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Title

Getting Your Fair Share

Informal Sharing Institutions in Southern Malawi—A Case Study

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ABSTRACT

We explored the role of sharing as an informal institution and influential factor for agricultural resource distribution in the semi-urban Malawian village of Mang'omba. Placing our research within the sustainable livelihoods framework, we investigated the formation of intentional purposes through institutionalization and interaction with village power structures to shed light on resource distribution patterns within three sharing manifestations.

We found that manifestations are associated with different purposes coalescing within each exchange. Institutional dynamics in Mang'omba lend themselves to varying degrees to manipulation within power networks. The process of institutionalization defines whether sharing exchanges are accumulative or redistributive. The ability and desire of power networks to subsume an institution depends on the resource managed by the institution and a protracted crisis situation. Purposes intertwined with village power structures strengthen institutions over time in mutually reinforcing patterns of interaction.

In redistributive networks, sharing functions as a mutual insurance strategy; livelihood outcomes remain survivalist. Accumulative strategies found in conjunction with elite networks allow a broad degree of livelihood diversification and an increase of wealth over time. We found that informal institutions guide the intentional manipulation of resource distribution via development programs and distort the effects of these efforts.

The *.pdf version of the thesis includes clickable hyperlinks to figures, chapters and key-concepts, marked by colored font-formatting.

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NOMENCLATURE

Abbreviations

SAP	Structural Adjustment Program, page 7
Group-member	Used as an alias for the focus group participants., page 45
MK	Malawi Kwacha, page 46
SLF	Sustainable Livelihoods Framework, page 2
Smallholder	Used as an alias for the interview participants., page 31
VDC	Village Development Committee, page 27

1

INTRODUCTION

The role of agriculture in development has shifted over the past decades, from taking the metaphorical back seat in the 1980s to leading structural development changes at the turn of the century. Scholars like Timmer (2009) have argued for agriculture's importance in a country's development, while new reports from the World Bank (2007) and IFAD (2010) highlight the role of agriculture as a driver of change. Reappearing as a center of interest alongside agriculture are its actors: smallholder farmers in developing countries. For these actors, agriculture is a crucial facet of a diverse **livelihood** approach through its importance in rural and **semi-urban** areas and its interconnectivity with all aspects of village life (Hatlebakk, 2012).

Subsistence farmers often balance the risks and shocks of vulnerable settings (IFAD, 2010, p.72–108). They are confronted with seasonal demands, inclement weather, and unexpected events with little financial capital (World Bank, 2007). Within this context, **households** adapt their **livelihood** strategies by relying on broader **social** networks, whether as a strategy to cope with shocks or to negotiate uncertain and thin markets (Cox & Fafchamps, 2007, p.3715–3718). Reliance on broader **social** networks can take many forms. Using **institutional ethnography**, we focus on the exchange of agricultural resources governed by the **informal institution** of *sharing*, an institutionalized form of giving and receiving, as an expression of network reliance.

Sharing institutions can be present in different manifestations with different purposes, mechanisms and influence on livelihoods. As informal institutions, they are rarely conceptualized and their interrelation with farmer's lives remains hidden. In a development context, these informal institutions interact with programs and projects that aim to influence agricultural practices. If not well understood, they can obscure the causalities from input to outcome of a variety of measures-subsidy systems, resource distributions or loan systems. This is particularly relevant in a Malawian context, where the government's input subsidy program provides agricultural resources, most notably fertilizer, at the village level (Chinsinga, 2005b).

Inspired by the *Sustainable Livelihood Framework* (SLF) (Chambers & Conway, 1992; Scoones, 1998, 2009), we analyze the functioning and significance of sharing at an exemplary case. The research is performed as a case study in the Southern Shire Highlands of Malawi at a study site typical for this region—a semi-urban, smallholder farming based village—called Mang'omba. We examine how exchanges within a social network influence the distribution of agricultural resources and, ultimately, livelihood outcomes. We argue that informal institutions must be seen as embedded in a power network, which mediates access to agricultural resources.

In order to show the effects of informal sharing institutions on farmers' lives in the Southern Shire Region, we answer the primary research question:

How does sharing influence agricultural livelihood outcomes in Mang'omba?

Sub-questions structure the analytical process into two parts, to investigate the direction and magnitude of the institution's influence:

How do normative aspects and individual intention influence institutional purposes for sharing and associated resource distribution patterns?

How does the institutionalization of sharing interact with village power networks and relative wealth?

By answering these questions, we shed light on the mechanisms underlying the informal institution of sharing, making explicit the norms, values, beliefs and objectives that normally remain implicit in informal institutions. In so doing, we show the importance of understanding village level informal institutions in planning interventions, and we contribute to the wider debate on agriculture as a livelihood strategy, examining the dynamic inter-linkages between livelihood outcomes and agricultural resources.

2 | BACKGROUND

Malawi is a land-locked country in southern Africa. Covering 118 484 km², it has 15 380 888 citizens, resulting in a population density of 162 $\frac{\text{people}}{\text{km}^2}$. The annual population growth rate was 3.2% per annum in 2011 (World Bank, 2013). One of the poorest countries in the world, 74% of Malawians lived below the poverty line¹ in 2009 (UNICEF, 2009), with poverty concentrated in the southern region (Gairdner et al., 2009, p.3). Review Figure.1 for a representation of the districts of Southern Malawi. The *Human Development Index* ranked Malawi 170 out of 187 countries in 2012 with a value of 0.418, putting the difficult situation of most of Malawi's smallholder farmers into a global perspective (UNDP, 2013). Mang'omba village, the study site for this research, lies about 25 km outside of Blantyre in the southern region of the country, as depicted in Figure.1.

¹ The poverty line is here determined to be US\$ 1.25 d⁻¹.

The overwhelming majority of Malawi's population is engaged in small-scale agricultural production, with up to 85 % of the population deriving their income from farming (FAO, 2013). As the country's staple crop, maize dominates agricultural production, while beans and pigeon peas complement this typical food crop. Burley tobacco and cotton are the leading cash-crops, grown on a small scale across the country. With the average landholding size between 0.2 and 3 ha (Ellis et al., 2003, p.1497), agriculture is largely small-scale, rain-fed, and intended for household consumption (Chirwa et al., 2008). The agricultural calendar is typically divided into three seasons: the planting season (September–December), the lean season (January–March) and the harvest season (April–June) (Wapumuluka, 2011).

At the national level, Malawi is considered food self-sufficient, producing enough maize to feed its population. However, food insecurity at the household level is chronic and seasonal, with food gaps in the lean season especially concentrated in the southern region (Ellis et al., 2003, p.1498–1499). The Shire Highlands, comprising the south-eastern part of Southern Malawi (see Figure.1), are notorious for erratic weather conditions and periods of food insecurity (FEWSNET, 2012), where typically low yields per land area combine with a volatile market environment and recurrent floods and droughts, causing frequent crop failures (Wapumuluka, 2011).

Agricultural output in Malawi was largely stagnant during the last half of the 20th century, widely speculated to be caused by constraints in input access. To boost agricultural productivity, the government introduced a targeted fertilizer subsidy program in 2005, resulting in notable yield increases (Dorward & Chirwa, 2011). These subsidies represent a significant input of resources at the village level, with consequences for local processes influential to resource distribution. The most recent subsidy programs were largely scaled-up from Malawi's previous input subsidy programs, dating back from

the mid-1970s (Dorward & Chirwa, 2011). Boosted by two favorable growing seasons, maize production doubled in 2006 and tripled in 2007, moving the country from a 43 % food deficit in 2005 to a 53 % surplus in 2007 (Denning et al., 2009, p.2). However, the program has not been without criticism, and in recent years has had less success in maintaining yield increases. Despite advances, food insecurity remains chronic at the household level.

The program's operation is based on the distribution of vouchers for subsidized fertilizer and hybrid seed varieties, designed to reach the most vulnerable segments of the population². Coupons are allocated by village, dependent on the farming population. Within the village itself, the system relies on traditional authorities: village committees and local stakeholders³ are responsible for identifying coupon beneficiaries (Dorward & Chirwa, 2011).

3 | CURRENT RESEARCH AND CONTRIBUTION

Agricultural production in Malawi has been extensively investigated in the academic literature, mostly from a policy perspective (see for example Harrigan (2003), Dorward and Chirwa (2011), Orr and Mwale (2001)) or a livelihoods perspective (Hatlebakk, 2012; Ellis et al., 2003). Much of the literature focuses on the interaction between agricultural development and poverty, whether through the lens of constraints in agricultural input access, effects of governmental policies, or agricultural shocks such as adverse climatic effects. Authors typically agree that agriculture is a crucial livelihood strategy in the

² The vulnerable include the poor, elderly or child-headed households within the program.

³ Each village typically has a democratically elected committee responsible for selecting coupon beneficiaries.

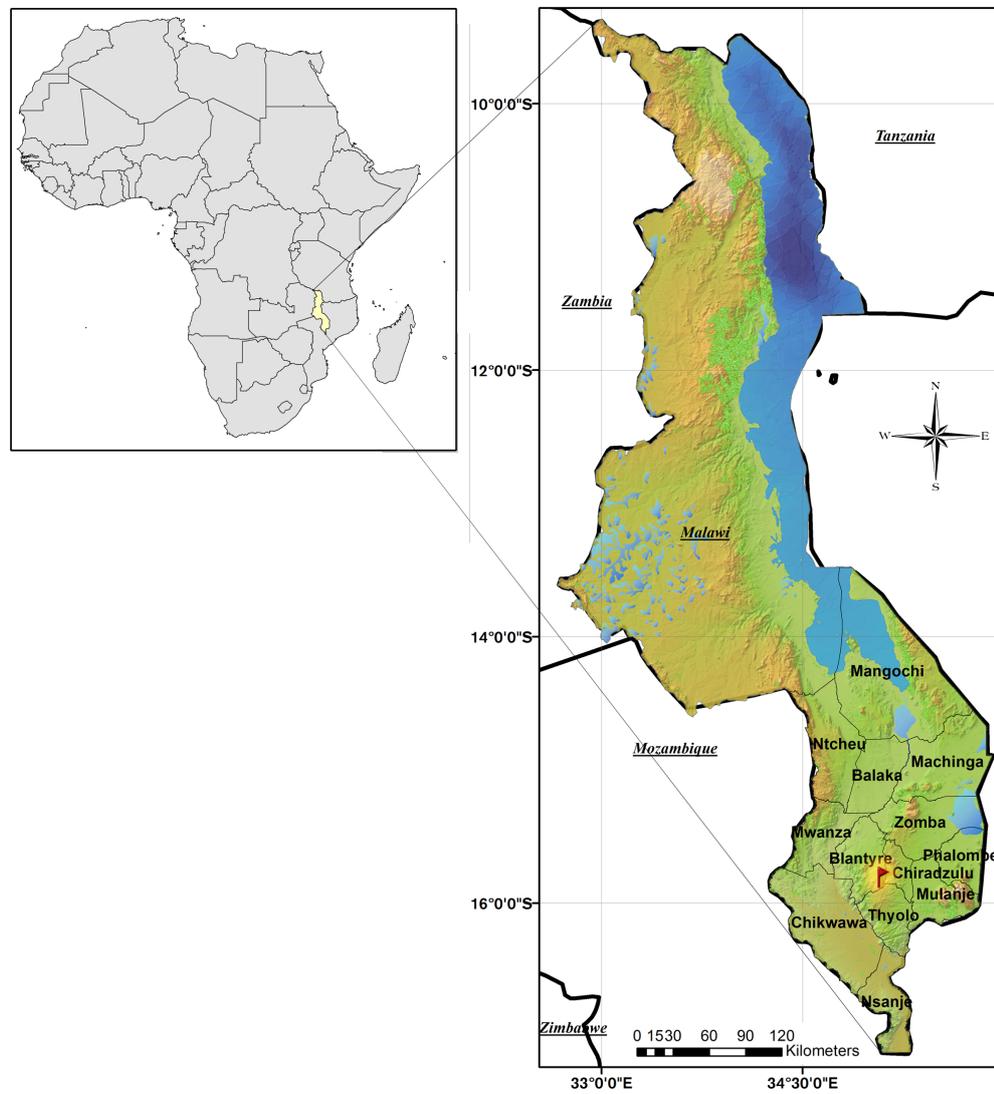


Figure 1: Malawi and the southern districts. Study region marked with flag. Figure by authors, data by CGIAR Consortium for Spatial Information (2008), Global Administrative Areas Project (2009), Socioeconomic Data and Application Center (2000).

Malawian context. Furthermore, they establish that agricultural **livelihoods** in Malawi are facing fundamental difficulties ranging from poverty and low investment capacity to erratic weather conditions.

Authors like Peters (2006) uncover links between key policy developments, agricultural **livelihoods** and poverty in Malawi. She details the impact of national-level policies such as the *Structural Adjustment Program* (SAP) on smallholder farmers and their **livelihood** strategies, arguing that the SAP constrained **livelihood** opportunities by destabilizing the market for agricultural commodities and sending food prices soaring. Hatlebakk (2012), on the other hand, investigates **livelihood** strategies in relation to current **household** assets, connecting increased material and **social** assets with greater **livelihood** opportunities. However, few studies link both research levels, examining the interrelations between ground-level implementation and development policies or programs.

Our research therefore seeks to build on this literature, taking a holistic **livelihoods** perspective in examining not the constraints in agricultural production, but rather how available resources are dealt with as part of a **livelihood** strategy. Here, we explore a phenomenon investigated by Chinsinga (2005a): the village-level adaptation of external resource provision. Chinsinga (2005a) concentrates on external resource allocation by agricultural development programs, finding that targeted efforts are prone to being distorted to fit local values and concepts, with important implications for program outcomes. While agreeing that external resources are re-distributed according to local institutional mechanisms, we further investigate what consequences this re-distribution has for farmer's **livelihood** outcomes.

An important source of information and inspiration to conceptualize the way forward is the research done by Afrint, who conducted questionnaires in 2002 and 2008 in dif-

ferent villages in the Shire Highlands. Among those villages was Mang'omba, providing us with a thick description of the agricultural situation over time. Afrint's research produced interview accounts and a meso and micro questionnaire, highlighting salient facts of agricultural **livelihoods** in Mang'omba. On the other hand, the data set omits a description of the occurrence and influence of **informal institutions** as indicated by authors like Chinsinga (2005a) and Dionne (2009), leaving a thread to connect the different investigative approaches.

This research focuses on sharing as a firmly **institutionalized** concept in Mang'omba with significant influence on the main resources of small-holder farmers. Sharing has been investigated as a **social** phenomenon within kinship networks by multiple authors in different locations (see for example Potter and Handcock (2010), Di Falco and Bulte (2011), Davies (2011)). Recognized as a prominent factor in **livelihood** strategies within extended kinship networks in many parts of Sub-Saharan Africa, much literature has focused on sharing networks as risk-mitigating strategies, where members of the network give resources in times of distress or need, serving as an informal insurance. Within these theories, networks of reciprocity are designed to minimize risks in an unpredictable environment (Cox & Fafchamps, 2007, p.3715–3716).

Beyond risk-mitigation, other authors have brought the subtleties and diversity of sharing motivations to the forefront of the debate (Foster and Rosenzweig (2001), Davies (2011)). Multiple studies on sharing conclude that sharing behaviors are motivated by a variety of factors coalescing within each exchange (Davies, 2011). In our research, we investigate these nuances to the dominant view of sharing as a coping strategy, linking sharing motivations to resource distribution patterns and **livelihood** outcomes. In this sense, we contextualize sharing as part of a broader **livelihood** strategy of different actors within the village **power** network.

Authors like King (2011) and Vervisch et al. (2013) provide insight into the crucial influence of social networks and power relations underlying informal institutions and resource access. Using the example of South Africa, King (2011) exemplifies how historic and spatial aspects of resource access influence the formation of livelihoods. Resource access is embedded in a history of institutions, practices and customs, which are linked to certain geographic areas. As a result, livelihoods research needs to take into account the reality of spatial-historic patterns to usefully integrate differences in power relations and institutions. This aspect is of interest for our research, underlining the importance of analyzing informal institutions as evolutionary structures inherent to a community, and to moderate theoretical generalization towards areas of similar historic patterns.

Building on King's (2011) findings, we connect his work to Vervisch et al. (2013), who examine the actor-based social dimension of power within spatial-historic structures at a case study in Burundi. The authors conclude that in a rural livelihood context, social networks and social capital are key to understanding power relations and mediate access to resources. Vervisch et al. (2013) show how different social networks are separated through historic imperatives and a protracted crisis¹ situation, resulting in a horizontal stratification that entails different power options for members of different social networks. We contribute to this discussion, presenting a concrete case where power relations together with institutional purposes influence resource distribution.

The characteristics of village power networks and their interaction with resource access management were studied by Lecoutere (2011), Awortwi (2013) and Eggen (2011). Lecoutere (2011) and Awortwi (2013) both point out that existing village power struc-

¹ A protracted crisis has been defined in accordance with Flores et al. (2005, p.525) as a 'situation in which large sections of the population face acute threats to life and livelihoods over an extended period (years or even decades), with the state and other governance institutions failing to provide adequate levels of protection or support'.

tures influence resource management systems, creating imbalances. The *power to decide* is a central aspect in village networks and is often consolidated by functional groups to prevent contestation and conflict. Resource management schemes can be used to solidify *power* networks by depriving people of the right to decide or decreasing access to the resource.

Eggen (2011) shows that in Malawi, two systems control official *power*: the state and the chieftaincy system. The degree of influence varies between spaces—in urban areas the state has relative more influence. While in rural areas, the chief concentrates *power* and is largely able to change the state's system. The research argues that chieftainship is a historic system with firm roots that has been adapted to the official state's system. Control over the chief's actions by the state is weak in the rural areas and the chiefs integrate their new functions freely into the historic village *power* structures.

4

ANALYTICAL FRAMEWORK

4.1 THE RESEARCH MODEL

The SLF emphasizes the human dimension of poverty and development, where a '*livelihood* comprises people, their capabilities and their means of living, including food, income and assets' (Chambers & Conway, 1992, p. 1). *Livelihood* strategies are defined by an individual or community's socio-political and economic context, the available resources, whether tangible or intangible assets, as well as prevailing institutional and organizational structures (Scoones, 2009, p.177).

The framework is broadly applied in the **social** sciences, from reviewing the challenges and opportunities of societies living with volcanoes (Kleman & Mather, 2008) to informing fishery policies for Africa (Allison & Horemans, 2006). This ubiquity is also quoted as one of the weaknesses of the SLF: its broad applicability is partially caused by its avoidance of the specific complexities behind the simple model structure (Morse et al., 2009, p.14). The SLF is therefore difficult to practically conceptualize as an analytic framework. We address this shortcoming by using the SLF as a model to inform the data collection as we research the link between **informal institutions** and their influence on **livelihood** outcomes, rather than as a strictly analytical framework.

The SLF firstly takes into consideration broader, macro-level factors that influence the development of **institutions**. Called *contextual elements*, they include such subjects as political climate and policies, historical influences, economic conditions, demographic considerations and climate and ecology (Scoones, 1998). Contextual elements interact with **livelihood** resources or assets, which include natural, economic, human and **social** capital (Scoones, 1998, p.7–8). The **livelihoods** resources within the SLF framework thus emphasize 'the economic attributes of **livelihoods** as mediated by **social**-institutional processes' (Scoones, 1998, p.177). Figure.2 depicts the role of contextual factors and **livelihood** resources within a **livelihood** context, represented as the upper-most triangles that *filter down* to affect livelihood outcomes. This set of factors provides the research with a backdrop against which **informal institutions** operate as a filter. We focus on external **agricultural inputs** as a **livelihood** resource whose access and use is mediated by **informal institutions**.

The sieve in Figure.2 represents the decision-making filters through which external resources translate into **livelihood** strategies. First and foremost, **institutions** act to channel external resources. These **institutions** are the life arrangements coordinated with other

people, which develop and endure over time in a certain micro/macro context. They regulate such factors as access, use and distribution of resources through **social** norms, rules and obligations (Jütting, 2007). We focus on **informal institutions**, arguing that they override formal regulations imposed from outside the village where intra-village formal institutions are lacking. Figure.2 exemplifies informal sharing institutions as a filter-variable.

The set of characteristics of the individual is another central filter within the SLF's sieve, equilibrating preferences with others in life arrangements to form **livelihood** strategies (Chambers & Conway, 1992, p.6). We argue that it is comparably impracticable to concentrate on individual preferences to investigate **livelihood** choices: irrationality, individual freedom and the nature of semiotic reasoning are examples of highly controversial concepts that influence the decision-making process (Eisenhardt & Zbaracki, 1992). This is not to say that individual preferences have no influence on the research. Individual traits such as gender, race, age, familial situation, and **social** standing can dictate certain aspects of an individual's portfolio and affect access to **institutions**. We acknowledge that these factors can become important interviewee selection criteria to steer the investigation of life arrangements.

Decision-making is the concept which connects the macro/micro **livelihood** elements with the **livelihood** strategy through the filter of personality traits and available **institutions** in order to achieve desired outcomes: it is the handle of the sieve in Figure.2. Decisions can intend to accumulate wealth, make longer-term investments, minimize risk, cope with an emergency situation, or smooth consumption patterns (Ellis, 2000). We distance ourselves from classic *economic rationality* considering complexity to avoid drawing formulaic conclusions about **livelihood** strategies. We decided not to attempt to reconstruct the myriad of factors that could affect any given decision; rather, we in-

investigate the influence of one of the decision-making filters (*institutions*) towards the outcome of decision-making (*livelihood* outcomes).

Resources—their distribution and management, filtered through *institutions* and individual preferences—result in *livelihood* strategies, as detailed in Figure.2. The *livelihood* strategy is therefore the usage and result of a set of contextual factors and *livelihood* resources. The strategy itself is different than individual ambition; it is subject to external interpretation of the action taken. It is the combination of *livelihood* activities, including *social* life arrangements and individualized activities described as a model.

The chosen strategies, in conjunction with the context, produce individually determined dynamic and often diverse *livelihood* outcomes. We are here interested in how *informal institutions* influence agricultural *livelihood* outcomes. *Livelihood* strategies can be broadly viewed as *accumulative* or *survivalist* (Haggblade et al., 2007, p.254): we conceive of accumulative strategies as approaches allowing for an increased economic benefit sustained over time, while survivalist strategies are those seeking to negotiate unexpected or period shocks, mitigating risk. Tied to these ideas is the concept of *livelihood* diversification, explored by Haggblade et al. (2007, p.44–43) in a rural context: when mediated by *push factors*, diversification is seen as an emergency coping situation and a way to reduce the risk of depending on a single source of *livelihood*. When mediated by *pull factors*, diversification represents a productive investment allowing for increased income generation.

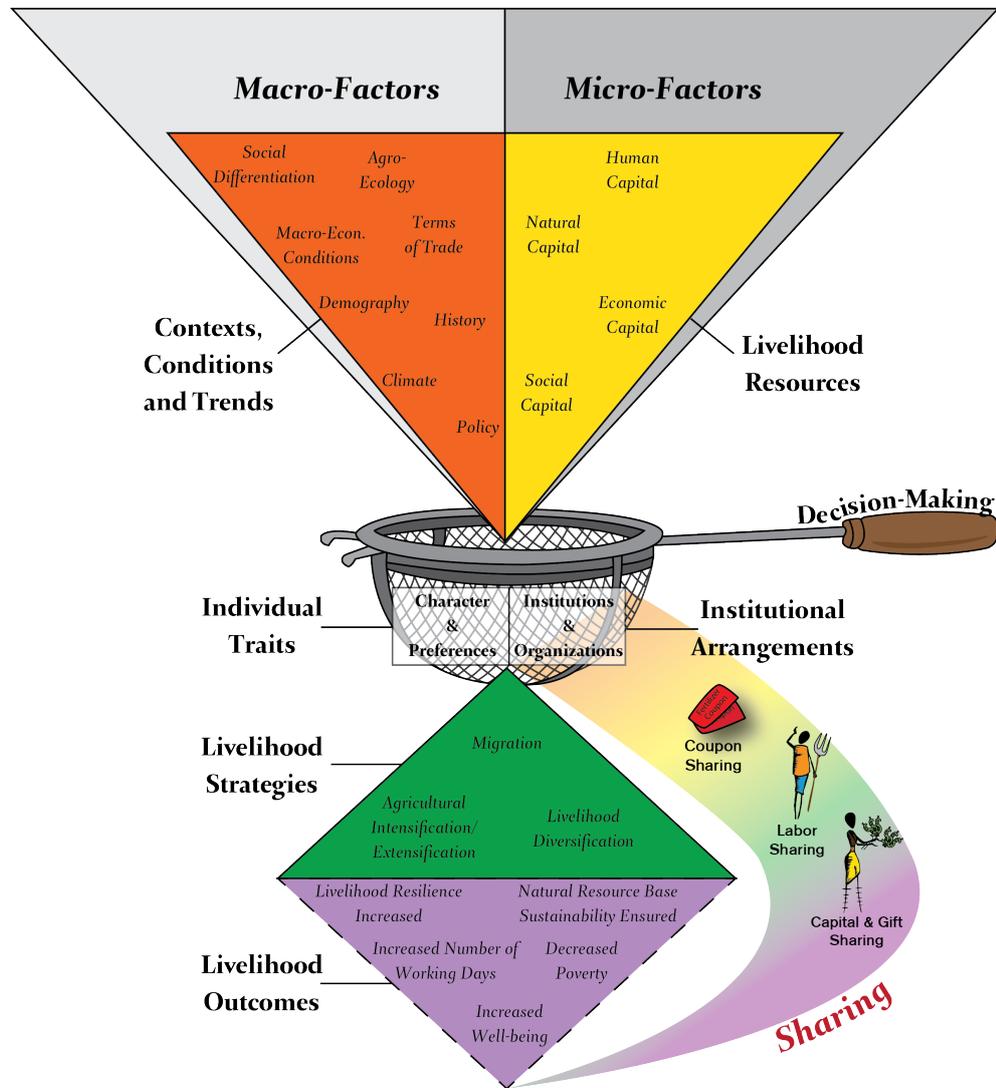


Figure 2: Representation of the analytic model. Authors' compilation, inspired by Scoones (2009).

4.2 INSTITUTIONALIZATION, SHARING AND POWER NETWORKS

We now turn our attention to those institutional processes that mediate agricultural resource distribution, thereby influencing **livelihood** strategies as part of the SLE. We conceive of **institutionalization** as a two-way process: **informal institutions** influence their participants as much as the participants influence the **institution**. There is a blurry line between individual intention and **normative** preconditions that rule in how far someone utilizes an **institution** or is merely complying with its rules to be allowed to participate (Ritzer, 2005). The formation and evolution of **informal institutions** is thus bound to the participating actors. **Institutionalization** itself is driven by **normative** and choice processes, be it historic traditions which implicate the development of an **institution** or certain actors who impose new rules.

At our case study, we consider *sharing* to be an **informal institution** in that it represents a mutually accepted **social** arrangement mediating interactions in a re-occurring pattern. It is defined as a voluntary¹ exchange of goods, capital or services between individuals or groups. It is a complex interaction, serving different purposes depending on the particular circumstances and intentions of the exchange. In our research, we posit that sharing behaviors surface from a variety of motivations, explaining different **manifestations** of the **institution of sharing** and different interactions with **power** networks within the village which handle resource distribution.

First and foremost, our research concurs with the prominent view in the academic literature that sharing can be used as a risk-mitigation strategy, where mutual support ensures *insurance* against adverse external events (Cox & Fafchamps, 2007). *Altruism*,

¹ The term *voluntary* here is not used to the exclusion of **social** obligation mechanisms, but implies that the exchange takes place with the consent of the sharer, independent of the use of force or coercion.

where participants are motivated to support each other through feelings of compassion, is another motivation of sharing (Foster & Rosenzweig, 2001). The flipside, explored by Di Falco and Bulte (2011), is that sharing is a *social obligation* enforced through compulsory mechanisms, with consequences for anti-social behavior.

Finally, our view of sharing behaviors include *economic* motivations, either as a market replacement where commercial transactions lack elements of trust, reliability and/or access, or as an income smoothing exchange, especially important where economic activities are largely dictated by agricultural seasons (Cox & Fafchamps, 2007, p.3717). Sharing is therefore a potentially multifarious *livelihood* strategy, which can be intended as much as a coping strategy as an accumulative strategy.

Building on the arguments of Vervisch et al. (2013) and Eggen (2011), it is especially in southern rural Malawi that villages are prone to entangle *informal institutions* and *power* structures: a *protracted crisis* situation, defined by food insecurity and the historic concentration of *power* through chieftainship, abet the development of horizontal *power* structures that separate the *power to decide* between different networks. Lecoutere (2011) and Awortwi (2013) have shown that *power* network imbalances can be used to manipulate *institutions* and control resource access. Through *institutionalization*, actors can use their *power to decide* to steer the rules and norms that govern the institutional function.

4.3 INSTITUTIONAL ETHNOGRAPHY

Institutional ethnography seeks to 'locate the object or objects of its exploration in the actualities of the work/activity as it is coordinated, including the concepts, theories and

so forth that are implicated in that coordination' (May, 2002, p.3–4). It is concerned with exploring *institutions* through everyday life accounts, placing *social* relations at the center of analysis and guided by the perceptions of the respondents themselves in an exploration of subjective *social* realities (May, 2002, p.7). As a tool for investigating *informal institutions*, we use *institutional ethnography* within the SLF to gain a holistic perspective of *livelihood* realities surrounding *institutions*, and the connections between macro/micro *livelihood* resources and *livelihood* strategies.

Institutional ethnography contends that narrative accounts of everyday life give an alternative-and sometimes more accurate-account of *social institutions*. Questions directly pertaining to issues of morality, ethics, values and beliefs will most often be met with generalities and socially accepted truisms, whereas a focus on daily experiences can yield alternative perspectives into the dynamics of *social* institutions (May, 2002). This type of *ethno-methodology* is therefore a 'study of people's methods of constructing reality in everyday life' (Silverman, 2005, p.16). This method does not claim to uncover objective truisms, but emphasizes aggregate subjective social patterns underlying institutions.

The ethnographic component is created on the one hand by the interest in networks between the lives of people that they form through *institutions* and on the other hand by the emphasis on a dialogic methodology to create data in reference to the process of interviewing, questions asked and answers given. With this approach, we necessarily stepped away from analyzing Mang'omba's population but instead focused on analyzing the *institutions* underlying the activity of Mang'omba's population (May, 2002, p.13).

4.4 OPERATIONALIZATION

We use the SLF as a structural backdrop for our research that shapes out conception of **livelihood** processes as applied to **informal institutions**. Macro and contextual factors are both influenced by institutional processes and embedded in **institutions**, for example by defining the resources under consideration and creating the **protracted crisis** situation in Mang'omba. From there, we examine the **social** dynamics at play in the *filtering* of these resources through sharing, focusing on the sieve in Figure.2. In this process, we answer our research sub-questions, examining how individual intent, institutional characteristics and **power** relations interact to mediate sharing processes. We then draw conclusions about resource distribution, gaining insight into **livelihood** strategies and, in turn, **livelihood** outcomes (the bottom triangles in Figure.2).

Theories of **informal institutions** inform our conception of dynamic processes within sharing interactions: we see **institutions** as mutable, influential entities in themselves, shaped in the process of **institutionalization**, rather than a static framework for predictable action. Similarly, we conceive of sharing as a multifarious **social** interaction with a variety of potential intents, which allows us to examine the complexities of its influence on resource distribution and **livelihood** outcomes.

5 | METHODOLOGY

5.1 EPISTEMOLOGY AND ONTOLOGY

Philosophy is to research as grammar is to language, whether we immediately recognize it or not. Just as we cannot speak a language successfully without following certain grammatical rules, so we cannot conduct a successful piece of research without making certain philosophical choices. (Flowerdew, 1997, p.8)

Our first approach towards an ontology of **livelihood** formation is that we deny the existence of static, clearly delineated **livelihood** choices for any person throughout their life time. As stated by Abatemarco et al. (2010, p.17): complex problems¹ involve '[...] unpredictable changes in course of time. This [...] requires an adaptive approach.' Yet complex adaptive approaches are not arbitrary: because our decisions impact our environment, we gain experience in how various strategies operate (ibid; p.18). It follows that trends within the adaptive process to select strategies are likely to be shared to a certain degree by individuals in similar circumstances, for example by people in the same **livelihood** context. Findings on decision-making are therefore moderately generalizable, reflected in a person's living arrangements, colluding into informal institutional arrangements that become a shared external reality.

We stress moderation in generalization, because **livelihood** circumstances, human cognition and individual characteristics are always complex and dynamic. Following this

¹ Here, the term 'problem' refers to obstacles in the attainment of a desired **livelihood** strategy.

theory, the kind of decisions people make and importantly also the concepts with which they form solutions are ever changing and not arbitrary, but momentarily also not graspable as a general model.

To sum up: a universal model of **livelihood** strategy formation is currently unknown and we do not intend to foresee if it will ever be possible to develop. Yet the pathways to select among the infinite solutions in complex **social** decision-making can be strategically selected and can be partially shared by certain groups, constituting what we term **informal institutions**; we therefore tend to view decision-making from a subtle or critical realistic standpoint, closest to Hammersley (1990) or May (2002).

[...] to be is not to be perceived, but to be able to do [...] (May, 2002, p.59)

From an epistemological standpoint, even if arrangements and **institutions** are not perceivable with the senses, they are nevertheless existent as entities with influence. Core features of these arrangements are likely to be stable over time. As long as people with shared and relatively stable **livelihood** contexts arrange socially, **institutions** tend to persist instead of being abandoned (Wegerich, 2001, p.5,9ff). An abrupt critical switch in **social institutions** would suggest a critical change in **livelihood** or decision-making elements or arbitrariness—this is possible but according to theory less likely than moderate developments (Pohl, 1999; Suddaby & Lefsrud, 2010; Ritzer, 2005).

We follow a semi-inductive, interpretivist approach, beginning our research with accounts of the influence that **institutions** have on individual **livelihood** strategies. The accounts of people experiencing the life arrangements that we want to research is crucial, so that we can reduce the effect of our own bias. We acknowledge that descriptions of life arrangements, especially in light of communicating this experience to us, will vary,

because reflection and re-narration present another layer of *individuality filters* applied to a shared reality of *institutions*. However, in the end we see that the diversity of individual reflections can give us hints through shared anchor points, which we are able to identify and enrich with further observations to form an idea about a common structure of life arrangements that can be termed the shared *reality of institutions*.

5.2 RESEARCH DESIGN

5.2.1 The Case Study

Our research is designed as a case study, an 'empirical inquiry that investigates a contemporary phenomenon in-depth and within its real-life context' (Yin, 2003, p.35). Here, we sought to obtain a snapshot of Mang'omba's *social* reality at a certain point in time. The case study design is appropriate for our research, which 'requires an extensive and in-depth description of some *social* phenomenon.' (ibid.p.5). As Gomm et al. (2000, p.4) point out, the case study approach enables us to gather data of a higher magnitude of detail compared to alternative approaches given that the research circumstances are fixed. Within the village, we describe *institutions* through multi-case sampling of *households*.

Case study designs are often criticized for their limited generalizability. However, we rely on concepts of theoretical generalizability, where we take into account an increased likelihood of shared behavioral and environmental patterns through the existence of common contextual frameworks (Gomm et al., 2000, p.29). A village appears to us as a spatial and substantial set of boundaries within which contextual elements are shared (Tacoli, 2005, p.3). Mang'omba displays model characteristics, possessing contextual fea-

tures that we expect to find in in the same combination in other locations. The village case-study approach has further advantages: limiting the pool of interview participants to village-households, providing a network of persons interlinked through *institutions*, and restricting the organizational research aspects to one village.

We coordinated with our partners from Afrint to select the research site. Afrint had previously conducted research in Mang'omba village in both 2002 and 2008, mainly using quantitative survey methods. As a site close to the southern Malawian financial capital Blantyre and largely dependent on agriculture, Mang'omba village fit our selection criteria: in Mang'omba we see a typical matrilineal, *semi-urban* and agriculturally oriented village of the Southern Shire Region. Further, Afrint's data collection serves a twofold purpose: to complement our qualitative data set, to deliver new insights into existing quantitative data and to use the existing personalized longitudinal data to define participant selection criteria. We also emphasize the importance of Silverman's (2005, p.163) words: 'often, a case is chosen because it allows access.' Besides being congruent with our research aims, our partners could introduce us to gatekeepers and leaders within the community, most notably the village head, which can be crucial for successful research (DeWalt & DeWalt, 2011, p.6).

5.2.2 Interview Data

For our interviews, we used purposive sampling, mainly relying on previous data collected by Afrint to categorize participants. The goal was not to obtain a sample of people reflective of the village population for statistical generalizability, but rather to interview

a set of people in a position to shed light on the theoretical concepts being investigated for theoretical generalizability (Gomm et al., 2000, p.183–185).

First and foremost, our participants came from **households** actively engaged in farming. In selecting participants, we further speculated that several factors could potentially present obstacles or barriers for our participants to access certain **institutions**. Wealth, gender, age, and marital status were the primary factors identified based on our preliminary literature review. To control for these factors, we drew up a list of participants where these criteria were equally balanced throughout the interview period. While our reliance on the Afrint dataset for participant selection may have affected the neutrality of our sampling process, it was nevertheless seen as a distinct advantage in enabling accurate purposeful sampling and in generating longitudinal data. An in-depth presentation of our respondents is displayed in Appendix.B.

We interviewed 32 individuals in Mang'omba, 12 of which were married couples sharing a **household**. 14 respondents were male and 18 female, relating to the fact that 3 of our 4 single-households were female headed. The median size in our economic interpretation of *household*² encompassed 3–5 members, however, 14 or 48.8% of all-respondents reported more than 6 members. The **household** typically consisted of the main couple, children, sometimes the parents of the female **household** head or orphans. Most respondents had 5 or more children over their lifetime and child-death was a frequently encountered incident in the life history.

We interviewed respondents between 20 and 50+ years, with most respondents aged 30–39 years. We interviewed 9 **households** below average wealth³, 13 of average and 10 of above average wealth. The data does not show a significant relation between age

2 We define a household as an economic unit, people *eating from the same pot* (Robertson, 1990).

3 The wealth ranking is based on Afrint's methodology and bases foremost on relative, observable wealth.

and wealth⁴, coinciding with our impression of high family support for elderly members and a culture of sharing. Of all participants, 22 were smallholder farmers⁵. 12 farmers could not abstract their land size in a formal unit, the median of the rest showed that land size ranges between 1–3 acres per household. We are aware that power plays and politics may have influenced the narration of land size to us, and we therefore do not draw heavily on this data to inform significant conclusions. We recorded divergent figures given by couples and very wealthy farming households who were understating their land size, already indicating power-plays connected to resource availability.

5.2.3 Interview Guides: Design Considerations

Following theories of institutional ethnography (May, 2002) that seek to uncover respondents' realities, we grounded our interview guide in everyday work activities surrounding agriculture. Through narrative accounts of everyday tasks in each of the agricultural seasons, we derived open-ended questions tailored to agricultural activities in a typical day. We chose a semi-structured interview approach in order to allow participants to elaborate and focus on key points that they themselves identified, and to pick up on similar and comparable themes throughout the interviews. Following the advice of our translators we included a highly structured section at the beginning of each interview, clarifying age, family setup, occupation and educative background in order to present our interviewees an easy access into the interview.

We argue that it was not necessary to follow the same interview guide throughout the research process because we were not interested in finding out about characteristics

⁴ γ insignificant at 0.195 compared to $\alpha = 0.01$.

⁵ Equal to 68.8% of all respondents; some of our respondents, though engaged in farming, described their primary occupation as non-agricultural.

of the population compared to each other (May, 2002, p.15). Our main approach was to consider interviewee-characteristics that resulted in different insights into *institutions* and to select participants according to these factors.

Over the course of our research, we relied on the use of interpreters, as the language spoken at our study site was almost exclusively Chichewa. Our two interpreters were college graduates with backgrounds in sociology and previous field research experience. We sought to create a narrative-oriented, conversational interview by letting our interpreters take the lead in directing the interviews, translating briefly so as to not interrupt the flow of the interview. We minimized the potential loss of data from this approach by following field days with debriefings to catch up on missed details, based on full digital recordings. The reliance on semi-structured guides and interpreters necessarily influenced data collection and analysis, adding additional layers of interpretation through which the data was transformed. On the other hand, it enabled us to collect the desired in-depth, dialogic narrative accounts. Acknowledging this fact, we chose not see our interpreters as translators; they rather conveyed the general meaning or sentiment of the interviewee. In this sense, we were not concerned about the verbatim *accuracy* of the translation, but considered our data to be a culturally-filtered set of ideas.

5.2.4 Interview Research Progression

We designed two research guides to use in a preliminary *exploratory* stage; here, we aimed to uncover the most important agricultural resources and prevalent *informal institutions* in agricultural *livelihoods* based on our participants' feedback. We used these findings to develop the second guide for the next field days.

We presented our interpreters with a guideline that defined in which direction to steer the interview after establishing the everyday work routine as point of departure. The conversational approach outlining key themes was accompanied by a final activity. The first exploratory guide asked the participants to rate their three most important **agricultural inputs** on a two dimensional pictographic 3 * 3 matrix defined by *effectiveness towards productivity* and *use in the village* (compare Appendix.C). The second guide asked the interviewees to use cards and a **household** board (compare Appendix.D) to narrate how different goods and resources enter and leave the **household**. See Appendix.E–F for our exploratory interview guides.

After a preliminary analysis, we identified sharing to be the most prominent **informal institution** influential to agricultural resource distribution in Mang'omba. This led us to a more focused research phase, where we successively revised the interview guides to explore different facets of the aforementioned **institution**, following a semi-inductive approach. In this second phase, rather than driving towards a particular angle or approach, we broadly steered life accounts to contextualize **institutions** and **power** positions, letting the information emerge according to individual narrative accounts. We often relied on *hypothetical scenarios*, designed to illustrate theoretically important points, while contextualizing the information within a plausible life situation (May, 2002).

We used another two interview guides during the focused research phase. The first was based on sharing of subsidized fertilizer coupons. Here, we presented the participants with the *coupon game* (compare Figure.5) that illustrated the sharing processes. It further concentrated on the role of chieftainship within Mang'omba and village groups. The second guide omitted an activity but introduced a scenario component: asking the participant to describe Mang'omba's development in the future to elucidate the participants' expectations and feelings about the present **institutions**. We planned to use a

third guide for two days, concentrating on conceptions of family and kinship sharing networks. This guide was used during only one field day, due to a security incident. See Appendix.H–J for the second phase guides.

5.2.5 Other Research Methods: Focus Group and Observations

A focus group discussion was conducted during the second research phase, when sharing had already been identified as a prominent *institution* and *power* networks were found to play a prominent part in agricultural resource distribution. The focus group discussion was therefore centered on group interactions and *power* networks in decision-making processes. We identified eight participants: four were selected from the *Village Development Committee* (VDC), which we assumed were of high-*power* due to their leadership role and influence on development resource distribution, and four were selected from the lower category of the wealth ranking, based on the semi-inductive assumption that wealth correlates with *power*.

While the focus group did not give the expected results in terms of evidencing strict *power*-hierarchies, it was most instrumental in shedding light on *social* dynamics and values surrounding *institutions*. See Appendix.K for the focus group discussion guide.

During our field research, we also noted participant observations, both systematically in order to produce a wealth ranking based on pre-established criteria from Afrint⁶, and recorded ad-hoc observations. We were reluctant to use our participants' direct account of their wealth; these accounts might have been biased, as participants thought we may be associated with development work despite our explanation of the research purpose before

⁶ These criteria included factors like ownership of livestock, a tin roof, radio, bicycle, etc.

each interview. We therefore adapted Afrint's methodology, focusing on observable wealth in relation to each other.

We conducted three transect walks used to produce a sketch of the village, and to visit the gardens and fields and village ventures, for example, the village fish-ponds and tree nursery. Direct observations of agricultural practices complemented narrative accounts, and confirmed our perception of a large degree of homogeneity in cultivation techniques, corroborating interview accounts for increased reliability.

5.3 DATA ANALYSIS METHODOLOGY

For our data analysis, we developed a semi-inductive analytical model based on our theoretical framework and research findings, represented in Figure.3. After identifying *sharing institutions*, we outlined their main expressions in our research. These *manifestations* of sharing focus on three resources: labor, subsidized coupons and capital and gifts. We selected these *manifestations* as representative of different facets of the *institution* of sharing, emerging as the most prominent throughout the interviews. Figure.3 shows that the sharing *manifestations* are directly linked to resource distribution and, in turn, *livelihood* strategies through resource distribution, in accordance with the SLF. These linkages are used to shed light on our overarching research question of institutional influence on agricultural resource distribution.

To answer the first research sub-question on the formation and effects of institutional *purposes*, we examined the interlinked *social* dynamics at play within each of the *manifestations*, represented to the left side of Figure.3. Based on literature review and field data,

we identified four primary institutional purposes: *altruism*, *social obligation*, *insurance* and *economic*. The interplay of *normative* institutional features and actors' intentions influences the characteristics and usage of these purposes, represented by the two-way arrows in Figure.3.

To answer our second research sub-question, we examined the interplay between the *institutionalization* of sharing and *power* structures at the village level, and its influence on relative wealth. Rules and *social* judgment play a role in reinforcing the *institution of sharing* and/or in upholding the *power* structures associated with sharing, represented by the linked hands in Figure.3. These coalesce to form economic systems. Processes of *institutionalization* and applications of sharing *manifestations* occur in a mutually reinforcing, interlinked circular pattern, jointly impacting agricultural resource distribution.

We recognize that the categories used in the model Figure.3 are generalizations and not representations of the complexities that define reality, where relationships and motivations are much more intricate and varied. This model is necessarily a simplification, but it is one that we see as best representing the dynamic reality within a given context. We operate with a *best fit* approach, analyzing our data according to the predominant sentiment expressed by our respondent.

To analyze our data, we utilized NVivo qualitative data analysis software to group respondents' ideas into preliminary categories, defined according to the general topics discussed. These categories were reviewed to derive our main analytical themes, into which our interviews were subsequently cross-coded. Using the NVivo software was a distinct advantage in handling the volume of our data and in defining the structure of our analysis. However, the software has been criticized for increasing rigidity by over-emphasizing cat-

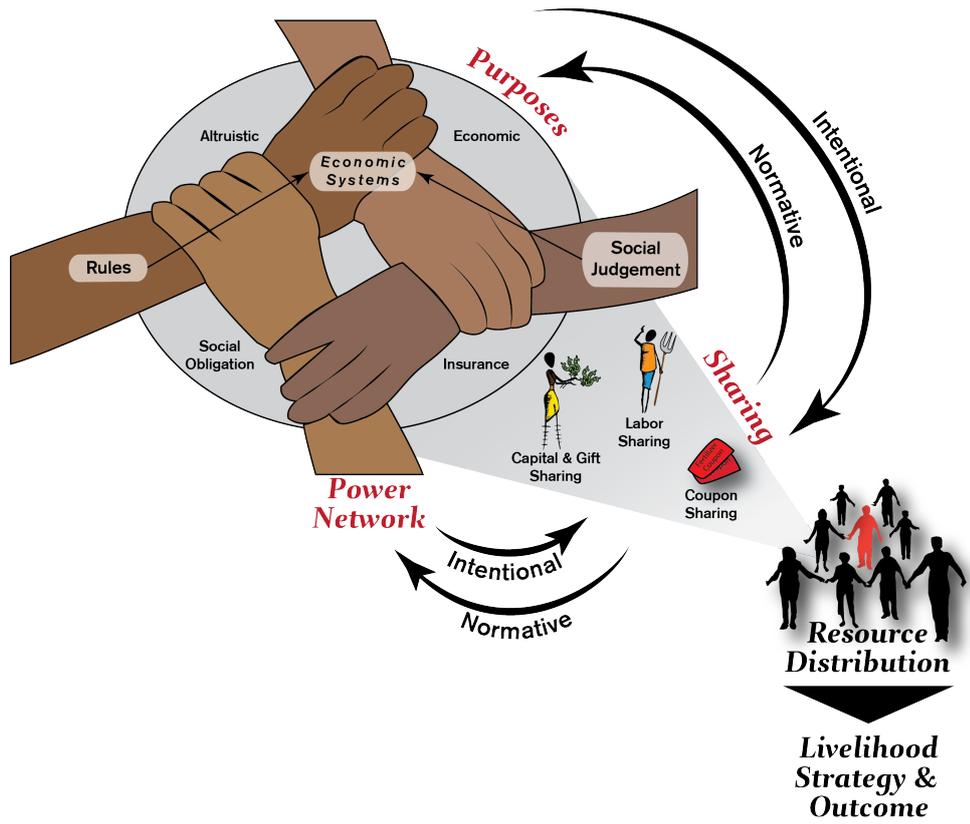


Figure 3: Analytical model guiding the data analysis. Authors' compilation.

egorization (Bergin, 2011). In this respect, we emphasize the cross-coding tool which encourages focusing on inter-linkages, highlighting analytical potential between categories.

6 | DATA ANALYSIS

The data analysis is structured into four main parts: we firstly introduce Mang'omba village and highlight salient facets of village life. We then build on this background as we describe our preliminary findings: the analytical process that enabled us to identify sharing as a prominent *institution* in Mang'omba.

In the third section, we address our first research sub-question by analyzing how *normative* aspects and individual intention influence institutional *purposes* for sharing and associated resource distribution patterns. In the fourth section, we address our second research sub-question on the interaction between the *institutionalization* of sharing with village *power* networks and relative wealth. This allows us to draw conclusions on the impact of sharing on agricultural *livelihood* outcomes, as outlined in our overarching research question.

6.1 FIELD EXPERIENCES: THE STUDY SITE

Mang'omba group village is a conglomeration of 13 sub-villages (Smallholder.27¹). The female Smallholder.27 is the group village head—the principal chief—responsible for of-

¹ Used as an alias for the interview participants.

ficial matters within the village as a representative of the Malawi government. She presides over the other 13 sub-village heads. According to our observations and coinciding with Afrint's (2002, 2008) research, the village land is exhausted and under permanent cultivation. Crop sales, remittances and petty trading are the three most important sources of income in the village and about 70% of the villagers have been categorized as poor according to the 1\$US per day criteria (Afrint, 2002, 2008).

The total population of Mang'omba group, as well as the total area, could not be ascertained. Mang'omba village is displayed in Figure.4 and encompasses about 100 households. Ethnically, the village group consists of Lomwe, Yawo, Ngoni and Sena people. The group villages have good relations with each other: '[...] the villagers visit each other for a beer for example or to pray together, sometimes villagers from different groups inter-marry' (Smallholder.21). See Figure.4 for a geographical representation of Mang'omba.

As is generally the case in Malawi, the main staple food is maize, which is sometimes regarded as the only real food. As a result, all of our interview participants and most of the villagers grow maize, sometimes together with beans or potatoes and vegetables. This creates a certain dependency for fertilizer and hybrid seeds, now used by nearly all villagers. Some respondents claim the use of hybrids and fertilizer degraded the soil, resulting in statements like 'There can be no harvest without fertilizer' (Smallholder.27) or '[...] today you always have to look for money for fertilizer and that makes life difficult' (Smallholder.26).

Irrigation was not common in 2002–2008 (Afrint, 2002, 2008) and this trend continues until today. Where irrigation is applied, it mostly relates to vegetables, with very few farmers irrigating maize. Agriculture consequently relies heavily on rainfall, making

farmers vulnerable to the famously erratic weather conditions in the Lower Shire Region (FEWSNET, 2012)—'Everyone waits for the first rain [...]' (Smallholder.21). The mean productivity lies at about 400kg maize per $\frac{\text{person}}{\text{year}}$, with values ranging from 75 to 2830kg (Afrint, 2002, 2008). For villagers with small land size, this is hardly enough to subsist for the year. We corroborate Afrint's (2002, 2008) observation that Mang'omba's farmers generally have no money left after one agricultural season to invest in farming technology or improved practices for the next season, resulting in homogeneous agricultural practices. The only form of investment that was narrated in few cases related to money saved to buy fertilizer.

The spatial context of Mang'omba as a **semi-urban** village outside of Blantyre City creates a special set of networking **institutions** that impact sharing exchanges. It is unlikely that the quantity and frequency of material exchanges described by our respondents can be achieved in this form in a truly rural context. Some of the sharing networks are based on the need for food in the city and existence of regular cash-employment opportunities. At the same time, Mang'omba is relatively remote and based on volatile subsistence farming, creating the **protracted crisis** situation identified by Vervisch et al. (2013). Mang'omba's rural facets further isolates informal **manifestations** from the formal institutional frameworks of the urban areas as discussed by Eggen (2011). These contextual elements, as we will presently see, affect institutional dynamics through their interactions with livelihood resources; as outlined in the SLF, they are filtered through institutions to produce livelihood outcomes (see Figure.2).

Land inheritance is matrilineal (Afrint, 2002, 2008). A married couple usually stays in the wife's village to farm her land. In terms of decision-making **power** and **household** agency, we generally agree with Smallholder.9 who reported about farming decisions: '[...] it is my husband who makes the decisions about agriculture, but it is my job to

correct him if he is wrong. My husband is mostly wrong.' Wives relate that they usually take care of the **household** finances and discuss matters with their husbands, who in turn claim to have the final decision-making **power**—'My wife manages the money, she is the bank, but I mostly decide what is done with the money' (Smallholder.3). A common wife's perspective on this issue was expressed by Smallholder.2 'Men are not always responsible and tend to drink a part of the money away when at the market, while the money is urgently needed for the fertilizer.'

Gender in and of itself does not seem to play a prominent role in the **manifestation** of the sharing institution. Our data suggests that mothers and daughters are more likely to have frequent exchanges, especially in terms of remittances. However, in their study of a Malawian village in Rumphu district, Potter and Handcock (2010) find that male-to-male remittance exchanges are the most frequent, while female-to-female exchanges are least frequent. They support their finding with the fact that males are more likely to engage in paid labor, and therefore have more resources to remit. King (2011) points to **institutions** as embedded entities in a spatial-historic context: the Southern Shire Region is typically matrilineal, while the north—where Rumphu district is located—encompasses as well patrilineal societies, possibly influencing the development of **institutions**.

6.2 PRELIMINARY FINDINGS

The preliminary exploratory research phase enabled us to identify sharing as the most prominent **informal institution** in Mang'omba, and the focus of our study within the *sieve* of the SLF through its linkages with micro-contextual factors (see Figure.2). Identifying **informal institutions** most influential to agricultural production, from an insti-

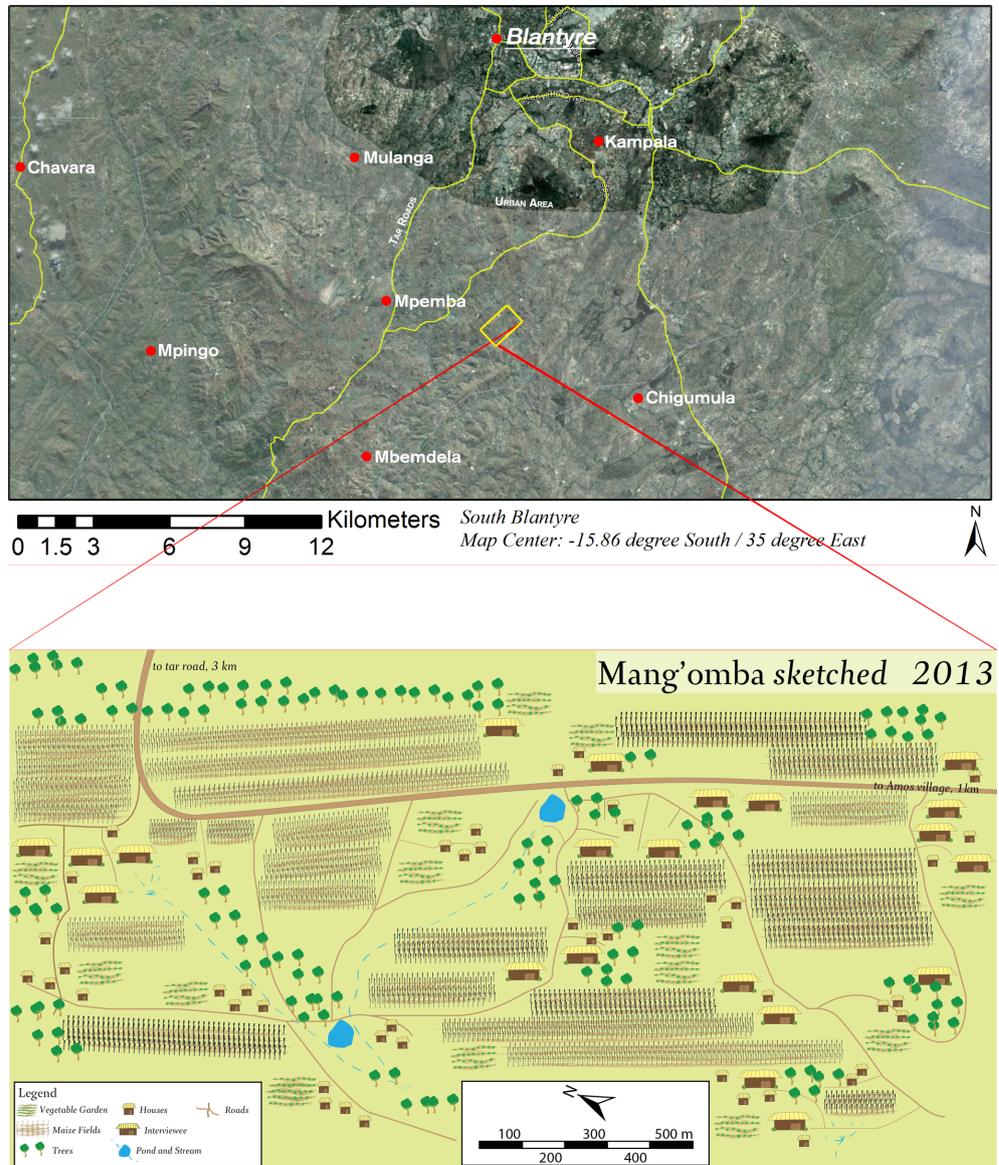


Figure 4: Location and basic sketch of the study site. Authors' compilation, based on Google Maps (2013).

tutional ethnographic perspective, necessarily starts with accounts of agricultural tasks themselves. Participant observation as well as narrative accounts reveal a broad degree of homogeneity in agricultural practices: the types of crops grown and the cultivation techniques employed do not vary significantly. The only differential is the scale of production and the use of available inputs. It therefore comes as no surprise that material inputs are commonly identified as the most important factor for agricultural production.

Figure.5 depicts respondents' perspective of the most influential factors to farming. Six participants ranked farming resources' relative influence on yields (represented on Figure.5's vertical axis), and their accessibility to people in the village (Figure.5's horizontal axis). Fertilizer was mostly ranked as having the largest beneficial impact, and as being either widely or moderately accessible. Other resources and their influence and accessibility are displayed in Figure.5; the nature of these inputs demonstrates that livelihood resources, identified as micro-factors in the SLF, are viewed as most important to agriculture in Mang'omba, with fertilizer as the leading external resource.

Identifying the *institutions* underlying the access and use of these resources consistently points to the existence of widespread, intricate *social* arrangements mediating extra-market exchanges. Every single interviewee talks of institutionalized interactions within the community, family members or friends where goods or services are routinely exchanged, with implications for agricultural production. Although the nature, type, and context of these exchanges vary, they all include an element of a voluntary redistribution of resources, which we term sharing. As such, sharing is an important part of the *sieve* identified within the SLF.

Sharing as an *institution* is evidenced through different *manifestations* at Mang'omba village. *Manifestations* comprise of a set of typical *social* mechanisms mediating the ex-

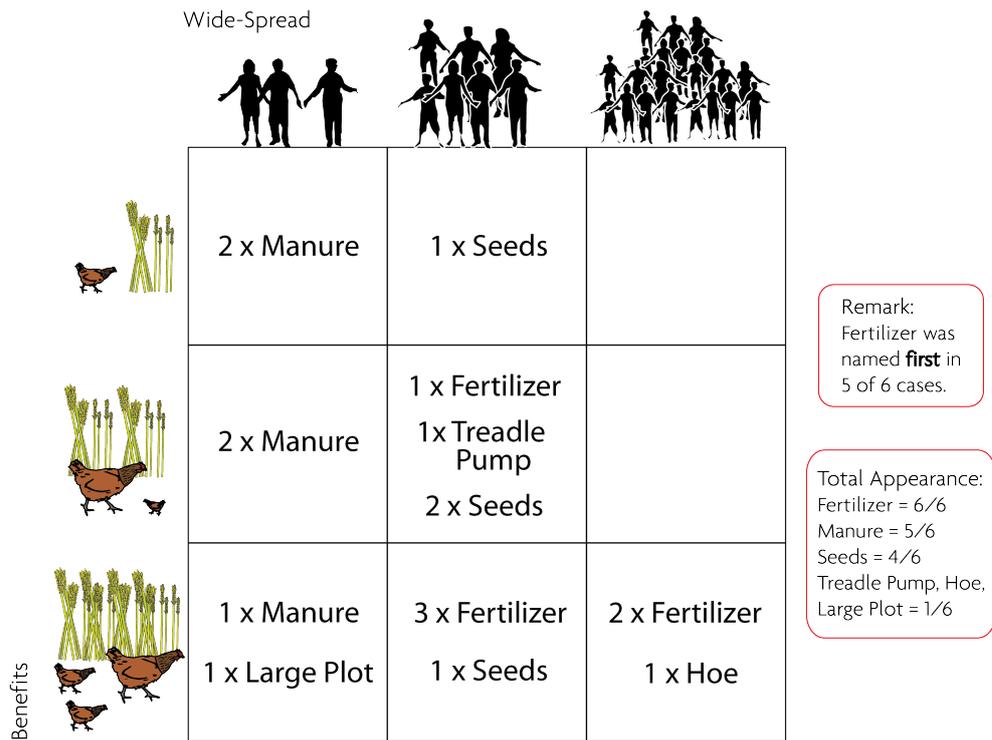


Figure 5: Outcome of the farming-influence game with six respondents, showing their answers and placement of answers on the matrix. 'Fertilizer' refers to artificial fertilizer, 'Benefits' refers to perceived utility to increase farming output and 'Wide-Spread' refers to perceived share of village farmers using this input.

change of agricultural resources; it is the form that the institution takes as people engage in it. As our research questions predominantly focus on agricultural resource distribution, we describe **manifestations** according to resources. In our analysis, we focus on the **manifestations** of sharing subsidized fertilizer and seed coupons, sharing capital and gifts, and sharing labor. See Box.1 on page 39, for a description of these three sharing **manifestations** and their role in the village.

Most commonly, sharing exchanges center on kinship networks, which are viewed as central to a person's **livelihood** itself. Potter and Handcock (2010), Davies (2011), Weinreb (2002), Rohregger (2006) all explore sharing within kinship networks in a Malawian context. Although extra-kinship network sharing does occur, as explored by Foster and Rosenzweig (2001, p.398–390), previous research and our own data suggest that these exchanges are far less frequent.

Family is indeed central to accessing resources: when given a hypothetical scenario of having to move far away from Mang'omba, two of three respondents said they would not like to move; if they were compelled to, they would take their family with them. Smallholder.30, highlighting the importance of these networks of exchanges in **livelihood** strategies, states: 'I would miss many things about my family if I lived far away. If I am in need of money or food, my relatives give me what I lack.' The centrality of these network exchanges highlights their importance in accessing needed **livelihood** resources.

Capital and gift-sharing This is the most frequently cited manifestation of sharing, and the most diverse in terms of commodities exchanged and motivations. Previous studies of capital-sharing patterns in Malawi and across southern Africa (Weinreb 2002; Cox and Fafchamps 2008) find that a majority of rural households engage in such exchanges. Commodities exchanged in capital and gift sharing most often include food, especially maize. However, money is also commonly exchanged, as well as small gifts such as clothes or cooking utensils.

Coupon sharing The government-sponsored fertilizer and seed subsidy programme plans for vulnerable households to receive fertilizer and hybrid seeds below market-value through the use of coupons. When coupons are allocated to the village, it is the responsibility of the Village Development Committee (VDC) and the village chief to select beneficiaries. In Mang'omba, a coupon sharing system is in place. This system compels certain households to split the subsidized fertilizer and seeds included in the programme with another family, contrary to the government guidelines.

Participation in the coupon system is widespread; all 32 respondents talked about coupon-sharing, and only 2 of these respondents related that their household did not receive a coupon or half of one. A majority of respondents receiving coupons were either sharing or shared with, with few claiming to retain a full coupon for themselves.

Labour sharing These arrangements between households often take the form of 'Chipelele ganyu', where kin work together on each others' fields in turn. However, one-way exchanges of labour sharing are also described, with some respondents helping kin but not receiving help in return. Labour sharing arrangements between households are less common than labour pooling within households; it is nearly always related that other household members help the primary farmer in the fields. About a third of respondents complement or replace intra-household pooling with inter-household labour sharing. According to Afrint (2002, 2008), about 68% of the labor is carried out by the main farm manager, usually defining their entire daily routine during the year.

Box 1: *Description of sharing manifestations and their role in Mang'omba.*

6.3 SHARING PURPOSES

The **manifestations** of sharing described above are linked to a variety of intentions or objectives, which we term **purposes**. These include altruism, **social** obligation, insurance, and economic purposes.

Individuals participate in sharing with a purpose in mind—or a blend thereof—shaping the way (s)he engages in the **institution**. **Social** constructs emerge as these interactions become patterned over time, creating **normative** institutional processes that surround sharing, as described in our analytical model represented in Figure.3. In answering our first research sub-question, we examine the implication of these institutional processes for sharing **purposes**, and the resultant resource distribution patterns.

6.3.1 Institutional Flexibility: Multiple Purposes, Intentionality and Redistribution

When participants engage in labor and capital sharing, they often relate the exchange within a specific intentional framework, most commonly altruism. So, for example, Smallholder.16 talks of helping out her relatives in town by giving them a bag of maize after harvest. Smallholder.9 relates that her sister gives her manure from her cow, and that she 'does not give anything in return, but just says thank you.' These examples of altruism within capital-sharing are common; it is viewed as a gift or favor to relatives. Within labor exchanges, latent economic intentions are often implied, but expressions of altruism nevertheless dominate, suggesting that altruism softens market-based exchanges. For instance, Smallholder.9 sends money to her mother for her work in the fields. She

specifies that this money is intended to say thank you to her mother, not as a payment for her work.

Beyond altruistic intentions, other factors emerge from these interactions that shape the nature of the exchanges. Sharing is generally viewed as a socially constructive process, based on the often-voiced belief that 'it is better for everyone to have a little bit of something, rather than few people to have much.' (Smallholder.11). Values of fairness interact with **social** cohesion, achieved through norms of equality and equal entitlement; poorer relatives are, in a sense, entitled to receive material or in-kind help from wealthier kin bound by familial obligations. Smallholder.32 makes this sense of entitlement explicit when he states that he is unable to sell any maize because 'relatives who do not have enough will come in times of need'.

These exchanges are further governed by the concept of family. Family members are, in the words of several respondents, *people who always help in times of need*. This belief reinforces inter-household sharing arrangements by turning **social** values into guidelines for **social** obligation. Smallholder.32 further relates that it is his duty to give his relatives food, and finds it completely impossible to answer to the hypothetical scenario of his refusing to help family members in need, while Smallholder.2 says: 'my relatives would be worried and unhappy if no remittances were sent'. Intentional **purposes**, through the process of **institutionalization**, are transformed to norms and values, becoming inherent to the **institution** that enforces principles of sharing; this process exemplifies the two-way arrows between intentional and **normative** aspect of institutional processes shown in Figure.3, supporting the theory that within institutionalization, people influence the institution as much as the institution shapes peoples' actions. **Social** obligation, a purpose resulting from this process, blurs the divide between **normativity** and **free choice** (Ritzer, 2005).

Several studies find evidence of **social** obligations mediating capital and labor exchanges; Di Falco and Bulte (2011) explore the effect of *sharing obligations* on resource accumulation, finding these obligations to be so strong as to distort saving and spending patterns. Rohregger (2006, p.1159) also finds compelling evidence for **manifestations** of **social** obligation in Malawi, describing feelings of shame or embarrassment from respondents unable to remit to their kin after moving away from their home village. Given evidence of **institutionalization** through **social** values and judgments, it appears that capital-sharing processes in Mang'omba most often contain overlapping elements of altruism and **social** obligation. This indicates that the process of **institutionalization** within capital sharing leaves room to define subjective intentional **purposes** and express them openly.

Our data further suggests that capital sharing often serves an insurance purpose; it is specifically the obligatory component of sharing, created through the process of **institutionalization**, that enables and reinforces such risk-sharing networks. Respondents commonly talk of receiving food from relatives when facing difficult times—Smallholder.7 says 'I receive support from relatives if the family's situation becomes very bad.' Much of the literature provides empirical evidence for capital-sharing serving an insurance purpose (Cox & Fafchamps, 2007, p.3715–3716). Chao and Kohler (2007) find expectations of reciprocity to be a stronger motivation for sharing exchanges than altruism or fairness. Further, Davies (2011, p.481–489) finds that informal insurance networks are widespread in rural Malawi, though other motives are often present simultaneously.

We speculate that many accounts of receiving help in times of need in Mang'omba are, in fact, **manifestations** of risk-sharing arrangements, but that the reciprocity of the arrangement, instead of being made explicit, is voiced in terms of altruistic values or obligations. Box.2, below, illustrates the point that exchanges are often implicitly mutualistic. The process of **institutionalization** creates reciprocal sharing mechanisms that

allow individuals to engage in sharing as a mutual insurance strategy, but express exchanges differently. Weinreb (2002) equally finds evidence of mutual support in kinship network through reciprocal capital exchanges in rural Malawi.

These exchanges can therefore be understood as redistributing and equalizing resources among sharing networks. Those with less commonly expect to receive from those with more within the sharing network. Given the nature of these exchanges, we can see that they tend towards intra-network equality, effectively redistributing any surplus through expected mutuality, contingent upon resource availability as exemplified in Box.2. In these exchanges, individual intention is not completely subsumed within *normative* processes; while relying on *social* obligation and altruism, capital and labor sharing *manifestations* further accommodate alternative economic *purposes* as well. However, given the prominent role that *social* values of equity and kinship play in these sharing *manifestations* and the ubiquitous role of altruism, we find redistributive resource patterns at play within economic exchanges through the focus on circumstance-dependent payments. Congruent with Udry's (1994) findings, members of a sharing network return an economic gift or favor whenever they have the means.

Labor sharing, for instance, mostly takes the form of *chipelele ganyu*², where kin work together in turn in each others' fields. It is often conceived of as a market-replacement strategy, most especially where the employment of casual laborers—called simply *ganyu*—cannot be afforded. Payments for work are flexible; Smallholder.5 says: 'At the end of the season, I give my mother 1/2 bag of maize for her work in my fields if the harvest is good.' In our interviews, no specific amount of money is cited as compensation for *chipelele ganyu*, whereas the amount is readily stated for regular *ganyu*. Overall, the dominant picture is of family providing a sharing service when offering their labor, even if they receive

2 Chipelele ganyu is described as a strategy to make agricultural work more efficient.

Smallholder. 8 always helps his in-laws in their fields because they are getting too old to perform the agricultural work themselves. He stresses the importance of this task, stating that he must help his in-laws even if he still has work to do in his own fields, because it is his duty as son-in-law. He says that he receives nothing in return for this work.

Smallholder. 8 owns several fields, one of which is located in Limbe. This field originally belonged to his father-in-law, but was subdivided amongst his children; part of the field went to Smallholder.8. This season, Smallholder.8 also borrowed MK 500 from his father-in-law to pay for fertilizer. He says his father-in-law saw that it was better to give him the money to invest at the start of the season, rather than having Smallholder.8 come to him later in need of food, asking for more.

In this example, we can see that what could individually be considered altruistic acts, when taken as part of a broader whole, illustrate a mutual support network. Smallholder.8 describes his work in his in-laws fields as an unremunerated favour, a social obligation attached to his role as son-in-law; later, he also presents his father-in-law's exchanges, both the fields and the loan, as unattached favours. When considered as part of a whole, however, these individual interactions hint at an imperfect, context and need-dependent reciprocal arrangement. Ultimately, these exchanges illustrate how the process of institutionalization accommodates implicit insurance purposes mediated by social norms and values.

Box 2: Narrative example of multifarious institutional purposes.

money, because the exchange has neither a defined time frame, nor a defined value. This mechanism translates into a fluid system with the intention of countering challenges of the usual *labor for money* economy. The process of **institutionalization** through **social** norms of equality, mediated through altruistic feelings and **social** obligation, therefore softens the economic character of the exchange, and renders it redistributive.

The process of **institutionalization** for labor and capital sharing leaves a broad degree of flexibility for individual intention. In these sharing **manifestations**, we find a distinct blend of individual intent and **normative** processes designed to regulate exchanges in a way that every actor in a network commands approximately the same amount of resource. Sharing patterns draw heavily on concepts of family and equality, which effectively serve as underlying redistribution mechanisms, embedded in the village code of conduct and shaping individual intent. From our analytical model depicted in Figure.3, we see that linkages between **purposes**, individual intent, and **normative** processes influence these sharing **manifestations** by rendering exchanges redistributive.

6.3.2 Institutional Rigidity: Normative Rules and Unified Sharing Purposes

Coupon-sharing exemplifies a different set of mechanisms linking purposes, normative and intentional factors, and resource distribution. The institutionalization of the coupon-sharing system in Mang'omba draws heavily on explicit rules of conduct, making this manifestation of sharing more rigid and curtailing individual intentions. Rules about who must share, how much, and with who are made explicit in this system, contrary to remittances or labor-sharing arrangements where the rules are more fluid and flexible; this process emphasizes the normative arrow in Figure.3 over the intention arrow.

The predominant opinion from our interviewees is that coupon sharing is a necessity due to a general lack of fertilizer; it is an unpopular arrangement, with many echoing the view that they are unhappy with the sharing requirement. Hence, it seems that other purposes help support and enforce the social obligation of sharing. Smallholder.8 voices a powerful and likely widespread purpose of sharing coupons when he states: 'I cannot say whether or not I am happy with the sharing system because fertilizer is a necessity for me. Sharing is the only way I can receive fertilizer because I cannot afford it at market prices.' Sharing within the fertilizer subsidy program serves the purpose of acquiring what is considered a vital resource, and participation in the institution is therefore mostly done with uniform latent economic intentions; however coupon sharing is mostly described as social obligation, voiced in statements like: 'it is a village rule that people who suffer have to be shared with' (Smallholder.4).

Focus group participants agree that fertilizer is essential to the production of maize, and that maize is central to their way of life. Group-member.4³ states that 'they [the

³ Used as an alias for the focus group participants.

villagers] would not be satisfied with anything else [than maize].’ Further, individuals from all wealth groups voice the opinion that fertilizer at market prices is unaffordable, a constraint elaborated upon by (Uttaro, 2002) in his study on input use in southern Malawi. From this perspective of crisis, the subsidy is vital for those who are not wealthy.

In the process of *institutionalization*, obligations are made explicit through strictly defined redistribution systems. Each of the group villages enforces a sharing system, which have similar traits: most recipients are required to share their coupon with another in the village, as designated by the chief. A certain set of people are not required to share⁴. Transgressions within the sharing system, or transgressions of other village rules or custom, often result in exclusion from the coupon system, which constitutes a powerful threat centering on an essential *livelihood* resource. Smallholder.5, for example, relates that she did not receive a coupon because she failed to pay the MK 500⁵ introduction fee to the chief when her husband moved to the village. Rules structure the *manifestation* of sharing, while simultaneously ensuring communal participation by laying out consequences for non-sharing, fostering obligation as a purpose.

These rules rely on prominent *social* values of fairness and equity, echoing the egalitarian spirit of the village and overriding the government objective of a targeted program. The village chief herself, Smallholder.27, states that the government did not specify that they should share the coupon, but that she saw she ‘must give everyone a coupon regardless of their source of income, because if not people might say there is unfairness or favoritism.’ Altruism, known to be a strong force in the village is again used to explain actions with a more complex background. Smallholder.22 makes this undercurrent of

4 There are differing and contradictory accounts of who is not required to share—poor or rich—a point we shall return to when examining *power* structures.

5 On the 2013-04-05, MK 500 was equal to 1.26\$US (CoinMill.com, 2013).

altruistic motives explicit, stating: 'sharing is not fair, but it is better than someone dying of hunger. I would be responsible for this if I weren't sharing.' Respondents often express the feeling that individual intention is muted by a *custom*.

In his study on targeted safety nets in Malawi, Chinsinga (2005a) finds powerful evidence for strong reticence to targeted interventions, most pronounced in the southern region of the country. Based on the perception that most rural Malawians are poor, a sentiment echoed in Mang'omba village, there is a widespread opinion that all are equally entitled to development interventions; targeting is seen as a foreign concept. Chinsinga (2005a, p.722–724) finds this sentiment of equal entitlement to be compounded by shared egalitarian values. These values justify the rigid *institutionalization* of certain rules, as a tool of power networks (compare Figure.3), rendering the *institution* less flexible but seemingly more stable and predictive.

Negative *social* judgments also play a role in reinforcing institutional sharing. Smallholder.24 states that those who do not share their coupons are greedy. He further goes on to explain: 'selfish behaviors include not participating in community activities or development work, not associating with others, or talking badly about others'. Coupons are generally viewed as semi-public property, as a gift from the government, and the sharing is therefore not so much a favor as a duty. Both positive and negative *social* judgments coalesce to uphold *normative* rules of sharing within Mang'omba, laying out specific protocols for participation within the *institution*.

At its core, villagers view coupon sharing also as an equalizing mechanism effectively redistributing resources, mediated by the sentiment that 'it's better for everyone to have a little bit' (Smallholder.27). We see that values of equality and fairness underlie obligatory exchanges, functioning as a redistributive exchange for those compelled to engage in the

institution in a certain way. Compared to the other manifestations, coupon sharing is mediated by strongly normative mechanisms, and includes an overriding sense of social obligation and economic interest as primary purpose. The implications of this different set of institutionalizing mechanisms for power networks are explored below.

6.4 INSTITUTIONALIZATION AND POWER STRUCTURES

In this section, we explore how the institutionalization of sharing interacts with village power networks and relative wealth. Purposes are entwined with the institutionalization process and subject to influence by powerful actors, as depicted in our analytical model (Figure.3). Lecoutere (2011), Awortwi (2013) and Eggen (2011) all highlight the importance of one main driver of institutionalization: they argue for the prime importance of village power networks in situations of protracted crisis and traditional rule, as is the case given Mang'omba's macro-contextual factors.

We examine power as one of the factors that govern which purposes transform into norms and with what degree of rigidity. Different processes are hypothesized to have implications for those power structures associated with the institution of sharing in a mutually reinforcing process. For the purpose of analysis, we conceive of rules and social judgment as mechanisms that reinforce power structures, upheld by the normative effects of the institution in a reinforcing circle as detailed in Figure.3. Rules and social judgment can interlink with other systems to influence institutionalization, for example through economic systems. The *power to decide* (Pitesa & Thau, 2013) is differently distributed within rules and social judgment: rules are decided upon by individuals or small networks

who enforce or promote them, whereas **social** judgment is mediated by the whole village upon socially agreed codes of conduct.

6.4.1 Ruling the Institution

The **institutionalization** of rules is prominent in the coupon sharing system: the redistribution of coupons vests **power** in the chief and in the VDC as figures of authority in the redistribution process. Some say these actors have benevolent intentions, while others denounce self-interest: Smallholder.6 relates that the chief 'allows' sharing because she is kind, while Smallholder.28 speaks of 'unequal distribution of benefits'.

Coupon sharing is established with the norm that the chief and the VDC steer the distribution, strengthening their position. Smallholder. 16 makes this explicit when she says that 'it is the duty of the headman to select people who get the coupon. There is also a committee who works with the headman'. On the other hand, the rules intentionally agreed upon by these same actors uphold the current mechanisms of coupon-sharing, for example by placing punishment on misconduct as in the case of Smallholder.5 explored on page 46. They thereby strengthen the **institution**, and indirectly their own position.

There is some degree of unclarity in who actually benefits from the coupon sharing system (exemplified in Table.1). The amount of people said to receive the coupon varies widely, and it is nearly impossible to determine exact figures. There are accounts of the poor, the elderly, or large **households** not being required to share coupons; there are also accounts of the chief and her family receiving multiple coupons. See Table.1, below, for examples of contradictory statements on coupon recipients. Both high- and low-income **households** relate both versions of the distribution system, suggesting that the reality lays

Table 1: *Contradictory statements of coupon reception.*

Inter-viewee	Wealth Ranking	Power Position	Account of Coupon Distribution	Interpretation
Small-holder. 16	Above Average	VDC Member	Those people who do not share their coupon are the poor and the elders. Large families, for example those that have 8 children, also do not share because if they did, they may not harvest enough.	In her description of coupon allocation, Smallholder.16 displays a strong understanding of government targeting criteria, and implies that these are the only criteria followed in the village.
Small-holder. 12	Average	No Specific	Mostly, the old, orphans and handicapped people should receive the coupons, but the coupons are often given to the privileged by the village chief.	This respondent displays both an awareness of the official targeting criteria, and an awareness of distortion occurring by village elites.

somewhere in between: in some instances, vulnerable **households** do not share, while simultaneously, powerful people do not share.

We speculate that the confusion within the system itself gives the decision-makers a certain amount of leeway to manipulate the distribution process since it is difficult to be held accountable. Through a mock coupon sharing game, we found that villagers normally attribute one whole or multiple coupons to the chief and VDC, while the ordinary people receive a shared coupon, a whole coupon or no coupon depending on the **household** situation. A typical outcome of the coupon sharing game is illustrated in Appendix.G, where the chief attracts multiple coupons and the only party sometimes not receiving coupons are the usual villagers.

Whatever the exact sharing system, there is clearly an intentional manipulation of government stipulations for recipients. A modified set of rules coalesces to skew the distribution of resources towards the powerful agents while simultaneously upholding existing **power** structures and decision-making processes. Chinsinga (2005b, p.290–297) finds similar evidence of manipulated beneficiary criteria in his study of Malawi's Winter Input Targeted Program. Here, we can note a conflict between institutional rules: on the one hand, the initial targeting intention, and on the other hand, their manipulation

through the **institutionalization** of sharing. **Power** structures can, in effect, be reinforced by the breaking of *foreign* rules or by their replacement with village-level rules.

Perceptions of roles and obligations serve to uphold these rules, creating economic systems that skew resource distribution patterns towards powerful agents, resulting in a **power/wealth** nexus. A number of interviewees were able to explain the rules leading to the chief and VDC attracting comparably more coupons: the chief needs additional resources to fulfill her **social** roles. Smallholder.19, echoing an opinion voiced by several respondents, states: 'The chief should have more land, because if visitors come to the village, the chief must host them and feed them.' Large **households** and **households** with much land—mostly wealthy **households**—receive more coupon-support since they consume more.

Further, membership in the VDC is subject to village elections during which financial capital or other support to the village is a main asset to attract votes. Smallholder.18 adds that 'one of a chief's duties is to choose people for development work and this is of course often family members', suggesting some degree of nepotism in this process. The members of the VDC, according to Smallholder.19, are '[...] always the same people because they are the ones who can afford to use their own money for transportation to go collect the subsidized coupons.' Rules in this case interlink with economic systems and customs, generating **power** and accumulating resources in the ranks of the main financial capital holders in the village.

There is sporadic evidence from other village projects in Mang'omba and similar manipulation, or replacing the rules. Talking about development projects, Smallholder.28 says: 'the chiefs and the group village headmen are the *big people* in the village who keep [development resources] to themselves.'

The emerging relationship between **power** and rigid institutional rules is a dual system of **institutionalization**: **power** is used to subvert unwanted aspects and manipulate the norms, creating new sets of rules. These are primarily not based on commonly agreed codes of conduct but introduced to intentionally structure sharing arrangements and are clearly traceable to individuals or elite-groups who introduced them. This exemplifies the self-reinforcing process of resource accumulation: accumulative strategies link with **power** dynamics, relying on **normative** processes and drawing on **social** obligation as a purpose, creating a **power/wealth** nexus that becomes concentrated within a few *elite* sharing networks.

Whereas in capital and labor sharing **manifestations**, the *power to decide* for an individual purpose rests with the individual (mediated by the community), in the coupon sharing system, the *power to decide* is concentrated in elite-groups leaving few room for alternative **purposes**, allowing powerful agents to accumulate resources.

6.4.2 Social Judgment and the Institution

The perception of other's and of one's own behavior, both positive and negative, contributes to upholding collectively shared norms and values that mediate compliance with institutional processes, thereby driving **institutionalization**. The effects of **social** judgment are most strongly visible in capital and labor sharing agreements, where the wish to comply with **social** ideals like *altruism* or the fear to transgress **social** obligations like *kinship-support* motivates actors to uphold certain purpose statements. So for example, we find Smallholder.10 stating: 'There is nothing I would not share if I have enough, and someone I know is in need'. Here, a common **social** paradigm leads the development of

purpose, with some beneficiaries feeling pressured by judgment while others internalize and identify themselves with the displayed values.

The *power to decide* is arguably a matter of perspective and rests with everyone in an idealized form of *social* judgment. In reality, function, age or other status determinants place more emphasis on certain villager's judgment than on others'. Effectively, agreeing is very important in Mang'omba: our focus group illustrates that people across different income and functions carefully conform to other group member's ideals. During the focus group, no disagreements were voiced, and everyone vehemently agreed with such *social* standards as 'the community cannot be run by a hasty person but an understanding person' (Group-member.1).

The interaction of social judgement with existing elite *power* networks also serves as a control function: humility and respect for all are recurrently cited as principal leadership qualities—the village code of conduct. Smallholder.11 voices an often-stated belief when he says 'the chief shouldn't receive any special consideration, and should get the same as others'. The election of a new chief is oriented towards personal qualities of the aspirants, cited to be 'love for all villagers, fairness and good manners' (Smallholder.15). If the aspirant fails to show these qualities, (s)he cannot become chief, a central actor in the coupon sharing institution and a concentration of village *power*. The same is true for the election of the VDC committee; Smallholder.16 for instance, says she was chosen to be on the VDC due to her good behavior. These intentions are meant to steer the *institution* towards adherence to the prominent *social* values of equality—the village code of conduct.

However, many of these controlling functions have been subverted or proven to be inefficient in the face of existing *normative* aspects: The chief's successor has to be of the

chief's family, regardless of the virtues that the aspirants display. The final decision of succession rests with the retiring chief, able to resist the wishes of the villagers or the codes of conduct. The election of the VDC is also biased since participation engenders certain financial burdens. Access has been restricted to relatively wealthy **power** networks, as explored above. The **power/wealth** nexus is exemplified by Smallholder.9 who suggests that **power** can be bought: 'those people who bribe the chief get favors in return, but poor people cannot afford bribery.' Need created by a **protracted crisis** situation⁶ and expectations of direct benefit through voting (transport of fertilizer) trump equal distribution of the **power to decide** through democratic elections for the VDC. The **institutionalization** of the leadership roles within sharing thus solidifies elite positions by relying on economic systems rather than **social** judgment.

Mang'omba displays that **social** judgments and **power** structures are, furthermore, not always in accord. When disparities with the village code of conduct arise, villagers exert negative judgment to induce change. However, we did not encounter a case where people directly questioned the status quo, whether in the parties in **power** or the village code of conduct. Smallholder.9 states: 'I think that preferential treatment is not good, but I am afraid to question the chief [...]. The chief's punishment would be to exclude me from the fertilizer coupons.' Smallholder.24 relates another clash between **institutionalization** and **power**: 'Some members of the VDC receive several coupons because they are greedy, I can do nothing about this situation because I am without influence.'

Power to decide can effectively override controlling mechanisms of **social** judgment in Mang'omba, dependent on a protracted crisis in which people fear to speak up due to **normative** institutional enforcement mechanisms. Since fertilizer is viewed as a neces-

⁶ The protected crisis situation in Mang'omba, as explored above, is primarily defined by poverty, erratic weather conditions, a fixation on maize, expensive fertilizer and missing presence of the government.

sity for maize cultivation, these enforcement mechanisms are strong within the coupon sharing system. Here, macro-contextual factors—most notably poverty and reliance on maize cultivation—influences institutional dynamics.

Unified **purposes**, rigid arrangements and strong **normative** components lend themselves to significant influence from powerful agents, rendering sharing exchanges more accumulative than redistributive for a certain set of people. In their explicitness and design, strict rules allow for concentration of both **power** and resources as the *power to decide* is held by relatively few actors. The subsuming of individual intent does not allow for alternative forms of participation that could counter these accumulative processes. In sharing **manifestations** where flexible **institutionalization** results in **normative** mechanisms open to accommodate a broad array of individual intentions and **purposes**, we see that the role of elite **power** structures is muted as the *power to decide* is diffused.

7 | CONCLUSION

The investigation of the influence of sharing on the distribution and access to agricultural resources has proven to yield significant results in the case of a Malawian **semi-urban** village marked by predominantly subsistence agriculture and a **protracted crisis** situation under mostly traditional rule.

For our first research sub-question, our findings show the degree of institutional rigidity or flexibility towards the diverse **purposes** with which individuals engage in sharing differs between different manifestations, exemplified in Figure.6. Flexible **manifestations** presenting a broad array of **purposes** are generally used to re-distribute resources in an

equalizing manner within sharing networks. This process, and the corresponding effects, are depicted on the left side of Figure.6.

On the other hand, rigid *manifestations* where *social* obligation and economic *purposes* predominate, depicted on the right side of Figure.6, lend themselves to the accumulation of resources within elite networks, while remaining redistributive for a large segment of the population. Both rigid and flexible *manifestations* are institutionalized through *social* judgment, but rigid *manifestations* are increasingly driven by rules formulated by distinct individuals or elite networks. In this way, there is a dynamic interplay between the purpose and the institution, as outlined in our theoretical perspectives.

For our second research sub-question, we find that the developments of *manifestations*—towards rigidity or flexibility—are strongly correlated to the degree of influence of *power* networks on the *institution*. *Power to decide* is used by elite parties to intervene in the process of *institutionalization* through the formulation and manipulation of rules. Rules are used to introduce accumulative aspects to *sharing institutions*, benefitting the rule makers themselves. If the infiltration of *power* networks is low, sharing works in a re-distributive manner within kinship networks with certain differences between low and high income networks. If the *power* infiltration is high, strong aspects of resource accumulation towards elite networks can be observed.

The findings allow us to draw inferences on the observed effects of resource distribution on the formation of agricultural *livelihood* strategies and *livelihood* outcomes, as outlined in our overarching research question. We find that the process of institutionalization itself—both through normative and intentional aspects of institutional purposes and power—influences possible livelihood outcomes by participating members.

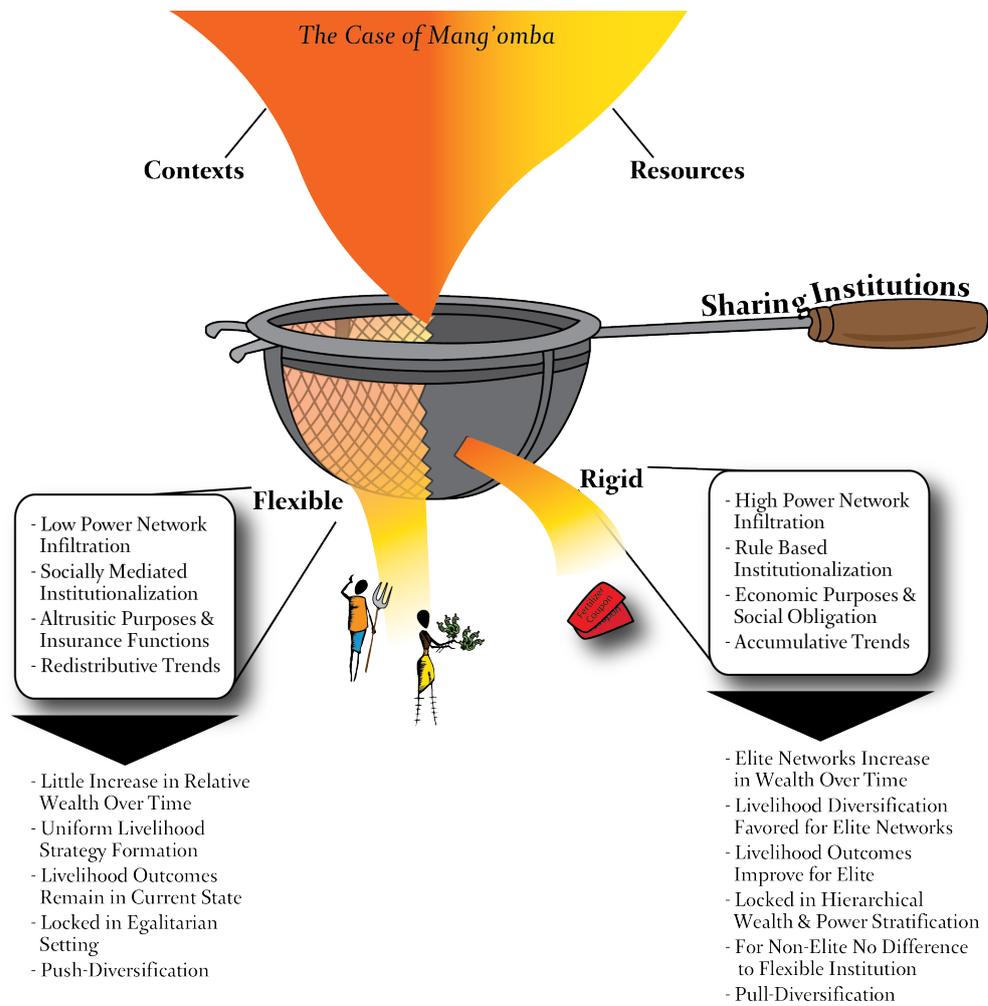


Figure 6: Summary of the findings. Authors' compilation.

Flexible sharing **manifestations** decrease the prospect of any **household** accumulating resources significantly above the networks' median. Observed sharing customs are based on need as well as difference in wealth. This can be called a survivalist strategy (Haggblade et al., 2007, p.254), designed to insure intra-network equality and shield members from distress situations or unexpected shocks. As long as the whole network does not increase/decrease its wealth at the same time, single **households** are unlikely to increase/decrease in wealth relative to the network or village.

For **households** engaged primarily in redistributive, survivalist sharing, resource access will not become a favorable factor to diversify **livelihood** strategies; **livelihood** outcomes likely remain in the current **protracted crisis** of high risk and little investment capacity. Where diversification is observed, it is mediated by the *push factors* described by Haggblade et al. (2007, p.43–44). Smallholder 1, a *below average* wealth ranking respondent, exemplifies this dynamic: 'I also collect and sell firewood or do ganyu, mostly during the lean season [in addition to farming] I do ganyu when my family is in need of food, to pay for a specific expense'. Here, we see that Smallholder.1 diversifies in times of need, to make ends meet; she is *pushed* into diversification. While redistributive sharing generally does not allow for productive diversification, it does lend itself effectively to an insurance policy, as networks mediate mutualistic exchanges in times of need.

Rigid sharing **manifestations**, on the other hand, allow for consistent resource accumulation within elite networks, not influencing the re-distributive trends within other networks but upholding the predominant **power/wealth** attribution. Favored elite groups, accumulating excess resources, are able to diversify their **livelihood** strategies through *pull factors* (Haggblade et al., 2007, p.43–44) by selling over-produce, opening secondary business or investing in animals with the result of increased income and lower risk. Smallholder.11, son-in-law to the chief and classified as *above average* wealth, describes his

livelihood activities as a farmer, maize trader and truck driver, clearly displaying a strong capacity for productive **livelihood** diversification. He talks of using wealth to leverage new opportunities, creating dynamic links with his agricultural practices. He states: 'Farming is more profitable than my other businesses [...]. When I was working as a truck driver, I saved enough money to purchase inputs for my fields.' Hatlebakk (2012) supports the link between asset possession and productive **livelihood** diversification through empirical evidence in a rural Malawian context.

Given that the rules of the sharing **manifestations** remain stable for several cycles, we can use models to anticipate long term effects on **livelihood** outcomes. We developed a simple rule-based computer model for that purpose, described in Annex.9–10, which will not be object of a detailed discussion as part of this research. However, it visualizes certain long term trends of stable sharing **manifestations** that we call *locking*: as long as the rules of the **institution** remain unchanged, each sharing **manifestation** proceeds to a stable equilibrium, restraining the **household** mobility between the relative **social** attributes of *wealthy*, *average* and *poor* within networks and within the whole village. This is corroborated by our empirical findings.

Redistributive **manifestations** end in a state where everyone is relatively not better or worse off than other sharing members. Elite based accumulative **manifestations** end in a firm stratification of the sharing network by relative wealth. This state is immune to simple interventions¹ and independent of starting conditions in terms of wealth, as both factors only bring temporary changes. Hence, long-time sharing members especially in large groups find themselves *locked* in a situation that pre-determines to a significant extent their resource access, binding their **livelihood** strategy to a repetitive standard and allowing little variation in **livelihood** outcomes over time. In accordance to the computer

1 For example, giving individuals extra resources in one cycle.

model, which is close to general Markov² models (CSCS, 2013), this trend can only be changed by changing the rules of the sharing institution itself.

In the case of rigid sharing in Mang'omba, *change* means to challenge the chief and her rules; to stand up to the center of village *power* in an environment that is marked by constant struggle for resources. In the case of flexible sharing, we revert to Di Falco and Bulte (2011), who found that a recent trend among higher earning Malawians includes quick capital investment into fixed *unsharable* assets like cars to retain their wealth. The coupon system introduced by Malawi's government is based on a targeting mechanism, meant to change the existing *rules of the game* by favoring groups with traditionally least *power*. All *manifestations* of sharing that we observed work effectively to nullify this arrangement, hinting towards the strength and longevity of *informal institutions* under crisis and traditional rule. The external inputs from the coupon subsidy program are, in effect, subsumed by Mang'omba's institutional processes, maintaining the village in its *locked* equilibrium.

We end the conclusion with our vision of a way forward: having discovered sharing to be highly influential in a *semi-urban* village in the Southern Shire Highlands, the next logical approach is to repeat the research in different areas of Malawi to see whether sharing is typically predominant in Malawi or if alternative *institutions* influence resource distribution in other locations. Subsequently, Africa-wide comparisons of villages in similar contexts are desirable. If influential sharing practices are wide-spread, we expect significant influences on food-security predictions and planning of development interventions. Vervisch, Vlassenroot, and Braeckman's (2013) findings in Burundi hint that this may yield rewarding insights. Finally, quantitative evaluations of the magnitude of impact of

² 'Any Markov process converges to a unique statistical equilibrium that does not depend on the initial state of the process or any one-time changes to the state during the history of the process' (CSCS, 2013, p.76).

sharing on development programs are needed to derive **normative** arguments. We hope that the resulting insights can be used in the formulation of accurate models to inform the design of development interventions combating resource scarcity and insecurity of African smallholder farmers, anticipating and planning appropriately by considering the influence of informal village **institutions**.

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Appendices



LUND UNIVERSITY

A

KEY-CONCEPTS

AGRICULTURAL INPUTS The term inputs refers to both physical agricultural products used to boost production (i.e. seeds, chemical fertilizer, manure) as well as intangible elements needed for production (i.e. labour). Inputs are used to 'manipulate the plant and crop in order to reach high productivity per hectare and per man hour' (Ittersum & Rabbinge, 1996, p. 197). In this sense, input can be characterized as external elements used to increase agricultural production.

HOUSEHOLD Drawing on Robertson's (1990) work, we conceive of the household as a primarily economic unit delimited by those people *eating from the same pot*. Though we acknowledge households are additionally multidimensional cultural elements of social structures, this study focuses on agricultural resource distribution; an economic dimension is therefore more applicable. We acknowledge that in an African context, households are often diverse and dynamic, and their structure can differ from the traditional nuclear model (Rabe, 2008). At the same time, our methodological approach emphasizes the recurrent husband/wife dynamic as heads of household, as '[c]onjugal relations are intimately entwined with economic reality' (Robertson, 1990, p.182).

INSTITUTIONAL ETHNOGRAPHY Institutional ethnography describes a specific field of application of ethnographic principles—the study of institutions. Ethnography is used in a variety of contexts, to the point that some argue that it is over-applied. Practically, it is the '[...] study of behaviour, beliefs and language [...]' (Creswell, 1998, p.68) or an '[...] actor oriented approach which attempts to convey reality from a subject's point of view[...]' (Scheyvens & Leslie, 2003, p.65). We relate institutional ethnography to May (2002) in that we are interested in networks formed through the everyday lives of people as institutions. We further emphasize a dialogue-based methodology to create data in reference to the process of interviewing.

INSTITUTIONS AND INSTITUTIONALIZATION We follow the definition of Ritzer (2005, p.2), who postulates that institutions are 'structures, schemas, rules, and routines

[...] established as authoritative guidelines for social behavior.' The process of 'establishment' is here called institutionalization and encompasses complex processes and mechanisms involving norms, social values, individual persons and the general environment which create, diffuse and change institutions. The complexity in these processes is explored by Mills et al. (2010): '[Modern institutional theorists] emphasize the influence of institutions as a network phenomenon' and 'institutional change is often the result of an exogenous and rare event'. We conceive of institutions as fundamental building blocks of social interactions, relying on the following principal elements outlined by Ritzer (2005, p.2):

(1) institutions are governance structures, embodying rules for social conduct, (2) groups and organizations conforming to these rules are accorded legitimacy, a condition contributing to their survival, (3) institutions are characterized by inertia, a tendency to resist change, and (4) history matters, in the sense that past institutional structures constrain and channel new arrangements.

We acknowledge that individuals rely on institutional settings to define themselves and their **power**-positions in a society, as much as they draw on their personal characteristics to define institutions: '[through institutions] actors interpret or apply meaning to their occupational roles, everyday routines and tasks, and the organization itself.' (Mills et al., 2010, p.6).

INFORMAL INSTITUTIONS While formal institutions denote legally enforced or officially described institutions, informal institutions lack a fixed definition and official recognition. Instead, they rely on 'trust, solidarity and social capital' (Jütting, 2007, p.11) as processes of institutionalization to give them uniformity and validity. We agree with Jütting (2007, p.13) that especially in a developmental context '[...] the social order is predominantly shaped by informal agreements that are not written on paper, but exist outside of formal laws and regulations.'

LIVELIHOODS In general, we define livelihoods in accordance with Chambers and Conway (1992, p.7). Livelihoods comprise of '[...] the capabilities, assets (stores, resources, claims and access) and activities required for a means of living.' Following Harcourt (2012, p.13), the concept of *livelihoods* in a development context was first used to contrast the emphasis on purely economic outcomes as the main development strategy, which was especially applied until the 1980s. The concept draws on Sen's

(1992) capability approach, which showed that purely income-based strategies do not adequately reflect deprivation in people's lives. Typically, the livelihoods concept, when applied in a development-strategy context, is closely tied to notions of capabilities, equity and social sustainability (Chambers & Conway, 1992).

NORMATIVITY AND RATIONAL CHOICE INSTITUTIONS We conceive of sharing as mediated by two strands of institutional theory: rational choice and normative theory (Ritzer, 2005). Rational choice theory maintains that institutions are mostly shaped by individual intention as it contributes to the institutionalization process; institutions are liable to purposeful functionality (in this study, we refer to this process as intention)—action and purpose are chosen freely. Normative theory contends that institutions are bound by underlying social norms and obligations that obscure a rational choice but are an expression of social life. We postulate that both aspects are present in a complex social institution, but expressed to different degrees depending on the manifestation and context of the institution.

POWER, POWER STRUCTURE AND POWER TO DECIDE Based on Calhoun (*op. cit.*, 2002), we define power as individual agency with the ability to coerce other people. Coercion can take many forms; we emphasize rule-making power as the most prominent for our research and name it the power to decide. Who commands power to decide, is able to enforce his will towards actions and rules upon others. This relates to the individual ability to decide about and influence norms and standard practices to steer events purposefully. Power structure as a social fabric is the web of power relations between individuals or groups which creates social difference. Power is not exerted alone but in relation to other people's power, deciding to agree, tolerate or endure. Power and power structures are necessarily in frequent exchange and interrelate.

PROTRACTED CRISIS A protracted crisis is defined in accordance with Flores et al. (2005, p.525) as a 'situation in which large sections of the population face acute threats to life and livelihoods over an extended period (years or even decades), with the state and other governance institutions failing to provide adequate levels of protection or support'. As such, this notion is closely connected to concepts of vulnerability, affecting the type and nature of support individuals seek within institutional frameworks as well as constraining access to agricultural resources. In Malawi, the protracted crisis situation is characterized by chronic food insecurity, most pronounced in the southern region due to the erratic weather patterns.

SEMI-URBANITY To usefully consider this concept, we firstly outline the usage of the spatial features *urban* and *rural* within this thesis (Tacoli, 2005). It is commonly assumed that it is possible, even if not uncontroversial, to delineate a physical distinction between areas called *urban* and *rural* on the basis of certain criteria, as urban and rural areas significantly differ in economic and demographic features¹ (Ögdül, 2010). There is a boundary of predominant land-use schemes between these areas, including land ownership and employment patterns². Lastly, the areas function mainly independently of each other. However, Tacoli (2005, p.3) and Ögdül (2010, p.1521) exemplify the difficulties to generalize patterns within these trends, as they vary widely in respect to nationality, relative wealth and size, and point to an increasing blur of once clear boundaries. Therefore, the criteria's specificities to discriminate *urban* and *rural* are highly case dependent. In this thesis, we describe as semi-urban areas that display rural characteristics but nevertheless have access to the urban market. Practically, this can mean: flows of material and goods, as well as, migration-flows and service exchange between areas that have been labeled *urban* and *rural* (Tacoli, 2005, p.4).

SHARING-INSTITUTION We define sharing semi-inductively as a voluntary exchange between parties without the characteristics of an economic transaction. We acknowledge that these criteria, delineating the boundary between sharing and transaction, are locally faceted and a balance between ours and village ideas. An example: two important criteria of sharing are time and intention, as giving money in direct exchange for labor was defined as *ganyu* (piecework), whereas supporting a family member with money and receiving labor on a different occasion, even if the provision of labor in exchange for money was implied but not openly requested, was denoted as sharing. In accordance with our findings, sharing is institutionalized through implicit rules and systems that are frequently repeated in different situations and informally enforced.

SHARING MANIFESTATIONS We use this expression to describe different forms in which we were able to recognize major aspects of the institution of sharing at the research site. As an informal institution, different aspects and realities of sharing are common and there is no archetype. This results in different manifestations that all display characteristics of sharing in different contexts, for example: sharing of items and sharing of labor.

1 For example, the population density is assumed to be significantly higher in urban than in rural areas.

2 For example, the predominant land use scheme presumably is agriculture in rural areas.

SHARING PURPOSES In addition to individual motivation, manifestations of sharing themselves promote or constrain actors' definition of their purpose in participating in an institution. Purposes therefore depend on both the individual and the institutional manifestation itself. These two motivational aspects can influence each other over time in coordination with other participants and other institutions. Aggregate individual motivations can affect institutional processes, as institutions can influence an individual over time to change individual motivation. As Mills et al. (2010) state: '[...] some behavior becomes so habituated or taken for granted that individual actors are unaware of their conformity to institutional pressures.'

SOCIAL In accordance to May (2002), the social is a central aspect of institutional ethnography, emphasizing the need to focus on interrelations between persons. She conceives of 'the social as actually happening among people who are situated in particular places at particular times and not as *meaning* or *norms*.' (May, 2002, p.4).

B

INTERVIEWEE TABLE

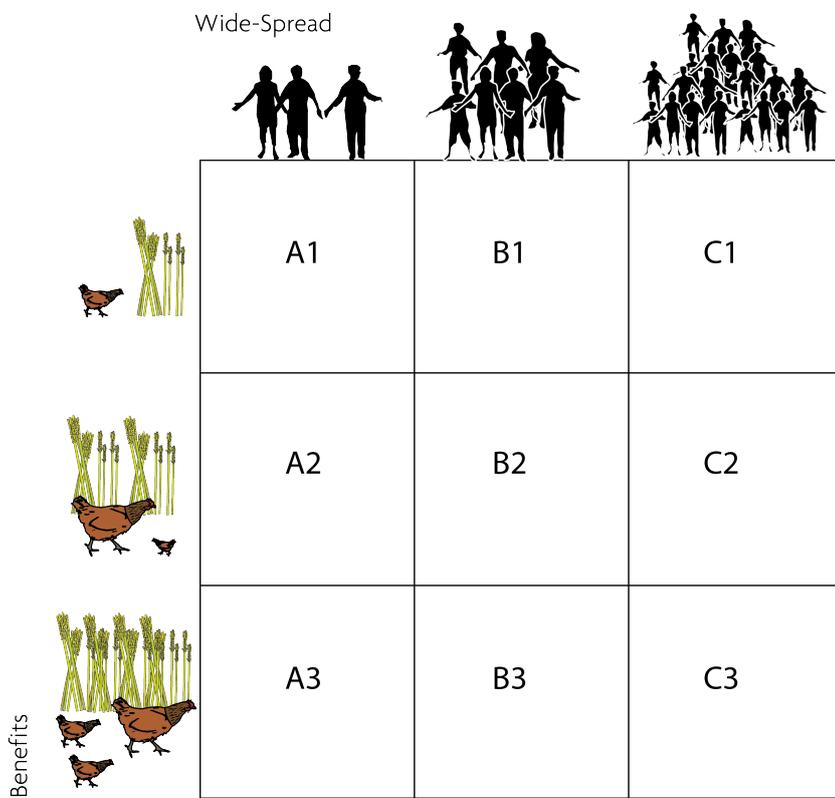
Characteristics of the interview participants.

Inter- viewee	Age	Approx. Landsize (acre)	Education	Family in Town	Gender	Number of Chil- dren	Number of People in Hh	Primary Occupation	Single Parent	Wealth Ranking	With Orphans
Smilh.1	"20-29"	Unassigned	"Std. 5-8"	Unassigned	"Female"	"3-4"	"3-5"	"Farmer"	"No"	"Below Average"	"No"
Smilh.2	"30-39"	"1.1-3"	"Form 2"	"Yes"	"Female"	"3-4"	"3-5"	"Farmer"	"No"	"Above Average"	Unassigned
Smilh.3	"50+"	"1.1-3"	"Form 2"	"Yes"	"Male"	"5+"	"2"	"Own business"	"No"	"Average"	"No"
Smilh.4	"20-29"	Unassigned	"Std. 1-5"	"No"	"Female"	"2"	"3-5"	"Other work not in town"	"Yes"	"Below Average"	"No"
Smilh.5	"30-39"	"1.1-3"	"Std. 1-5"	"Yes"	"Female"	"5+"	"3-5"	"Farmer"	"No"	"Below Average"	"No"
Smilh.6	"50+"	Unassigned	"Std. 1-5"	Unassigned	"Female"	"5+"	Unassigned	"Farmer"	Unassigned	"Below Average"	"Yes"
Smilh.7	"30-39"	"0.51-1"	"Form 1"	"Yes"	"Male"	"3-4"	"2"	"Other work in town"	"No"	"Above Average"	"No"
Smilh.8	"30-39"	Unassigned	"Std. 1-5"	"Yes"	"Male"	"3-4"	Unassigned	"Farmer"	"No"	"Below Average"	Unassigned
Smilh.9	"20-29"	"1.1-3"	"Form 4"	"No"	"Female"	"2"	"6+"	"Farmer"	"No"	"Average"	"No"
Smilh.10	"20-29"	"1.1-3"	"Form 2"	Unassigned	"Male"	"2"	"6+"	"Farmer"	"No"	"Average"	"No"
Smilh.11	"30-39"	"3+"	"Form 4"	"Yes"	"Male"	"3-4"	"6+"	"Other work in town"	"No"	"Above Average"	"Yes"
Smilh.12	"40-49"	"0.51-1"	"Std. 5-8"	Unassigned	"Male"	"3-4"	"6+"	"Other work in town"	"No"	"Average"	"No"
Smilh.13	"30-39"	"0.51-1"	"Std. 5-8"	Unassigned	"Female"	"3-4"	"6+"	"Farmer"	"No"	"Average"	"No"
Smilh.14	"50+"	"1.1-3"	"Std. 1-5"	"Yes"	"Female"	"5+"	"2"	"Farmer"	"No"	"Average"	"No"
Smilh.15	"30-39"	Unassigned	Not Applicable	"No"	"Female"	"5+"	"6+"	"Farmer"	"No"	"Average"	"No"
Smilh.16	"30-39"	"0.5"	"Std. 5-8"	Unassigned	"Female"	"5+"	"6+"	"Farmer"	"No"	"Above Average"	"No"
Smilh.17	"50+"	"1.1-3"	"Std. 1-5"	"No"	"Female"	"5+"	"3-5"	"Farmer"	"No"	"Average"	"Yes"
Smilh.18	"30-39"	Unassigned	"Std. 5-8"	"No"	"Male"	"5+"	"6+"	"Own business"	"No"	"Above Average"	"No"
Smilh.19	"30-39"	"0.51-1"	"Std. 1-5"	"Yes"	"Female"	"2"	"3-5"	"Farmer"	"Yes"	"Below Average"	"No"
Smilh.20	"50+"	Unassigned	"Std. 1-5"	"No"	"Female"	"5+"	"3-5"	"Farmer"	"No"	"Below Average"	"Yes"
Smilh.21	"40-49"	Unassigned	"Std. 5-8"	"Yes"	"Male"	"5+"	"6+"	"Other work not in town"	"No"	"Average"	"No"
Smilh.22	"30-39"	"1.1-3"	"Std. 5-8"	"Yes"	"Female"	"3-4"	"3-5"	"Farmer"	"No"	"Above Average"	"No"
Smilh.23	"50+"	"1.1-3"	"Std. 1-5"	"No"	"Male"	"5+"	"3-5"	"Other work in town"	"No"	"Average"	"Yes"
Smilh.24	"30-39"	"1.1-3"	"Std. 5-8"	"Yes"	"Male"	"3-4"	"3-5"	"Farmer"	"No"	"Above Average"	"No"
Smilh.25	"40-49"	"1.1-3"	"Std. 1-5"	"Yes"	"Female"	"3-4"	"3-5"	"Farmer"	"Yes"	"Average"	"No"
Smilh.26	"50+"	"1.1-3"	"Std. 5-8"	"No"	"Male"	"2"	"3-5"	"Farmer"	"No"	"Below Average"	"Yes"
Smilh.27	"50+"	Unassigned	"Std. 5-8"	"Yes"	"Female"	"5+"	"6+"	"Farmer"	"No"	"Above Average"	"No"
Smilh.28	"30-39"	"3+"	"Form 3"	"Yes"	"Male"	"5+"	"6+"	"Other work in town"	"No"	"Above Average"	"Yes"
Smilh.29	"40-49"	Unassigned	"Std. 1-5"	"No"	"Female"	"5+"	"6+"	"Farmer"	"No"	"Average"	"No"
Smilh.30	"50+"	Unassigned	"Std. 1-5"	"No"	"Male"	"5+"	"3-5"	"Farmer"	"Yes"	"Below Average"	"No"
Smilh.31	"50+"	Unassigned	"Std. 1-5"	Unassigned	"Female"	"5+"	"6+"	"Farmer"	"No"	"Average"	"Yes"
Smilh.32	"40-49"	Unassigned	"Std. 1-5"	"No"	"Male"	"5+"	"6+"	"Other work in town"	"No"	"Above Average"	"No"

C

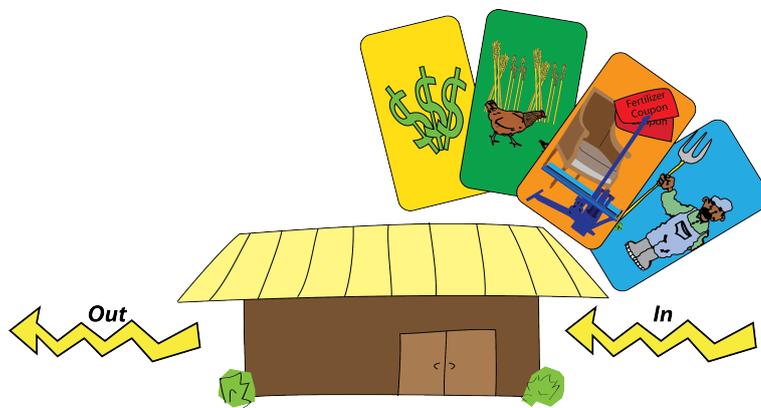
AGRICULTURAL INPUT MATRIX

The interviewees were asked to identify their three most important inputs for farming and rate those on a 3 * 3 matrix against effectiveness and overall usage within the village.



D | HOUSEHOLD INPUT AND OUTPUT GAME

The interviewees were asked to consider the different types of goods (including money, labor, farm products and household items/tools) shown on the cards and consider how these goods normally enter and leave the household.





INTERVIEW GUIDE 1

The first interview guide was used during the exploratory stage focusing on the everyday routine.

Generalities before interview

- Introduce to persons and our study objective (finding out about arrangements in farming for Swedish university to understand the life of Malawian farmers “how it really looks like”)
- Make clear that we brought snacks/drinks for free use and have a small gift for after the interview

Part 1 Formalities

- Length of stay in this village:
- Household composition:
- Age:
- Occupation:
- Education of respondents:
- Education of children:
- If not in school, why not (leads to topic)

Part 2 Aims of Inst. Ethnography Approach to steer Interview

Information about institutions (informal) governing decision making for investments in farming

- Everyday/ Everynight work (city work, farm work, household work, marketing, decision making for next season, money accounting etc)
- Special events (trainings, loans, buying seeds/fertilizer)
- Future development (places/traders/networks to invest in farming technology, network of people having a say in farm development)
- Should cover especially farm- and non-farm bounds (money from non-farm jobs, city services used)
- Consider four time-periods (in the end tell a story about a whole year of farm activity):
 - o Preparation of land
 - o Growing season
 - o Harvesting
 - o Lean season
- Are the village network arrangements habitual (followed w/o explicitly considering benefits or effects) or functional (followed because certain rewards are anticipated)
- How important are the networks compared to each other (broadest social network, effectiveness & efficiency, alternatives)
- Who has access to networks
- What characteristics of beneficiary determine success within network institution/ how would a better network look like for this interviewee
- Spatial bounds of arrangements (only through city, only this village)

Part 3 Direct Questions at end of open interview

“when considering all the events and arrangements we talked about”:

- Do you have money left to invest after a season, how much?
- What would you like to buy most for the household (/for farming)?
- What are you growing this season and next season?
- Which farming techniques do you know (crop rotation, intercropping, nitrogen fixation, fallowing, animal manure, zero tillage, breaking the hard pan, green manure, soil and water conservation, improved planting practice, integrated soil nutrient management, integrated pest management, agroforestry, pesticides)?

The second part of the first interview guide.

- How much of your income is generated outside farming (less than quarter/more than quarter/about half/more than half/more than three quarter)?
 - How much of your farm produce can you sell at the market (less than quarter/more than quarter/about half/more than half/more than three quarter)?
- Part 4 Activity**
- What do you consider the 3 most influential arrangements towards your farming activity?
 - Please, order your 3 most important institutions (networks, arrangements) for farming in this matrix (view: Inst Matrix)?

F

INTERVIEW GUIDE 2

The second interview guide was used during the exploratory stage focusing on the every-day routine and farming inputs.

Generalities before interview

Introduce to persons and our study objective (finding out about arrangements in farming for Swedish university to understand the life of Malawian farmers--"how it really looks like")

Make clear that we brought snacks/drinks for free use and have a small gift for after the interview

Part 1 Formalities

- Length of stay in this village
- Household composition
- Age
- Occupation
- Education of respondents
- Education of children
- Family members in town

Part 2 Aims of Inst. Ethnography Approach to steer Interview

1st: Institutions governing smallholder farmer life

2nd: Information about "sharing" culture and difference in perception of property

- Should cover especially farm and non-farm bounds (sharing arrangements that connect farm issues with non-farm arrangements)

1st: -Consider three time-periods and tell story about daily life/work ("Doing what, when, where, with whom, why"):

- o Preparation of land/ Growing season ("Dzinja")
- o Harvesting ("Pfuko")
- o Lean season ("Mwamvu"/ "Chirimwe")
- o which social arrangements are involved in:

-Everyday/ Everynight work (city work, farm work, household work, marketing, decision making for next season, money accounting etc.....)

-Special events (trainings, loans, buying seeds/fertilizer)

-Future development (places/traders/networks to invest in farming technology, network of people having a say in farm development)

- o Do people things the way they do for a certain benefit or because it is a habit/inherited/custom
- o Special importance of closeness to town (non-farm work for money, markets, transport...)

2nd Activity: -Use card board game to determine what comes in/ goes out of household, determine where "sharing" is important in the way how goods enter/ leave household

- o In relation to village (coupons, technology, resources)
- o In relation to family (remittances, labour)
- o In relation with friends or foreigners (giving gifts, donations)
- o What kind of things are shared and what not
- o What is considered private property, public property and in-between
- o Reasons for sharing
- o Feelings towards sharing

Part 3 Direct Questions at end of open interview

- Do you have money left to invest after a season, how much?
- What would you like to buy most for the household (/ for farming)?

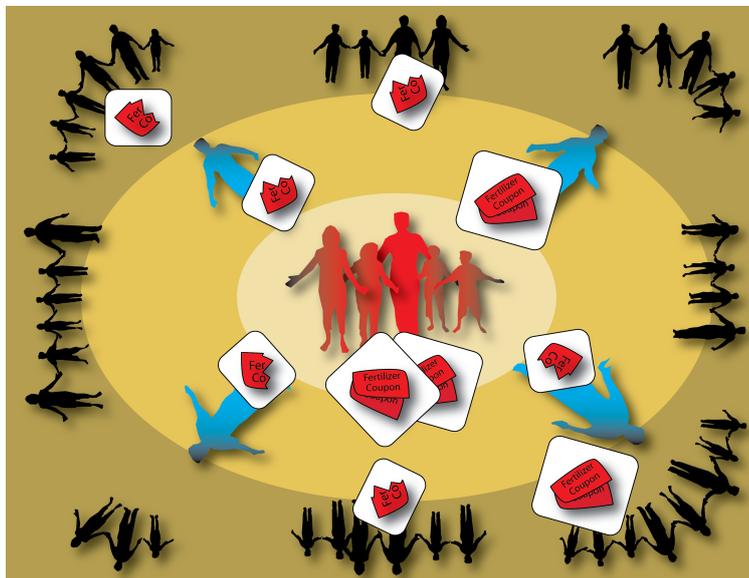
The second part of the second interview guide.

- What are you growing this season and next season?
- Which farming techniques do you know (crop rotation, intercropping, fallowing, animal manure, zero tillage, green manure, soil and water conservation, improved planting practice, agroforestry, pesticides)?
- How much of your income is generated outside farming (less than quarter/more than quarter/about half/more than half/more than three quarter)?
- How much of your farm produce can you sell at the market (less than quarter/more than quarter/about half/more than half/more than three quarter)?

G

COUPON GAME

The interviewees were asked to distribute the shared and unshared coupon-cards between the different village fractions displayed on the board, in a manner representing a typical distribution. The red center family represents the chief-family. The blue figures are the VDC members and all other families represent the *ordinary* people of Mang'omba.





INTERVIEW GUIDE 3

The third interview guide was used during the focused research phase and concentrated on sharing institutions.

<p>Generalities before interview Introduce to persons and our study objective (finding out about arrangements in farming for Swedish university to understand the life of Malawian farmers---"how it really looks like") Make clear that we brought snacks/drinks for free use and have a small gift for after the interview</p> <p>Part 1 Formalities</p> <ul style="list-style-type: none">• Length of stay in this village• Household composition• Age• Occupation• Education of respondents• Education of children• Family members in town <p>Part 2 Aims of Inst. Ethnography Approach to steer Interview</p> <p style="text-align: center;">1st: Loosen the participant up and make him/her comfortable talking</p> <p style="text-align: center;">2nd: Institutions governing smallholder farmer life</p> <p style="text-align: center;">3rd: Chieftain and Village Groups</p> <ul style="list-style-type: none">• Should cover especially farm and non-farm bounds (sharing arrangements that connect farm issues with non-farm arrangements) <p>1st: -The interviewee should be encouraged to freely talk about his/her life history ("Starting with childhood until today", "Where born, parents etc.")</p> <p>2nd: -Consider three time-periods and tell story about daily life/work ("Doing what, when, where, with whom, why"):</p> <ul style="list-style-type: none">o Preparation of land/ Growing season ("Dzinja")o Harvesting ("Pfuco")o Lean season ("Mwamvu"/ "Chirimwe")o which social arrangements are involved in: <ul style="list-style-type: none">-Everyday/ Everynight work (city work, farm work, household work, marketing, decision making for next season, money accounting etc.....)-Special events (trainings, loans, buying seeds/fertilizer)-Future development (places/traders/networks to invest in farming technology, network of people having a say in farm development)o Do the interviewees change their farming technique from time to time, or prefer to stay with one approach always? Why?o Interviewees' feelings about living close to town (good and bad things!) <p>3rd: -Aim is to find out about the role, responsibilities and rights of a chief and about the relation between and the purpose of the different village groups</p> <ul style="list-style-type: none">o What does the interviewee think it is that makes a chiefo What does the interviewee think does a successful chief needo What were the last interactions between the chief and the intervieweeo In what village group does the interviewee live and how many are thereo What does the interviewee think about the village groups <p>3rd Activity: -Use the coupon/ group village game</p> <ul style="list-style-type: none">o Chief and family in the middle, coupon committee around, families furthest away
--

The second part of the third interview guide.

- o Start asking who of these groups make decisions about the coupons
- o Instructions: distribute the coupons (unshared coupons and shared ones) among the members of your village group the way that you think it is done in reality

Part 3 Direct Questions at end of open interview

- Do you have money left to invest after a season, how much
- What would you like to buy most for the household (/for farming)
- What are you growing this season and next season
- Which farming techniques do you know (crop rotation, intercropping, fallowing, animal manure, zero tillage, green manure, soil and water conservation, improved planting practice, agroforestry, pesticides)
- How much of your income is generated outside farming (less than quarter/more than quarter/about half/more than half/more than three quarter)

I

INTERVIEW GUIDE 4

The fourth interview guide was used during the focused research phase and concentrated on future development scenarios of Mang'omba.

Generalities before interview

Introduce to persons and our study objective (finding out about arrangements in farming for Swedish university to understand the life of Malawian farmers---"how it really looks like")

Make clear that we brought snacks/drinks for free use and have a small gift for after the interview

Part 1 Formalities

- Length of stay in this village
- Household composition
- Age
- Occupation
- Education of respondents
- Education of children
- Family members in town

Part 2 Aims of Inst. Ethnography Approach to steer Interview

1st: Loosen the participant up and make him/her comfortable talking

2nd: Institutions governing smallholder farmer life

3rd: Mangomba's Future

- Should cover especially farm and non-farm bounds (sharing arrangements that connect farm issues with non-farm arrangements)

1st: -The interviewee should be encouraged to freely talk about his/her life history ("Starting with childhood until today", "Where born, parents etc.")

2nd: -Consider three time-periods and tell story about daily life/work ("Doing what, when, where, with whom, why"):

- o Preparation of land/ Growing season ("Dzinja")
- o Harvesting ("Pfuco")
- o Lean season ("Mwamvu"/ "Chirimwe")
- o Follow up which social arrangements (institutions) are involved in:

-Everyday/ Everynight work (city work, farm work, household work, marketing, decision making for next season, money accounting etc.....)

-Special events (trainings, loans, buying seeds/fertilizer)

-Future development (places/traders/networks to invest in farming technology, network of people having a say in farm development)

- o Do the interviewees change their farming technique from time to time, or prefer to stay with one approach always? Why?
- o Interviewees' feelings about living close to town (good and bad things!)

3rd: -Aim is to find out about the perception of Mangombas future and satisfaction with development.

- o What does the interviewee think is Mangomba's best asset for a successful development
- o What does the interviewee think is Mangomba missing or not working that can prevent a successful development?
- o Does the interviewee think Mangomba will change a lot in the next 5 years

Part 3 Direct Questions at end of open interview

- Do you have money left to invest after a season, how much
- What would you like to buy most for the household (/for farming)
- What are you growing this season and next season

The second part of the fourth interview guide.

- Which farming techniques do you know (crop rotation, intercropping, fallowing, animal manure, zero tillage, green manure, soil and water conservation, improved planting practice, agroforestry, pesticides)
- How much of your income is generated outside farming (less than quarter/more than quarter/about half/more than half/more than three quarter)
- How much of your farm produce can you sell at the market (less than quarter/more than quarter/about half/more than half/more than three quarter)



INTERVIEW GUIDE 5

The fifth interview guide was only used during one field day due to a security incident and focused on family and kinship networks.

Generalities before interview

Introduce to persons and our study objective (finding out about arrangements in farming for Swedish university to understand the life of Malawian farmers---"how it really looks like")

Make clear that we brought snacks/drinks for free use and have a small gift for after the interview

Part 1 Formalities

- Length of stay in this village
- Household composition
- Age
- Occupation
- Education of respondents
- Education of children
- Family members in town

Part 2 Aims of Inst. Ethnography Approach to steer Interview

1st: Loosen the participant up and make him/her comfortable talking

2nd: Institutions governing smallholder farmer life

3rd: Significance of family and kin

4th: Perceptions of poverty

- Should cover especially farm and non-farm bounds (sharing arrangements that connect farm issues with non-farm arrangements)

1st: -The interviewee should be encouraged to freely talk about his/her life history ("Starting with childhood until today", "Where born, parents etc.")

2nd: -Consider three time-periods and tell story about daily life/work ("Doing what, when, where, with whom, why"):

- o Preparation of land/ Growing season ("Dzinja")
- o Harvesting ("Pfuko")
- o Lean season ("Mwamvu"/ "Chirimwe")
- o Follow up which social arrangements (institutions) are involved in:

-Everyday/ Everynight work (city work, farm work, household work, marketing, decision making for next season, money accounting etc.....)

-Special events (trainings, loans, buying seeds/fertilizer)

-Future development (places/traders/networks to invest in farming technology, network of people having a say in farm development)

- o Do the interviewees change their farming technique from time to time, or prefer to stay with one approach always? Why?
- o Interviewees' feelings about living close to town (good and bad things!)

3rd: -Aim is to find out about the perception of family, family arrangement and the significance of kinship ties

- o Ask the interviewee to describe those family members with whom they interact regularly, and follow up on the nature of the interactions (visits, sending gifts, etc.)
- o The interviewee is now moving to a village in Zambia, where (s)he has no family. What would (s)he miss most about living near family members, what would be most difficult?
- o Ask the interviewee what a "family" and "household" means is for him/her? (who belongs to it, differences, similarities)

4th: Aim is to find out about the perception poverty

The second part of the fifth interview guide.

- o Ask the interviewee to think about his/her personal picture of poverty. What does it mean to be poor?
- o When would the interviewee call someone to be poor or not?

Part 3 Direct Questions at end of open interview

- Do you have money left to invest after a season, how much
- What would you like to buy most for the household (/for farming)
- What are you growing this season and next season
- What is the farm size of the interviewee
- Which farming techniques do you know (crop rotation, intercropping, fallowing, animal manure, zero tillage, green manure, soil and water conservation, improved planting practice, agroforestry, pesticides)
- How much of your income is generated outside farming (less than quarter/more than quarter/about



FOCUS GROUP INTERVIEW GUIDE

The focus group interview guide was used during a meeting with four VDC members with four villagers of *below average* wealth.

General Guidelines

- Aims: Part II and III seek to uncover power dynamics and resource distribution within the group. We not only want to see what is said, but also who says it and how- processes are as important as content. Part IV asks scenario questions to discover group perspectives
- In Part II and III, we don't want to influence group dynamics too much- the moderator should steer the discussion and make sure that it is ongoing, but should stay in the background. Ask questions like 'how' and 'why' to deepen topics, without influencing the outcome
- In Part IV, we want to hear all different perspectives, so the moderator should make sure everyone is talking (maybe not at every single question though, we want to keep the conversation flowing- the less we say, the better)
- Digressions are ok! Let the conversation go even if it is not on topic

Part I: Introduction (30 min)

- Opening prayer
- Introduce ourselves and the research: we want to know how a typical Malawian village works and how decisions are made at the village level, specifically those that are important for agriculture
- Ask everyone to introduce themselves (name, occupation, length of stay in village)
- Icebreaker activity (goal: to get everyone talking and relaxed)

Part II: Setting the hypothetical scene (30 min)

- Introduce the concept: We are in a new village called Munda, and it is a brand new village where you are the first residents. Munda does not need to be like Mang'omba, the participants can decide on how it should be run.
- Allocate roles: Lay out picture vignettes, and ask participants to choose a role within the village- try to not encourage any particular method of selection, letting them choose how to allocate the roles. If needed, prompt with questions on decision-making process first (ex: 'How do you think we should decide this?') If no-one responds, try picking one card at a time and asking who should take that role)
- Everyone gets a role card
- ROLES: 1 chief, 2 Village Development Committee members, 1 businessman selling produce, 2 farmers cultivating only maize, 2 farmers with cows and maize (also specify: everyone has land to grow crops)

Part III: Allocating resources (1 hour)

- Introduce the game: in this village, an NGO has seen a need for agricultural improvement, and wants to donate 3 treadle pumps with an engine. Within your village group (i.e. those present during the focus group), who should receive them? How do you decide this? How should the treadle pumps then be used?
- Give treadle pump cards to the people who receive
- AFTER THE DISTRIBUTION IS FINISHED:
- One of the engine pump owners is refusing to share it with a vegetable farmer in the village. The owner says that overusing the pump could make it break down and then no one could use it anymore, but the vegetable farmer says that without the pump, his vegetables won't grow and his family will suffer for sure. The village groups has to decide what needs to be done!
- Now, this NGO has decided to offer a training on a new type of cultivation method that will increase yields. The NGO has invited 5 people to attend. Who should go? How do you decide?
- BREAK WITH DRINKS AND SNACKS, ASK THE PARTICIPANTS TO STAY, NOT GO HOME (ca. 15 min)

Part IV: Future Scenarios (1 hour)

- We leave Munda and are back in Mang'omba again. Imagine that just after Christmas, the village chief gives out an important message: "Because of the rising fertilizer prices, the government of Malawi had to decide to stop all ferti-

The second part of the focus group interview guide.

lizer subsidies and coupons from 2013 on, probably forever. Fertilizer costs are now 25000 Kwacha per bag.”

- Life has to go on and now the village has to find ways to organize with less or even without fertilizer.
- Put the first Theme-Card in the middle of the group (farmers & livestock)
- Ask the participants to discuss what the news mean for farmers in Mangomba, and to find ways to deal with this situation. What would they do? Can they find a way in working together to go through this situation? (about 20 min)
- Put the 2nd Theme-Card (chief & committee): What is the duty of the chief in this situation? Do the wealthy people in the village have a responsibility to help the others? (about 20 min)
- Put the 3rd Theme-Card (village & economy): What will happen to Mangomba in the coming years, how would it change through that? Will the people abandon farming when the subsidies don't come back in 5 years? (about 20 min)

L | SHARING NETLOGO MODEL

The model is included on the Thesis-Data CD and can be accessed at https://www.dropbox.com/sh/38ohlj4vsr9z36n/1FT6cp6F_H. To start the model, double-click the *.html file and allow your browser to play it. About the model:

WHAT IS IT? The model shows how a simple rule based sharing institution distributes resources over time depending on equality criteria between networks (in this case, networks are denoted poor, normal and rich).

HOW IT WORKS Each cycle, the community receives resources contingent on the number of poor and normal villagers. The community shares and distributes these resources according to specified criteria: the rich have a certain probability of obtaining a resource unit, while the poor's people allocation is described as an equality constant to the rich probability. If the equality is 100%, rich and poor have the same chance of obtaining a resource unit. Normal people have a chance equal to the average between poor and rich.

HOW TO USE IT The total number of the village population and the percentage of normal villagers can be set. The remaining population figure will be equally distributed between poor and rich. The chance of rich people obtaining a resource unit and the equality aspect can also be set. An unequal start-account and the strength of the inequality can also be specified. It is also possible to switch on and off a function that automatically rescues poor villagers from becoming super-poor by granting them a resource unit, to toggle a preference mechanism granting 20% of rich and then poor villagers the first option on a resource, or to fix the amount of resources received each cycle to the start value.

THINGS TO NOTE Poverty and richness are defined as relative attributes. Poverty is defined as an account of resource units below 60% of the median village account and

richness as an account above 140% of the median. All in-between cases are the normal villagers. Super-poor are villagers with a resource account of below 30% of the village median.

The model shows how differing rules between networks influence a probability based sharing institution over time. On the one hand, it can have a stabilizing effect on existing group structures through resource accumulation in an elite network (with high inequality between networks); on the other hand, it can have an equalizing effect by reducing differences between networks in terms of resource access (highly equal rules).

In the first case, equilibrium will be achieved relatively quickly, depending on village size and whether the initial condition is marked by already existing unequal resource accounts. In the second case, the relative difference between poor and rich will decline over time and everyone becomes equal, owning the same amount of resources.

THINGS TO TRY The decisive factor is the level of equality between rich and poor in obtaining a resource unit. Interventions, start accounts and other options mostly influence the time until equilibrium is achieved. Intervention rarely affects the equilibrium itself until the rules of the institution are changed.

CREDITS The model has been developed as part of the *Lund University Master Thesis in International Development and Management* by Elizabeth Wallace and Manuel Kiewisch.

The computer model shows after 85 sharing cycles the re-distributive effect of equal sharing rules. Most actors command the same amount of resources.

