hesitant to include too much identifying detail, including people's verbatim words.

At the end of each day in the field, I would sit down to compose my jottings into descriptive fieldnotes. These would mostly happen alone in my hotel room after dinner. I would transcribe my jottings into fieldnotes, in English. These were all stored on my computer in a password-protected file (my laptop was also password-protected using a different password). I composed the fieldnotes as a chronological representation of my day with various sketches and episodes connected by when and where they occurred on that particular day. While typing up my notes, I would insert asides (most often in comment boxes, but also in brackets in the text) that described any initial thoughts I had about how observations may relate to others or what I thought it might mean. In this way, analysis was a process that took place in parallel with data collection, mostly through asides or the writing of longer memos for more complete thoughts, and guided future observations.

Key informant interviews. I conducted five interviews with the university scientists. The rich data I collected in my fieldnotes were the primary focus of my analysis. However, as I spent most of my time "in the field' with Kenyan project staff, much of what I learned about the project was influenced by my interactions with the staff and less so the university scientists. I felt it was important, therefore, to interview the university staff to gain their perspectives on the topics under consideration. I personally contacted health scientists by email to request the interviews. In the email I would explain the purpose of the interviews, and I attached a draft list of the topics I wanted to discuss (appendix B). I also stressed that I would only be interviewing a small number of individuals and confidentiality may be a concern. All staff agreed to participate although one individual was not interviewed due to scheduling conflicts. I audio recorded all

interviews and transcribed them personally. All participants provided informed consent (appendix C).

I did not conduct interviews with project staff, including the directors of the partner organizations, in Kenya, in part because I spent most of my time with them but also for reasons related to ethics. One of the project staff warned me early on that local field staff would be reluctant to speak to me, given that some staff members were let go or moved to different sub-counties (away from their homes) after voicing complaints. As a result, I decided to focus on my fieldnotes for primary data. Additionally, the university scientists had agreed to give me access to the data collected in the qualitative components of the baseline and endline assessment. These included transcripts of focus groups with community members, project beneficiaries and CHVs as well as interviews conducted with government staff. I led both qualitative components as part of my involvement with the project.

I also did not interview the directors or managers of the partner organizations. Initially I was waiting to obtain my ethics clearance in Kenya, which was delayed but as time progressed the relationships between the various partners further deteriorated. I feared that interviews may further escalate tension but also suspected, based on my interaction with these individuals, that interviews would be used as opportunities to vent, derailing the interviews. Although this is an important perspective missing from my analysis, my interactions with these individuals is accounted for in my fieldnotes and included in my overarching analysis of how power relations operated in the Mwanzo Mwema project.

Data analysis. As mentioned above, data analysis occurred throughout, in parallel to data collection. I treated all the data collected as "texts" and analyzed archival material, fieldnotes and interview transcripts in a similar way. I analyzed these texts in an iterative process starting with

initial review of data and generating a list of codes for analysis. These codes were grounded in the data and informed by the notes and memos I had made during data collection. I generated an extensive list of codes in a process Emerson and colleagues (2011, 175) call "open coding". During this process, I also wrote memos to myself to capture any emergent ideas for further analysis or themes. I also created an "other" category for any sections of data I considered important but that did not fit easily with the identified codes.

Once I completed the coding of all data, I started the process of comparing and contrasting codes, determining how and if they fit together, and generated my themes accordingly. I defined these themes (in a code book) and then refined these definitions as analyses proceeded. Since this was a project ethnography primarily concerned with project implementation, I focused on themes related to processes and those that either dealt with practical aspects of implementation or had practical implications for implementation. I also paid special attention to issues or topics that seemed important to my study participants. Selecting themes from all the themes I created, and then grouping codes is a dialectic process where I moved from the codes to the themes and back again, comparing codes by looking for any similarities, or whether there were variations of the same theme that highlighted another dimension of the theme. After selecting the themes, I fine coded within every theme. This is also where I returned to my "other" category to see if any of the data "pieces" coded here would now fit within the broader themes.

I followed the above process for the data sets separately before combining the data under the central themes. From here I worked on how the themes fit together (links, variations, similarities) and what the more general theoretical ideas would be. I paid close attention to any

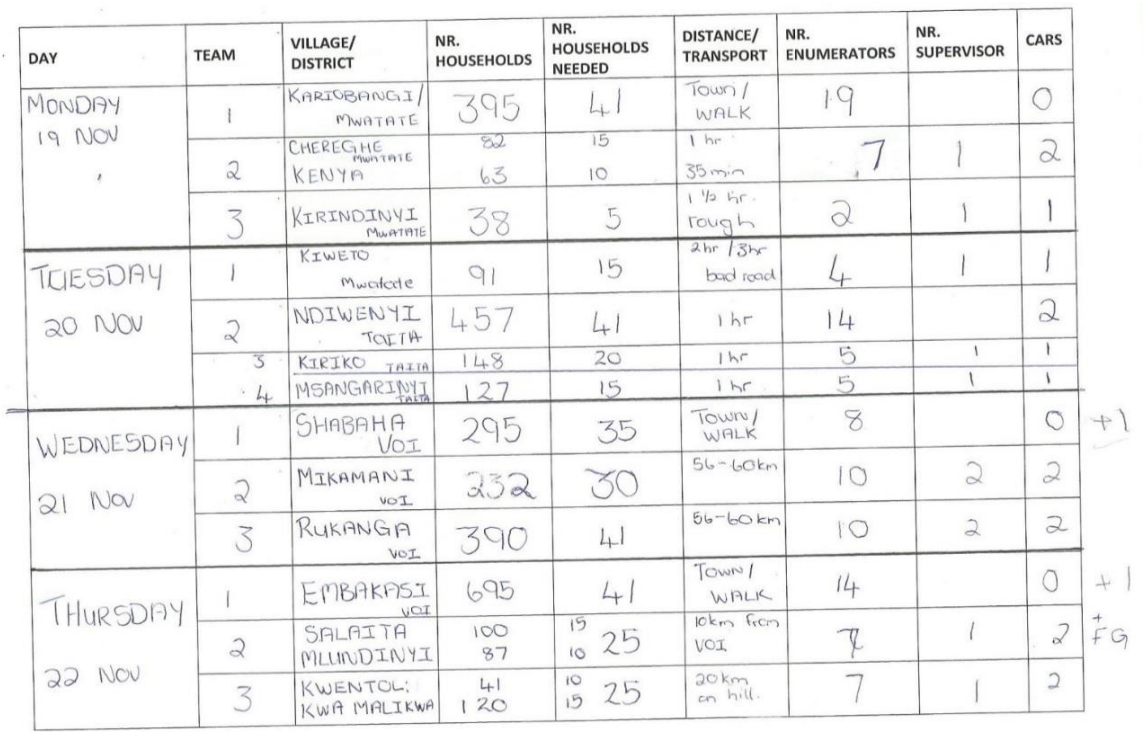
similarities or differences between the data sources and any insight these differences may provide about power distribution and relationships in the project.

In the case of the fieldnotes, data were analyzed thematically as described above. Within the different themes, I composed sketches from different data segments. This allowed me to analyze these data chronologically to look at whether, and how, discourses may have changed over time.

Encountering Development in Kenya

Alongside the Mwanzo Mwema project was a *Students for Development* internship program. As part of this program, two Kenyan students from the University of Nairobi's Masters of Public Health program travelled to Canada and enrolled at the University of Manitoba for a semester. Ten Canadian students, from the departments of community health sciences, nutrition, agriculture, and nursing travelled to Kenya for a period of three months to participate in Mwanzo Mwema project activities and gain experience in global health.

I was one of the first Students for Development interns participating in the project's baseline assessment between September 1, 2012 and December 1, 2012 and was eventually tasked with leading the qualitative evidence-building component. As part of this process, I developed and delivered training to field staff, coordinated focus groups and analyzed the qualitative data. In addition, I coordinated the overall logistics of the baseline assessment and created field plans specifying daily activities and resources needed (see Figure 3 below for an example).



DAY	TEAM	VILLAGE/ DISTRICT	NR. HOUSEHOLDS	NR. HOUSEHOLDS NEEDED	DISTANCE/ TRANSPORT	NR. ENUMERATORS	NR. SUPERVISOR	CARS	
MONDAY 19 NOV	1	KARIOBANGI/ MWATATE	395	41	Town/ WALK	19		0	
	2	CHEREGHE MWATATE KENYA	82 63	15 10	1 hr 35 min	7	1	2	
	3	KIRINDINYI MWATATE	38	5	1 ½ hr rough	2	1	1	
TUESDAY 20 NOV	1	KIWETO Mwatate	91	15	2hr / 3hr bad road	4	1	1	
	2	NDIWENYI TAITA	457	41	1 hr	14		2	
	3	KIRIKO TAITA	148	20	1 hr	5	1	1	
	4	MSANGARINYI TAITA	127	15	1 hr	5	1	1	
WEDNESDAY 21 Nov	1	SHABAHA VOI	295	35	Town/ WALK	8		0	+1
	2	MIKAMANI VOI	232	30	56-60km	10	2	2	
	3	RUKANGA VOI	390	41	56-60 km	10	2	2	
THURSDAY 22 NOV	1	EMBAKASI VOI	695	41	Town/ WALK	14		0	+1
	2	SALAITA MLUNDINYI	100 87	15 10 25	10km from VOI	7	1	2	+ FG
	3	KWENTOL: KWA MALIKWA	41 120	10 15 25	20km on hill.	7	1	2	

Figure 3. Baseline logistics plan excerpt. Created by author during project's baseline assessment.

Being involved with the project at this point provided me with a firsthand look at the establishment of a new partnership and project, set against the backdrop of the baseline assessment. The university had never before worked with either of the Kenyan partners, both faith-based organizations with mandates and value systems quite different from that of the university. The differences in the geographical and ideological location of the organizations also meant that individuals spoke "different languages," with the university seen as being overly academic and the implementing partners being more entrenched in development discourse. The effect of the resulting collision of perspectives on the project and partnership became apparent during an early planning meeting between the university team and the local partner in Nairobi. While waiting in an office, the university team (myself included) noticed a diagram on the whiteboard in the office. It consisted of a vertical line with the university at the top labelled as

"too much," the implementing partner at the bottom with "too little"; and the local partner in the middle. When a researcher from the university inquired about the meaning of this diagram, a staff member from the local partner organization informed the team that the diagram depicted the research expertise and expectations of the different partners, before erasing this from the board. For this organization, placed in the middle, it also reflected the challenge they foresaw in bridging the expectations between the university and the implementing partner.

These tensions were also evident in project activities. Activities such as mapping, tool development, and planning for the baseline assessment were viewed differently by staff from the various partner organizations. The university team did not view some of the activities as research, but rather as program-driven. In contrast, the activities did not fit with the development experience of implementing staff members and were considered to be research-oriented tasks for which the university team should be responsible. These misunderstandings contributed to project tensions and delays in project activities. One such activity was the creation of a Taita Taveta map. Early on, university researchers asked the field staff to create a map of the area to assist the team in planning the baseline assessment. The field staff later told me, however, that they were unsure of how to go about this activity, which they interpreted as research-related. This delayed the creation of the map until tensions became too intense and they created the map in Figure 4.

Figure 4. Map of Taita Taveta created by project field staff. Picture taken by author during a visit to the local partner organization's office in Mwatate.

Hierarchies and complexities that inhere in command structures also contributed to delays and conflicts. Project implementing staff did not consider themselves to be hired by "Mwanzo Mwema," but rather employed by their respective organizations. They expected reporting, workplans, and human resource management to follow these existing hierarchies. Lack of communication around vacation time, parental leave, and daily activity approval caused frustration in the project. In an attempt to resolve this, project staff established different working groups (a management committee, finance group, and program team) with specific decision-making powers.

These are just some of the observations that led me to question the nature of global health projects and partnerships, how projects are implemented and contend with some of these contextual factors. How do project staff account for these contextual factors in evaluating the eventual "success" (or "failure") of the project? Or are these tensions and their effect on project activities largely ignored in formal 'process evaluation' (Steckler and Linnan 2002) or conventional monitoring practices? It was my internship with this project that ultimately led me to change the topic (and field) of my thesis research from HIV-related research to focus on the inner workings of global health, and I returned in June 2014 to study the remaining months of the project.

Approaching Global Health

The approach I have taken in my research is part of a growing interest in "critical studies of global health" (as exemplified by the work of Biehl, Petryna, Adams and others). While I focused on one project in a larger sea of global health projects in the region, the intention was never to evaluate or critique this specific project. Nor are my research questions and interests rooted in an ideological position that rejects all global health activities and projects. Rather, much like Biruk (2018) and others, my point of departure is more pragmatic, considering that if we are going to engage in the field of global health, we should consider, very carefully, what it is that we are doing, what such participation makes us a party to and to what effect. This approach unsettles the uncritical acceptance of the ways we, as university scientist, NGO staff, students or medical professionals, approach global health.

To be embedded in a project you are studying presents a complex ethical field to navigate, and questions about my positionality plagued me from the outset. Some of my initial concerns ended up being less onerous than I had first anticipated. During my proposal defense,

my committee members raised some concerns about my positioning with the other partner organizations (as a student from the university) as well as the conflict studying a project of our own university may cause. My fears about gaining support and assent from local implementing partner organizations were further exacerbated after reading Kristin Peterson's chapter "Phantom Epistemologies" in *Fieldwork isn't what it used to be*, where she writes about her work trying to understand the transnational assemblages that developed around the bioprospecting of forests on the Cameroon/Nigeria border:

> I was working with one of the NGOs, which was directing these activities, and my research project fell apart after about six months. Part of the failure had to do with internal politics, but a greater part was due to implicit expectations that I would be writing a journalistic account of the various bio-prospecting programs. In fact, towards the end, one of the project leaders requested that my thesis be a narrative and not an analysis of the program. Complying with this request of course was not possible. So, after three years of graduate school, two grants and no project, I had to rethink what I was doing. (Peterson 2009, 46)

As I started my fieldwork, my main concern was how to present my project to all the project partners in a way that would avoid some of the misunderstandings Peterson encountered, while gaining permission to access the project space. Specifically, I was concerned that the organizations would be resistant to my presence if they viewed my project as potentially critical of their organization, since negative exposure may impede any organization or institution's ability to procure future funding. As a result, I took great pains in explaining my project to the directors of the different partner organizations and the principal investigators from the university, emphasizing that I wanted to follow this project not because I thought it was exceptional in any

(negative) sense, but because I thought it served as an interesting example of a global health project with new partnerships. I reiterated that my intention was to study global health and that the Mwanzo Mwema project would serve as a case study to explore broader practices and logics.

At first, I was taken aback by the Kenyan organizations' response, which was overwhelmingly positive. The organization in Nairobi offered me a desk to work at while in the city and the director of the implementing partner invited me to travel to their offices in Mombasa to see some of their other projects. It was unfortunate that I could not really take either organization up on these offers as most of my time in Nairobi was spent in the archives, and political instability in Mombasa deterred me from visiting. University scientists were equally supportive, if a little less enthusiastically than the Kenyan organizations. Some of this stemmed from the tensions and conflicts that arose at my proposal defense and that none of the scientists had been present. Ironically, the concerns my committee raised at my defense regarding being blocked from publishing my findings, if they cast the university in a negative light, led most of the university scientists to reiterate their support for my project (regardless of the findings).

I was surprised that my presence on the project was treated with positivity and enthusiasm. I had expected the tension in the partnership to pose a challenge to my project. However, the conflicts between partners actually facilitated my ethnographic engagement. In fact, the project partners saw my research as an opportunity to express their opposing views toward the functioning (or perceived dysfunction) of the partnership. This airing of complaints was evident in the invitations I received from the directors to visit their organizations to see how they ran their projects. I understood that, just like in Peterson's example, everyone involved had expectations of me and my research. In part, these expectations were a result of project staff's efforts to present themselves as credible, competent actors in the project. However, I was more

concerned that I had, despite my best intentions, misrepresented my research (and perhaps myself).

In my initial negotiations with directors from the partner organizations, I spent considerable time trying to clarify the role that I would take in my participant observational work. Many of the local staff envisioned that I would be a bridge between them and the university team. In this role, I was imagined by them as a translator, as one who could help project staff communicate their concerns to the university scientists more effectively. University researchers, on the other hand, saw me as a resource already on the ground—someone who could move things along or be their eyes and ears.

The expectations of the local partners and scientists alike certainly did not fit with my own research objectives. I tried to distance myself from the university so as not to be seen as part of the "university team," although this was, to some extent, impossible to accomplish given my affiliation with the same institution. I felt it was important to try and establish a critical space in which to do my research. I was concerned that accepting the role of the "bridge" would put me in the proverbial eye of the storm and create tension within relationships where I sought to build rapport. I acknowledge that my refusal to take up these roles might have disrupted the relationships I was building, but at the same time, I reasoned that taking on any role in mediating the partnerships would inhibit my ability to enter the various spaces, perspectives, and lived realities that I needed to access in order to more fully understand the life history of the Mwanzo Mwema Project.

In my negotiations with the different organizations, I therefore offered to lend my skills as a qualitative researcher who could help write project documents. The various organizations accepted this role, although most parties still hoped that I would fulfill their desired roles as well,

and often tried to push me in that direction. In short, this tension persisted throughout my fieldwork.

Shortly after my arrival in Kenya in 2014, the local organizations' staff held a meeting with the Taita Taveta County Health Management Team. I invited myself along. I made it clear that I was only there to observe for my own research and not as a representative of the university. One of the co-investigators, a health scientist from the University of Nairobi, travelled to Taita Taveta with us to represent the university during the meeting. I was, however, the only "Mzungu"[6] in the room, and each time a meeting attendee mentioned the university, all eyes turned toward me. This continued throughout the day, despite my continued silence and deference to our colleague from Nairobi. Following the meeting, I introduced myself to the Director for County Health, explaining who I was, my purpose for attending the meeting, and explained why I had been silent. He seemed amused by my explanation, exclaiming that he had wondered why I was not speaking and that I was "the quietest PhD" he had ever met.

I realized that my stubborn silence had been more disruptive to the meeting than I had anticipated. In subsequent meetings with government officials, I would still maintain that I could not speak on behalf of the university, but I would participate in more general discussions. For instance, in a meeting with the Community health strategy focal person, the Nairobi based project coordinator, and the County nursing manager, a group of us devised a plan for tracking the healthcare facility referrals made by CHVs working with Mwanzo Mwema. However, when the group requested that the university fund the printing of these referral forms, I was unable to commit the university to producing them.

6. In Kenya, the term "mzungu" is used to refer to people of European descent.

Maintaining my relationships with friends and colleagues at the university was also challenging at times. Since I was studying a university project, I did not feel like I could discuss any of my ideas or theories with the researchers directly involved in the project, in part to protect the confidentiality of the local staff. As the months progressed, I felt increasingly isolated from colleagues who did not quite understand what I was actually doing. University staff directly involved with Mwanzo Mwema were all supportive of my research, but their misgivings would occasionally be expressed as "jokes" over how I might be portraying them in my fieldnotes. Occasionally the university staff would also put me in uncomfortable positions by providing me with information they insisted could not be shared with staff from the local organizations.

My views of how power operates in global health, as well as my fears of seeming "biased," made it harder for me to conceptually approach the university as a site and to view the university team as research participants. As a result, I often had to work harder, analytically, to understand the logics informing the university staff's actions, especially as my own public health training was steeped in many of the same logics. It was easier to critique the university as an institution in its position of power and privilege. Nevertheless, I often felt conflicted in relation to the questions of who I was ultimately accountable to and what I should include and exclude in my writing. How would I create an ethnographic understanding of the Mwanzo Mwema project that reflected the complicated knowledge-power regimes that were overtly and subtly perpetuated through my home institution?

Embarking upon an ethnographic project, under the supervision of an anthropologist, I was forced to confront a major epistemological difference with respect to my public health training. In conversations with my fellow graduate students, who were studying in the health sciences, I at times struggled to explain how ethnography as a discipline is actually undertaken,

trying to balance my colleagues expectations of prescribed data collection methodologies with the ethnographic process. I found myself explaining to them that I had to be more open to the unexpected, for unlike public health, ethnography was a more emergent discipline that could not be overly circumscribed by preformed data collection procedures. I once remarked to a peer that I needed to "trust my intuitions" and include any moments I considered important—even if I could not fully explain why at the time. This was certainly the case with the picture of the demonstration garden that I discussed with a project coordinator. At the time, I did not realize how this would fit in my project, but I had strong sense that it was somehow important to what I should be learning about Mwanzo Mwema.

While I anticipated that my position as a university student would complicate my relationship with project staff from the local organizations and university in various ways, other unexpected challenges presented themselves during my project. I recognized that I drew more on my South African heritage and citizenship, as well as elements of my upbringing that helped me connect with project staff. One such aspect was going to church every Sunday while growing up, as this allowed me to contribute to discussions of religion, which happened not infrequently in Kenya generally, and especially in working with two faith-based organizations. In one instance rather early on in my fieldwork, I travelled to Taita Taveta with the group from Nairobi. After dinner one night, the group started discussing church politics. Although they all worked for an organization that serves as the community service arm of the Dutch Reformed Church, many attended the Anglican Church. Their discussion that night focused specifically on the Anglican Churches' women's groups and its internal politics. I was listening to their ongoing discussion when one of the staff members turned to me and asked which church I attended, perhaps as a way to include me in the conversation. Growing up in South Africa, I attended the Dutch

Reformed Church and told them so. As a result of this statement, there was a visible change in attitude towards me, especially from the organization's acting director. He immediately asked if I knew of their organization's affiliation with the Dutch Reformed Church. I explained that I was in the South African church, not the church based in the Netherlands, which he largely ignored. He asked numerous questions about which church I attended now, and to my response that I did not attend any church he replied that he would provide me with a list of Calvinist churches in Winnipeg that supported their organization (and that I could attend). I thanked him, but declined on the grounds that if I did attend church it would probably be with family members who attended a non-denominational church in Winnipeg. The conversation turned to other topics and I went to bed soon after, still feeling uncomfortable about our conversation. The next morning I went to breakfast early, to write some notes and orient myself for the day over coffee, only to find the acting director already there. We started chatting again. The conversation soon turned to their organization's vacant director position and how he was too busy to fill it indefinitely. He then asked me to consider applying for it. I understood that his request was not based on any judgement of my qualifications, but based on my specific religious upbringing. I politely thanked him for his consideration, replying that I had to concentrate on my PhD and would not be able to take on a full-time position. Despite declining his request, my relationship with him changed, for the better, as a result of the previous night's conversation. Throughout my fieldwork, I continued to feel plagued by such forms of uncertainty and unease with how I inadvertently positioned myself in terms of my cultural background. Anthropological positionalities are often ironic in these ways, continually shifting like the social ground we attempt to cover.

Thesis Outline

In this thesis, I explore what I term flexible sustainabilities in global health. Rather than ask whether the sustainability of global health projects has been attained, or indeed is even possible, I instead focus on the ways in which specific knowledge practices have been strategically employed by local project staff, volunteers, and beneficiaries to gain access to current and anticipated opportunities afforded by the continual turnover in development projects in the region. Local people rely on local knowledges of intervention to engage with new projects and to create some sense of continuity amidst inconsistent funding flows, and various circulations and exits of development actors and programs. These knowledge practices are not only informed by an individual's own participation in programs and interventions. They are historically rooted, tied to longer histories of development that circulate in particular localities.

In the chapters that follow, I will outline various aspects of flexible sustainability. In chapter one, I trace the genealogy of interventions in Taita Taveta to the colonial period (1948 – 1992), specifically focusing on those intervention techniques and ideas that continue to survive in current development projects. In chapter two, I illustrate how various stakeholders of the Mwanzo Mwema project employ a number of knowledge practices to access the resources provided by the project, while they also prepare to leverage these gains for future opportunities. In chapter three, I return to the idea of "sustainability" and discuss the multiplicity of sustainability discourses currently circulating in global health, specifically illuminating them within the context of the Mwanzo Mwema project. I highlight the ways in which project beneficiaries, government officials, and project staff reinterpreted interventions "on the ground" in ways that ensured some continued benefit to local communities. In the conclusion, I bring the

different theoretical strands of my argument together by further elaborating upon the concept of flexible sustainabilities.

CHAPTER 1. GENEALOGIES OF INTERVENTION

This chapter describes what I refer to as genealogies of intervention, which are the historical threads that often unknowingly connect current global health projects to past interventions.[7] Here I develop the idea of genealogies of intervention in two ways. I first illuminate the visual signifiers that characterize contemporary Taita Taveta as a site of intense foreign and local intervention. In other words, I look at the material remnants of previous projects—especially development branding that currently appears on signs, shirts, and satchels—and discuss the meanings they produce and the relationships they mediate for those interacting with them (foreign or local). Secondly, tracing back to the colonial era, I describe a set of intervention practices and discourses that persist in Taita Taveta today and shape Mwanzo Mwema project activities in ways that program planners tend not to anticipate. In this way, the Mwanzo Mwema project can be viewed as tied to a longer history of intervention in Taita Taveta that is embodied in local ways of knowing and thinking about development. I argue that the prolonged engagement of local people from Taita Taveta with interventions over the past seven decades has given rise to a resourcefulness (in a practical *and conceptual sense)*, which plays out in how they remake and undo the Mwanzo Mwema project.

Branding development

In late 2014, I attended a three-day training session for CHVs recruited into the Mwanzo Mwema Project during the second phase of recruitment. The Mwanzo Mwema staff organized

7. I build here on the definition of genealogy put forward by Foucault as, "a form of history which can account for the constitution of knowledges, discourses, domains of objects etc., without having to make reference to a subject which is either transcendental in relation to the field of events or runs in its empty sameness throughout the course of history" (Foucault 1984, 54).

and facilitated the training in collaboration with local health officials and community health assistants,[8] utilizing training materials they had developed with Canadian student interns. On the first day of training, I was sitting in the back of the room and noticed that one of the public health officers seated in the row ahead of me was wearing a light brown polo shirt from another child health project (Figure 5). The next day, another government official, an impeccably dressed public health officer, sported a light blue polo shirt with lime green trim bearing the USAID logo. As I looked around the room over the course of the training, I noticed many shirts branded with logos or slogans from previous projects or other organizations. While the Mwanzo Mwema project did not distribute t-shirts, each of the CHVs attending the training received a branded backpack to carry their tracking tool, pen, and other necessities to perform their duties (Figure 6).

Such development branding marking people, places, and objects were in fact ubiquitous in Taita Taveta. Mwanzo Mwema program managers also perpetuated this branding activity beyond the backpacks. For instance, the motorcycles used by the Mwanzo Mwema field officers to travel between project sites and meetings were marked with the local implementing organization's logo (Figure 7). Traces of the multitude of foreign-funded health and development programmes that had descended on the area were also evident in the labelling of infrastructure. Figures 8 – 15 capture a small sample of the artefacts of interventions I encountered during my time there. Each branded item represented one of an array of transient projects—projects that came and left.

8. Community Health Assistants (CHAs) were initially referred to as Community Health Extension Workers, or CHEWs. According to the Community Health Strategy for Level One, CHAs are paid government employees with some formal training in community health, psychology, counselling, social work, or community development. The position can be based in a facility or in the community. Included in their duties is the supervision and support of the CHVs and data collection on the health situation in their areas (Ministry of Health 2006).

Figure 5. Picture taken during the first day of CHV training. The public health officer with his back to me is wearing a t-shirt with a slogan referring to child health.

Figure 6. A bag of Mwanzo Mwema branded backpacks, waiting to be distributed to CHVs with their certificates upon the completion of the Mwanzo Mwema training.

Figure 7. A motorcycle used by one of the Mwanzo Mwema field officers, branded with the logo of the local partner organization. Here it is parked at the implementing partner's office in Mwatate.

The condition of the stickers, murals, or other brandings at healthcare facilities across the county, often overlapping one another, reflects how long these items have been in place, hinting at a longer history of intervention. Their presence also stands out as a contradiction against the backdrop of infrastructure that seems far older, characterized by broken sidewalks, cracked walls, or now empty buildings. This juxtaposition points to more than failed intervention aspirations; it is also symbolic of donor programs that are more interested in funding specific, vertical programs as opposed to more horizontal programming.

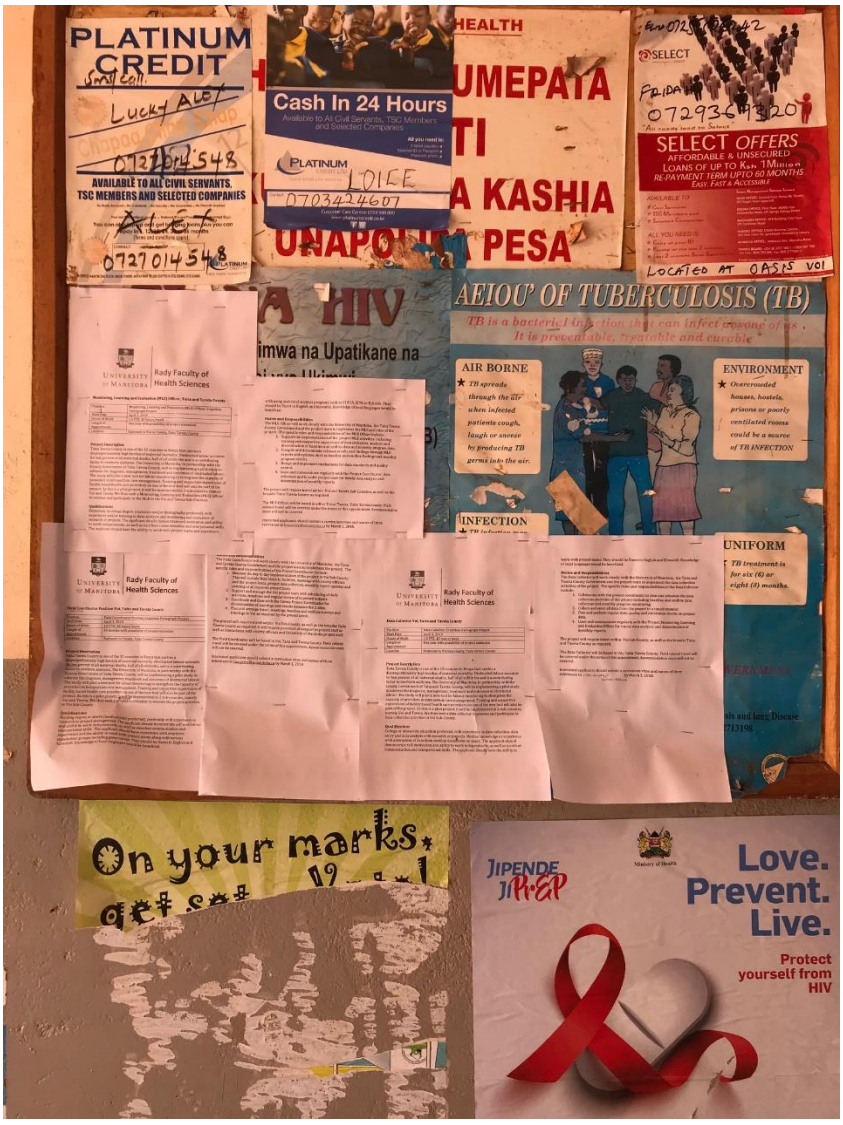


Figure 8. Bulletin board at a Dispensary in Voi Sub-county. Advertisements for positions with a new global health project are posted over older notices, promotional material, and advertisements.

Figure 9. Posters of previous campaigns on the door of the Family Planning Room at one of the Wundanyi sub-county hospitals. The sign on the door contains the logos of multiple organizations. The sign, as well as the bottom poster, is also in English.

Figure 10. A mural of the Global Fund on the wall of a building that is locked and seemingly empty. It seems especially forlorn since I took the picture in 2017 while all nurses and clinical officers were on strike, protesting against low salaries, effectively shutting down services at almost all health facilities.

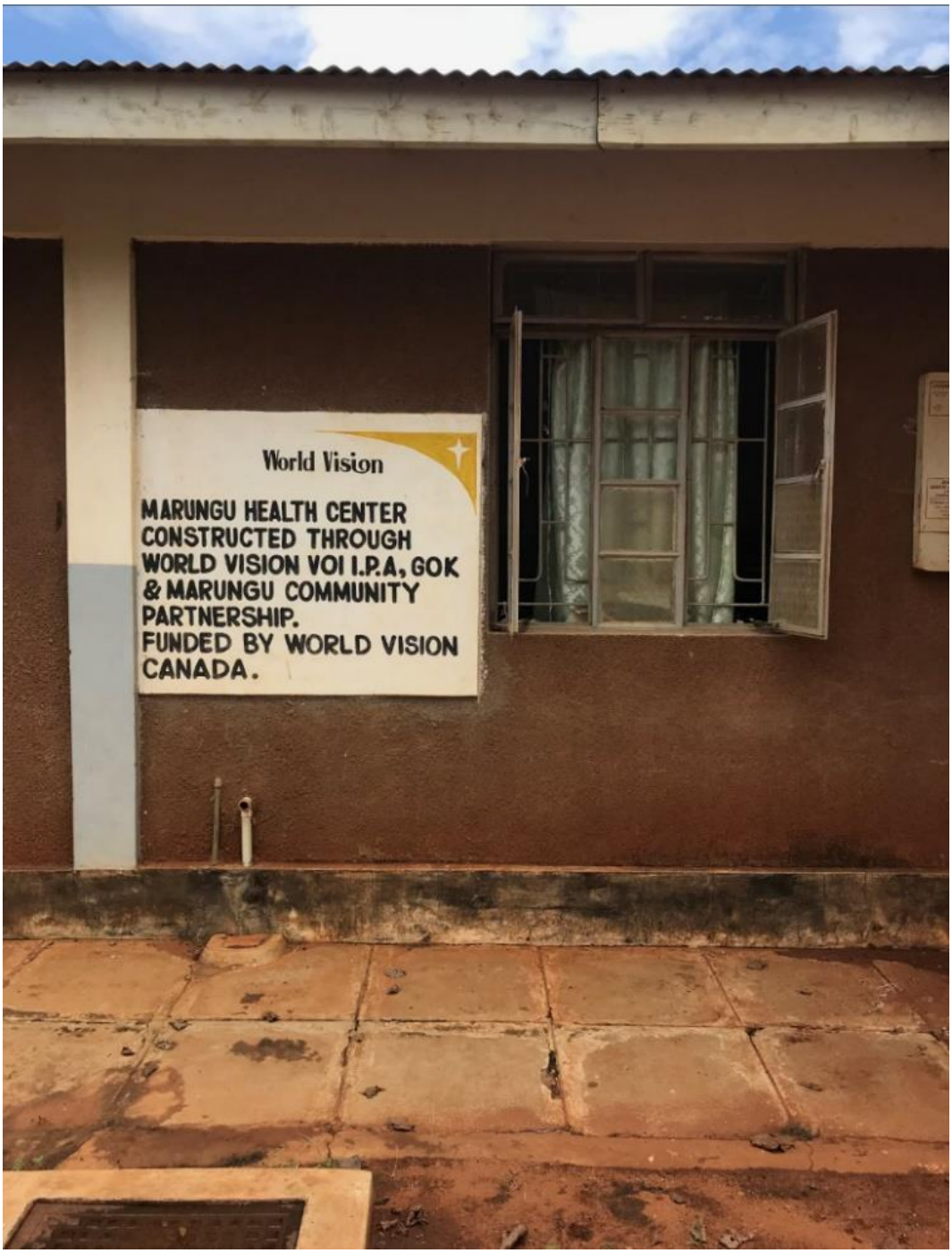


Figure 11. The sign on the wall of the Marungu Dispensary indicates that it was funded by World Vision Canada. A second sign, on the other side of the door, indicates that the dispensary was "officially handed over to the Ministry of Health" in September 2007.

Figure 12. Mural painted on the wall of the Sagalla Health Centre for a malaria eradication campaign involving the Peace Corps.

Figure 13. Condom dispenser on the cracked wall of a healthcare facility in Wundanyi. These dispensers can be found on the walls of almost every healthcare facility in the county, although the majority seem to be empty now.

Figure 14. Hand washing stations outside dispensaries in rural Taita Taveta. The ones pictured here are in Voi and Wundanyi sub-counties but they are present at all healthcare facilities.

Figure 15. Wall clock in the Tausa Health Centre.

During the time I spent in Taita Taveta, I came across a plethora of such signifiers, reflecting people's engagements in previous and ongoing intervention projects. I regularly spotted public health officers, CHVs, and community members wearing t-shirts, carrying tote bags (or messenger bags), and *lessos* with various project logos and slogans. A lesso, also referred to as a *kanga*, is a colourful, rectangular piece of cotton. It generally has three distinctive sections: a border, a central design, and typically, a line of text running somewhere along the border—often a riddle or saying (Ressler 2012). Lessos are most often worn by women and have multiple uses, serving as a 'cover up' when women wear pants in the villages, or to carry babies. Lessos are sometimes deployed by development actors with the understanding that they can mobilise communities, especially women, in political and public health campaigns or to promote a service, with slogans replacing the text or riddle (Hamid 1996).

The branding on lessos and other clothing items did not always relate to health, but health-related projects were well-represented, ranging in topic from 'HIV prevention' to 'healthy communities' and 'health literacy.' The lesso pictured in Figure 16, for instance, promotes the Taita Resource Centre, but the prominent placement of the USAID logo also re-instantiates USAID's influence over this youth-led initiative.[9] In my observations, the majority of the logos that imbued Taita Taveta belong to World Vision, USAID, Kenya Red Cross, and various units of the United Nations. Given the over-representation of multilateral and other global health and development normative institutions, one can say that such branding entangles 'the local' in transnational signification.

9. The Taita Resource Centre was established by four local youth leaders in December 2005 (according to their Facebook page). Their primary focus seems to be on socio-economic development that is "transformative" and considers human rights, but reduction of HIV/AIDS infection and food security are included as separate objectives.

Figure 16. A lesso promoting the Taita Resource Centre, also featuring the USAID logo.

During their fieldwork, Mwanzo Mwema field officers often sported t-shirts bearing the brand of other organizations or projects in which they participated. While we were conducting interviews and focus groups for the endline assessment in Taveta, a Mwanzo Mwema field officer wore such t-shirts on the days she accompanied us to the field. On the first day, she wore a World Water Day t-shirt, and on the second day a t-shirt related to a TB project—both days worn with jeans (although she tied a lesso around her waist before exiting the vehicle). She had received both t-shirts during government-sponsored events, to which she was invited as a result of the close working relationship she maintained with the local government. These were her 'field clothes,' she told me. She then expressed disappointment at not having received a Mwanzo Mwema t-shirt for that purpose. In subsequent conversations I had with the field officer, it became clear to me that t-shirts were especially important to nongovernmental staff like her because they verified to local people that she was attached to a particular project. The point here

is that community fieldworkers may rely on these t-shirts to lend a legitimacy to their presence in these communities.

During focus group discussions I conducted with CHVs, I learned that there was, however, another dimension of this display of credentials through branding. The participants explained that Mwanzo Mwema-branded backpacks also created the impression with local people that CHVs were paid employees (rather than volunteers), and therefore program beneficiaries in such instances would often expect a share of these funds or some incentive for participating. In this sense, branding also undermined the social positioning of CHVs in these communities.

> Sometimes you go to a home and they think 'why is an old woman like me having this job?' They don't understand that we are volunteers. *They just see our nice bags* and that we are busy and imagine that we are employed and we are just disturbing them with information. So just as Mary is saying, they don't even give you a seat. They just keep doing their work like washing clothes without even looking at you. (CHV, female, focus group discussion, Mwatate sub-county; emphasis mine)

A focus group participant in a different location also echoed this problem:

> You know, sometimes when you get there, she sees, like, someone who has been carrying something. When you come with the bag, she feels there's 'something'; either the CHV's or the field officers will give us something. So when you don't chip in to help, they feel, now, this person, even when they see you tomorrow—they might close the door behind and leave. (CHV, female, focus group discussion, Voi sub-county)

Although t-shirts and other forms of branding appear, on the one hand, as emblematic of Western dominance in local development matters in Taita Taveta, the point to be made here is how local people re-appropriate these symbols and take them up in their own engagements with development in ways that often go unnoticed by global health practitioners. T-shirts, bags, and lessos at first might appear to be mundane objects of interventions that are tangential or inconsequential to 'the real' work of development, and may be even viewed as a misuse of funds that could be directed towards more 'important' intervention activities. Taking a close ethnographic portrait of these objects, however, suggests that they are actors in their own right, forging (and undoing) relationships between people; they engage local ways of establishing credibility to do the work of interventions, and they are used to assert and project forms of legitimacy that enable CHVs and field officers to successfully and effectively execute the intervention tasks that have been assigned to them.

Enduring interventions

Historian Melissa Graboyes in her book *The Experiment Must Continue* (2015, 32) writes of Taveta and its local inhabitants:

> In early 1955, the district officer in Taveta, Kenya, had to explain to the leaders of the ill-fated Aptitude Testing Project why local reception was so chilly. He recounted the history of their participation in different government-sponsored research, public health, and agriculture projects over the period of ten years. As he could personally attest, the WaTaveta people had already labored to implement irrigation schemes, given thousands of blood samples for parasitological examinations, and participated in multiple agricultural surveys.

In this section, I provide a brief overview of the earlier intervention history Graboyes describes here, as captured in annual district reports and other primary archival materials retrieved from the Kenya National Archives. My overview spans the time period from 1948—when post-World War II British development and reconstruction efforts in Kenya were gaining momentum—to 1992, including the most recent Taita Taveta Annual Report found in the archives. Specifically, I draw out sets of intervention techniques related to MNCH and agriculture that shaped the terrain in which the Mwanzo Mwema project was to unfold.

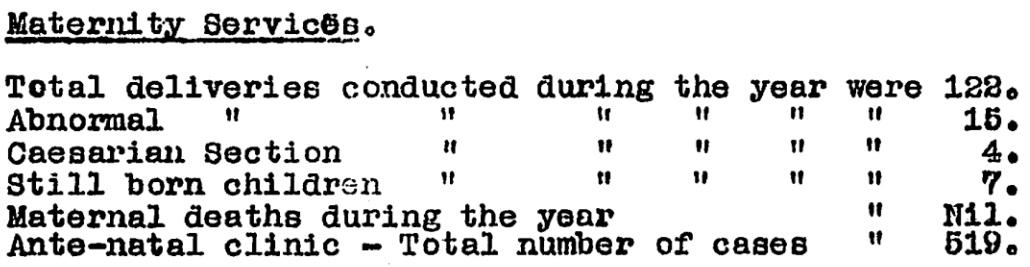
In general, the development priorities in Taita Taveta did not change markedly from 1948 to1992, even following Kenya's independence in 1963. This parallels colonial-postcolonial continuities in other sub-Saharan African contexts, as anthropologist Maia Green describes in relation to Tanzania (2014, 18):

> Development as a principle of national organisation…is neither solely an artefact of the colonial era nor the monopoly of the post-colonial state. The organisational and categorical forms created to manage the development effort under colonialism and through socialism have not merely endured, they have become the enduring basis of social organisation within contemporary Tanzanian society.

Similar to Tanzania, Taita Taveta's particular development "problems" and "solutions" endured over time, as was reflected in the persistence of intervention categories and techniques. Next, I will explore those techniques in the context of two major development areas, MNCH and agriculture, which are present throughout the time period I studied and directly relevant to the Mwanzo Mwema project that I further analyze in subsequent chapters.

Maternal and child health and family planning

Although not the colonial government's primary concern, maternal and child health is one of the only areas of public health that was consistently reported on, beginning in 1948.[10] These reports primarily included numbers of deliveries, number of women who attended antenatal clinics, and since 1959, those who brought their children to Well Baby Clinics (Annual Report 1959 Taita District). By 1960, these reports also begin to include routine vaccination of children, as prior to this most of the vaccination campaigns seemed to be in response to outbreaks. These numbers were reported in the annual reports submitted by the colonial administration, but also in the one-page annual reports submitted by the "Local Native Council"[11] (LNC, later the African District Council).



Maternity Services.

Total deliveries conducted during the year were 128.
Abnormal " " " " " " 15.
Caesarian Section " " " " " 4.
Still born children " " " " " 7.
Maternal deaths during the year " Nil.
Ante-natal clinic - Total number of cases " 519.

Figure 17. Maternity Reporting in the 1960 ADC annual report.

10. The colonial administration's primary objective, especially in "reserve areas," was environmental health and sanitation, and is well documented elsewhere, see Chaikin 1998.

11. According to Chaikin, the Local Native Councils were established after 1924. These councils were "staffed by appointed and elected members of the local indigenous population. The LNCs were charged with levying local taxes but had only limited autonomy for setting priorities for disbursement of the funds they collected. At the locational level, indigenous 'chiefs' were appointed by the District Commissioner to serve as representatives of their area and to impose the directives of the colonial administration." (Chaikin, 1998 p.1704) The District Commissioner was always the ex-officio head of the councils and "exerted considerable influence". In 1950, the name of these councils changed to African District Councils. Since the bulk of my analysis focuses on the time period after 1950, this is the term I use.

This duplication in reporting was not unusual for the time, and reflected a similar overlap in service delivery. As historian Miriam Chaikin writes, colonial medical services worked with the LNCs, where the "LNCs mandated and funded services that the central government did not adequately provide, such as education and some health services" (Chaikin 1998, 1704). In the case of Taita Taveta, maternal health was primarily the responsibility of the African District Council (ADC), but lack of funding hampered their ability to deliver services. As a result, the colonial administration made a number of beds available in the district hospitals (run by the colonial medical services) for maternity services:

> Owing to the poverty of the Local Native Council, which is responsible for maternity services, the Medical Department has made available a number of beds in both the Wesu and Voi Hospitals. There is still shortage; but the Medical officer attributes this [bed shortage] to the practice whereby pregnant mothers wish to come to hospital well before their time and to stay on unnecessarily afterwards. (Teita District Annual Report 1948, 15)[12]

However, the number of beds available in the hospitals did not satisfy community demand for long, as facility deliveries increased. In the case of Wesu Hospital, for instance, deliveries increased by 57% between 1952 and 1953, and from 55 deliveries in 1952 to 125 in 1955 (Teita District Reports 1953, 1955). The increases occurred despite the ADC charging for maternity services as of 1952 (Teita Annual Report 1952). As a result of this growing demand for maternal and child health services among African women, the ADC hired the first midwives for Taita in

12. Up until 1959, the colonial administration spelled the name for the district as Teita. The spelling changed to Taita in 1959, as "the spelling having been long used by many literate WaTaita" (1959 AR, p.1).

1953, and opened the first dedicated maternity ward at Wesu Hospital in 1954.[13] The midwives hired were based in the health facilities, but the expansion and demand for facility births began to wane by the 1960s. In 1962, eight midwives were employed across the three district hospitals (along with their affiliated health centres and dispensaries), but according to the District Commissioner, "These [midwives] were very much under worked – the whole lot conducting only about 20 births a month" (Annual Report 1962, Taita District, 29). The decreased interest in facility deliveries is partly attributable to the ADC's lack of funds, as is illustrated below in the controversy surrounding maternity services and midwives that occurred between 1960 –1963. The discussion below refers specifically to Taita (now the sub-counties of Voi, Mwatate, and Wundanyi) as the midwives were hired only in Taita. In Taveta, the Hospital's Assistant Surgeon took care of all deliveries.

Domiciliary midwifery

In 1961, the Taita public health budget was cut due to the ADC's lack of funds, and in an effort to reduce costs the Taita Taveta District Commissioner laid off some of the health assistants. The Provincial Medical Officer of Health (PMOH) for Coast Province, however, opposed these layoffs on the grounds that the health assistants were primarily responsible for the "environmental sanitation services" (i.e., clean running water, sewage disposal, and environmental inspections), which he considered more important. His stance was in line with the colonial government's priorities, and as such supported by N.R.E. Fendall, a bureaucrat from the office of the Director of Medical services, who wrote that,

13. According to Chaikan, the midwifery training program at the Lady Grigg Memorial Hospital in Nairobi started in 1935, but midwives are first mentioned in the Taita Taveta annual reports in 1953.

> The Provincial Medical Officer is quite correct in his stated principle of maintaining the environmental sanitation services as a first essential; any breakdown in these services is likely to lead to epidemics.[14]

Based on this position, the PMOH halted and reversed the layoffs of health assistants and instead suspended the maternity services offered at the hospitals for the remainder of the year, with "provisos which should enable some sort of service to be kept going" (3.312/21, letter dated 23 Sept 1961). In September 1961, all midwives were let go from the hospitals and encouraged to conduct deliveries in women's homes for a small fee. The ADC was informed of this decision at its November council meeting, and councillors' reaction to the closing of the maternity wards and the resultant layoffs of the midwives was overwhelmingly negative. According to the PMOH, upon hearing about the closure,

> There was such an outcry amongst [African] Councillors at the dismissal of midwives for three months that the net result was that all African District Council employees have agreed to take a 25% cut in their salaries until the end of the year, thereby closing the financial gap.[15]

The midwives returned to the hospitals and received about three quarters of their usual salary for the remainder of the year. The ADC's reduced salaries only moved toward "closing" the gap, however, and while the maternity wards were opened again, the council lacked the funds to support and maintain them. For instance, during this time women who chose to deliver in the maternity wards had to supply their own food, further eroding the appeal of facility deliveries

14. Excerpt from letter from N.R.E. Fendall to Permanent secretary, Ministry of Local Government and Lands, dated 27 September 1961.

15. Excerpt from letter from the PMOH Coast Province to the Director of Medical services, Ministry of Health and Social Affairs, dated 21 November 1961.

and discouraging women from delivering there. This decreased the number of deliveries that midwives attended to almost zero for the months of November and December. The midwives also did not attend any deliveries during the time they were "encouraged to fend for themselves and do domiciliary practice [home deliveries]."[16] The PMOH attributes this to the midwives' inability to work outside a facility setting, as well as to the people's mindset: "because the people themselves, unless they could use a maternity ward, would not consider that any advantage was to be gained by calling a midwife to deliver them in their own home." He insisted that both the midwives and the people would need to change their attitudes and behaviours, as the current model of service delivery was expensive and "in many ways unnecessary."[17]

The Taita Taveta ADC's financial situation did not improve, despite the colonial administration convincing the ADC to charge increased fees for maternity services, and by the end of 1962 the maternity wards were again closed during the last three months of the year, this time with no reprieve for the midwives (Letter from PMOH to Permanent Secretary Ministry of Health and Housing, dated 6 September 1962. 3.312/34 -83 in box).[18] The PMOH, in consideration of the continued economic hardship, moved forward with plans to make the midwifery in Taita primarily a home-based service. His scheme is at least partially influenced by the correspondence he had with Fendall during the 1961 closure, as Fendall advised the PMOH:

> You might care to consider the possibility of putting these Midwives on a small retention salary so long as they performed a minimum of say 10 deliveries per month. In addition

16. Excerpt from letter from the PMOH Coast Province to the Director of Medical services, Ministry of Health and Social Affairs, dated 21 November 1961.

17. Ibid.

18. Excerpt from letter, from PMOH Coast Province to Permanent Secretary Ministry of Health and Housing, dated 6 September 1962.

> to the retention salary they will, of course, be permitted to charge a fee, which fee should be controlled by the African District Council.[19]

The PMOH heeded this advice and included it in his proposed domiciliary midwifery program, which was to start in January 1963. Details of the plan were discussed in a meeting of the ADC's Public Health Committee on April 26, 1962:

> The Medical Officer of Health explained in detail the benefit of having domiciliary midwives. He stated that all kits would be bought by the African District Council and be provided to midwives. These midwives would be charging Shs. 10/-per delivery and this would be their own money. Over and above this, the Council would pay them Shs. 120/- per month as a retaining salary. The Medical Officer of Health went on to say that the present system of keeping three midwives at Wesu for seven beds, Voi two midwives for 4 beds and Taveta two midwives was uneconomical. The upkeep of Maternity Wards was £300 per year. Therefore, it was considered that one midwife per Maternity Ward was more than sufficient. She would be assisted by the Medical Officer of Health on complicated cases when they were brought by the domiciliary midwives from their locations.[20]

The PMOH wrote in a letter to the Director of medical services that,

> The scheme started originally last year when it was clear to me that the Taita African District Council were not getting value for money in their expenditure on midwifery services. In addition, it has always been one of my lifelong ambitions to introduce a

19. Excerpt from letter from Fendall to PMOH Coast in response to the Monthly reports for September 1961, dated 7 November 1961

20. Excerpt from letter from PMOH Coast Province to the Director of Medical Services, dated 8 January 1963.

> domiciliary midwifery scheme to a district, and as this was entirely in keeping with the policy of our Ministry in reaching into the homes of the people, I thought it seemed to be a good time and place to introduce it.[21]

Midwives already employed at the hospitals opposed the changes in their salaries and working conditions, and took their complaints to the Local Government Workers Union. It was awaiting arbitration at the time of independence and not mentioned again.

Whose priority?

The above vignette and the controversy surrounding the midwives practicing in Taita in the early 1960s reveal several aspects of maternal health care practices that resonate with current global health preoccupations about 'priority setting' and outreach efforts. Although the early and continued inclusion of maternal health in the annual reports suggests that it was somewhat important, the above narrative regarding the midwives shows us that it was a secondary concern for the colonial administration, which prioritized sanitation and infectious disease control. It was a priority to the ADC, but despite their outrage at the closure of the maternity wards and willingness to compromise their own salaries to maintain service delivery in 1961, their continued lack of funds made service delivery almost impossible. The overall cost of the program and the PMOH's concern over the "cost-effectiveness" of the maternity services led him to move forward with the home-based midwifery program. Cost-effectiveness of services, which remains a primary concern in contemporary global health, was only part of his motivation. In his letter to the Director of Medical Services, he references his own personal interest in the program as a "lifelong ambition"; the actual relevancy of the program to people in Taita seems to be less important. He makes no mention of whether such a program would be of interest to the

21. Ibid.

local people, despite his previous commentary that home-based midwifery services struggled in Taita.

The link I want to make with current global health practices here lies in the ways decisions are often made in global health, reflecting the motivations of university scientists, program planners, NGOs, and governments, whose desires drive the creation of global health priorities and projects. These motives often do not align with the primary health and development concerns of the local people. In the case of Mwanzo Mwema, the choice to work in Taita Taveta stemmed less from a local sense of urgency, and more from the availability of local partners to collaborate with the university, which in turn, by happenstance, led to the selection of the appropriate project site.

In the same letter about the midwifery program mentioned above, the PMOH also highlights how his proposed home-based midwifery program will align with the government's policy of accessing communities through outreach. The ministry's policy of reaching people "*in their own homes*" (Paterson quoted in Chaikin 1998, 1705; emphasis in original [22]) intensified with the appointment of Farnsworth Anderson as the Director of Medical Services in 1949, a staunch proponent of this policy. Anderson served as a district medical officer in Kenya before becoming director, and this experience led him to conclude that bringing "modern medicine closer to the patients and their homes" (Chaikin 1998, 1709)—most often through the established practice of "medical safaris"—was the best way to alleviate pressure on the hospitals and reach more people. He strongly promoted this policy during his time as Director of Medical Services (Chaikin 1998). During his tenure, a group of employees named "Health Visitors" were

22. According to Chaikin A.R. Paterson was the Director of Medical Services in 1933. Farnsworth Anderson (also quoted in Chaikin) later credits his teachings to pushing the medical services towards prevention services.

introduced in the annual reports, with their role seemingly related to bringing health services to communities, predominantly antenatal care clinics at health centres and dispensaries as well as home visits. I did not review any documents specifically related to Health Visitors and their role in community health during my research, however, and relay only those duties recorded in the annual reports.

This focus on outreach resonates with current global health practice where community health workers are tasked with delivering more and more health services (Maes and Kalofonos 2013). In MNCH, specifically, there has been increased promotion of reaching women through outreach and community health workers, shifting much of the burden of MNCH service delivery onto often unpaid African female workers who visit women in their homes[23]. Mwanzo Mwema similarly intensified the role played by CHVs in delivering health services to program beneficiaries.

Another strategy the colonial administration employed to reach people in their communities or homes was the introduction of "Full mobile dispensaries…set up in well-equipped Land Rovers to reach densely populated, but underserved areas and for use in situations of emergency" (Chaikin 1998, 1709). Mobile dispensaries indeed outlived Anderson, and have become especially connected to maternal and child health services offered in postcolonial governmental health care schemes. The First Lady of Kenya donated a mobile clinic to Taita Taveta in July 2014. These mobile clinics form part of her "Beyond Zero" campaign, which focused primarily on maternal and child health and immunization (Figure 18).

23. The role of unpaid, predominantly female, workers in global health projects need more attention. These projects increase their workload with increasing expectations of them without compensation. At the same time it changes their positions and roles in their communities, altering their relationships with their neighbours and sometimes colleagues as projects may not recruit all CHVs from a particular area into their projects. This is a complex situation, studied by others such as Maes (2017) in the context of HIV interventions.

The sustainability of mobile clinics came up in conversation with the director of one of the local implementing partners. We were in Taita Taveta in July 2014, just a day after the First Lady handed over the mobile clinic. While we were looking at a picture of the mobile clinic, the director wondered where in the county the mobile clinic would be able to go since, he said, the chassis was too long for it to be able to travel along some of the county's roads. If the clinic broke down, the county would be responsible for the repairs and he wondered if they would be able to afford it. Conspiratorially, he told me to look out for the corpses of previous mobile clinics or land rovers donated by UNICEF and other donors. These sat outside government offices across the county.

Figure 18. The Beyond Zero Mobile clinic at the Mwanzo Mwema community feedback meeting. It was the first such mobile dispensary donated by First Lady of Kenya as part of the Beyond Zero Campaign. It was donated in June 2014.

"Culture" as behavioural barrier

Important to note in the above vignette is the way in which women's ability to deliver in facilities was shaped by the historical context. Although the number of deliveries was only a

small percentage of all deliveries in Taita in the early 1950s, the number increased steadily every year; but as services broke down, the number declined again. According to the reports, there was little uptake of home-based midwifery, and these services were never mentioned again after independence. This raises questions about how "home deliveries" are conceptualised in current global MNCH programs as a "cultural barrier"—as an indigenous ideological system to be overcome in order to persuade women to deliver in facilities (see Paul 1958 for one of the first discussions of the role of cultural beliefs in a colonial medical intervention). Understanding these barriers as rooted in 'traditional African culture' ignores the ways that demands and desires change over time, and change in relation to myriad interventions that pass through Taita Taveta.

Local people, too, viewed barriers to facility deliveries in relation to "traditional culture," but moreover through the lens of postcolonial politics. In the baseline focus groups for Mwanzo Mwema conducted with men in Mwatate, they talked about midwives as being the "traditional" way of having babies, but that this was killed by "white doctors from the West."

> …That has a reason, the ones who have killed the work of the midwives are the white doctors from the West. They don't want expectant mothers to be helped in delivery by midwives when they are giving birth. They do not want midwives helping out back at home, and for them they only want money and the midwives intention is to help out the expectant mothers and may only want a lesso [*khanga*] as payment…because her need is not money; that's why midwife practices are not practiced. (Male, focus group discussion, Mwatate sub-county)

The discourse around breastfeeding is similarly influenced by interventions over time. In the annual reports, breastfeeding was commonly linked to concerns around the nutrition of Africans. In 1948, for instance, the District Commissioner reported that malnutrition was not a

serious concern in Taita, and that infant malnutrition was often due to prolonged breastfeeding: "The Medical Officer considers that prolonged breast feeding is largely responsible for malnutrition in babies" (Teita District Annual Report 1948, 16). Colonial discourse on nutrition during this period generally placed responsibility for poor health on individuals:

> When several cases of malnutrition are seen it has always been traced either to ignorance, or death, or ill health of the bread winner, e.g. the father. There is no real need for anybody to be hungry and only very few are. (Teita District Annual Report for 1953, 20)

In 1956—a year of severe drought—the Medical Adviser to the Colonial Office visited the county, reportedly stating that, "he had seen cases here [of malnutrition in Taita] worse than any in the Emergency areas" (Teita District Annual Report 1956, 21). This prompted the colonial administration to undertake another nutrition survey. Interestingly, 'women's ignorance,' rather than the severe drought, was blamed for the malnutrition:

> As a result [of the Medical adviser's comment], Dr. Beryl Lake was sent to make an investigation, and as result of her visit it was hoped that a Red Cross Officer might be made available for the District. None came, however, and the problem of educating the women in the correct methods of looking after children remains. If we are lucky enough to get a Woman Community Development Officer there is no job awaiting her of more importance than this. (Teita District Annual Report 1956, 21)

The pattern of drought and malnutrition continued over the coming decades, as did the call for "health education." Once the Kenyan Government established the Farmer Training Centre (FTC) in Wundanyi (discussed in more detail in the next section), nutrition education became much more prominent. Initially, it formed part of the "home economics" training offered to women at the FTC, but by the late 1970s everyone who attended a course at the FTC,

including men attending agriculture training courses, received some nutrition training. The link between health, nutrition, and agriculture in MNCH was thus well established in Taita prior to the introduction of the Mwanzo Mwema project.

For the Mwanzo Mwema baseline assessments, men participated in focus group discussions, and topics included food security, health seeking behaviour, and issues around breastfeeding. As noted in the focus group quote above, some of the men believed that deliveries with midwives, especially home-based deliveries, were discouraged because of HIV and money. In the same focus group, men also talked about changes in breastfeeding practices, specifically that children were breastfed for shorter periods of time, as being attributable to "science":

> Thomas[24]: What I think, is breastfeeding the baby is the mother's responsibility as opposing to what is happening today.
>
> Peter: It is a must for babies to breastfeed, except for the way things are today, scientists advise them not to breastfeed. (Male participants, focus group discussion, Mwatate sub-county)

Later in the focus group, as respondents discussed breastfeeding versus formula feeding, they elaborated on the idea that "scientists" whether a child is breastfed or not:

> Let's say there are [health] practitioners who know the health status of the mother and the child and will decide whether the mother should breastfeed or the baby to be given formula milk. I can therefore not decide whether the child to breastfeed or not, the mother must agree but the medical professionals make the decision. (Male participant, focus group discussion, Mwatate sub-county)

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24. Pseudonym. All first names in this dissertation has been replaced with pseudonyms.

In a focus group conducted with women in Salaita, Taveta sub-county, participants echoed the changes in breastfeeding practices:

> Mary: Up to five years is [how long] we used to [breastfeed] long ago.
>
> Sarah: These days maybe three years. (Female participants, focus group discussion, Taveta sub-county)

During focus group discussions conducted for the project's endline assessment, women talked about their confusion regarding exclusive breastfeeding for six months, and the role of previous intervention messaging in this confusion. Some women discussed previously being under the impression that exclusive breastfeeding was linked to being HIV-positive, since HIV-positive women were counseled on exclusive breastfeeding, while others thought women who did not breastfeed at all were HIV-positive.

> Many people think that when you exclusively breastfeed you have HIV. That that is why they are told to breastfeed for 6 months. (Female participant, focus group with health and nutrition project beneficiaries, Mwatate sub-county)
>
> The first thing that will happen is people will say that you are HIV positive so you don't want to infect the child. That is the first thing. (Female participant, focus group with Food security project beneficiaries, Mwatate sub-county)

In the Mwanzo Mwema project, CHVs counselled women to initiate breastfeeding within an hour of birth and continue exclusively for six months. At this point nutritious supplementary food could be introduced, but breastfeeding could continue until a child's second birthday. This is in line with current WHO guidelines (WHO 2009). The focus was not on prolonging breastfeeding as much as promoting exclusive breastfeeding. The point here is that breastfeeding

practices have been shaped by policy changes over the course of decades, problematizing the idea of breastfeeding as a "cultural practice."

Maternal health and the development agenda

Following independence, it was not until the late 1970s and early 1980s that maternal health began to receive more attention in the annual reports, while continuing to be linked to various agendas and development goals. In 1977 for instance, the annual report mentioned a "very successful District MCH/FP [Maternal Child Health/Family Planning] Seminar" (Taita/Taveta Annual Report 1977, 25) held in Taita Taveta in that year. As family planning was pushed toward a specific agenda focused on population control as a key strategy in development, maternal child health became a greater priority. That family planning itself was pushed by this development agenda is stated most clearly in the 1988 Annual Report. In 1988, a local branch of the Family Planning Organization of Kenya was established in Taita Taveta, and "formed to enhance the organization activities and deliberate on *population planning and control issues*." (Taita/Taveta Annual Report 1988, 3.3; emphasis mine). This is the first time the annual report explicitly made the linkage between family planning and development in terms of *population planning*. In other words, maternal health served as a vehicle to realize a broader biopolitical project (Foucault 1980; Jolly 1998).

The next substantial push toward MNCH occurred with the introduction of the Kenya Expanded Programme on Immunization (K.E.P.I). According to the 1989 annual report, K.E.P.I was linked to increases not only in immunization activities, but also family planning; i.e., increasing the quality and coverage of these services, provision of materials, training and supervisory visits, and liaising with NGOs (Taita/Taveta District Annual Report 1989).

More recently, maternal health was included in the Millennium Development Goals, first initiated in 2000. Although the incorporation of maternal and child health in these development goals has ensured its continued presence within the global health agenda, the messages that communities received through intervention indeed changed over time, subject to the continual reinterpretations and alterations that policy makers impose on agendas (Behague and Storeng 2008). The problem I illuminate here is that although MNCH has been an enduring preoccupation of health and development policy makers and experts, communities are left to grapple with the continually changing messaging and policy priorities, which, as the previous example of breastfeeding illustrates, appear as contradictions that become deeply rooted in community memory and collective experience.

Agriculture

Agriculture, including the production of food and concerns about water, was one of the primary health and development concerns in Taita Taveta between 1948 and 1992. In the decade directly following the Second World War, the colonial administration in Taita Taveta District directed much of its development effort toward water, agriculture, and land issues such as consolidation and soil erosion.[25] These efforts were integral to the project of colonial expansion, as the administration could test intervention techniques that could then be implemented elsewhere in the Empire to accelerate development (not unlike the idea of "scaling up" in global health). As historian Christopher Bonneuil notes, referring to Worthington's (1958) *Science in*

25. This is similar to what Maia Green describes in her examination of the social life of development in Tanzania, and how it has shaped popular contemporary understandings of development. She argues that colonial development in Taita Taveta centred on the interests of the British Empire; it was less preoccupied with 'improving' the lives of people living in Taita Taveta than with bringing the area into the larger scheme of British development.

the Development of Africa, colonial development efforts in Africa were often comprised of "planned pilot schemes": [26]

> Planned pilot schemes constituted the laboratories where development could be experimented with, using Africans as subjects. [Worthington] viewed these schemes as laboratory experiments in "acceleration of progress" that would provide a forward-looking perspective and models that could be used elsewhere to monitor the development process. (Bonneuil 2000, 259)

In Taita Taveta, these efforts to "accelerate progress" through pilot testing or other experiments often focused on farming practices, particularly the increased production of cash crops. Under the "Betterment Scheme for Reconditioning of the Teita Hills," initiated in 1948, the colonial administration focused on establishing economically viable plots through land consolidation, as opposed to the "fragmentation" of land common in Taita.[27] In addition, they planned training sessions in farming techniques for local farmers, and established irrigation or grazing schemes. In both cases these schemes referred to supplying certain sections of land with piped water so as to support crop production and livestock rearing on designated plots of land. The central administration also dispatched agricultural officers to Taita Taveta to assist with the training of farmers and to experiment with crops that could be grown there, including "European vegetables," cotton, coffee, chillies, and flowers for export to Britain from the port in nearby

26. Cf. Stacy Pigg 1997.

27. According to Grace Harris who, along with her husband Albert Harris, conducted an ethnography of the people living in the Taita hills, people in Taita often owned multiple pieces of land, both in the hills with its higher rainfall, and on the plains were livestock could graze. While crops grew well in the hills, livestock was at greater risk for some diseases. The colonial administration tried to address what they saw as fragmentation through land consolidation (Harris 1978).

Mombasa.[28] Alongside these interventions were settlement schemes of planned land development and plots set aside for the "excess population," often those displaced by land consolidation efforts in the first place. Bonneuil presents a detailed exploration of how these settlement schemes served as pilot projects of farming practice. This is not my focus here, however; I am more interested in the ways the interventions and intervention techniques of the broader experiment of development echo in present day development discourse and in projects like Mwanzo Mwema (such as the education and training of local communities in agriculture and nutrition practices).

The colonial administration promoted a number of 'better' farming practices including crop rotation, proper soil management, and better spacing and weeding of plants. One of the ways these strategies were promoted was through "demonstration farms," where people would receive training:

> On every possible occasion throughout the year at 'barazas' and on safari, emphasis has been laid by Administrative and Departmental Officers on the necessity for improved farming practice to increase productivity and prevent erosion. The careful observance of the rules of crop rotation, the proper tillage and manuring of the soil, the better spacing and weeding of the plants have all been stressed and explained. A demonstration farm is available at Wundanyi where attempts are made to select and improve strains and where instruction is given. (Taita Taveta Annual report 1948, 7-8)

Apart from the demonstration garden, colonial administrators mentioned that they would attend community meetings (*barazas*) and outreach activities in order to address people through their training (much like health outreach I discussed previously). Indeed, the quotation above

28. By road Mombasa lies 155 kilometres to the south east of Voi town.

highlights the colonial government's commitment to community-based training and outreach. However, they also included agricultural education in the school curriculum with plans for building an agricultural school just outside Wundanyi, close to the time of independence. After independence, the focus shifted away from schools other than its inclusion in 4-K clubs to training adult (male) farmers through the newly established Farmer Training Centre (FTC). The FTC also offered courses for women, although these were predominantly 'home economics' trainings. These trainings provided women with basic agricultural knowledge such as vegetable growing and poultry keeping, but primarily focused on topics related to home improvement, hygiene, and budgeting, as well as aspects of 'motherhood' such as child care. By 1980, home economics trainings also included two topics that would, forty years later, be central to the Mwanzo Mwema project—family planning and kitchen gardens. In fact, throughout much of the 1980s, kitchen gardens were heavily promoted "so as to implement the applied nutrition idea" (Taita/Taveta District Annual Report 1980, 41). At the FTC, staff maintained a kitchen garden to serve as demonstration to the farmers and women of what was being taught in the courses:

> The FTC kitchen garden continued to be used as a teaching aid to farmers attending courses. Vegetables grown including Kales, Cabbage, Pumpkin, Tomatoes, Cow peas, Amaranthus, Lettuce, Bananas, Onions, Carrots, Peas, Sweet pepper and Beans. (Taita/Taveta District Annual Report 1980, 42)

Following independence, the annual reports mentioned a number of other demonstration plots or gardens, including horticultural, legumes, and fertilizer plots, and an orchard.

The notion of training people to promote better agricultural practices and increase "outputs" persists as a development priority in Taita from 1948 until today, and underlies the food security interventions of the Mwanzo Mwema project. Both kitchen gardens and the

demonstration garden were activities put forward by the local organizations and not the university scientists. While these activities thus remain part of current discourses on food security, their promotion by local staff members highlights the ways intervention techniques and knowledge get taken up locally and persist outside project borders and over time. My point is not to focus on whether demonstration gardens and other intervention techniques are good, appropriate or not; rather, I highlight the persistence of such practices to stress the unconsidered possibilities for creating sustainability with local people in planning global health interventions.

International development assistance

While I focused on development priorities and discourses in Taita Taveta from 1948 to 1992 in the preceding section, I did so primarily from the government perspective, which does not account for the activities of international donor organizations. The earliest mention of international aid was in 1956, at which time UNICEF began supporting the distribution of milk to children in a severe drought, while buttressing the colonial administration's efforts to address child malnutrition (Annual report – 1956. Teita District). However, the influx of international organizations and donors did not really start until twenty years later, with the introduction of programs funded by the World Bank, as well as some other multilateral organizations such as the United Nations Development Fund (UNDF) and the Food and Agriculture Organization of the United Nations (FAO). By 1979, the annual reports mentioned these organizations as well as the German Government and a "rice specialist" from Japan living in Taveta to assist with rice farming (Taita/Taveta District Annual Report 1979). They were later joined by a host of other organizations, predominantly from European countries. However, with the exception of UNICEF, investment in health was minimal and most of the funds brought in by these external actors went towards agricultural improvement, economic opportunities, and building

infrastructure such as schools, Youth Polytechnics and hospitals, forestry, soil conservation, and water projects (mostly irrigation). The Norwegian agency for Development Cooperation (NORAD) and the Peace Corps also became involved in the home economics training, which included a health component (Taita Taveta Annual Report 1980, 1983).

The Danish Volunteer Service and the Peace Corps both shifted their focus to supporting labour groups in 1988. At the same time, the Danish International Development Agency (DANIDA) was also supporting the Arid and Semi-Arid Land program (ASAL) bulking project, which involved multiple ministries. The stated objectives of the program were to improve agricultural practices by establishing nurseries to produce more seedlings of drought resistant crops, producing "tree and fruit materials," establishing oxen-ploughing centres, improving crop storage, and demonstrating how to use the drought resistant crops (through cooking demonstrations, for instance). The ASAL program also included a soil conservation component, which aimed to establish soil protection measures in selected areas.

The first international organization to focus on health in Taita Taveta was Plan International, in the late 1980s. One of their first activities in 1989 was providing transport to women to the Kishushe Dispensary for immunization visits. According to the Department of Public Works, the organization also funded the building of three dispensaries in 1989, as well as staff houses at one dispensary (Taita/Taveta Annual Report 1989). Plan International also supported construction of the maternity ward at the Wundanyi sub-county hospital, which was opened in 1995 (see Figure 19 below).

Figure 19. Plaque on the wall of the maternity ward at the Wundanyi Sub-County Hospital commemorating its opening in 1995.

In collaboration with World Vision, Plan International also supported a "growth monitoring project" in both facilities and the community (Taita Taveta Annual Report 1992). The first mention of HIV in the annual reports occurred in 1989, coinciding with the WHO's collaboration with the University of Nairobi on an "AIDS survey" (Taita Taveta Annual Report 1989).

The above sections provide a rather brief overview of the involvement of external development actors working in Taita Taveta. The point I want to stress, however, is that these development actors have been present in Taita Taveta for some time. Their historical influence over development in the region, and the circulation of their program discourses should be considered as continually shaping the field out of which intervention genealogies unfold in Taita Taveta.

Discussion

> We really like development in our village but the problem is, when it's the election period, many different kinds of people come and they sadden us to death. What we want to request is, first of all you called us like our sisters and we agreed to come, we stopped our schedules, and we came to listen to what you had to say, didn't we? Therefore let's unite and know of each other's welfare so we can know how we will progress. Let's not start this and just leave it at that. Later we need to know the benefits of all the meetings we will have. In Kenya there are many projects and many of them are beneficial to people, the problem is when you start a project you abandon it. Explain to us if your project is a temporary one or one that will be continuous. (Female, focus group discussion, Taveta sub-county)

Taita and Taveta is a site of intense intervention by foreign as well as local actors, the history of which I traced back to a specific moment in the colonial period, starting shortly after the end of the Second World War. As the woman in the above quote expressed, many of these projects were discrete and transitory, coming into people's lives for a prescribed amount of time before disappearing again. But do they completely disappear? Much like the job advertisements and promotional material posted on the notice board remain and overlap (see Figure 8, p.51), projects do not entirely disappear; project messages exceed the lifespan of their discrete projects, and continue to circulate in Taita Taveta through the lived memories of those who engaged in these projects. These remnants of past projects serve to connect current global health projects to the intervention discourses and practices that precede them, tying new interventions (including those that are global) to localities in ways that program planners do not anticipate. I argue that as people continually encounter and participate in multiple projects over time, they cultivate what I

refer to as “local intervention knowledges.” More than an understanding of “local context,” local intervention knowledges implies an understanding of health and development projects, how they work, and what one can expect in the course of implementing development projects on the ground (du Plessis and Lorway 2017). Medical anthropologist Mary Jo DelVecchio-Good, summarizing Geertz’s notion of local knowledge (1983), defines it as “local ways of knowing, perspectives and understandings over and against cosmopolitan, assumed to be universal, forms of knowledge” (Good 1992, 1359). I argue, however, that “as people repeatedly participate in development or research projects over extended periods of time, universalistic knowledge interacts with local knowledge systems and unfolds in locales to become grounded epistemologies” (du Plessis and Lorway 2017, 54) in opposition to the dichotomy maintained between global and local knowledge implied in the above definition. This localized understanding of health and development influences how people engage with global health projects and how they remake project activities within their context. It is important for program planners and others working in global health to understand how local intervention knowledge informs individuals’ perceptions and interactions with projects in the present, as it has a great influence on ‘willingness to participate’ in new projects as well as how they participate in project activities.

One way that local actors choose to claim this local intervention knowledge is through wearing or carrying items branded by the logos and slogans of previous projects, as I have discussed in this chapter. The ubiquitous presence of these t-shirts, bags, and other items in countries where donors operate has relegated them to the mundane and cast them as inconsequential to the ‘real’ priorities of global health. But in focusing on these items, I show that they are vital resources in global health in their own right and that they serve multiple

purposes. Frontline fieldworkers, including the Mwanzo Mwema field officers and CHVs, use these items to make authoritative claims by rendering visible their credentials as represented by the branded items. T-shirts that also displayed government logos may be especially important to field workers employed by NGOs, as the these provide a sense of legitimacy by showcasing their relationship with government and the various training and expertise they have accumulated.

Historically tracing the genealogy of intervention techniques highlights the ways in which certain behaviours, often described as "cultural barriers," are both reified and reinterpreted in global health and development programs. Facility deliveries and breastfeeding, both practices that featured prominently in the Mwanzo Mwema project as objects of intervention, had already long been socially constructed as problems that needed to be intervened upon in previous health development projects, albeit in different ways over time. As maternal health was taken up by different development agendas, messaging and health care delivery changed to reflect the primary concerns of those agendas, which profoundly affected the ways in which women received and interacted with healthcare, and shaped so called "cultural" practices. Women were also faced with contradictory information, as the women discussed in terms of HIV and breastfeeding. My point here is that continual changes in policies and service delivery influence how women come to view maternal healthcare and their resultant interaction with the system.

In contemporary global health practice, the focus of intervention is often defined in terms of "lack," such as lack in knowledge or skill in so-called developing countries. In maternal child health, such lack is often attributed to women's knowledge of their own bodies and those of their children. In other cases, the lack is attributed to healthcare providers who are targeted with trainings and capacity-building efforts, in order to improve the health of women and children. This focus on lack locates the site of intervention within individuals, be it women or health care

providers and their actions. The nutrition reporting captured in the annual reports provides an excellent example of the longer history and colonial roots of this individualization and responsibilization of health problems. Locating the problem in the individual, of course, allows program planners to evade focusing on broader systemic issues, such as lack of infrastructure or resources, which undergird poor health outcomes.

CHAPTER 2. EVIDENCE REGIMES AND KNOWLEDGE PRACTICES

In the previous chapter, I concentrated on the ways elements of interventions endure in Taita Taveta firstly through branding practices, which signify the layering of attempts to "develop" Taita Taveta, and secondly, by briefly reconstructing a longer history of intervention in the region, into which contemporary projects enfold. In this chapter, I draw attention to the central role of evidence production in the Mwanzo Mwema project, and especially how local people strategically engage with evidentiary regimes in order to gain access to present and future opportunities in the development sector. Before analyzing the role of evidence production in the Mwanzo Mwema project, I first situate the discussion within larger conversations taking place in critical global health studies.

Contesting global health evidence

In the Mwanzo Mwema project, the collection of quantitative data was a central component of the monitoring and evaluation scheme that tracked the ongoing process and impact of the intervention. This scheme hinged on the participation of CHVs, who received intensive training on how to use the Mwanzo Mwema Monitoring and Tracking Tool (MMATT). This tool enabled CHVs to document and identify "beneficiaries" and keep track of the services they had provided to them. Although the delivery of these services by CHVs was the primary feature in the project design, CHVS spent much of their time regularly filling out these tracking tools. [29]

The density of the data collected for monitoring and evaluation purposes was an ongoing source of contention between the implementing partners and university scientists. The local

29. This was the third iteration of the tool. Following complaints by CHVs that the first two iterations had been cumbersome and taken up too much time, the monitoring and evaluation staff simplified the tool in order to make them more user friendly. It was still a rather large tool, and the CHVs still talked about it being time-consuming to fill out.

partners viewed the Mwanzo Mwema project as a 'research project' rather than a health intervention, given the intensity of data collection activities taking place, whereas the scientists who provided technical oversight insisted that it was a health program, asserting that the primary focus was on service provision. These conflicting interpretations lasted throughout the Mwanzo Mwema project, eventually erupting during the final dissemination meeting when the local partners demanded to know its "research outcomes." The point here is that data collection for monitoring and evaluation was so interwoven with Mwanzo Mwema's service delivery activities that evidence production understandably appeared to be the predominant feature of the program to local partners.

The Mwanzo Mwema project is certainly not unique in its emphasis on data collection. According to Adams, Burke, and Whitmarsh, "One of the hallmarks of global health is its relatively greater emphasis on research than previous postwar incarnations of health development" (Adams, Burke, and Whitmarsh 2014, 179). Much of this global health research is dedicated to finding intervention models that "work" and that can then be "scaled up" or replicated elsewhere—which was one of the explicitly stated purposes of the Mwanzo Mwema project. While Adams, Burke, and Whitmarsh (2014), like others, do not entirely deny the importance of such globally applicable models, they do point toward what comes along with this research-based approach to global health—that is, the further entrenchment of accountability and audit culture (Strathern 2000) within global health work, which elides the local contextual realities of implementing programs. Fan and Uretsky (2017) echo this caution, pointing out that one of the consequences of this reliance on "global best practices" is that it comes at the expense of responses rooted in local contexts and communities.

Vincanne Adams, in particular, has focused on the rise of evidence-based global health, especially the ways in which notions of "evidence" are constructed to promote "statistical, experimental, and epidemiological models of evidence" (Adams 2013, 55). The imperative to produce measurable, standardized forms of knowledge circumscribes the very questions that can be asked in global health and the types of interventions that are permitted to be deployed. "One might say that at the heart of contemporary global health practice is 'the drive to produce evidence'" (Lorway 2017, 191; see also Adams 2013). As Lorway articulates with respect to HIV interventions, the (over)emphasis placed on producing narrow forms of quantitative knowledge to guide the course of health interventions has given rise to a technocratic era in international health.

The importance of quantitative data production has become so vital to global health programs that "health metrics" have come to be viewed as central to global health practice itself (Storeng and Behague 2017). Fan and Uretsky argue that this reshapes "the global health landscape through practices that seemingly prioritize results over people" (2017, 158). This is reminiscent of Erikson who reminds us that, "rendering human suffering statistical robs it of intimacy and depth necessary for remedy" (Erikson 2012, 380).

Global health scientists tend to value numerical data, which they regard as credible and authoritative, because it appears to be objective, free of political and social significance. Critical Global health scholars have argued, however, that the numbers are socially and politically bound by their own histories and imbued with cultural values that may serve a number of practical purposes (Adams 2016; Biehl 2016; Erikson 2015; Storeng and Behague 2017). For instance, statistics serves to link global health interventions to business logics and global market-oriented interests (Erikson 2012). The direct link made between measurement and accountability is

clearly articulated by leading experts in the field of measurement for MNCH. As Boerma and Abou-Zahr note, measurement allows for a "better understanding of what works: how many lives have been saved and at what cost" (Boerma and Abou-Zahr 2007, 718). Here, metrics are imagined as providing a superior way to view attempts to ameliorate health problems, without the distraction of social complexity. This linking of measurement and accountability allowed for the penetration of audit culture into the management of donor organizations and the very global health projects they fund (Adams 2005). Fan and Uretsky further state that the "technologies of measurement have been realigned to match the logics of economic accountability more than community needs, thus reconfiguring how health is conceptualized and approached around the world and the resultant interventions designed to address it" (Fan and Uretsky 2017, 157). The intensification of audit culture in global health relies on the standardization of concepts and practices in part because "standardized processes are often [viewed to be] more transparent in ways that are consistent with accountability" (Timmermans and Epstein 2010, 82; Busch, 2011).

Standards

According to Science and Technology Studies scholars, standards are viewed as part of the "modern project" (Busch 2011, 1; see also Lampland and Star 2009), indeed, the "infrastructural power of the modern state: its capacity, for good or for ill, to penetrate its territories and coordinate social life" (Timmermans and Epstein 2010, 82). Part of the power standards have to infiltrate all areas of social life lies in their taken-for-grantedness: they are largely seen as 'natural' aspects of daily life; their presence is ubiquitous, accepted, and rarely queried. However, despite being normalized to this extent, standards are socially constructed, and often the subject of intense negotiation (Busch 2011; Lampland and Star 2009). As Timmermans and Epstein write, the creation of standards is "fundamentally a social act.…Most

standards are built collectively and, in order to work in a standardized way, require some form of buy-in by multiple others" (Timmermans and Epstein 2010, 75). As such, standards are free neither of history nor values; indeed they are value laden and represent the specific ethical positions of those who "built" the standards to the exclusion of others. As one standard is legitimized over others, it can become a "weapon of exclusion" (Timmermans and Epstein 2010, 83).

One purpose standards serve is to differentiate between people and things, and to establish order in life. In this way, standards function not only to shape "the physical world around us but our social lives and even our very selves. Indeed, standards are the recipes by which we create realities" (Busch 2011, 2). More than that, standards can render things or people knowable or visible in the process of differentiating and ordering categories (Timmermans and Epstein 2010; Lorway 2017). In global health, this process of "making visible" is crucial to how resources are allocated and tracked, how countries present themselves in order to access these resources, and how prospective beneficiaries are expected to behave (Lampland and Star 2009; Li 2007). It is clear, then, that standards are intimately associated with power, specifically an anonymous power that has "the ability to set the rules that others must follow, or to set the range of categories from which they may choose" (Busch 2011, 28). This power is enhanced once these standards become normalized and seen as "natural."

Anthropologists such as Lorway and Biruk have analyzed standardization processes in terms of the methodologies used in global health, (such as surveys and mapping), and practices of scaling up (Biruk 2018; Lorway and Khan 2014). In short, standardization facilitates the work of producing global health knowledge. The knowledge generated in this way further strengthens the idea of a 'global health expertise' that is removed from any particular context—indeed, it

seems to transcend knowledge grounded in any one context. This process is similar to what Pigg describes in the making of 'international development expertise,' a process that allows global health experts to work in multiple countries on multiple continents and yet maintain their positionality as "technical experts" (Pigg 1997; see also Lorway 2017). But among the global health experts who employ these standardized tools throughout the world, the categories themselves become normalized to the extent that they are perceived as a reflection of the world.

Although survey categories present themselves as apolitical, neutral, and absolute truths, as Biruk notes with respect to HIV survey research in Malawi, they enact a form of hegemony by hiding the inherent messiness in producing 'quality' data. To Biruk, issues of standards and standardization are present throughout the process of survey research: from the construction of the survey instrument, to analysis and the presentation of data in reports or at conferences. The process of survey research is therefore the translation of standards 'from the office to the field' in ways that privilege "the comparability of concepts over space and time and the harmonization of methods and modes of data collection" (Biruk 2018, 44). This translation occurs in a number of ways including the design and layout of the survey instrument, the scripts developed for fieldworkers, and the training of fieldworkers to administer the survey. It is toward the actions of fieldworkers who administer surveys that Biruk directs our attention, casting them *not* as interchangeable menial workers whose actions threaten data integrity. Instead, Biruk describes how they are participants in the process of knowledge production who have come to embody the logics, values, and standards of survey research. Despite attempts to circumscribe the fieldworkers' data collection activities through scripts and training, fieldworkers "improvise, reinvent and improve upon standards as they implement them in the field" (Biruk 2018, 8). Biruk points to the tension between standardization—as captured in the survey instrument and the

intensive training fieldworkers receive—and improvisation—the actions taken by fieldworkers in order to obtain the data points on their surveys. It is a tension I also noticed in my work with Mwanzo Mwema, and will specifically address in this chapter.

Although Biruk's ethnographic work primarily explores the period of data collection, he does address some pre-fieldwork tasks such as the fine-tuning and finalization of the survey instrument, as well as its translation, and the sampling of participants and data collection sites. The survey instrument itself, Biruk refers to as a "framing device" that makes Malawi "visible and intelligible as data or numbers that circulate among demographers or policy makers" (Biruk 2018, 33). Discussions around finalizing the survey instrument serve as the backdrop against which the author examines power relationships, specifically those related to whose knowledge is prioritized. The survey instrument travels to field sites (in this case Malawi) as an almost completed draft compiled by health scientists in North America, while the knowledge that local collaborators are expected bring to the finalization of the instrument relates less to any technical expertise and more to their 'local cultural knowledge.' They are expected to translate the almost completed survey so that it can be deployed locally, with ease.

Referring to the Steps Instrument, which was routinely included in the surveys he studied in Malawi, Biruk discusses how particular components of survey instruments, such as the Steps Instrument or other scales, have come to be viewed as universally applicable and valid.[30] Because economists and demographers regularly use the Steps Instrument, it "becomes a stabilized fact whose origins and history is obscured by demographers' tacit knowledge that it is a well-functioning, familiar, and routinized metric whose dimensions are not necessary to discuss

30. The Steps Instrument is based on the diagram of steps and asks respondents to locate themselves on the steps to indicate their wealth relative to that of their community. The bottom step is considered "poor" and the top step (step six) as "rich." See Biruk 2018, pp.50-56 for a more detailed explanation of the steps instrument as well as its use in surveys in Malawi.

explicitly each time it is included in a survey" (Biruk 2018, 52). But what might we find if we trace the roots of these routinely used survey components? I pursue this question next by deconstructing the history of one particular section of the Mwanzo Mwema survey, used as part of the base and endline monitoring and evaluation system. What emerged in my analysis is that the survey appears like many other cultural forms: it is historically contingent, temporally complex, and ambiguous—tied to an array of contradictory political and social values.

A bricolage of standards

Adhering to the principles of "program science" (Blanchard and Aral, 2012)[31]—i.e., of 'getting research into and out of practice'—the Mwanzo Mwema project team conducted a baseline survey across the county. The survey was constructed in a way that allowed the program team to create a deliberately simplified snapshot of the MNCH and nutrition situation in Taita Taveta County at a particular point in time. At baseline, this simplified snapshot allowed the health scientists and project directors to define "the problem" to be solved through intervention: priorities were identified and interventions selected to address these health priorities. Project staff also used the data generated to characterize the extent of the problem in specific geographic areas known as municipal 'sub-locations,' which allowed staff to classify areas of Taita Taveta as higher or lower priority. The team selected twelve sub-locations considered to have the 'worst' health and nutrition profiles for implementation. The project team administered the same survey again at the end of the project, this time in implementation areas only, so that they could

31. Blanchard and Aral define program science as "the systematic application of theoretical and empirical scientific knowledge to improve the design, implementation and evaluation of public health programmes. The endpoint for Program Science is the population level impact on the incidence of infections, by optimising the choice of the right strategy for the right populations at the appropriate time; by doing the right things the right way; and by ensuring appropriate scale and efficiency" (Blanchard and Aral 2011, 2).

determine what, if any, changes had occurred over the project's three-year span. At both points in time, focus group discussions and interviews took place parallel to the surveys to enhance understanding of survey outcomes.

The survey instrument itself was comprised of 38 pages. Health scientists residing in Canada identified and assembled the indicators considered critical for compiling a MNCH and nutrition profile for Taita Taveta. A research associate, also in Canada, collected existing tools (from various sources, primarily found on the internet) for assessing these indicators, reviewed the tools, and then adapted the selected tools for inclusion in the Mwanzo Mwema household survey. Many of the tools included had pre-existing coding structures and those used in East Africa had previously been translated into Kiswahili. The different sections included in the Mwanzo Mwema household survey included socio-economic status of the family, the nutritional status of the women and children, household dietary diversity and food insecurity, as well as health care utilization by both women and children. The nutritional assessment component of the questionnaire included anthropometric measurements of height and weight.

I want to focus on one previously validated scale that was included in the Mwanzo Mwema survey tool to further illustrate how surveys—which in health science discourse are often treated as unitary, coherent, and stable—are in fact a complex bricolage that layers together temporalities and geographies of human ideologies and technical practice.

The household food security section of the Mwanzo Mwema survey was based on a nine-question scale called the *Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access,* developed by the Food and Nutritional Technical Assistance (FANTA) group. The FANTA project is now in its third iteration, which, according to its website, is "a 5-year cooperative agreement between the U.S. Agency for International Development (USAID) and

FHI 360."[32] The HFIAS has its roots in a workshop FANTA hosted in 2004 in Washington, D.C. (known as the Measuring Household Food Insecurity Workshop) to develop "a generic, universally applicable measurement instrument that can be used to construct an experiential HFIAS [household food insecurity score] in a range of country and cultural contexts" (FANTA 2004). This is in line with FANTA's mandate of supporting rigorous program evaluation by USAID-funded projects by developing tools and indicators for nutrition and food security. According to experts working for FANTA, Swindale and Bilinsky (2006), the development of the HFIAS followed a number of steps. Next, I will discuss these steps in the history of how the HFIAS, as used in the Mwanzo Mwema survey, came into being.

The first step in the process was to determine whether the U.S. Household Food Security Survey (HFSS) approach would be applicable in "developing country" contexts to assess changes in food access and categorize households at the community level. Adapting this tool from a U.S. context to use in a "developing world context" appealed to FANTA in part because the "underlying concept of the HFSS approach is that food insecurity…is a measurable experience that can be described and analyzed to categorize households by level of food insecurity" (FANTA 2004). The underlying expectation here was that the tool could be used to reliably measure an essential experience to differentiate households based on food insecurity, regardless of social, cultural, and political contexts. To determine adaptability, FANTA funded two multi-year validation studies implemented by two Western academic institutions: Cornell University (which validated the instrument in Burkina Faso) and Tufts University (which performed the validation in Bangladesh), in collaboration with two "implementing partners": Africare and World Vision. Each study developed a set of questions to measure food insecurity

32. FANTA is funded by USAID but managed by the Academy for Educational Development. For more information, see their website https://www.fantaproject.org/.

specific to the contexts in which they were working. The researchers, donors, and program implementers met at the workshop in 2004 to discuss the findings of these studies and to reach consensus on what 'common domains' of food insecurity seem to exist in the developing world contexts.

Researchers from both Cornell and Tufts University presented their findings at the 2004 workshop. While the report states that both studies showed the HFSS could successfully be adapted "for use" in other contexts, the following statement also appears:

> Dr. Fongillo concluded that the Cornell approach [to validation] in Burkina Faso, which based the tool on extensive ethnographic research rather than translating and adapting questions developed elsewhere, will likely lead to the best direct, experience-based measures for assessing household food insecurity in other countries.

Dr. Fongillo's statement seems to contradict the workshop's stated purpose of identifying common experiences of food insecurity and to develop questions that can ascertain the experience of these dimensions. The questions derived by the Cornell approach went through a process of validation that included considerable attention to local context, as the ethnographic component suggests, although the idea persists that the process could be exported to other country contexts. Workshop participants devised thirteen questions to assess what they considered to be the common and most crucial indicators for food insecurity. These questions were eventually pared down to the nine used in the Mwanzo Mwema project through a consultative process that followed the workshop.[33, 34] Although only thirteen precise questions

33. Swindale and Bilinksy (2006) describe the process through which the HFIAS was developed in more detail, including the consultative process. In short, the draft questionnaire was circulated widely to obtain feedback in refining the definitions of the common domains and the questions. At a workshop held in 2005, participants discussed how to score the results obtained

remain from this process, the point I want to make is that their birth arrives through a lengthy process that attempts to account for local contexts. It is also important to note here that mostly Western experts presented at this final workshop (despite efforts to have the process informed by local cultural knowledge).

But the origin story of HFIAS has a longer tangled history that goes beyond the 2004 workshop, or even the validation studies. As mentioned above, the HFIAS was based on the HFSS, which had already been employed in the U.S. since 1995, and had its own process of development. The development of the HFSS began in 1992 as a joint project between the Food and Nutrition Service of the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, and the National Center for Health Statistics of the U.S. Public Health Service (Carlson, Andrews, and Bickel 1999). These entities developed the tool following the logic that a "survey instrument specifically relevant to U.S. conditions" was needed since "first-world hunger requires different observational methods to detect and measure" (Carlson, Andrews, and Bickel 1999, 510S). In developing the HFSS, the working group drew on nutrition research conducted in the U.S. in the years prior, most notably the Community Childhood Hunger Identification Project (CCHIP), sponsored by the Food Research and Action Centre, and research conducted by Cornell University's Division of Nutritional Sciences. Both research programs had developed surveys for measuring food insecurity, the questions from which were collated into a

---

for creating a continuous variable (comparing households in terms of the access to food) and a categorical variable.

34. This validation process in some sense can be viewed as exemplifying what Janice Graham (2018) refers to as "the localization of standards" rather than the mere imposition of Western logics on non-Western countries.

single list. Through a consultative process with experts throughout the U.S., the list was whittled down to eighteen items (and subsequently included in the U.S. Census).[35]

In addition to the U.S. HFSS, another pre-existing instrument was included in the HFIAS's development. A footnote in the HFIAS indicator guide states that the food groups referred to in the HFIAS are derived from the "Food Composition Table for Africa," developed by the U.N. Food and Agriculture Organization (FAO) in 1968. The development of this table was a joint project between the Nutrition Program, National Center for Chronic Disease Control, U.S. Department of Health, Education, and Welfare (NP/NCCD), and the FAO. According to the document, unpublished data on food sources in Africa came from sources at the London School of Hygiene and Tropical Medicine and through primary data collection with "local representatives of FAO, the World Health Organization (WHO), and the U. S. Agency for International Development (AID), as well as with local authorities in areas visited" (FAO, 1968).

This is by no means an exhaustive exploration of the HFIAS' construction, but it usefully illustrates a number of factors for consideration. It exemplifies much about standards and their use. While the HFIAS has only recently been included in the Mwanzo Mwema survey, it has, in fact, endured in its usage for over a decade, in many contexts, and been accepted and normalized in nutritional and demographic epistemic communities; it has therefore taken on the quality of "universal validity" (Biruk 2018, 52). Delving into its history, however, highlights the way that this tool was also constructed by assembling different standards, ideas, and research available at the time. It is particularly interesting that the original tool, the HFSS, was developed for use *specifically* in the U.S. to measure "first-world hunger," seen as distinct from issues of

35. The HFSS has been included in the U.S. Current Population Census since 1995. The data generated provides an indication of the number of food insecure households in the U.S. It has also been adapted for use in Canada.

malnutrition elsewhere. In its repeated use over almost ten years, this specificity has given way to claims of global generalizability. Attention to local specificity in the Cornell Validation of the HFSS in Burkina Faso, also underlies the comments made by Fongillo with respect to the exploratory ethnographic research he conducted. What I am trying to emphasize here is that standardization—although aiming toward universality and global generalizability—is a living process of knowledge production that is continually confronted with and held in productive tension with concerns for "the local."

The repeated presence of certain institutions and organizations, such as Cornell University and USAID in the development of the HFIAS, HFSS, and/or the food composition table raises critical questions about whose interests and concerns are ultimately privileged in these instruments. The history behind the HFIAS development speaks to the ways in which specific disciplinary and institutional forms of knowledge become normalized. In doing so, these organizations play a key role in establishing what comes to count as legitimate knowledge in contemporary global health, what is worth focusing on, and what information is worth capturing in order to describe a phenomenon like food insecurity.

The idea that the HFIAS will, like the HFSS before it, allow researchers and program planners to describe and analyze people's access to food as a way to "categorize households by level of food insecurity" also reminds us that standards are used to create order and intelligibility in the world around us by 'sorting people' accordingly. In the case of the HFIAS, the tool is used to differentiate between groups of people with the purpose of defining discrete 'groups' in need of intervention—even though these groups may be a heterogeneous collection of people with fluid identities and shifting demographic positionalities (Biruk 2018; Lorway 2017).

What the above discussion shows is how standards are nested and interrelated—what is now seen as one scale for measurement of food insecurity is in fact a bricolage of standards tied to various temporalities and histories of expertise.

Arbitrariness of categories

In the above discussion, I attempted to highlight the ways in which standardization in survey research is entangled with the interests and methodological commitments of powerful entities in global health that are historically and geographically distanced from its contemporary redeployment in the Mwanzo Mwema project.

Socio-demographic questions are routinely included in epidemiological and public health questionnaires. Surveys are rarely conducted with the entire population, but rather with samples that serve as a representation of the population as a whole. The inclusion of socio-demographic questions provides researchers or program planners with information on how closely the sample's characteristics reflect that of the larger population it is meant to represent. Socio-demographic questions are also seen as useful according to the logic that health challenges and issues are not equally distributed across populations. In statistical analyses, groups differentiated based on socioeconomic status can be compared and contrasted to provide researchers with a better understanding of how health-related issues may be distributed.

In the case of Mwanzo Mwema, the socioeconomic information collected was used to describe and categorize program beneficiaries. The information on income and assets, for instance, was combined to calculate an asset index; women were grouped in terms of their relative socio-economic status (Avery et al. 2017). These groups were then compared according to their access to health care and uptake of the intervention. Although these questions are routinely included for epidemiological reasons, they were of special interest in the Mwanzo

Mwema project since "equity," specifically increasing equitable access to services, was an important aspect of the project. But what do these categories actually represent? Are they "making up people" as this demographic information gets linked to program delivery schemes? How are these categories understood in local contexts? In the following section, I pursue these questions by looking at some of the enumerators' jottings in one specific area of the survey—a part that focuses on three questions related to household income and expenditure, which most consistently had jottings accompanying the responses.

In Figure 20, we see an excerpt from the Mwanzo Mwema end-line survey tool.[36] These questions are part of a longer section that seeks to capture information on the assets a family owned and their socio-economic status overall. These questions focus on overall household income, average monthly income, sources of income, and priorities to which money is allocated.

36. These questions were used at baseline as well as endline. The excerpt here is just from the endline survey.

B8	What is your average Household income per month?	_____ Kshs ▫ 88 Don't know ▫ 99 Refused	
B9	Who provides the main source of income for your household?	▫ 01 Husband ▫ 02 Wife ▫ 03 Children ▫ 04 Other relative ▫ 77 Other, please specify:_____ ▫ 88 Don't know ▫ 99 Refused	
B10	What are your household sources of income? PROBE, AND TICK ALL SOURCES MENTIONED. ALSO PLEASE WRITE DOWN THE NUMBER THAT BEST FITS RESPONDENT'S OPINION OF THE LEVEL OF IMPORTANCE OF THE EXPENSE 1=MOST IMPORTANT, 2= SOMEWHAT IMPORTANT, 3=NOT IMPORTANT AND SO ON.	**Source of Income** ▫ 01 Crop Farming ▫ 02 Business ▫ 03 Salaried employment ▫ 04 Casual labourer ▫ 05 Relatives/friends outside household ▫ 06 Pension ▫ 77 Other Please specify_____	**Rank by order of importance (1= Most important source etc)**
B11	**What were your expenses last month? And how do you prioritize?** **PROBE AND TICK ALL MENTIONED. ALSO PLEASE WRITE DOWN THE NUMBER THAT BEST FITS RESPONDENT'S OPINION OF THE LEVEL OF IMPORTANCE OF THE EXPENSE 1=MOST IMPORTANT, 2= SOMEWHAT IMPORTANT, 3=NOT IMPORTANT.**	**Expense** ▫ Food ▫ Farming Activities ▫ House Rent ▫ Debt ▫ Health Services (Doctor's fees, hospital fees, medicines)	**Rank (1= Most Important etc.)**

Figure 20. Excerpt from the Mwanzo Mwema survey tool used at endline.

A number of assumptions underlie the formulation of Question B8, "What is your average household income per month?" For instance, it assumes that people hold the same definition of a "household." It further assumes that households have a somewhat consistent monthly income. If not consistent, it at least assumes that the respondent would be able to calculate an "average" representative of their income. However, this is not necessarily the case in Taita Taveta where many people farm small plots of land and additionally rely on work as day labourers for their income. Here, the average household income would depend on the number of days someone was able to work and on the daily rate of pay, with both of these in turn depending on other factors such as climate and seasonality. The complexity this adds to calculating household income is seen in Figure 21, in an excerpt from the survey of a respondent working as a day labourer.

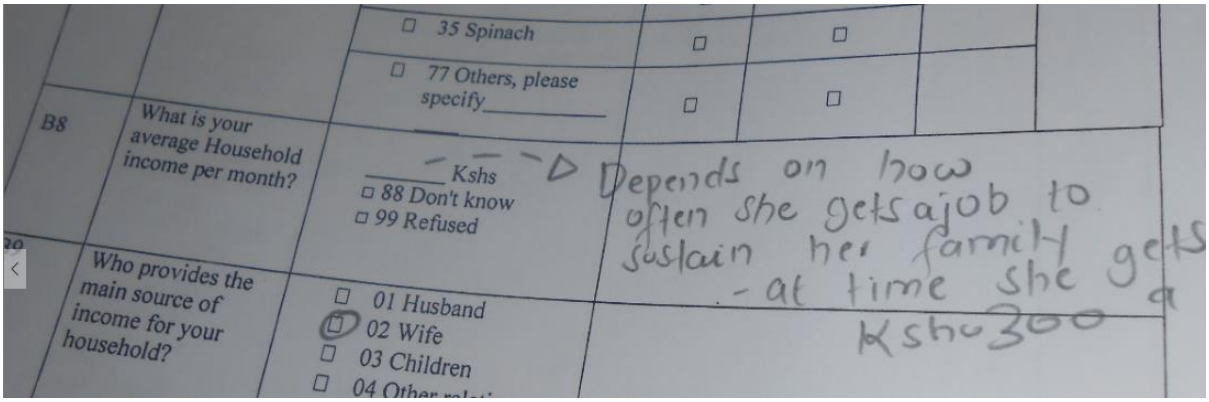


Figure 21. Excerpt from a survey instrument completed during the Mwanzo Mwema endline, February 2015. Inserted text reads: "depends on how often she gets a job to sustain her family—at time she gets Kshs 300 a day."

Likewise, for a respondent who wove and sold baskets for a living, her household's average income would depend on factors such as how fast she could weave and sell these baskets

(Figure 22). This not a straightforward matter, however, as she would need access to raw materials and time for weaving, both of which could be seasonally affected. In a severe drought, the woman may need to work as a day labourer, which allows her to generate income, but reduces the time she has for weaving. Selling the baskets could also depend on the season, as more tourists may visit the Tsavo National Parks at certain times of the year.

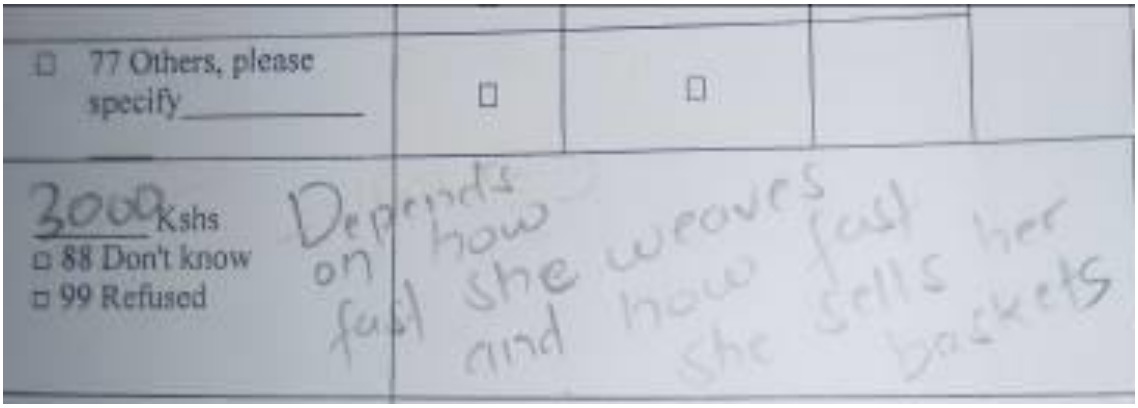
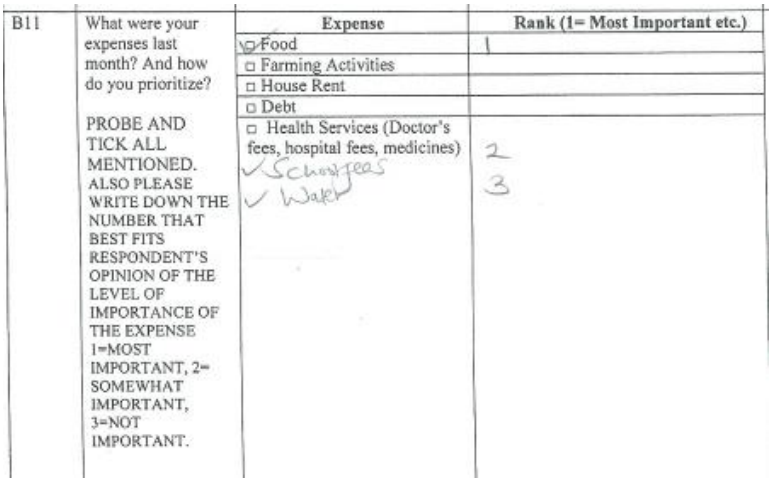


Figure 22. Excerpt from a survey instrument completed during the Mwanzo Mwema endline, February 2015. Inserted text reads: “Depends on how fast she weaves and how fast she sells her baskets.”

In February 2015, at the time the survey was conducted, many areas in Kenya, including Taita Taveta, were struggling with severe drought. The drought could have further influenced the household income of the above two examples, as day labourers often relied on farm work that became more scarce during droughts. Similarly, raw materials for weaving may have been less accessible, thus changing these households’ average income quite significantly. The drought also influenced how households spent the funds at their disposal.

Question B11 (see Figure 20) focused on household expenses and how available resources were allocated to different expenses. The available options provided were food, farming activities, rent, debt, and health services. Enumerators found it necessary to add

categories for this question with the category added most often being “school fees” (see Figure 23). The other regularly added option was water, as during the drought most families had to purchase water for their households; I was told a jerry can (about 20 litres) of water cost about 80 shillings at the time (Figure 24). Given the drought, water is not a surprising addition to the list of expenses. As a semi-arid county, water is an ongoing concern in Taita Taveta, and a category that may have been added regardless—especially since it was brought up in both the Mwanzo Mwema baseline and endline qualitative assessments.



B11	What were your expenses last month? And how do you prioritize? PROBE AND TICK ALL MENTIONED. ALSO PLEASE WRITE DOWN THE NUMBER THAT BEST FITS RESPONDENT'S OPINION OF THE LEVEL OF IMPORTANCE OF THE EXPENSE 1=MOST IMPORTANT, 2= SOMEWHAT IMPORTANT, 3=NOT IMPORTANT.	Expense	Rank (1= Most Important etc.)
		☑ Food	1
		☐ Farming Activities	
		☐ House Rent	
		☐ Debt	
		☐ Health Services (Doctor's fees, hospital fees, medicines)	
		✓ School fees	2
		✓ Water	3

Figure 23. Excerpt from a survey instrument completed during data collection for the Mwanzo Mwema endline, February 2015 in Mwatate sub-county. Categories added here included water and school fees.

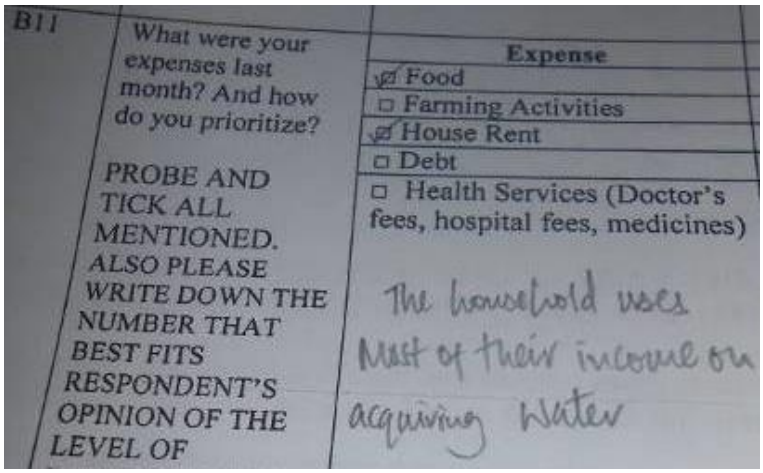
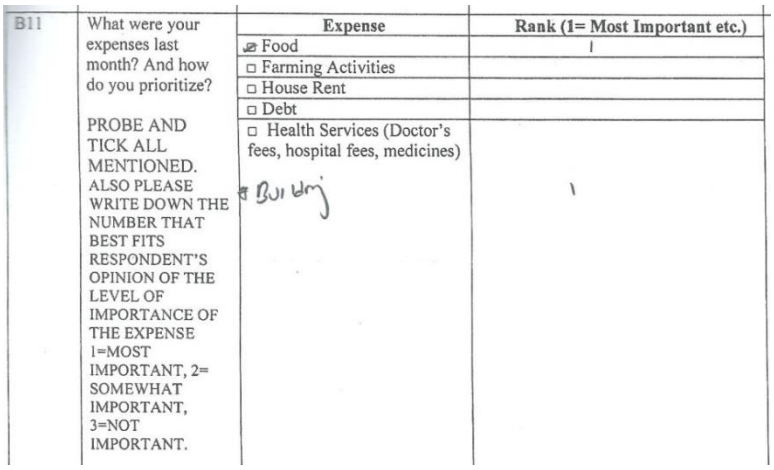


Figure 24. Excerpt from a survey instrument highlighting the importance of water in household expenditure. Inserted text reads: "The household uses most of their income on acquiring water."

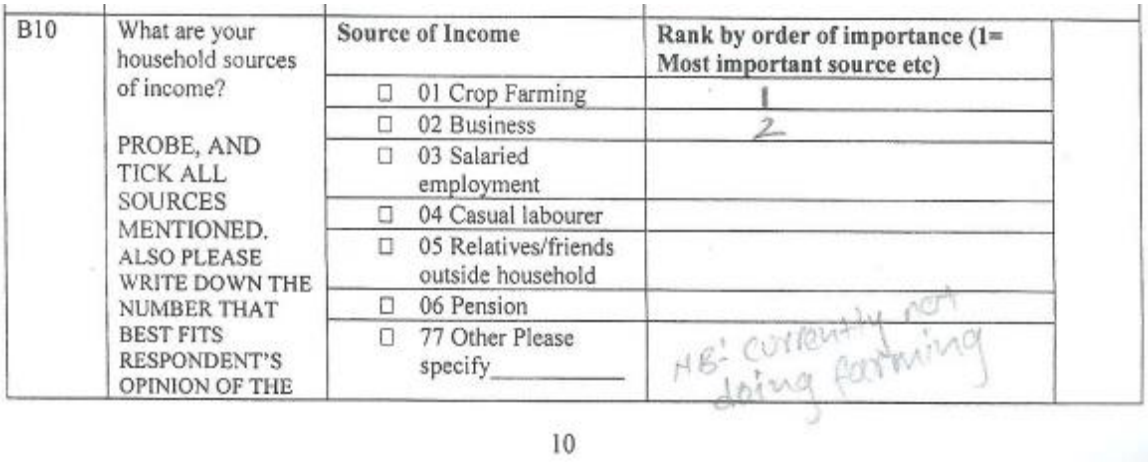
While categories added by most enumerators included school fees and water, they also added other options that they found missing from the survey, including clothing, business expansion, or building (Figure 25). It is also worth noting that, for the most part, the enumerators did not deviate from the survey format when adding these categories, a topic I will return to later in the chapter.

The survey was conducted in February, which fell in Taita Taveta's dry season, just prior to the rains beginning in March. During the dry season, people do not actively farm, but wait for the rains to start, at which time farmers begin planting. Some of the enumerators' jottings to question B10 (which asked about sources of household income) highlight this seasonality of activities as seen in Figure 26. Here, the survey respondent listed crop farming as the greatest source of household income. However, the enumerator notes that respondents were not currently engaged in farming. What the note captures is a local way of thinking about farming activities tied to seasonality of this locale.



B11	What were your expenses last month? And how do you prioritize? PROBE AND TICK ALL MENTIONED. ALSO PLEASE WRITE DOWN THE NUMBER THAT BEST FITS RESPONDENT'S OPINION OF THE LEVEL OF IMPORTANCE OF THE EXPENSE 1=MOST IMPORTANT, 2= SOMEWHAT IMPORTANT, 3=NOT IMPORTANT.	Expense	Rank (1= Most Important etc.)
		☑ Food	1
		☐ Farming Activities	
		☐ House Rent	
		☐ Debt	
		☐ Health Services (Doctor's fees, hospital fees, medicines)	
		Building	

Figure 25. Excerpt from a survey completed during the Mwanzo Mwema endline, February 2015, in Mwatate sub-county.



B10	What are your household sources of income? PROBE, AND TICK ALL SOURCES MENTIONED. ALSO PLEASE WRITE DOWN THE NUMBER THAT BEST FITS RESPONDENT'S OPINION OF THE	Source of Income	Rank by order of importance (1= Most important source etc)
		☐ 01 Crop Farming	1
		☐ 02 Business	2
		☐ 03 Salaried employment	
		☐ 04 Casual labourer	
		☐ 05 Relatives/friends outside household	
		☐ 06 Pension	
		☐ 77 Other Please specify_____	N.B: currently not doing farming

10

Figure 26. Excerpt from survey completed during the Mwanzo Mwema endline, February 2015 in Taveta sub-county. Inserted text reads: "N.B: Currently not doing farming."

On the surface, the enumerators' jottings on the survey instrument might appear as small acts of defiance against a reigning evidentiary regime that ignores local context, especially when the enumerators were explicitly and repeatedly instructed by the field supervisors not to add

categories they considered to be missing. I want to suggest, however, that while resistance is an important consideration here, it overlooks how enumerators creatively engaged with surveys. Closer attention to these jottings, such as those that produced new categories within the survey format, also shows that the enumerators were actually dedicated to the process of evidence production and the logics that govern it to an extent that they continually attempted to refine the instrument for greater accuracy.

My first introduction to the topic of the enumerators' jottings and their potential importance came after hearing one of the local supervisors scold an enumerator for writing notes on her survey during data collection for the end-line. The enumerator had written a note with regard to ANC attendance during a previous pregnancy (see Figure 27 for the questions as contained in the instrument). The respondent first indicated that she was six months pregnant at her first ANC visit and had attended three antenatal visits during that pregnancy. But to the third question, as to why she had not attended ANC, the enumerator wrote her response verbatim: she thought she did not have to go for ANC prior to month six. When the supervisor saw the note, she told the enumerator to just check "too early in pregnancy" and erase the note. The excerpt in Figure 28 is not from this specific survey; the enumerator had, under the watchful eye of the supervisor, erased her note and checked "too early in pregnancy." The excerpt in Figure 28 is, however, from a survey filled out by the same enumerator as she continued to write these notes on the surveys she filled out.

F12e	How many months pregnant were you when you first received antenatal care for your last born child's pregnancy?	Months_____ 88 Don't Know
F12f	How many times did you receive antenatal care during your last born child's pregnancy?	☐ A 1 time ☐ B 2 times ☐ C 3 times ☐ D 4 Times or more ☐ 88 Don't Know
F12g	What are the reasons that you did not see someone for antenatal care? CHOOSE ALL THAT APPLY.	☐ 1 No health care provider available ☐ 2 Could not afford ☐ 3 Distance too far ☐ 4 Lack of transportation ☐ 5 Poor road conditions ☐ 6 Husband/ partner would not permit ☐ 7 Afraid of doctor, nurse, or other provider ☐ 8 Have never used doctor, nurse before ☐ 9 Not treated well previously ☐ 10 Embarrassed or ashamed ☐ 11 Too early in pregnancy ☐ 12 Not enough time ☐ 77 Other (specify) _____ ☐ 99 Refused

Figure 27. Excerpt from the survey instrument used during the Manzo Mwema endline. The questions pertain to a pregnancy within the past two years.

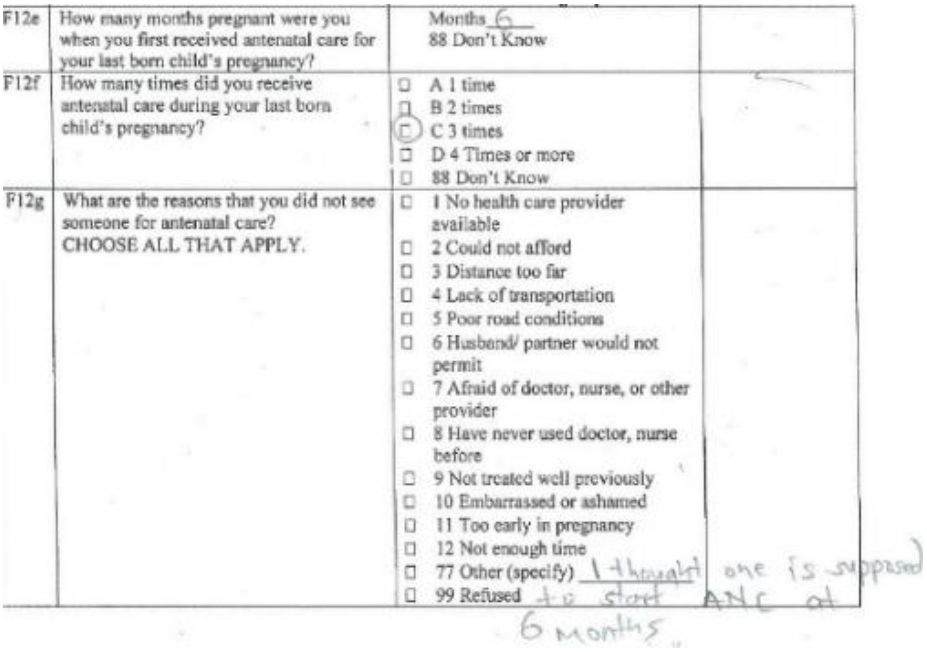


Figure 28. Excerpt from survey instrument completed during the Mwanzo Mwema endline, In Voi sub-county.

After the enumerator left to survey another household, the other supervisor turned to me, quite exasperated, and exclaimed that the enumerator did not understand the survey instrument or the process of data collection, despite the fact that we were in our second week of data collection (clearly an admonishment to me as well as the enumerator). Like me, this supervisor had not participated in the household survey at baseline and had admitted to me during the enumerators training that she was nervous about the process and that she wanted to do a good job. To add to her stress, the four supervisors in our area had been informed earlier that week that the surveys from our groups had too many notes and were complicating data cleaning and entry. Given this, my colleague felt pressure to supervise the enumerators more closely. Moreover, she grew troubled by what she viewed as breakdowns in the evidence production process.

In later conversations I had with the enumerator, it became clear that she had understood the question, and was, in fact, trying to be precise. As a mother from the community she understood that women in this area often only started ANC at or after six months.[37] The respondent may therefore have considered attendance prior to six months too early, but that was not what the enumerators had been told in training. Here they were informed that current international guidelines suggested that women should attend their first visit around four months. So to the enumerator, the woman's response did not entirely fit in the "too early in the pregnancy" category and the jotting was her attempt at navigating the competing knowledge systems she was encountering in that moment. As such, these jottings were not solely expressions of rebellion or frustration, but rather illustrative of the ways the enumerators had taken up and come to embody the knowledge imparted to them during pre-fieldwork training as

37. In a conversation I later had with a county health official, she suggested that women did not attend their first ANC visit until eight or nine months. According to her, women know that they will not be able to work following the baby's birth and are therefore trying to earn and save as much money as possible. They did not have the time (or money) to attend ANC.

well as the "the habits, investments, and standards central to the collection of high quality data" (Biruk 2018, 3). The jottings, the notes, and the creation of new response categories represent the ways fieldworkers reassemble the standards in the moment of data collection in an effort to collect 'high quality data.' In the process, the standardized categories are reinforced not only by Western scientists or program staff who come to the 'field' to supervise the data collection, but also by local staff and supervisors.

The jottings on the survey instruments also succeeded in making visible those aspects of the local environment that did not easily fit within the prescribed categories. Rendering certain knowledge visible or invisible is a strategy that I observed among fieldworkers engaged in the Mwanzo Mwema project, to gain access to the opportunities and resources global interventions bring to their communities.

Leveraging knowledge in the field

Making knowledge visible or invisible

In the previous chapter, I illustrated the ways in which branded items such as t-shirts and bags served as living artefacts of public health intervention; these items served as signifiers of recent histories of intervention in Taita Taveta. At the same time, they also enabled local staff to assert their legitimacy when they entered spaces defined by projects. The staff's choice, therefore, to wear these items was based on their experience in the field and the knowledge that displaying these visible ties to other projects would facilitate (for the most part) completing their daily project work.

How field staff used t-shirts and other branded items to claim legitimacy in their communities became clear to me while participating in the quantitative data collection for the

Mwanzo Mwema project's endline. The enumerators who would conduct the surveys were recruited from a pool of mainly young people with university degrees established by the Kenya National Bureau of Statistics (KNBS). The KNBS established this pool predominantly to be called upon for surveys such as the Kenya Demographic and Health Survey (KDHS), but they were also available to work with other organizations conducting survey research. I met most of these young people during the three-day enumerator training in Wundanyi, many of whom wore t-shirts from other organizations during the training. Two of the enumerators I eventually worked with during data collection for Mwanzo Mwema had previous experience with conducting door-to-door household surveys, during the KDHS in 2014. They had both received t-shirts with the logos of the KNBS and KDHS while doing this. On the first day of data collection, one of the enumerators, Anne, reported for duty dressed in business casual clothes while her friend wore black dress pants and her KNBS/KDHS t-shirt. The next day, Anne also wore her KNBS/KDHS t-shirt and subsequently wore it for the remainder of the data collection period. On one of the days I was walking with Anne between households, it seemed to me that Anne thought about her t-shirt in much the same way as the field officer mentioned in the previous chapter. It was her field t-shirt, and as she explained, it distinguished her from a missionary (a concern echoed by another enumerator). For Anne and the other enumerator, the t-shirts, along with the Mwanzo Mwema laminated ID cards that enumerators wore on lanyards around their necks, increased their acceptability and allowed them to walk around communities and gain entrance to people's homes. However, it also served as a visual reminder of their expertise based on the knowledge and experience they gained from previous engagements. In this way, the enumerators rendered their participation in previous programs *visible* in order to assert their claims to possessing specialised knowledge and experience of the field.

Conversely, people may 'hide' their experiences with previous projects so as not to jeopardize their inclusion in intervention activities and opportunities. Two examples of this stand out in my ethnographic work. In 2014, the local partner organizations undertook a series of focus group discussions with project beneficiaries to explore how the project was progressing from the beneficiaries' perspective. Project staff presented the results during the project's mid-term meeting held in July 2014. During the presentation, a staff member mentioned hearing that one of the project's CHVs was also a traditional birth attendant (TBA) that still assisted with deliveries in her community. I asked the staff member about this later and she told me that the women in one of the focus groups mentioned that they still delivered at home, assisted by TBAs. When staff members leading the focus group questioned the participants about finding a midwife or TBA to assist them at home, they pointed to one of the CHVs working with the project, indicating that she was one of the TBAs who would assist with deliveries in the area. None of the Mwanzo Mwema project staff had been aware of the CHV's training as a TBA or that she still assisted women with home deliveries. In contrast to the enumerators who laid claim to prior training in visible ways, other individuals, like the CHV trained as a TBA, hid prior training or involvement with projects from Mwanzo Mwema staff as well as government officials out of fear for being excluded from future opportunities.

It is important to note here that TBA training programs, although once a popular community-centric health delivery scheme in the 1970s and 1980s, had fallen out of favour in global health policy by the 1990s (Lane and Garrod 2016). This policy change may explain why women previously trained as TBAs distanced themselves from this program. During a focus group with men conducted in Mwatate for the project's baseline in 2012, the men explained the hidden presence of midwives as follows:

> Paul: The government is prohibiting mothers to give birth at home so the midwives are not encouraged. You can get arrested so midwives do hide themselves.
>
> Richard: They wanted to do away with them because at that time HIV/AIDS was spreading in a high rate and was really known. So they thought that giving birth at home was a contributor [to HIV infection] since the equipment being used were not being sterilized. Maybe [the TBAs] just brought razors without sterilizing them; so they may bring an old one…Because of these reasons of HIV/AIDS, the work of the midwives was stopped. Many people had lost their lives. Many women would stay at home and deliver at home, and when something bad happens, they say that she did not go to the clinic. This forced the government to be part of it by asking, 'was there a hospital nearby? Did this mother go to be checked and for her unborn child to be examined?' Remember when it all happened, the midwife can do nothing, so the work of the midwives came to an end. (Male participants, focus group discussion (baseline), Mwatate sub-county)

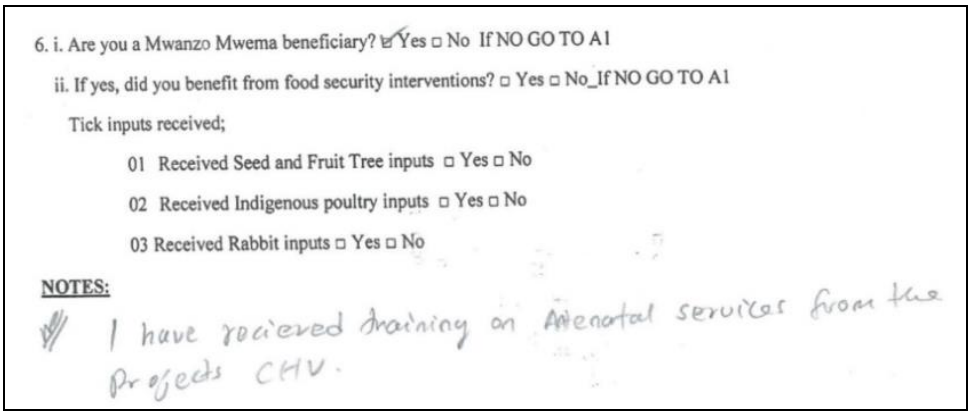
Women's fear of exclusion was partly informed by the messaging of previous projects—at times a powerful motivator for women to hide their prior participation.

Yet it was not only frontline staff that hid their participation in previous projects. The second example of this 'rendering invisible' relates to beneficiaries, some of whom denied participating in the Mwanzo Mwema project. In Voi, where the team I worked closely with had administered the surveys, we encountered this denial of participation in almost every village, especially on the outskirts of Voi town.

On the Monday morning of our second week of data collection, three of the four enumerators in our group had encounters with beneficiaries in which women told them that they had not benefited from the Mwanzo Mwema project, or had never heard of it, even though the

CHV accompanying the team identified the women as project beneficiaries. I discussed this with one of the Mwanzo Mwema field officers who attributed this 'attitude' to the people being disappointed with the project with respect to what they had hoped to receive from it. This particular location in which we were collecting data that day had indeed received the health and nutrition intervention, which meant that the CHVs regularly visited them; however the location had not been included in the food security intervention. Throughout the project, the field officer said, CHVs and field officers regularly encountered some resistance in this location because they did not perceive themselves as receiving anything "tangible" like the food security arm supplied (i.e., seedlings and small livestock). When one of the enumerators conducting the endline survey tried to visit a beneficiary, the woman scolded her and chased her from the compound, exclaiming that Mwanzo Mwema only came to measure their children, but never brought them anything, "not even a sweet!" Throughout the day, while the enumerators struggled to find households to interview and I moved between the different enumerators, I was approached by annoyed groups of adults from the village, wanting to know why the project never brought anything for their children.

Refusing to participate in the survey or denying participation enacted a form of resistance to a project people felt did not meet their needs, but one of the enumerators I discussed this with had an additional thought. Since people there had not been included in the food security intervention, which gave people tangible inputs like vegetables and chickens, they may not have thought they had "benefitted" from the project in quite the same way as other women. They may have interpreted the word "beneficiary" differently. Peter clarified this issue with all participants when he administered the questionnaire to them, noting whether the women 'benefitted' from visits and counselling or received tangible inputs.


6. i. Are you a Mwanzo Mwema beneficiary? ☑ Yes ☐ No If NO GO TO A1

ii. If yes, did you benefit from food security interventions? ☐ Yes ☐ No_If NO GO TO A1

Tick inputs received;

01 Received Seed and Fruit Tree inputs ☐ Yes ☐ No

02 Received Indigenous poultry inputs ☐ Yes ☐ No

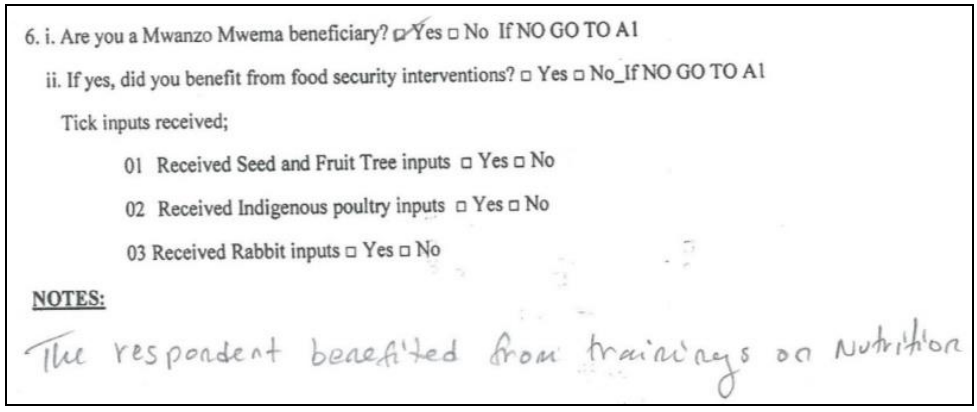
03 Received Rabbit inputs ☐ Yes ☐ No

NOTES:

I have received training on Antenatal services from the Projects CHV.

Figure 29. Excerpt from a survey completed by Peter, Mwanzo Mwema end-line assessment, Voi sub-county. Inserted text reads: "I have received training on antenatal services from the project's CHVs."

Peter often noted specifically what women told him, such as what kind of counselling they received or whether they were referral by a CHV to a health care centre.


6. i. Are you a Mwanzo Mwema beneficiary? ☑ Yes ☐ No If NO GO TO A1

ii. If yes, did you benefit from food security interventions? ☐ Yes ☐ No_If NO GO TO A1

Tick inputs received;

01 Received Seed and Fruit Tree inputs ☐ Yes ☐ No

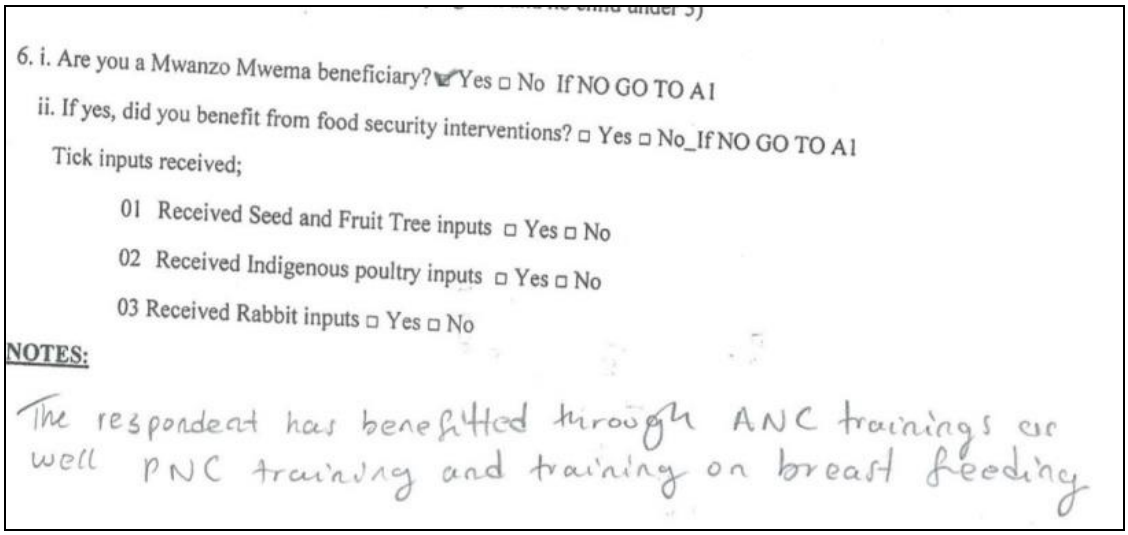
02 Received Indigenous poultry inputs ☐ Yes ☐ No

03 Received Rabbit inputs ☐ Yes ☐ No

NOTES:

The respondent benefitted from trainings on Nutrition

Figure 30. Excerpt from a survey completed by Peter, Mwanzo Mwema end-line assessment, Voi. Inserted text reads: "The respondent benefitted from trainings on nutrition."



6. i. Are you a Mwanzo Mwema beneficiary? ☑ Yes ☐ No If NO GO TO A1

ii. If yes, did you benefit from food security interventions? ☐ Yes ☐ No_If NO GO TO A1

Tick inputs received;

01 Received Seed and Fruit Tree inputs ☐ Yes ☐ No

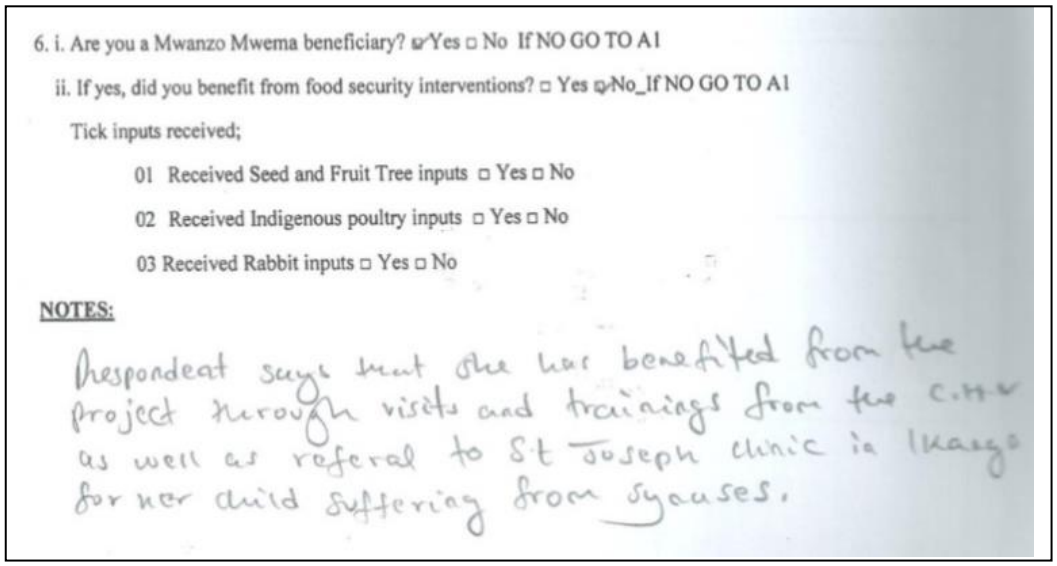
02 Received Indigenous poultry inputs ☐ Yes ☐ No

03 Received Rabbit inputs ☐ Yes ☐ No

NOTES:

The respondeat has benefitted through ANC trainings as well PNC training and training on breast feeding

Figure 31. Excerpt from a survey completed by Peter, Mwanzo Mwema end-line assessment, Voi. Inserted text reads: "The respondent has benefitted through ANC trainings as well PNC training and training on breastfeeding."



6. i. Are you a Mwanzo Mwema beneficiary? ☑ Yes ☐ No If NO GO TO A1

ii. If yes, did you benefit from food security interventions? ☐ Yes ☑ No_If NO GO TO A1

Tick inputs received;

01 Received Seed and Fruit Tree inputs ☐ Yes ☐ No

02 Received Indigenous poultry inputs ☐ Yes ☐ No

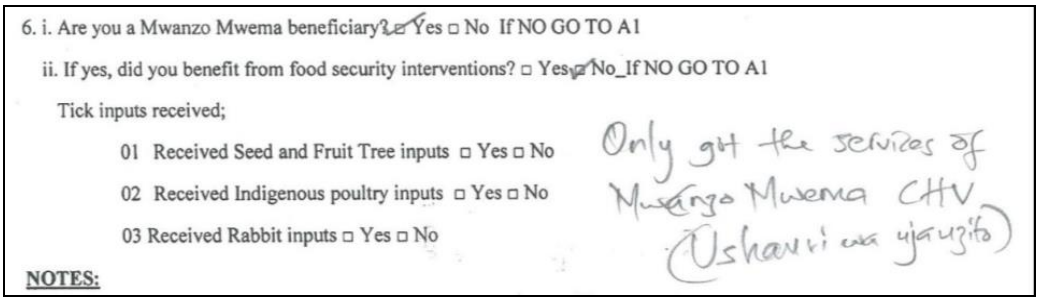
03 Received Rabbit inputs ☐ Yes ☐ No

NOTES:

Respondeat says that she has benefitted from the project through visits and trainings from the C.H.V as well as referal to St Joseph clinic in Ikayo for her child suffering from syauses.

Figure 32. Excerpt from a survey completed by Peter, Mwanzo Mwema end-line assessment, Voi. Inserted text reads: "Respondent says that she has benefitted from the project through visits and trainings from the C.H.V. as well as referral to St. Joseph Clinic in Ikayo for her child suffering from sinuses."

Peter was by no means the only enumerator to write notes like these. Similar clarifications could be found on numerous questionnaires across sub-counties where the endline survey was conducted. Another enumerator included women's own words in Kiswahili along with the translation.


6. i. Are you a Mwanzo Mwema beneficiary? ☑ Yes ☐ No If NO GO TO A1

ii. If yes, did you benefit from food security interventions? ☐ Yes ☑ No_If NO GO TO A1

Tick inputs received;

01 Received Seed and Fruit Tree inputs ☐ Yes ☐ No

02 Received Indigenous poultry inputs ☐ Yes ☐ No

03 Received Rabbit inputs ☐ Yes ☐ No

Only got the services of Mwanzo Mwema CHV (Ushari wa ujauzito)

NOTES:

Figure 33. Excerpt from a survey completed by Mark, Mwanzo Mwema end-line assessment, Voi sub-county. Inserted text reads: "Only got the services of Mwanzo Mwema CHV (Ushari wa ujauzito)."

While these notes may serve a number of purposes for the enumerators and project staff, here they also serve to make 'visible' knowledge that the participants had initially kept invisible from project staff and enumerators.

Another reason behind people's denial of participation may relate more directly to the idea of accessing future resources. As a field officer explained to me, people felt they would be more likely to be included in the 'project's next phase' or the next project if they had not received anything in this round. In interviews I conducted with government employees, they shared this strategy of rotation not only for managing people's unhappiness at being excluded from a project, but also for making sure that everyone benefitted at some point. I will return to the idea of rotating project participation in the next chapter, but what I want to illustrate here is the way people strategically disclosed or hid their participation in projects in order to remain eligible within this rotation.

Networks

I briefly mentioned earlier that the individuals hired to conduct the household survey for the project's end-line assessment were recruited from a pool of enumerators established by the KNBS. The establishment of this pool, and individuals' subsequent affiliation with it, afforded local people the opportunity to connect with new employment opportunities and establish networks and relationships. As such, the establishment of this pool exemplified the way people organized themselves in order to access potential opportunities within global health and development projects. Indeed, in a project the University is now undertaking in Taita Taveta, a number of applications for field positions came from individuals who had participated in the project endline.

During the enumerator training, I noticed that many people seemed to know each other, despite supposedly being from different sub-counties. Some had worked together on previous surveys, like Anne and her friend (mentioned above), and others who had participated in World Vision's project evaluation only a few months prior to the Mwanzo Mwema endline assessment. I brought this up with one of the enumerators during data collection while we were travelling back from our designated field site. It was almost dark outside, and I was in the back of the vehicle with one of the enumerators, a young man who had recently returned to Voi after completing his university degree elsewhere in Kenya. Making small talk along the way, Mark began telling me a story involving one of his fellow enumerators, an incident which had taken place outside of a work context. I remarked that it seemed like a lot of the enumerators knew each other even though I thought they came from different sub-counties. Mark explained that many young people settled in Voi after graduating from university or college since it was the biggest town in Taita Taveta County where the potential for employment was highest. As young

people living in the same small town, a number of them met socially while others met through work on previous surveys and other development projects. Through these interactions, people established informal networks, keeping in contact and circulating opportunities within their group. As a result, the networks that Mark was part of had all been informed of the Mwanzo Mwema project endline and the call for enumerators. In short, many of those selected already knew each other through these informal networks.

Mark's explanation of the way people networked within the larger pool of KNBS enumerators illustrates the strategic connections people form to help them access future opportunities—not unlike academics networking at conferences. While affiliation with the KNBS allowed access to opportunities, their informal network served to maximize access for those involved.

Discussion

During my fieldwork, I encountered numerous ways of producing and using knowledge within the context of a global MNCH and nutrition project, some of which I chose to make visible in this chapter. I chose these knowledge practices to shed light not only on the importance of evidence-generation in current global health practices, but also on the ways people engaged with knowledge, more broadly construed than evidence, throughout their engagement with global health apparatus.

My focus on survey research and the collection of quantitative data in the first part of the chapter was informed, in part, by the current primacy of global health logics that privilege standardized, numerically-based, and globally comparable forms of evidence. Part of the 'validity' of quantitative surveys is based on the idea of the instrument itself as a structured and standardized instrument for collecting information that is impermeable to interpretation and the

messiness of lived social realities. However, following Biruk, I show that these tools come to be through a process of "negotiation constrained by a number of factors: financial resources, the capacity of the organization that will implement the survey, and the willingness of household members to provide the desired information" (Biruk 2018, 46). The design of the Mwanzo Mwema endline survey depended on 1.) the tools available to the health scientists at the time, 2.) the 'critical indicators' decided upon by the health researchers working on the project, and 3.) the aim to fit all of the required information in an instrument that would not be too long and onerous to complete for enumerators or respondents. Similar to the Steps Instrument Biruk discusses, the selection of previously used questionnaires granted the Mwanzo Mwema survey instrument a kind of "universal validity" (Biruk 2018, 33), which allowed the researchers working on the project to have 'confidence' in the data collected with this tool.

While the reliance on universalistic indicators allows for the generation of standardized knowledge that is comparable across vastly different contexts, at the same time, their repeated use removes them further still from the reason and process of their creation. For as I have shown, scales employed in Mwanzo Mwema base and endline surveys have their own histories that tie them to different moments in time, different actors and different purposes, motivations and agendas. As such, the survey instrument is a bricolage of standards whose creation is traceable to entanglements reflecting multiple registers of expertise and standardization processes.

The standards carried to the field through the survey are reinterpreted and reassembled by enumerators in their attempts to collect high quality data. While survey researchers may view these reworkings as a threat to data validity, Biruk argues that this process of improvisation is *how* enumerators are able to make the information they get from respondents fit into the pre-determined boxes. In this chapter, I illustrated this improvisation by focusing on the

enumerators' jottings on the survey instruments. I move beyond Biruk's focus on the fieldworkers, however, to show that the standards are adapted not only by fieldworkers, but also by health scientists and global health experts as they put together the survey instrument in the first place. Health scientists, global health experts, project staff, and fieldworkers are all engaged in this process of reassembling standards in pursuit of generating evidence, as my historical reconstruction of the HFIAS scale demonstrated.

According to science studies scholar Michel Callon, "scientific theories, models and statements are not constative; they are performative, that is, actively engaged in the constitution of the reality that it describes" (Callon 2006, 10). Erikson (2012) has shown how data performativity operates in global health in the production of global health knowledge that reinforces and reconfirms the very realities that health scientist have already predefined. In much current global health practice, evidence is produced with instruments similar to the Mwanzo Mwema survey. These tools are organized according to the categories and topics considered to be important for understanding the health problem (i.e., MNCH in the case of Mwanzo Mwema) from the point of view of those designing the data collection tools, and those who decide what the critical indicators are for understanding the health problem. This means that information about other, more locally-rooted aspects of health are excluded from the data collected. Although the enumerators attempt to include these contextual aspects through their jottings, these notes are discarded during data entry and cleaning.

In chapter 1, I elaborated on the notion of local intervention knowledges, or the notion that people involved with development projects over an extended period time incorporate elements of the various projects to which they were exposed in their understanding of how development projects work. Intervention knowledges extend beyond the request to provide 'local

context' to translate a survey instrument for local use. Instead these knowledges reflect a tacit understanding of the different techniques and elements of development. During data collection for the Mwanzo Mwema endline, one of the other supervisors suspected an enumerator of "cooking data" (also see Biruk 2018; Kinghori and Gerrets 2013; Shukla, Teedon, and Cornish 2016) as he completed his data collection in record time every day. Walking around during the data collection, I chatted with the enumerator and remarked on his 'speed.' He shrugged it off, saying that he had participated in the World Vision project evaluation only a few months prior, and that the data collection tools were almost identical. He considered his ability to complete the survey instruments fast and efficiently to be due to his prior knowledge and training.

The idea that local knowledge is not static but malleable, changing as new experiences and ideas get incorporated, was something I observed in the actions of the enumerators. Based on previous experiences and connections, they oriented themselves in ways that allowed them to capitalize on future opportunities with global health and development projects. These strategies are what underlie the idea of "flexible sustainabilities."

CHAPTER 3. SUSTAINABILITY AND POWER

In chapter one, I presented the case of a proposed demonstration garden (see figure 1, p.4) and how the continued existence of the demonstration garden led me to reflect on the relationship between knowledge and power in global health, especially when the privileging of certain expert forms of knowledge over local ideologies contributes to the unequal power arrangements perpetuated in global health (Brada 2007). One of these discourses is sustainability, which is an almost obsessive preoccupation of health scientists, donors, and local communities alike. My attempt in this chapter is not to diminish the importance of this term—it is certainly relevant in Taita Taveta, which is awash with interventions that have come and gone, often leaving traces of ever-changing policy priorities. I do, however, examine the notion of sustainability with respect to the Mwanzo Mwema project by regarding it as a window through which to view the inner workings of global health power relations.

In this chapter, I focus first on the various definitions of sustainability circulating in the Mwanzo Mwema project, with specific focus on the definitions that came to dictate project activities. I analyze how these definitions were operationalized in the project, and highlight their effects on individuals in the project`s target areas. I also show how the government employees, project staff, and research scientists from the university engaged with notions of sustainability to ensure continued benefits for themselves, their institutions, and their communities. Before examining the social life of "sustainability" within the context of Mwanzo Mwema, it is important to first trace my analysis back to the initial call for proposals, as this period in many ways conditioned the possibilities for Mwanzo Mwema actors to realize their visions of this concept.

Sustainability and the Mwanzo Mwema project

In June 2010, Canadian Prime Minister Stephen Harper announced the Muskoka Initiative at the G8 summit pledging $2.85 billion (from 2012 – 2015) to help "address the significant gaps that exist in maternal, newborn, and child health in developing countries" (Government of Canada 2014). To achieve this goal, the leader of the G8 determined the priorities of the initiative to include strengthening health systems, reducing malnutrition, and intervening in the diseases disproportionately contributing to maternal and child mortality. The core principles for selecting prospective projects were as follows: it should build on previous work that was "proven" to be effective, it should be cost-effective, it must be evidence-based, and it must have strategies in place to ensure the "sustainability of results." Additional principles included supporting policies and projects that would align with local government, or other local actors, coordinate and harmonize with pre-existing development efforts, improve accountability, and strengthen existing monitoring and evaluation systems.

Under this larger umbrella of the Muskoka Initiative, the *Canadian International Development Agency (CIDA), Partnerships with Canadians Branch,* launched a call for the Muskoka Initiative Partnership Program (MIPP) for Maternal, Newborn, and Child Health in November 2010, dedicating 1.1 billion Canadian dollars to MNCH projects. According to the application form that organizations had to fill out to apply for the funding, proposed projects had to "take a comprehensive and integrated approach" to addressing MNCH and achieving "concrete development results," while adhering to the overarching principles, elements, and priorities of the Muskoka Initiative. The Mwanzo Mwema project proposal aimed to address all three of the Muskoka Initiative's priorities by strengthening the existing health system (working

with the CHVs and community health units), addressing nutrition, and alleviating maternal and child mortality through disease prevention.

The announcement also included a list of countries eligible for funding, including eleven "focus countries," i.e. countries considered of 'greater' priority. Eligible countries were predominantly on the African continent, with 80 percent of the funding earmarked for Africa. Although Kenya was listed as eligible, it was not considered as one of the eleven focus countries. The only non-African countries eligible for funding were Afghanistan, Bangladesh, Bhutan, Cambodia, Haiti, India, Laos, Nepal, and Pakistan.

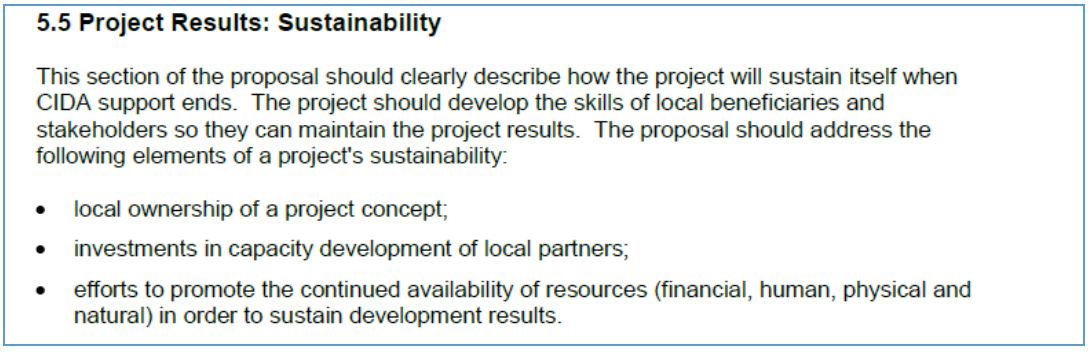
In this brief overview of the Muskoka Initiative and the Partnership Program for MNCH, I want to highlight the threads that connect this chapter with those preceding it. The first is the central role the Canadian Government, along with the other G8 countries, played in setting the agenda and shaping the principles of the Muskoka Initiative. As discussed previously in terms of standards, the knowledge and values of G8 countries shaped the Muskoka Initiative, its geographies, and the 'key paths' to addressing MNCH. A careful reading of the application materials also reveals that the Muskoka Initiative was firmly rooted in the logic of global health discussed in the previous chapter—a logic that privileges evidence-based interventions that are "cost-effective," and prioritizes accountability and results alongside partnership and sustainability. These logics do not stand independently of each other, however, because partnerships are treated as central to the interpretation of sustainability advanced by the Muskoka Initiative.

Defining sustainability

Sustainability is one of the central principles of the Muskoka Initiative and the call for proposals, reflecting its growing importance in global health logics in recent decades.

Organizations and individuals applying for funding need to propose strategies that will fulfill funders' sustainability requirements. As a result, notions of sustainability not only guide and govern project logics and activities, but have become one of the key criteria according to which funders evaluate projects and allocate funding (Yang, Farmer, and McGahan 2010). In the Muskoka initiative application form, concepts related to sustainability underscore most of the forms' section, in addition to a dedicated sustainability section that is placed under "Project Results."

In the Muskoka application guidelines, the sustainability section asked applicants to "clearly describe how the project will sustain itself when CIDA support ends. The project should develop the skills of local beneficiaries and stakeholders so they can maintain the project results" (p.20-34 application guidelines). Three dimensions of sustainability are portrayed as important in these guidelines: the need to ensure that there are ongoing resources, capacity building, and local ownership to extend proposed activities beyond the Muskoka initiative (see Figure 34 below for excerpt from application form).



5.5 Project Results: Sustainability

This section of the proposal should clearly describe how the project will sustain itself when CIDA support ends. The project should develop the skills of local beneficiaries and stakeholders so they can maintain the project results. The proposal should address the following elements of a project's sustainability:

- local ownership of a project concept;
- investments in capacity development of local partners;
- efforts to promote the continued availability of resources (financial, human, physical and natural) in order to sustain development results.

Figure 34. Excerpt from guidelines accompanying the Muskoka Initiative application form, p.20.

The inclusion of sustainability in the results section of the application is also of particular interest when we consider the discussions around the demonstration garden. One of the primary

arguments against the garden was that there were only a few months left in the project and there would not be enough time to evaluate the demonstration garden and its sustainability. Not only would the demonstration garden have to show positive outcomes, but it also would need to 'prove' its sustainability in some way. The idea of "measureable sustainability", according to funders and university scientists, conflicts with local partners' view of sustainability as having a tangible outcome from the project. In the case of the demonstration garden, the outcome would be a garden that continued beyond the life of the project and allowed local partners to continue promoting the project's messages of "Farming God's Way," as local partners referred to conservation farming. Despite the fact that the local staff members were quite invested in the idea of the demonstration garden, indicating local ownership, the need for measurement and accountability ultimately tipped the scales against the demonstration garden.

Another dimension the local team considered crucial to sustainability was an ongoing relationship with the community. This became evident to me not only when I viewed the long-term plans of local partners for the demonstration garden, but also when I heard them discuss ideas for Mwanzo Mwema and ways to continue their relationship with the communities in the future. For instance, on our drive to the project office in Mwatate one day, the director of one of the local organizations discussed his plans for incorporating fistula camps in future Mwanzo Mwema activities. On another occasion, he talked about how their organization hoped to maintain a presence in the community, even if funding did not continue. One of the health scientists at the university discussed these different views of sustainability:

> To be honest I don't know [how the partner's defined sustainability]. They may have thought of sustainability as having more of a continued presence…just based on some conversations that are coming back to me. Like continually engaging with the

> community, to them, I guess is one way of ensuring sustainability. Which is not wrong but that's just the way they think. (Health Scientist 3, University of Manitoba)

Although the notion of long-term involvement did not seem to be especially important in this scientist's view of sustainability, the idea of long term partnerships and community engagement did seem important to other health scientists I interviewed. One health scientist stated,

> I think the conversation should be sustained. The conversation…within the maternal health construct about what the issues are. [Conversations] between people experiencing the issues, people who may have a means to intervene and university research groups that might help procure some sort intervention, procure some sort of measurement of the intervention. So I think those conversations need to be sustained. (Health Scientist 4, University of Manitoba)

This scientist's discussion of sustainability in some ways aligned with that of the local partners in that it promoted sustained conversation and continuing partnerships. At the same time, however, this scientist (based at a Western university), emphasized the role of metrics as a way to reinforce the interests of foreign academics in local development.

Other health scientists pointed out that community involvement on its own, while important, might not be enough to ensure sustainability:

> So in the program science approach we would incorporate both community sustainability and government sustainability. So making sure that we're embedded in some way in the government because as much as you have community sustainability of people …if there's no government systems that help to support that as well...for example taking facility

> delivery, you get the community to decide, 'yes, we want to go to the facility.' We want to have good services, we want to have a facility delivery is what I mean, or we want to have our children cared for but there are no people there, there are no drugs, there's no quality. That's only half of it. So I think you need to have both of those. So if you can make changes in a positive way in both sides, and the interfaces between them beyond the project, I think that would be sustainability. (Health Scientist 2, University of Manitoba)

Speaking about Mwanzo Mwema specifically, the same health scientist later continued,

> So we worked [in Mwanzo Mwema] mostly in the community side because of funding changes or the amount of money we had was going to go as far. And people were going to the facility for the services that they now felt they should get and the people at the facilities were saying, 'why are you coming?' So I think it's all three—the community, the government or facility or the system, and how people interact between the two.

This health scientist regarded the project of ensuring sustainability in Mwanzo Mwema as complex, involving multiple partners. In her view, to ensure the continuation of services would have required project staff to work with both the community and the government. But in Mwanzo Mwema, working with both entities was not considered an option due to funding restrictions. Her comments highlight how certain priorities around sustainability are triaged when faced with funding decisions, such that certain logics are privileged over others.

As a result of such complexity and funding restraints, the health scientists I talked to expressed varying degrees of cynicism about project sustainability, ranging from the hope that

sustainability can be achieved, to questioning the very meaning and possibility of sustainability in any temporary global health project:

> I think sustainability would be the continuation of hopefully the good things, the good changes that happen through a project beyond the life of the project. And I think sustainability can be achieved in a number of ways. (Health Scientist 2, University of Manitoba)

> Well, can any project be sustainable really? [laughs a little] like…That's the exact definition of a project is that it's supposed to be short term and limited. So I think it's anathema to sustainability….So I guess I would have to…I don't understand what sustainability means in our context. (Health Scientist 4, University of Manitoba)

The above quotes reflect two extreme poles, but the majority of stakeholders' responses lay between them, expressed in varying degrees of skepticism and confusion about what sustainability meant in the context of global health. Some cynicism was evident in the interviews in relation to funders' perceived interpretation of sustainability in the initial call for proposals, and the demands funders placed on applicants to submit sustainability plans in their application. Opinions again varied, with one health scientist 'hoping' that funders understood sustainability in the same way health scientists did, while others described writing the sustainability plan as "grantsmanship." To them, one of the tasks of writing the project proposal was to determine the funder's definition of sustainability and then create strategies accordingly.

> The funder wants you to write something that says that after three or four years they won't need to fund it anymore but whatever you've been doing will continue. And so, if you have 5 million dollars or 2 million dollars to do something, they somehow expect

> that after three years or four years that it will be such meritorious work or such unusual work that somehow you will have found somebody else to fund it, *ad infinitum*, either through local resources or what have you. And so when you talk…When you write in a sustainability plan that's kind of what you write towards. (Health Scientist 1, University of Manitoba)

> I would write whatever I think would fulfill the requirements of sustainability. For that funder—for grantsmanship. Whether it's a monitoring system, or making partnerships, whatever that vague term means, then yeah, I would do that, whatever it takes to get the grant. (Health Scientist 4, University of Manitoba)

Grantsmanship here is described as a strategy that the health scientists engage in to ensure continued funding—if not for the same project, at least for themselves or their institutions.

Although sustainability was articulated differently among the individuals I spoke with, certain common elements emerged from my conversations, which were related to partnerships, local ownership, capacity-building, resources, and results. While these elements are all important to how sustainability is operationalized in Mwanzo Mwema, I want to focus specifically on two aspects that were emphasized in the Mwanzo Mwema project, namely partnership and local ownership.

Partnership

> An effective partnership between the Canadian and developing-country partner involves working together to define respective areas of comparative advantage and appropriate division of labour. It also means there is shared responsibility and accountability for results. (Muskoka application guidelines, p.22-34).

The inclusion of "partnership" in the very name of the Muskoka Initiative reflects its importance not only in this funding opportunity, but in the Canadian Government's view of global health work. Only Canadian organizations *in partnership* with organizations from developing countries, and preferably one of the priority countries, would be considered eligible for funding under the initiative. The government also provided guidance on what an 'effective partnership' should look like.

To determine the strength of partnerships, applicants were required to outline the roles and responsibilities each organization would undertake, the governance and management structures that would be put in place (complete with organizational chart), and the steps taken to facilitate local input at all stages of the project. The latter notion, local input, was steeped in the language of accountability and constructed in relation to workplans: the management of daily activities and the sharing and joint review of project results. However, the structure of the funding call itself posed barriers to such meaningful involvement, as it dictated which stakeholders could get involved, in part by defining the countries in which people could work and the types of organizations that would be considered "suitable partners."

The need to adhere to reigning global health logics posed an additional barrier to involvement, as clearly illustrated in the difficulties Mwanzo Mwema field staff faced in suggesting project activities such as the demonstration garden. The local staff's proposal for the demonstration garden needed to meet current global health standards around accountability and measurement—thus prohibiting local input and participation when they failed to conform to these standards. In this way, although the call appeared to advance a democratic vision for global health that appreciated local insight, the way that sustainability logics played out on the ground actually re-instantiated a global North–South unequal power relationship. One of the health

scientists I interviewed also addressed issues related to power in global health, specifically linking it to funding access:

> So, usually projects start where somebody comes with external money. There's a very uneven balance [between the partners] and so the external money becomes the most important thing, the local partners wanting the external money…there's a lot of power dimensions there. If you sustain that partnership long enough, the amount of money that is available is not that great. If the partnership has really worked for the local organization, they become capable of finding other partners and sustaining themselves etc., in which case a sustained partnership becomes more valuable, in some respects, to the external partner. (Health Scientist 1, University of Manitoba)

The health scientist's comments reflect those of scholars who have argued that the (already uneven) power dynamics within global health partnerships are further skewed in favour of universities or organizations in donor countries as a result of their proximity (both geographically and ideologically) to donor organizations (see for example Crane 2010; Lie 2015). This serves the university, which adheres to commensurable logics of global health, sustainability, and accountability as the funder, and places it in an elevated position of power within the partnership. The same health scientist also discussed long-term partnerships as potentially empowering to local organizations that can obtain their own funding:

> I think that sometimes partner organizations, in the best circumstances, they are transformed to some degree to becoming more effective. Where they feel more effective and probably more importantly, they feel more empowered. So that the relationship ends up, and the partnership ends up, making them feeling like they are a stronger organization, a more empowered organization. An organization that can sustain itself

> both in terms of resources as well as in terms of its role…And that they feel that this partnership has been able to transform them into an organization or community capable of doing things they weren't capable of doing before. And empowered to do things that they weren't able to do before. And have the confidence to do things that they didn't feel they were able to do before (Health Scientist 1, University of Manitoba)

Although the health scientist refers to a shift in power as part of achieving sustainability, the comments also emphasize a perceived need for capacity building, which the Muskoka application guidelines defined as an effort to assist "local partners and participants to eventually assume full responsibility to maintain the project functioning and outcomes achieved" (p.20-34 application guidelines). The application guidelines also explicitly stipulate that applicants must be able to secure ongoing funding as a component of capacity building.[38] However, one can argue that the health scientist's version of capacity building, invoked in the above quotation, involves the remaking of local organizations so that they conform to the reigning global health discourse of accountability and sustainability.

The guidelines for the Muskoka initiative never specified that partnerships with governments were essential, but the health scientists I interviewed considered it crucial to sustainability in many ways.

> [When]…all [is] said and done, after a project is done and gone, government is the only thing that is still there. It is the only entity that still decides how much money gets spent towards health, how much money gets sent to facilities or any anything like that. (Health

38. In the application form, applicants are asked first to describe how organizational capacity will be strengthened, and then how the skills or capacity of individuals will be increased. Proposed elements of capacity building include training and learning while doing, networking, enhanced accountability, and increased capacity for raising resources.

Scientist 3, University of Manitoba)

Working with the government is seen as crucial to sustainability in part because the integration of project activities into existing government structures is believed to foster local ownership and increase the chances of the activities existing beyond a project's lifespan. Neither the Taita Taveta local government nor the Kenyan national government were official partners in the Mwanzo Mwema project.[39] However, in an attempt to accommodate this gap, the scientists who wrote the project proposal instead aligned project activities with priorities in MNCH and nutrition set by the Kenyan Government. They also elected to link with existing government projects such as the community health strategy that managed the CHVs, and the Agriculture and Livestock Extension Workers program. Next, I will discuss some examples of how Mwanzo Mwema project staff engaged with government health officers and officials, highlighting some of the difficulties and tensions in these relationships.

Supporting existing government interventions

The Mwanzo Mwema food security staff worked closely with government officials from the Taita Taveta Government's Department of Livestock and Agriculture[40]. In an effort to support ongoing government work, Mwanzo Mwema project staff elected to supply people with indigenous chickens and rabbits as their small livestock inputs. These animals were already being distributed nationwide as part of an ongoing initiative implemented by the Livestock Extension Workers, and would continue after Mwanzo Mwema left the area. However, it seemed the Mwanzo Mwema project beneficiaries had little interest in receiving rabbits, and uptake was

39. The "devolution" or decentralization of power to County governments in Kenya occurred shortly after the Mwanzo Mwema project started.

40. It was the county government for much of Mwanzo Mwema's implementation. Initially, duing planning phases it would have been a department of the national government.

low. A report circulated by project staff at the end of May 2014 indicated that only about 20% of the food security beneficiaries had made any attempt to construct rabbit hutches and receive their rabbits. In discussions with government officials and project staff, they highlighted the fact that rabbits were most often associated with children, as being "children's food." During the program review meeting, a local health scientist working with Mwanzo Mwema recalled how, as a child, they would hunt rabbits on his grandparents' farm in central Kenya, but that his grandparents would not eat it. So much so, he said, that his grandmother even wanted to throw out the pan they used to cook the rabbit. This association with children was also mentioned during an interview I conducted with one of the extension workers during the project's end-line assessment:

> Mainly what we have here is pastoralists so they keep beef cattle. But they also keep sheep and goats. And rabbits, which is new. In fact at the beginning majorly this is an enterprise for small children in schools. But now we are advising the farmers to come up [to take it up] (Key informant interview, extension worker, Taveta)

The view of rabbits as children's food has historical roots. According to the Taita Taveta Annual Reports I studied at the archives, rabbit distribution in Taita Taveta first started in the 1980s through the 4K agriculture clubs for children.[41] However, the popularity of 4K clubs waned in the late 1980s, at which time rabbits started being distributed to women's groups. However, during the implementation of the Mwanzo Mwema project there was still not much uptake as an agricultural practice for adults, even though it was heavily promoted nationally in

41. The 4K clubs in Kenya form part of the global 4H movement for agriculture, which originated in the U.S. The 4 K's stand for Kuungana, Kufanya, Kusaidia Kenya which is Swahili for "Coming together in order to help Kenya.' These clubs included children and adolescents up to 15, at which age they would move to the Young Farmers' Club of Kenya. The groups undertake a number of agriculture activities including rabbit rearing.

special sections of the daily newspapers such as the *Daily Nation* and *The Standard*. Rabbits may not have been new, per se, but their distribution *to adults* as viable farming practice was considered new. In this instance, working with the government and existing livestock distribution activities led to the poor uptake of a project activity instead of ensuring sustainability.

The project's food security staff also worked with the extension officers to procure and vaccinate the small livestock for distribution, and to plan and implement trainings for the beneficiaries. The training of beneficiaries followed the 'train and visit' model used by the extension officers, whereby a group is trained together in a central location followed by home visits to provide support to individual farmers. The Mwanzo Mwema project also provided some support for the extension workers' home visits, such as fuel for their motorcycles, in their attempt to strengthen existing government services. The extension workers I interviewed for the project's end-line assessment acknowledged that the Mwanzo Mwema support helped them with their duties, as one explained:

> Sometimes as a department, we have no resources. So this project was able to reach at least 400 farmers just here in Mwatate where we would not have been able to reach. I would not have been able to impart the knowledge on poultry farming. So now I am sure I have experts in the community and they are my ambassadors, they will teach others. So talking about this is not a problem for me. (Agriculture and livestock extension worker, male, Mwatate)

The assumption underlying the logic of working with existing government services is that these activities have a better chance of surviving if they are already a government priority. However, in other interviews I conducted with extension workers, they pointed to some of the challenges associated with the integration of activities, including a continued lack of resources

that cast doubt on whether new activities would be sustainable. The extension workers also mentioned increased workloads, for while the training and home visits may have been part of their daily activities, their participation in Mwanzo Mwema often meant that they had to attend additional meetings and accompany field officers to procure and distribute project resources. Discussions about increased workload were not isolated to the agricultural extension workers, but echoed by the community health assistants and the CHVs.

> Maybe that there's an emergency from our office 'can you kindly attend this meeting?' and we had already planned with the [names Mwanzo Mwema project officer]. So we had no any other alternative than to sacrifice [one of the meetings]. Or if it's a calling activity from the community level, maybe like community health and sanitation, we can sacrifice like [names Mwanzo Mwema field officer] can accompany my other CHV's so that we implement community activities. (Key informant interview, CHA, male, Voi)

> Those same challenges they have mentioned. The distances between homes are so big, it was tiring. Also carrying this bag all the time is hard. The target is also very high and field officer is on your neck to meet your target. (Community health volunteer, female, Mwatate)

The government employees were quick to point out that they "made it work" despite the increase in workload, and were generally full of praise for Mwanzo Mwema staff who helped them deal with the added tasks, as seen above. Nevertheless, tension existed between project staff and government employees, which I saw erupt in October 2014 while attending the three-day training for CHVs in Mwatate.

Although the training was based on material developed by Mwanzo Mwema staff and interns, it followed the existing government curriculum for training CHVs as it pertained to maternal and child health and nutrition.[42] The first day of training started with an overview of the Mwanzo Mwema project. The remainder of the sessions then focused on topics within maternal and child health considered to be most crucial to the Mwanzo Mwema project.

The first session on day three was dedicated to familiarizing CHVs with the project's various tools—including the monitoring tool (MMATT)—and the information they were expected to record in its pages. Following the tea break, a Mwanzo Mwema field officer went through the government-supplied mother and child booklet—in its current iteration a purple booklet, in which all medical visits were noted and relevant information was recorded. The booklet is given out at healthcare facilities to women during their first ANC visit. Women then have to bring these booklets with them to subsequent visits to the healthcare facility. The booklet covers the mother's health care including ANC, delivery, and postnatal care, and provides space to record details of the child's health until their fifth birthday, including immunizations, height and weight, and so on.

42. The government's training for CHVs consists of two phases. The first phase includes six basic modules that all CHVs should be trained in over the course of ten days. Maternal and child health, as well as "healthy living" (diet) is included in Module 4: Best Practices for Health Promotion and Disease Prevention. In addition to the basic modules, there are other more technical modules that CHVs may be trained in depending on whether this is a priority in their areas. These include water, sanitation and hygiene, and family planning.

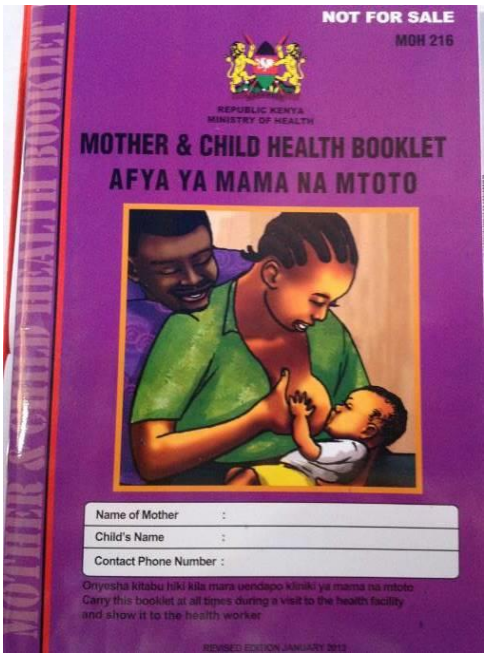


Figure 35. The mother and child health booklet given to women during their first ANC visit in Taita Taveta.

Some of the information that CHVs were asked to capture in the MMATT was already written in the mother and child health booklet, so they would have to first look it up in the women's booklets. As such, the purpose of the morning session was to ensure that the CHVs knew where to find the information they needed. The Mwanzo Mwema project officer focused only on those sections of the booklet that project scientists and staff considered important, or that contained the relevant information. Project staff told me that they assumed that all CHVs attending the training (almost all women with the exception of one man) had already completed the basic training modules for CHVs. As such, the CHVs should have received training that covered most, if not all, of the purple booklet.[43] The session at the Mwanzo Mwema training was

43. In comments made to me by the person in charge of the community health volunteer program, I later realized that not all CHVs in the county (in fact almost none) had completed all the required government training modules. This seemed to be due to a lack of government funding.

thus seen more as a refresher, an opportunity to reinforce the information the project scientists considered crucial to MNCH.

Once the Mwanzo Mwema field officer had concluded her session, a public health officer was called upon to present the next topic. She had been sitting in front of me and I had noticed her whispering with the person sitting next to her, another of the Department of Health employees, while the Mwanzo Mwema field officer was talking. After the facilitator called the public health officer, she got up and walked to the front of the room with her purple booklet in hand and started going through it from the beginning. As she continued speaking, the Mwanzo Mwema staff's body language noticeably changed as they shifted in their seats and looked at one another. I was sitting with a friend, a staff member from the partner organization in Nairobi, and though she had intermittently translated for me during the training she was now noticeably quiet. As the public health officer continued talking, I asked my friend why everyone was so tense. According to her, the public health officer had started her session by saying that the Mwanzo Mwema field officer had not dedicated enough time to the purple booklet and left out too many important topics. To remedy this, the public health officer used the time allocated to her to cover the remainder of the book. A quick glance at the agenda showed that she had been slated to discuss infectious diseases and uvula cutting, not the content of the purple booklet. The public health officer eventually exceeded her allotted time, still going through the purple booklet, and the facilitator intervened. She thanked the public health officer for her time but stated that we had to move on as there was one more speaker left before lunch. She called upon the next speaker: the other government employee who had been sitting and talking with the public health officer earlier. As the public health officer walked back to her seat, she had the purple booklet open to where she had ended her session. She handed the booklet over to her colleague, who then

dedicated her session to covering the remainder of the booklet, rather than discussing nutrition as she had been slated to do. The tension between the government and project staff was palpable at this point, and the Mwanzo Mwema staff let the government employee finish going through the booklet even though it extended into the lunch break.

This was not the last sign of tension that day. Later in the afternoon, a senior public health officer spoke during the training's closing session. He made his remarks in Kiswahili until he stated, in English, that "NGOs may come and go, but the government is always there," repeating a comment he had also made in Kiswahili. He finished his remarks in Kiswahili, but I clearly understood what he wanted me (the only Westerner and the university "representative") to understand. His closing statement was followed by remarks from the local hospital director of a private hospital managed by one of the partner organizations. He also spoke in Kiswahili as everyone began to laugh. My friend told me he had said that "the Japanese" have the right idea—today they pay for children's vaccinations because they know tomorrow, as grownups, these same children will buy a Toyota.

Although the comment made by the hospital director—himself employed by a faith-based organization—was more facetious than that made by the government employee, it occurred to me that both statements reflected some level of frustration with the involvement of NGOs and donor funding in local development. In the public health officer's view, the NGOs were transient, as opposed to the government's long-term presence—a transience that at first seems to stand in contrast to the longer-term investment and more hands-off approach attributed to "the Japanese." But even though the second, longer term approach seemed more palatable to the speaker, his comments still reflected a certain amount of cynicism about the donor's presumably self-serving motives for getting involved in local affairs.

In the car, heading back to our hotel in Voi (about a 30 minute drive from Mwatate where the training had been held), I mentioned to my friend that I thought I had observed some tension between the government and project staff. She agreed that there was definitely tension, but told me that it was "always like that," based on her experience with other projects, and that it was really understandable from the perspective of the government staff as they were ultimately responsible for the continuity. They had to continue providing the same services, either working with a rotating roster of donors who all had their own priorities, or in the absence of funders and without the same level of funding. The government staff also could not provide the 'incentives' NGOs or other agencies gave local people for participating in training or other activities, which further increased the difficulties the government staff faced in their everyday activities. One of the government extension workers I interviewed for the project endline assessment talked about the difficulties he faced in getting the farmers to come to agricultural trainings (like those organized by Mwanzo Mwema) in the absence of incentives:

> Once the donors move out, we are left with the farmers and when we call them for meetings, they don't come. They say if there is lunch, I will come and if there is no lunch, I will not come. Sometimes we want to pass some information to them and they don't come. That is an issue we are trying to discuss now in our forums. Most farmers when they hear it is us, they refuse to come. And they are losing very much because of that. They are losing information that can help them grow. (Key informant interview, extension worker, Department of Agriculture and Livestock)

Local Ownership

Another important aspect of sustainability in the Mwanzo Mwema project was local ownership, defined in the Muskoka application guidelines as how a proposed project "responds to needs, priorities and approaches identified by the local partners. It means that local partners believe in the project and are willing to take responsibility for its success and for its sustainability after CIDA support has ceased" (p.20-34). The indicators for assessing local ownership focus on the extent to which the project addressed the priorities and plans of local partners and communities, as well as local involvement throughout the life of the project. The authors of the guidelines also reference the "commitment" of local groups or communities to the continuation of project activities (see Figure 36 below for wording).

5.5.1 Local Ownership

One of the first requirements for a project to be sustainable is that it be "locally owned". This means that it responds to needs, priorities and approaches identified by the local partner(s). It means that local partners believe in the project and are willing to take responsibility for its success and for its sustainability after CIDA support has ceased.

In assessing proposals, CIDA will be looking for indicators of local ownership such as:

- whether and how the project responds to the strategic plans and objectives of the local partner;
- efforts to assess the needs of beneficiary communities/populations to ensure the project responds to these needs;
- whether and how local partner(s) and project beneficiaries were involved in developing the project, and will be involved in its implementation and monitoring; and
- indicators of commitment by the beneficiary population and local partner(s) to the long-term success of the initiative, including whether they are contributing their own resources to the project.

Applicants are required to attach a Cooperation Document to their organization's profile on PARTNERS@CIDA. The document must demonstrate a shared commitment between partners on the conception of the project (section 5.7.1.4 provides further information on this document).

Figure 36. Excerpt from guidelines accompanying the Muskoka Initiative application form, p.20.

One of the ways the Mwanzo Mwema project addressed local ownership was to align project goals and activities with the stated maternal and child health and nutrition priorities of the Government of Kenya, as previously mentioned. In this section, I will focus on the final stated indicator of partner commitment, namely "indicators of commitment by the beneficiary population and local partner(s) to the long-term success of the initiative, including whether they are contributing their own resources to the project." The idea that partners must contribute something to properly 'gain' from the Muskoka initiative, also known as "matched funding," appeared in the original call as a requirement for a 25% in-kind or financial contribution to projects costs. In the case of the Mwanzo Mwema project, this requirement directed the formation of the partnership between the university and the Canadian Foodgrains Bank (CFGB), which would provide matched funding to support the food security component of the project. They also promoted a similar contribution strategy for the food security intervention, which they called "push the pain."

Push the pain

The idea that an individual or organization has to contribute something in order to gain access to funding or project resources is not new to development, and central to current notions of sustainability. One of the health scientists explained the idea of "push the pain" to me:

> And so for example the issue of sustainability came up with CFGB and they wanted us to make sure that people actually paid—they contributed if they were getting something tangible back from the project, so that it wasn't thought to be…like the studies looking at bed nets where if you just give out bed nets people don't value them; but if they've actually invested in them themselves they value them more. And that concept may help with sustainability so it may help people to continue on with the process that they

> themselves invested in after the life of the project. So that's one version of sustainability. (Health Scientist 2, University of Manitoba)

In practice, this meant that Mwanzo Mwema participants had to meet certain criteria, other than perceived vulnerability or 'need,' to be included in the food security arm and receive the inputs. Women *had to attend* the agriculture training organized by Mwanzo Mwema, they *had to already own* or have access to a big enough piece of land to accommodate their kitchen gardens as well as the chicken coops and/or rabbit hutches. Mwanzo Mwema required women to construct the coops and hutches before they could receive the livestock. Initially, project beneficiaries had to procure their own supplies for building these structures, "contributing their own resources." In focus groups with project beneficiaries, women discussed how this later changed and beneficiaries received building materials. According to them, it did not entirely solve the problem, as they were still responsible for the building of the coops and hutches, as one women noted during a focus group discussion I facilitated in Mwatate: "Like when you got the wire, you knew that you had to look for the other implements and somebody to build for you the chicken house." As a result, some women who may have benefited from the food security component could not afford to participate. As the same health scientist that explained 'push the pain' to me said,

> Because the people who really were most needing the food security couldn't come up with [the funder's] idea of what needed to happen to ensure sustainability, which was something. You know if you have nothing, you can't even put that forward to get something. And maybe there's a way of looking at it differently which we…we didn't do, to say that for most people, this is required. But as a community you need to decide with them for some people maybe there's 10% or 20% where you just say we'll just give it to

> you. And maybe what you ask for them is actually an 'after input.' Like they invest once they've gotten something from it, so that there's….it's not that there's no expectation of them but that it could be deferred, like paying back with interest. (Health Scientist 2, University of Manitoba)

The health scientist in this quotation, although working within the sustainability framework of "push the pain," at the same time reinterpreted it to consider other possible ways that the funder's contribution requirement could be adapted during implementation to better fit the local context.

Government employees I spoke with during the key informant interviews for the Mwanzo Mwema endline assessment discussed these requirements and their consequences. One of the community health assistants I interviewed further discussed the land requirement:

> Community health assistant: Land is a big problem. Like now just behind this building here, there are small plots. They stay here but they farm somewhere else, like Kamtonga, which is far. And it is a place where you can meet elephants; it is a wildlife conflict area so you are just farming but you might not harvest. And most of the people from this area migrated…so they farm elsewhere.
>
> Interviewer: Does that mean that they didn't qualify for the food security intervention?
>
> Community health assistant: Yes, because of these small plots. (Key informant interview, Community Health Assistant, Mwatate)

His comments highlight that in Mwatate sub-county the human-wildlife conflict has made it increasingly difficult for people to farm in rural areas, and some have migrated to the town of Mwatate in search of employment or work as day labourers. In town, they often rented

smaller accommodations without the land they needed to participate in the Mwanzo Mwema food security project, a point echoed by a CHV during a focus group in Mwatate, “Also, many people are tenants and have no land so they ignored.”

Difficulties were compounded for single mothers or if a woman had moved to town on her own while her husband stayed behind to maintain the farm. In these cases, finding time to participate in trainings or meetings, in the face of other priorities, added an additional barrier. As another of the government employees stated while discussing difficulties in scheduling the food security trainings:

> Like water, people have to move very far to get water. So the distance is too long so somebody cannot combine the training and water fetching sometimes. That becomes a bigger issue when there is a single parent. A big percentage I realized were single parents or maybe the husband is far and the mother is just at home alone. So you find that there are some challenges to bringing those [food security] groups together. (Key informant interview, agriculture and livestock extension worker, Taita])

He later also discussed the idea that people had to contribute to gain something in the context of a “food for work” project by another funder:

> There is another program from World Vision, which has a problem with the implements—the equipment which are used for soil conservation. There is something they were calling food for work, food for assets, but the farmers don't have good tools to do their work. If they can just assist on that…(Key informant interview, agriculture and livestock extension worker, Taita)

Here people are not expected to contribute anything, per se, but to bring their own tools to use in their activities. To a program planner this may seem negligible, but to community

members it poses another barrier to their participation in development activities and ability to gain access to resources. The incorporation of this principle into global health and development work seems counter to the ideals of equity, which was an explicit aim of the Mwanzo Mwema project: to provide services to those who are "the most vulnerable."

The idea of local communities needing "to give something, to get something," however, is by no means a new concept in health and development. Indeed, engaging communities in the "work of development" has a longstanding history, tracing back to colonial times. Under the supervision of colonial administration officers, local communities performed much of the work on pipelines, boreholes, and dams constructed as part of "reconstruction and development" efforts. According to the annual reports, people were occasionally paid for their labour, but it was more commonly described as community members' "contribution" to development efforts.

"Food for work" programmes were mentioned for the first time in the 1955 Annual Report. Droughts in 1954 and 1955 caused severe famine conditions in Taita Taveta. Until this time, the colonial administration's strategy for dealing with famine was to provide subsidized maize to anyone who could afford to pay for it. In 1955 however, the administration changed its policy based on the grounds that providing subsidized maize did not distinguish between those who could afford to buy food and those who could not. The administration started the food-for-work program in an attempt to ensure a more equitable distribution of food, as explained in the annual report for 1955:

> In previous years famine relief assistance had taken the form of subsidy on the price of maize meal. The disadvantage of this system was that no distinction was made between the well-off and the needy. It was proposed instead in 1955 to make free distributions of maize meal in return for services on communal public works e.g. roads, school building,

> soil conservation measures, tree planting etc. It was felt that people would not turn out for such voluntary work unless they really needed the food, and that the Government aid would therefore find its way to the people for whom it was intended. At the same time it was understood that in the case of the very old and infirm the food would be issued in return for a nominal contribution to the work in hand. (1955,10)

Food-for-work programmes were still present in Taita Taveta's development landscape at the time Mwanzo Mwema took place. In conversations with project staff and community members, I learned that these projects were mostly related to the rehabilitation of roads following rain and flooding, and most often funded by organizations such as World Vision. Other projects included water pans and community halls used as churches. In this way, the Mwanzo Mwema project and other development projects in the region repeated a practice that has been long problematic.

Flexible sustainability

In the preceding sections, I outlined the ways in which the sustainability discourses promoted by funding organizations—reinterpreted and taken up by project partners—exerted control over Mwanzo Mwema partnerships and the day-to-day activities of implementation. The way such discourses shaped the project had very real consequences for people on the ground—field staff and beneficiaries alike. While these larger power inequalities and their effects are certainly important and deserve attention in global health, we must not overlook the many ways individuals engage with notions of sustainability and reinterpret and reassemble them to benefit their communities and satisfy institutional interests. This pertains to academics as well, as the health scientists talked about 'grantsmanship' as being able to interpret what funders really wanted, and writing grants in a way that increased their chances of obtaining the funds. In Taita

Taveta, the government officials and employees, project staff, and beneficiaries I talked with for the project's endline assessment, all had their own strategies for ensuring long-term benefits for themselves, their families, and communities. In the case of Mwanzo Mwema, these strategies primarily focused on the inputs provided for the food security intervention.

As mentioned in previous chapters, the food security intervention targeted a subset of Mwanzo Mwema beneficiaries, identified in a consultative process between project staff, community leaders, and the CHVs. Project beneficiaries excluded by the food security component were unhappy about being left out. They strenuously interrogated the CHVs, project staff, and government employees about the process. Although government extension workers were not directly involved in the selection process, their close working relationship with the Mwanzo Mwema project staff led community members to assume that they had a hand in selection as well. In interviews with the extension workers and CHAs, our discussions of these challenges and the ways they dealt with them provided a glimpse of how these individuals navigated the larger arena of development and global health projects.

In discussing the difficulties the CHVs faced with the selection of the food security beneficiaries, one community health assistant shared how they managed to deal with the conflict:

> So there was this food security part of it. So some people got some products and others did not get anything. Okay they had criteria. That was a challenge because they are all in the project and some are picked to receive and some are not. So they felt like they were inferior to others. So there are around thirty-six CHVs and we have decided, so that now everybody feels that the food security part of Mwanzo Mwema is covering everyone, we give every CHV three chickens, two hens and one cock. Once you get this, after they have bred, you pass them on to the next person who is in the group. So at the end of it,

> everybody will have benefited. The same with the rabbits. There is also the community who are not in the project. For the community to gain and to see that there is Mwanzo Mwema, the seedlings are given to them. Like I told you, each twenty households have a CHV. So we are giving the CHV some seedlings to share with the twenty households they cover…Because now if we give one CHV, they establish a nursery for the twenty households and then they share the seedlings with the twenty households. So at least every community member has some seeds so that the community in general can feel that they have benefited from Mwanzo Mwema's food security arm. So nobody feels left out. (Key informant interview, Community Health Assistant, Mwatate)

This community health assistant, along with the CHVs in his community health unit, explained how they adapted Mwanzo Mwema project activities to manage the tension that resulted from picking a subset of beneficiaries to receive the agriculture inputs for the food security arm. What I most want to draw attention to here, however, is how project outcomes were shared in ways that transcended the parameters set by the Mwanzo Mwema project, both in terms of who would receive the benefits and the established time period. The collectivization of the project activities in groups that would 'pay it forward' ensured that project activities would continue as long as the rabbits and chickens kept reproducing and the nurseries were maintained. The community health assistant recognized that this way of distributing the chickens and rabbits would take some time, but he also anticipated that the introduction of new projects by other funders working in the area would arrive in the future. Beneficiaries for upcoming projects would be selected based on their participation in previous or ongoing projects.

> In fact that is what we plan to do. There are some rumors that there is something coming up soon. So those who received the rabbits and chickens, the seedlings I think most of

> them got because we had a lot of this, you can even plant a plantation of them. But the chickens and the rabbits, those ones who will get first, because there is a long period of waiting. If we get something else, we give to those who did not get first. These things [development projects] also go in phases so those who participated in round one will not participate because there is a token, which is being given. So we just rotate them like that. (Key informant interview, Community Health Assistant, Mwatate]

Other agriculture and extension workers also talked about the (informal) redistribution of small livestock in communities after they reproduced, especially between relatives:

> One thing I was telling them is this, even those who are getting are only getting very little, just enough to start, that they can also start small. I told them that vaccinations were done for a whole village so they would still get it done even if they were not in the project. And then the beneficiaries are relatives so they cannot refuse to share afterwards when [the livestock] breed. I told them that this was just a small project. (Key informant interview, agriculture and livestock extension worker, Mwatate)

In the focus group discussion with CHVs they discussed similar strategies:

> Patience: For me, what I saw is that there are many NGOs around here. So you find some people are already in a World Vision project and are getting certain things already. So that also helped in settling people down because they are benefiting from other projects.
>
> Magdalene: It is as my colleague has said. Though it was not easy because other projects also have criteria so there are people who actually get nothing. So we encouraged them that as the project goes on, the animals will be many and they can share with those who did not get in the first round. In future when there is more, another group will benefit. So

> I encouraged them in this way and told them to be patient, there would be other projects to come along so we wait. (Female participants, CHV focus group discussion (endline), Mwatate sub-county)

> I would say that yes, [excluded beneficiaries] asked questions and they were unhappy. But I told them that those few who got [livestock and seedlings] would spread them around when they grew them. So eventually the whole village will have the same things, and all benefit. I told them that the project could not afford to give everyone in general but we would all share eventually. So they understood. (Female participants, CHV focus group discussion (endline), Mwatate sub-county 2)

The idea of rotating and informally redistributing the benefits of the Mwanzo Mwema project to those excluded by the selection criteria presents a way of enacting sustainability that differs from how CIDA and academic organizations generally subscribe to ideas of sustainability, as these are tied more immediately to measurable notions of accountability and transparency. In this way, CHVs and communities move to ensure that benefits from the global health and development projects that continually pass through their villages provide maximum benefits for everyone.

Similar strategies were exercised on the health and nutrition side of the intervention as well. As part of the arrangement with the government to permit the CHVs to work on the Mwanzo Mwema project, it paid a small monthly honorarium (2,000 Kenyan shillings per CHV) to the community health units in which the CHVs worked. Given the voluntary status of these workers, the government did not want them to receive a salary directly from the project. In most cases, the community health units kept some of the funds and gave the CHV a portion of them, although the amount varied according to the unit. At one community health unit, for instance, the

funds that remained at the unit were all kept in a central bank account to be used for future activities:

> It is kept in the bank to start an income generating activity, which will benefit the whole community. Like now all the money they have been collecting is for an IGA [income generating activity] like there is a water project worth one million [Kenyan shillings], you are supposed to put up 50,000 before you are given that one million. So the money can be used that way. So if there was more being paid to them, it means there will be money for such a project. We use that money as an IGA. Like the seats we are sitting on are for hire from the CU, it is part of the IGA. (Key informant interview, community health extension worker, Mwatate sub-county)

Similar to the conversations I had with project staff, discussions with government and project employees and volunteers, conducted as part of the Mwanzo Mwema project's endline, highlighted the different understandings of sustainability that circulated among project partners. Even though the CIDA's and CFGB's notions of sustainability dominated Mwanzo Mwema project discourses, the ways in which other actors understood sustainability was never fully erased. These understandings actively circulated within the project and informed its activities, even though they were not captured in official project documents.

Discussion

> I think we ask questions about sustainability for certain kinds of programs and not for others and there is favouring of certain types of development projects over others. So nobody really ever asks what's your sustainability plan for a critical vaccination program? When is the community going to take over the procurement of vaccines? And all these other kinds of things. So there's never any question around sustainability, it's

> always assumed that there's going to have to be resources available to make sure there's a cold chain, make sure that there's vaccines. But somehow we think that we could sustain the HIV program or we can sustain frontline workers *ad infinitum.* So I think …there needs to be more dialogue about what is worth sustaining and how do those decisions get made from a resource input perspective (Health Scientist 1, University of Manitoba)

This comment, made during an interview with one of the health scientists working with Mwanzo Mwema, expresses frustration at the ways that reigning sustainability discourses constrain what can and cannot be done within global health. Donor organizations promote specific understanding of sustainability by tying them to funding and reporting requirements, allowing them to govern project activities from afar based on standardized understandings of "sustainability." The comment above, made by a health scientist from a North American university, illustrates how particular definitions of sustainability closely aligned to North American donor organizations are sought after, even though other more locally relevant definitions that exist 'closer to the ground' may abound.

Yang, Farmer, and McGahan (2010) argue that the increasing importance of 'sustainability' in current global health discourse stems in part from frustrations with the "discontinuities in the provision of care" that occurred as a result of fragmented projects and project time frames. There is also recognition that diseases (such as HIV) or health concerns, like MNCH, continue past the project's end date. However, many of the health scientists and government employees I talked to saw current understandings of "sustainability" as perpetuating the "churn" of health and development projects. The focus on having a sustainability plan that would hand projects over to local ownership after a single funding cycle seem specifically to

work against the establishment of long-term partnerships, one of the supposed cornerstones in current understandings of sustainability.

Much of my interest in sustainability came from discussions with project coordinators around the continued existence of the demonstration garden, as discussed in my introduction, and the disparate understandings of project sustainability that clearly shaped each point of view. I was troubled by the ways that the knowledge of funders and academic partners became privileged over that of implementing partners, and that "sustainability of results,"—as a construct that could be measured and compared across projects—seemed to be the only legitimized and recognized understanding of sustainability. The way this played out in the discussion over the demonstration garden clearly highlighted the power imbalance in the Mwanzo Mwema project partnership, and its prolonged re-instantiation in and through discourses of sustainability.

The difficulties created in the Mwanzo Mwema project stand in contrast with the notion of partnership as a response to unequal power relations between donor institutions and recipient institutions. In this view, collaborations that promote the full participation of all partners in every aspect of the project aim to "put the recipient institution at the helm of the overall development process" (Lie 2015, 723)—which corresponds to the wording of the original Muskoka Initiative application. But what I have shown in this chapter is that the power imbalance between donor and recipient organizations has been reproduced by a growing reliance on more indirect techniques of governance, through a process that Lie (2015, 724) refers to as "developmentality." Lie defines developmentality as, "the donor's ability to frame the partnership formation and thus the conditions under which the recipient exercises the freedom it has been granted" (724). This is clearly seen in the Muskoka application materials. While Lie focuses predominantly on the process of partnership formation, I would argue that indirect modes of governance in global

health are also enacted through the re-deployment of sustainability discourses, which tether a diverse array of social actors entangled in the project of development.

Within this structure of governance, however, people are participating in the process of global health and sustainability in ways that work for them, not “always as an act of subordination but sometimes as a wilful strategy of manipulation, brokerage or translation enabled by their knowledge of the donor discourse itself” (Lie 2015, 725). This has been an underlying theme throughout this thesis, but in this chapter I focused on the ways people use their understanding of global health to enact a sustainability that does not conform to the ways in which donor organizations or academics define sustainability. Rather, it reflects knowledge of global health and development projects as transitory and ephemeral when viewed against the longer strategy of maintaining access to benefits and resources for Taita Taveta. This is not to say, however, that academics stand outside this discourse of flexible sustainability, as illustrated in the comments academics made about 'grantsmanship.' To them, understanding what the donor organization means by sustainability, and being able to craft a response accordingly, increases the likelihood of receiving funding. This is an important strategy for maintaining the sustainability of their own work or research centres.

Discussion conclusion

Social anthropologist Aihwa Ong (1999), with respect to Hong Kong businessmen, defines flexible citizenship as, "the cultural logics of capitalist accumulation, travel, and displacement that induce subjects to respond fluidly and opportunistically to changing political-economic conditions" (Ong 1999, 6). In order to "accumulate wealth and social prestige" globally, the flexible citizen places himself favourably in terms of geography and social positioning, travelling outside his nation-state in order to access wealth. The practices and logics of flexible citizens are facilitated by the new articulations between the regimes of family, state, and capital, or as she says, these "logics and practices are produced within particular structures of meaning about family, gender, nationality, class mobility and social power" (6).

Ong's notion of flexible citizenship builds on the work of geographer and anthropologist David Harvey, and his ideas around "flexible accumulation" and its role in late capitalism. But Ong criticizes Harvey for overlooking "agency and its production and negotiation of cultural meanings within the normative milleus of late capitalism" (Ong 1999, 3). For Ong, one of the important aspects of flexible citizenship is how people actively participate in the process of accumulation rather than being passive recipients of "global labour processes." This is not to say, however, that Ong dichotomizes global labour processes in opposition to local culture. She argues against such a dichotomy, and instead grounds her analysis in the idea of "transnationality—or the condition of cultural interconnectedness and mobility across space—which has been intensified under late capitalism" (4).

Building on Ong's work, I define *flexible sustainabilities* as the practices project staff and scientists engage in to ensure continuing access to resources. Here, 'resources' not only refers to the outputs (i.e. the small livestock and seedlings) distributed by the Mwanzo Mwema project

but the knowledge and financial resources that consecutive global health projects bring. These knowledge practices draw upon local intervention knowledge, shaped by decades of interaction with development projects. My idea of flexible sustainabilities differs from Ong's notion, however, as the people engaging in these logics and practices in Taita Taveta are not shifting between geographies to the extent that the businessmen from Hong Kong do. Instead, I draw here upon Ahmed Kanna's work on the flexible citizens of Dubai. In his articulation, individuals do not move between geographies but rather shift "between different scales and cultural worlds in constructing their identities" (Kanna 2010, 101) in relation to neoliberal economic processes and ideologies. Dubai's flexible citizens do not adopt a new cultural identity that conforms to neoliberalist ideals of "selfhood," but rather try to align more "traditional" ideas of selfhood with neoliberal expectations. In this way, individuals take the aspects they perceive to be most useful from both traditional and neoliberal ideas to "craft" their identity. As such, he states, these individuals are "fashioning emergent identities that are rooted in local social contexts but that these actors perceive to be somehow exceptional or transcending those contexts" (113).

I have attempted in this thesis to highlight how fieldworkers, project staff, and university scientists similarly move between discourses of measurement, accountability, transparency, and sustainability as they position themselves within the global health landscape. Through repeated interactions with global health projects and their logics, individuals incorporate aspects of these logics into their understanding of development and global health.

In chapter 1, I focused on genealogies of intervention in an attempt to highlight the ways in which remnants of health and development projects remain in Taita Taveta, whether as material artefacts (like the lessos and t-shirts), or as intervention practices and discourses that still circulate in the region. While the importance of material artefacts is often overlooked by

health scientists or program planners, they are vital 'actors' in global health in their own right, as fieldworkers come to rely on these items to demonstrate their knowledge and expertise, their ties to local government, as well as their ties to the global health apparatus. In this way, the branded items mediate fieldworkers' relationships in their communities.

Less visible than the branded items but no less important to global health programs are the intervention practices and discourses that have survived in Taita Taveta over time. While the remnants of past projects serve to connect current global health projects like Mwanzo Mwema to the longer history of development in Taita Taveta, the long-term presence of development interventions and their discourses also informs what I have called local intervention knowledges—people's understandings of global health and development work and how it operates. Local intervention knowledges shape how people interact with new projects, and inform knowledge practices at the very heart of flexible sustainabilities. The continual presence of multiple health and development projects, funded by different donor organizations, has also informed local people's view of sustainability. In these communities, I would argue, there is less of a preoccupation with the sustainability of a single project, and more of a focus on capitalizing on consecutive and future projects, maximizing the gains from these discrete projects for the long-term benefit of Taita Taveta.

The chapter on *Evidence Regimes and Knowledge Practices* focuses more specifically on the knowledge practices project stakeholder's engaged in to ensure their continued participation in the global health and development industry in Taita Taveta. I wanted to shed light on the importance of knowledge generation guided by standardizing logics that privilege globally comparable forms of evidence. In Mwanzo Mwema, this evidence was largely based on data collected through a household survey, a tool considered to be a structured and stable approach to

generating “high quality data” (Biruk 2018). By providing even a small glimpse of how survey tools are constructed, I challenge this idea of a stable tool based on authoritative knowledge by arguing that survey instruments are often a bricolage of standards whose creation can be traced to multiple points in time, registers of expertise, and standardization processes. These aspects of the survey instrument are largely ignored, however, as organizations are under pressure to generate evidence to ‘prove’ the ‘successes’ of their projects and establish their ‘track record.’ Establishing a track record of success is important in order to secure future funding. This goal is clear in the Muskoka application, where the partnership appraisal referred to the “local partner’s institutional capacity to deliver results and its track record” (application guidelines, p.22-34). Therefore, for partner organizations to keep accessing funds and participate in the flexible sustainability of global health, they need to show proof of effectiveness (Bossert 1990) by generating the narrow kinds of evidence privileged in global health.

The final chapter examined multiple discourses of sustainability that circulated in the Mwanzo Mwema project to illustrate how governance is enacted in global health, alongside discourses around measurement and accountability. The ability to define something is, as Crane reminds us with respect to global health, “a powerful exercise in inclusion and exclusion” (Crane 2010, 85). She has also pointed out that current definitions of global health ignore colonial legacies and power dynamics, and the ways that global health may actually perpetuate neocolonial structures. Like Biruk and Lorway, I chose to focus primarily on the actions of fieldworkers and project beneficiaries by locating their actions within a broader context of uneven power dynamics, shaped in part by how certain discourses are privileged while others are submerged. In doing so, I also build on the work of Warwick Anderson, João Biehl, and other postcolonial science studies scholars who caution against focusing solely on larger power

relations of domination and submission, insisting that this dichotomous view misses "the complex postcolonial 'contact zones' in which relations of power unfold in multiple, shifting, and contested ways" (Anderson discussed by Biehl 2016, 132; see also Harding 1998). As Biehl asserts, countries of the "[global south] are at once implicated in the broader landscapes of global health, and are forging novel dynamics for health care between markets, states, and citizens" (2016, 132). In the same way, I argue that people in Taita Taveta engage with discourses around sustainability, actively participating in the formation of discourse, contesting and remaking the principles and activities of programs to better meet local exigencies. It is this process of contestation and reassembly, within a terrain of uneven power relations, that I refer to as flexible sustainabilities.

Relevance to public health

My research findings raise a number of points that should be considered while engaging in the field of global health. However, I would avoid proposing any kind of general checklist of specific actions or recommendations, because global health projects are implemented in vastly different localities, with their own unique relationships to the past and terrains of power. Any checklist would merely be another attempt to impose a standardizing logic—one that runs counter to the critical lines of thought I have developed in this thesis. Instead, I propose a set of critical questions that we should carefully think through when planning, implementing, monitoring, and evaluating global health programs.

The archival research I presented in chapter one illuminates a number of ways in which current global health projects encounter and interact with the remnants of past endeavours throughout the course of the project. Extensive archival research of the study site, as I have undertaken in this thesis, may not however be feasible in most global health programs, partly due

to time constraints imposed by the length of current funding cycles. *How then can we account for the genealogies of interventions in future programming, both in terms of how this history may affect project outcomes, but also so that we do not repeat the mistakes of the past?* The inclusion of historians on multi-disciplinary global health teams may be one helpful starting point in finding the relevant historical information. In other words, addressing this critical question suggests the vital need to include new forms of social scientific knowledge that tends to be overlooked in current global health projects.

Most salient to the demand for measureable forms of evidence in global health are issues regarding the deployment of standardized metrics to identify target populations or measure the 'impact' of interventions. *If we accept that a survey instrument is a bricolage of standards, as my elaborations suggest, what does this mean for the field of measurement in global health? What is actually captured through survey research? Is it knowledge that helps us to better understand the health problems in a specific population? To what extent do these measures operate to reinforce, enlarge and more deeply embed global health hegemonies in local contexts? And to the extent that metrics do help us better understand populations and health concerns, how do we weigh their arbitrariness against other ways of producing more deeply rooted contextual information for monitoring and evaluation—methodologies that may also help us understand how programs operate and how they influence health outcomes*?

In this thesis, I critique evidence regimes that privilege quantitative data and data collection techniques. However, my intent is not to dismiss quantitative approaches, as I recognize the crucial role they can play in all stages of global health program implementation. My concern, however, is with the extent to which the logics underlying quantitative data collection are privileged to the erasure of other forms of knowledge. The exclusion of these

knowledges, as Fan and Uretsky (2017) remind us, serves to distance decision makers in global health from the lived realities of the communities in question. Ethnographic forms of knowledge offer especially valuable insights into the processes and 'workings' of global health interventions. In my own experience, program planners and university scientists tend to value ethnographic data where quantitative interpretations reach a limit in their explanatory power. *But what would it mean to treat qualitative ethnographic knowledge as equally important and authoritative in all stages of global health research?* Rather than regarding ethnographers merely as global health actors who can serve the interests of health experts who seek to increase the uptake of health services or biomedical technologies, I would suggest that global health program planners should accord and equally weigh critical spaces for ethnographers to do what they do best—illuminate forms of tacit knowledge that exist and emerge at the ground—so that their criticisms, which are nourished by local insights, can more directly speak to how we actually revise programs. My analysis supports the arguments made by medical anthropologist Johanna Crane (Crane 2010) and other critical global health scholars about the unevenness of global health collaborations and partnerships. Dominant discourses, relationships with funders, and neocolonial relationships contribute to these power inequities. However, partnerships are central to global health as organizations and scientists in donor countries seek to work in countries like Kenya. In my chapter on sustainability, I delved into the discourse of sustainability to show how funding policies and requirements may have negatively affected positive partnership building. The question here, then, is two-fold: *recognizing the power imbalances inherent in these relationships, how do we work with partners in ways that do not exacerbate the inequities or reproduce power differentials? Secondly, how do we deal with donor organizations and funding requirements that set the stage for the perpetuation of power dynamics in partnerships?*

Lastly, in this thesis I develop the idea of flexible sustainabilities as the continuation of benefits, through repeated engagement with consecutive, discrete projects. *How does the notion of flexible sustainabilities problematize current notions of sustainability in global health? What are its implications for how we approach the field of global health?* By recognizing how multiple actors engage in global health (be they scientists, health officials, or community health workers) and do so to further the benefits of their respective institutions, communities, and professions, we come to view global health differently—that is, as a terrain of competing interests and epistemologies that play out as unequal collaborations. This presents a very different portrait of global health than those that centre on the intentionalities of global health leaders who portray this field as an unquestioningly moral fight against global inequities. *What would it mean for global health if we were to take as our starting point the ways that local people attempt to forge sustainabilities, as they envision it for themselves and for their communities?*

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Box titled *Teita African Council*. Box number BY/21/12.

Appendices

Appendix A: Naming of Archival Documents

For the annual reports:

All will have TT(yr) then page number, e.g. TT79_01. Only page numbers have underscore (to many numbers otherwise)

Others:

FP - Front page – i.e. TT79FP.

FPs - Front Page stamp

ToC - Table of Contents (can also be ToC1/ToC2 depending on the number of pages)

Ack - acknowledgement

CL - Coverletter

Appendices: App(number/letter)(page number) eg: TT79AppA2

For photos - in older reports where there are no page numbers use previous page with "a" or "b" etc

If I can't tell the page numbers: photopage (pp) 1 etc

For the District Development Plans:

I only looked at Taita Taveta's reports so DDP should be fine as abbreviation. Use only first year (e.g 74 for 74-78) in file name – then the same as annual reports.

For archival files:

File number (e.g. BY/21/12 but withouth the /)_Document number - so the document numbered 160 in this file would be BY 21 12_160.

If the document has more than one page add the numbers in parentheses after, e.g BY 21 12_160(1)

For books:

e.g Taita Taveta District. Socio-Cultural Profile. A Joint Research and Training Project of The Ministry of Planning and National Development, and The Institute of African Studies

- Use a short form of title that makes sense with year. In this case SCProfile86. Then the same as the Annual Reports

Appendix B: Key Informant Interviews Discussion Questions

Questions

1) Can you tell me a little bit about your background and how you came to be in this position (academic or whatever position is at organization)?

   Probe for:

   a. Qualifications
   b. How long in this particular role
   c. Previous relevant experience

2) What can you tell me about the Mwanzo Mwema project in Kenya?

   Probe for:

   a. How did the project come about (history)
   b. When did you first become involved and what was your role/how were you involved

3) In every project there are challenging experiences or rewarding experiences. Thinking back to Mwanzo Mwema, what experiences stick out in your mind?

   a. What "lessons learned" would you take to the next project
   b. What do you think the different actors involved in the project would answer to this question? If I were to ask
   c. community members
   d. staff from the partner organizations
   e. donor (for academic staff)

f. government officials

g. academic staff (for people from donor organization)

4) Something that I became quite interested in through my own involvement in the project is the issue of "Sustainability". How would you define "sustainability" in the context of projects such as Mwanzo Mwema?

- What does that actually mean for the projects?
- What is it that should be 'sustained'?
- What strategies could ensure sustainability? Which were used in Mwanzo Mwema?
- What are some of the challenges to these strategies/ sustainability generally?

5) Monitoring and evaluation is a topic that is coming up frequently in MNCH (can mention meeting, BMC call for papers), what do you think are some of the "hot topics" being discussed?

a. What are some challenges to monitoring and evaluation in MNCH? Are there opportunities?

6) That was all my questions. Is there anything else you would like to discuss?

Appendix C: Consent Form.

RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

Title of Study: "Exploring the contexts and practices of a maternal and child health project: an ethnography of global health"

Principal Investigator: Elsabé du Plessis, Department of Community Health Sciences, R070 Med Rehab Bldg, 771 McDermot Avenue, Winnipeg, MB R3E 0T6, 204-272-3150

Supervisor: Dr. Robert Lorway, Department of Community Health Sciences, R070 Med Rehab Bldg, 771 McDermot Avenue, Winnipeg, MB R3E 0T6, 204-272-3150

You are being asked to participate in a research study. Please take your time to review this consent form and discuss any questions you may have with the study staff. You may take your time to make your decision about participating in this study and you may discuss it with your friends, family or supervisor before you make your decision. Should this consent form contain any words or information that you do not clearly understand, please ask the study staff to explain it clearly.

Purpose of Study

This study is being conducted to explore, identify and document contextual factors that influence the implementation of maternal, newborn and child health (MNCH) projects. The development of MNCH priorities and programs in Kenya may affect which programs and interventions are available now. This study aims to explore this historical development and its current influence on MNCH projects. It will explore these factors within the context of one specific MNCH global health project: Mwanzo Mwema. Within this project it will explore not only the historical development but also current project factors (e.g. partnerships, monitoring and evaluation practices) and environmental factors (such as organizational cultures and policy landscapes) that shape the course of this project.

A total of 5 individuals will be invited to participate. There will also be participant observation of the Mwanzo Mwema project.

Study procedures

As an individual with recognized expertise in maternal, newborn and child health research, programming or service delivery in Kenya you are eligible for participation in this project. You will be contacted directly by the researcher, given information about the study and asked if willing to participate. Any questions will be answered and signed informed consent will be obtained. Once consent has been obtained, an interview with the researcher will be scheduled at a time that is convenient for you and in a location of your choice. These interviews will be unstructured, lasting approximately one hour and serve to understand your experience of the MNCH projects and perception of priorities and policies. All interview data will be kept completely anonymous. You will not be recognizable from any demographic information collected during your interview (e.g. e.g. Gender, age, organization, Number of years working in Kenya, number of years involved in MNCH). The information will not be shared with community members or Mwanzo Mwema staff and

will in no way affect your relationship (should one exist) with anyone on the project. Once the interview is completed your participation in this study is complete.

You can stop participating at any time. However, if you decide to stop participating in the study, we encourage you to talk to the researcher first.

After analysis of the data in February – April 2015, information sessions will be held to share findings with all of the participants in June 2015.

Risks and Discomforts

The interviews will ask you to reflect on your field of expertise and projects you are currently involved with or were involved with -as such may cause some discomfort. All information, including whether you are participating, will be kept strictly confidential and will not be share with anyone within your organization, the Mwanzo Mwema project or others working in the field of MNCH.

Benefits

There may not be any direct benefits to you from participating in this study other than being given the opportunity to reflect on your experience. However, the information learned from this study may help improve the quality of MNCH projects planned not only for your region but globally.

Cost

There will be no costs associated with your participation in this study.

Payment for participation

You will receive no payment or reimbursement for any expenses related to taking part in this study.

Confidentiality

The information gathered in this research study will be published in the researchers PhD thesis. It may also be published or presented in public forums; however, your name and other identifying information will not be used or revealed. The only identifying information collected during the interviews will relate to demographics, e.g. Gender, age, organization, Number of years working in Kenya, number of years involved in MNCH. No names will be collected.

All results will be presented in aggregate format, with no individual results being reported. Under no circumstances will any information collected in this project be made available for action against an individual or organization. Despite efforts to keep your personal information confidential, absolute confidentiality cannot be guaranteed.

The University of Manitoba Health Research Ethics Board and The University of Nairobi Ethics and Research Review Committee may review records related to the study for quality assurance purposes.

All records will be kept in a locked secure area and only the researcher will have regular access to these records. As this is the researcher's PhD work, the student's supervisor may have limited access to data if required but will never have access to any identifying information.

Voluntary Participation/Withdrawal from the Study

Your decision to take part in this study is voluntary. You may refuse to participate or you may withdraw from the study at any time. If the researcher feels that it is in your best interest to withdraw you from the study, they will remove you without your consent.

Questions

You are free to ask any questions that you may have about your rights as a research participant. If any questions come up during or after the study, contact the University of Manitoba study coordinator, Elsabe du Plessis at +[redacted]

For questions about your rights as a research participant, you may contact The University of Manitoba, Bannatyne Campus Research Ethics Board Office at 011-204-789-3389 or The University of Nairobi Ethics and Research Review Committee at (254) 020 2726300 Ext 44355.

Do not sign this consent form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

Statement of Consent

I have read this consent form. I have had the opportunity to discuss this research study with Elsabe du Plessis and/or her study staff. I have had my questions answered in language I understand. The risks and benefits have been explained to me. I believe that I have not been unduly influenced by any study team member to participate in the research study by any statements or implied statements. Any relationship (such as employer, supervisor or family member) I may have with the study team has not affected my decision to participate. I understand that I will be given a copy of this consent form after signing it. I understand that my participation in this study is voluntary and that I may choose to withdraw at any time. I freely agree to participate in this research study.

I understand that information regarding my personal identity will be kept confidential, but that confidentiality is not guaranteed. I authorize the inspection of any of my records that relate to this study by The University of Manitoba Research Ethics Board, for quality assurance purposes.

By signing this consent form, I have not waived any of the legal rights that I have as a participant in a research study.

I agree to be contacted for future follow-up in relation to this study,

Yes _ No _

Participant signature_____ Date _____
(day/month/year)

Participant printed name: _____

I, the undersigned, attest that the information in the Participant Information and Consent Form was accurately explained to and apparently understood by the participant or the participant's legally acceptable representative and that consent to participate in this study was freely given by the participant or the participant's legally acceptable representative.

Witness signature_____ Date _____
(day/month/year)
Witness printed name: _____

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has knowingly given their consent

Printed Name: _____ Date _____
(day/month/year)
Signature: _____

Role in the study: _____.

Relationship (if any) to study team members:_____