

Focal community profiles for Barotse Hub, Zambia



FOCAL COMMUNITY PROFILES FOR BAROTSE HUB, ZAMBIA

Authors

Benjamin Dierksmeier, Steven M. Cole and Teoh Shwu Jiau

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ACRONYMS

AAS	CGIAR Research Program on Aquatic Agricultural Systems
ADRA	Adventist Development and Relief Agency
AFA	Action for Africa
AIDS	acquired immune deficiency syndrome
BRE	Barotse Royal Establishment
GPS	global positioning system
HIV	human immunodeficiency virus
km	kilometer(s)
MTN	Mobile Telephone Networks, Zambia
NGO	nongovernmental organization
PaVIDia	Participatory Village Development in Isolated Areas (a seed and fertilizer distribution program)
PPS	Peoples' Participation Service
ZMW	Zambian kwacha (currency)

DEFINITIONS

Participants in focus group discussions provided the following definitions of terms:

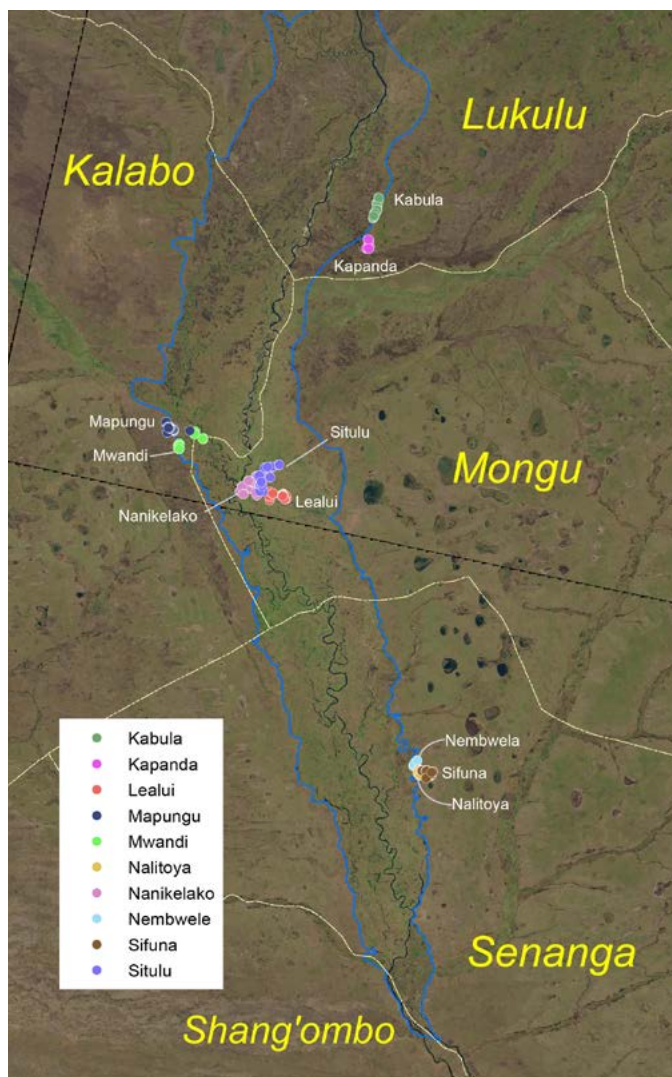
Community	Place where people live or stay through the construction of homes and businesses. Clinics, schools, animals and farming plots are all found within a community.
Family	Nuclear and extended; women focus group participants expanded the term slightly to include all those staying within a household. A family was said to require a head who takes care of her or his other family members.
Households	Places in which a husband and wife live with their children and extended family members. Households serve as places in which visitors can be received and families can store items.
<i>Induna</i>	Village head elected upon the resignation or death of previous village leader. The <i>indunas</i> are typically responsible for leadership of dispute resolution, farmland assignation, community organization and in some cases resource allocation.
<i>Silalo Induna</i>	Equivalent to a sub-chief.
<i>Sefa-sefa</i>	A form of fishing incorporating the use of monofilament nets. The small mesh size of these nets extracts fish, fish fry and eggs.
Village	A place where people live in homes and practice agriculture or livestock rearing. A village must have a leader.

INTRODUCTION

The purpose of the CGIAR Research Program on Aquatic Agricultural Systems (AAS) focal community profiles is to provide basic descriptions of initial conditions in each community where AAS works in the Barotse Floodplain (the Barotse Hub) in Zambia's Western Province.^{1,2} This information will contribute to, among other things, (i) evaluating change through future benchmarking activities; (ii) developing hub-specific panel research designs to answer program and initiative research questions; and (iii) strengthening current community engagement processes by providing a better understanding of the following: social groups and the gender relations, norms and practices that create social and gender inequalities; community characteristics and household structures; patterns of access to natural, material and social resources; community leadership; livelihood opportunities; differences in well-being status; and issues of importance not yet brought into the "AAS process." Data and analysis provided in this report are primarily intended to inform AAS stakeholders and other researchers working in the area.

Communities living in or along the Barotse Floodplain are not only resource-poor but also vulnerable to multiple drivers of change, most notably demographic, socioeconomic and climatic changes. Despite the livelihood challenges associated with these changes, the Lozi-speaking people of the Barotse Floodplain are able to pursue a variety of opportunities to grow or harvest food and generate income within a highly productive aquatic agricultural system. The farmers, fishers and herders who depend upon the Barotse Floodplain pursue complex livelihood strategies. They cultivate crops (e.g. rice, cassava and sweet potato), rear livestock, catch (or farm) fish, utilize aquatic plants (e.g. reeds), and engage in a number of economic activities to overcome the constraints they face and reduce vulnerability to external shocks (AAS 2013b).

AAS is primarily focused on enhancing the equity of the social, economic and political structures that influence the livelihoods of resource-poor women and men dependent on the floodplain. The program applies a gender-transformative approach to research in development, which prioritizes an understanding of complex and contextually specific social relations. In this way, the program supports women and men to identify locally salient pathways of change. To realize this goal and help achieve impact at a larger scale, AAS partners with diverse organizations in Zambia that are working in the Barotse Floodplain.³



Map 1. AAS Zambia Barotse Hub.

Methodology

In 2012, the AAS design and diagnosis team, in consultation with stakeholders and key informants, selected 10 pilot focal communities in the Barotse Hub to participate in AAS.⁴ Annex 1 provides a list of the villages that comprise the AAS communities in the Barotse Hub. From late September to early November 2013, researchers conducted a social and gender analysis in all focal communities. The social and gender analysis research team conducted a total of 10 focus group discussions in each community. Separate discussions were held with women and men in an effort to better explore gender differences in perceptions, concerns, beliefs and attitudes. To the greatest extent possible, the composition of the focus groups reflected the range of educational and livelihood experiences common among adults (roughly 20–60 years of age) in each community.

The research covered five thematic areas, including (i) social and gender norms and trends; (ii) seasonal livelihood activities; (iii) social resources and mobility; (iv) village history; and (v) well-being. The social and gender analysis team used diverse tools, including seasonal calendars, village mapping, well-being ladders and community visioning to facilitate the discussions and generate findings.

The well-being ladders illustrate differences in livelihood status and mobility between men and women across different socioeconomic groups, as defined and categorized by community members themselves. The ladders highlight the characteristics of women and men who occupy different positions, or rungs, on the well-being ladder (shown in blue boxes) and the many factors that help or hinder movement between the categories of well-being, depicted graphically in green and brown boxes, respectively. The research team developed the well-being ladders using sex-disaggregated data collected from focus groups in each of the 10 focal communities.⁵

The community vision exercise engaged women and men in reflecting on future aspirations (i.e. 5 years ahead). It is a critical tool used to highlight opportunities for research-in-development initiatives. The vision identifies a “dream statement” together with strategic areas (both general and specific) and proposed actions to overcome current constraints to realizing the community vision. For each community, an aggregated community vision was constructed, drawing from visioning exercises conducted with separate groups of women and men.

The qualitative data software package NVivo was used to develop a coding structure for analysis of qualitative data collected during the social and gender analysis. In addition, the program carried out a complementary population census in each community. The census collected basic demographic data for each household, linked to global positioning system (GPS) coordinates. Researchers used Stata software to analyze the census data and generate descriptive quantitative statistics for each village.⁶

Content and structure of the document

Drawing on the findings from the research, the social and gender analysis team developed a series of 10 community profiles—one for each of the focal communities in the Barotse Hub, highlighting the social and gender issues that emerged during the focus group discussions. Each profile begins with a brief overview of the community, focusing on access to basic infrastructure and services. The next section presents basic demographic data from the population census and qualitative findings on household characteristics and structure, including household size and sex and marital status of the household head. Each profile then provides a brief description of community leadership, the activities of nongovernmental organizations (NGOs), ecosystem services in the area and the predominant livelihood activities. Next, the profiles present a summary of household and community decision-making, trends in marriage practices, and education. Each profile contains a graphic illustration of the community well-being ladder and the community vision.

Kabula profile

Overview of community infrastructure and services

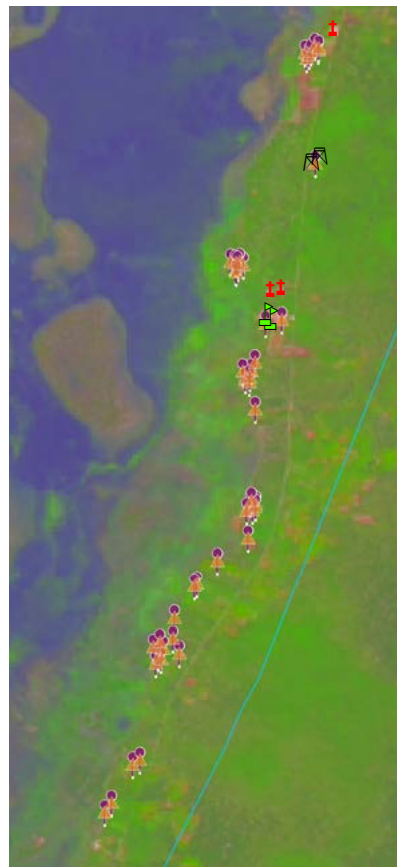
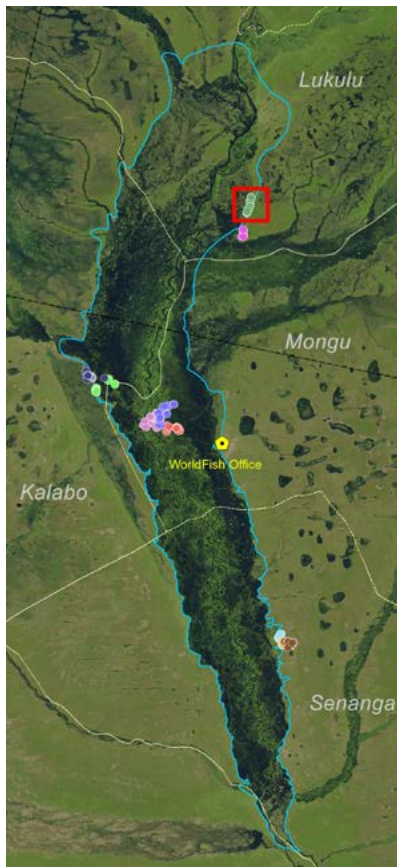
The community of Kabula is accessible by vehicle throughout the year. From Mongu, the trip by vehicle takes 8 to 9 hours on paved and dirt roads. The Kabula-Lukulu road is a 15-kilometer (km) trip over a dirt road, taking 20 to 30 minutes. The community of Kapanda (another AAS focal community) is located 15 km to the south and is accessible via a sand road.

Kapungu Basic School is the only school located in the immediate area and provides students with the opportunity to attend Grades 1–9. Further education options for secondary school are available in Lukulu.

A primary healthcare center⁷ operates in Kabula. Focus groups felt that health services had improved since the construction of new facilities, attributed to increased access to basic medicines and the distribution of mosquito

nets. However, participants expressed concern that the facility is maintained and staffed by untrained community health workers, resulting in potentially inadequate services. Consequently, community members seek specialized medical care at Kapanda Rural Health Center or Lukulu Hospital.

Safe drinking water is available from a borehole at the Kapungu Basic School at a cost of ZMW 3.50 per month. Members of a women’s focus group expressed difficulty in paying the fee consistently. It was said, “Only the pupils and teachers benefit from the borehole.” People (most often women and girls) living away from the school or who are unable to afford the borehole fee retrieve water from unprotected ground wells of varying quality. Wells are generally within 20 minutes’ walking distance from households and are shared with livestock, dogs and wild animals. Focus group participants indicated that most households have a pit latrine.



- ▲ Woman-headed households
- Man-headed households
- 🏫 School
- ✝ Church
- 📶 Airtel/MTN provider tower

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 2. Map of Kabula, Lukulu District.

An agricultural camp extension officer located in Kapanda provides Kabula residents with information related to improved agricultural practices and crop diversification.

Cell phone coverage is considered fair, depending on the distance to provider towers. Airtel and Mobile Telephone Networks (MTN) provide the best-quality service in the area. Privately owned shops are found in the area, which sell common household items such as soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

In the past, households in Kabula consisted of a married woman and man living together with their children and at times extended family members. While this arrangement continues to be prevalent, the number of woman-headed households and single men households was said to have increased over time. While not confirmed, this appears to be supported by the census data, which shows that 46% of Kabula households were woman-headed households (Table 1). Of these households, widows headed 27% of households, with another 54% headed by divorcees (Figure 1). Focus group members attributed the increase of woman-headed households to the death of husbands, increasing rates of divorce and an inability of men to pay dowries. There are no reported child-headed households. The absence of child-headed households was associated with traditional practices in which children reside with relatives upon the death of their parents. This has resulted in an increase in the prevalence of extended family households.

Kabula is the only AAS focal community in which rates of polygamous marriage are reportedly increasing. The census exercise recorded five

polygamous households, representing 5.6% of the population (Figure 1). Reasons given for the increase relate to the disproportionate number of single women residing in the community. Women focus group members indicated that a rising number of women are entering polygamous marriages due to poverty and a limited number of single men. Perceptions of women and men within these relationships appear to be very different. For example, women focus group members believed that women who enter these relationships are “looking for trouble,” are sufferers or are “finding life difficult.” However, focus groups described men in such relationships as “real men” with the means to support two wives and a large family. Women stated that young men or women do not enter into polygamous marriages but that this practice is for elderly individuals. While Kabula does not represent the highest levels of polygamy in AAS focal communities, the perception of rising rates of polygamy could warrant further investigation.

Community leadership

Leadership structures emulate the traditional practices of Barotseland. Kabula is under the authority of the *Silalo Induna* Muleta, whose palace is located in Kapanda. In terms of women leaders, *Mukwae Ilukui* is Kabula’s only woman *induna*. Another recognized woman leader is Judge Ma Njekwa of the Mwandu Local Court, described as a famous and influential woman in a position of authority.

NGO activities

Focus groups indicated one savings and internal lending community group operating in the area but were unable to identify any other active groups. No other NGO programs appear to be present within Kabula. A parent-teacher association is active at Kapungu Basic School.

	n (=90)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	41	3.71	1.66	1	8
Man-headed households	49	4.96	2.44	1	11
Age of household head (years)					
Woman-headed households*	40	48.08	16.72	21	77
Man-headed households	49	41.02	13.44	21	85

*One missing household.

Table 1. Household demographic data, Kabula.

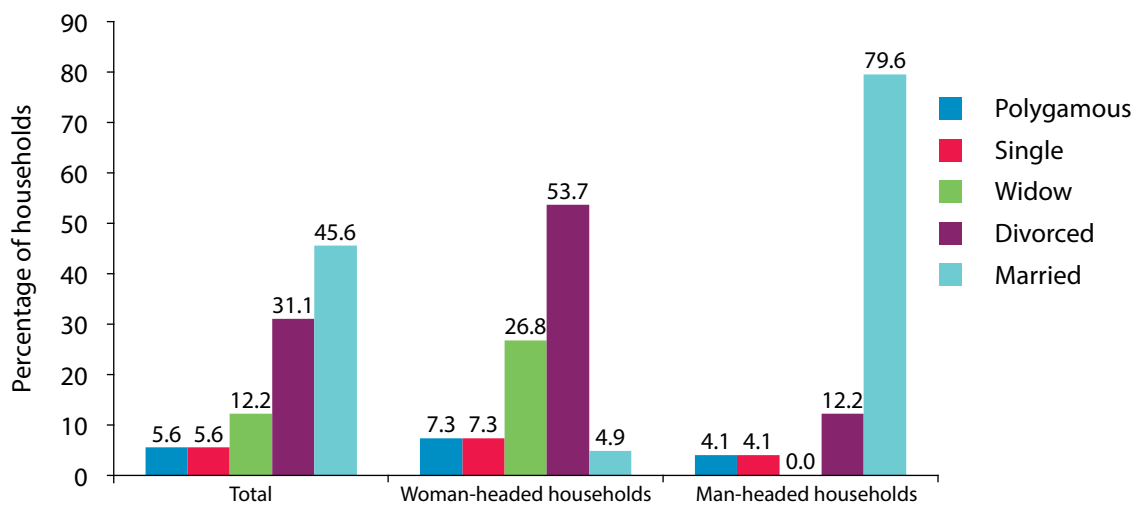


Figure 1. Marital status of household head, Kabula.

Ecosystem services

The rainy season in Kabula begins in late October to early November and continues until April. Changing rainfall and flood patterns are blamed for reduced yields and altering the timing in which agricultural activities are carried out. Focus groups reported that within the past 10 years, farmers have experienced alternating periods of increasingly heavy rainfall and drought.

In Kabula, forest and grazing lands are held as common resources. In contrast, private individuals hold agricultural land, which is inherited by children (typically males). Many people practice farming exclusively in upland areas as opposed to both in upland and lowland or wetland areas. Some residents of Kabula, however, migrate seasonally to farm plots within the floodplain. Within the floodplain, planting begins in August and September, in order to generate a harvest before rains and floods destroy crops. Upland fields are planted in October to November to take advantage of seasonal rains. These fields are harvested in April, following the end of the rainy season. Discussants indicated that while land is available in the community, it is not fertile land appropriate for agricultural production.

Other common-property resources from the surrounding environment include timber, wild fruit, grass and grazing lands. According to men focus group members, both men and women have equal opportunity to exploit common resources. Women members felt, however, that they do not enjoy equal opportunity to collect timber or firewood, due primarily

to the distance to forested areas and safety issues. Individuals wishing to harvest resources such as timber from forested areas must pay a fee to the Ministry of Forestry. Focus groups acknowledged that community members often do not pay requisite fees and consequently fear arrest by the authorities.

Livelihoods and well-being ladder

The primary livelihood strategy in Kabula is agricultural production. While raising cattle is also a significant livelihood activity, it was more prevalent in the past; as a result of numerous cattle diseases, herd sizes have decreased significantly. Carpentry, such as furniture and door making, also provides periodic income for some community members. A major source of income for resource-poor woman-headed households is beer brewing and sale.

The primary agricultural products include maize, cassava, rice, sorghum, tomato and vegetables, cultivated for both household consumption and sale either in Kabula or Lukulu. Men and women maintain different roles in household agricultural production. Men plow fields, either manually with the use of a hoe or with draft animals if accessible. Women contribute to land preparation by breaking up large pieces of soil. They also sow seeds, weed, harvest crops and sell produce outside of the household. Women expressed difficulty selling vegetable crops outside of the community due to lack of market access.

The most common animal husbandry activities involve cattle, pigs, chickens and donkeys. Cattle, in particular, have an important role in

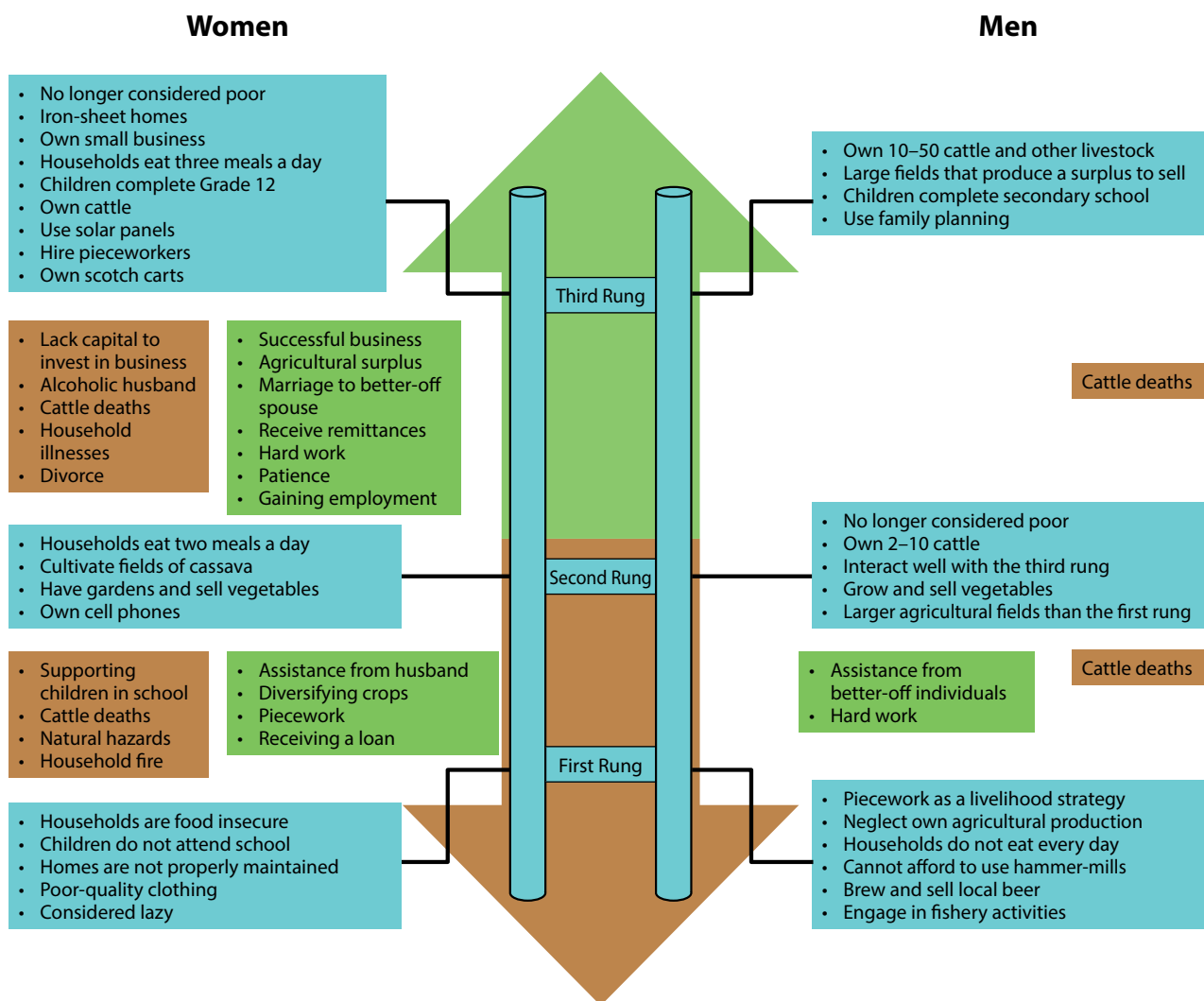
providing individuals with milk, manure and draft power. The sale of cattle to buyers from Lukulu provides a significant source of income to community members. Men generally own cattle, though some women also own cattle.

A number of secondary income-generating activities practiced throughout the year supplement income and help people cope with periods of insecurity. Small businesses sell common household, agricultural and food items. These businesses operate year round and provide some women with an additional source of income. As the well-being ladder for Kabula illustrates (Figure 2), those considered at the bottom of the community's socioeconomic hierarchy provide piecemeal (e.g. weeding, clearing land, herding cattle) to better-off community members. Better-off individuals are generally government workers or owners of significant numbers of cattle. Piecemeal

activities are generally considered coping strategies for people experiencing a period of insecurity such as the hunger season, divorce or illness.

Decision-making

Focus group participants perceive increased cooperation between spouses in decision-making as a positive development in the community. Women expressed an increasing awareness concerning rights of women and an improved ability to make major decisions. Both women and men spoke approvingly of couples that make decisions after consulting one another. It was said that "two heads are better than one." For example, couples that discuss money are better able to make large purchases. Spouses commonly make joint decisions about agricultural production, how children should be raised and improving household welfare.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 2. Well-being ladder, Kabula.

However, there was acknowledgment that not all relationships incorporate cooperative decision-making. Some men were said to not accept changing practices and continue to make decisions without discussing issues with a spouse. Notably, one men's focus group referred to such men as "rebels." Also, men mentioned that divorce is not a joint decision.

Women did not report major limitations to their movements within the community when visiting the clinic or nearby homes. Trips to the market, attending meetings or traveling long distances, however, require permission from a husband. One women's focus group stated: "No man can stop [his] wife from decision-making, [but women] cannot do anything without the knowledge of husbands."

Women reported that they (along with youths) are free to take part in the resolution of disputes and in debates about the use of natural resources within the community. Changing patterns about the role of recently married women (those that married from outside Kabula) were mentioned by women focus groups as having an increased voice in the community due to changing views on gender and development. Dispute resolution and decision-making were said to take place during community meetings, and all those in attendance are able to take part.

Marriage

As discussed above, discussants observed an increase in polygamous marriage in Kabula. Another change in marriage patterns is a decrease in age at marriage. According to women focus group members, many girls now marry at age 15 compared to age 20 in the past. Discussants cited premarital sex as a primary contributing factor to early marriage age, which is reportedly encouraged by foreign media messages. The falling age of marriage is said to cause parents financial hardship, as they are forced to support recently married couples: "Boys and girls have nothing, no money, no assets to take care of themselves. Parents actually take the responsibility of looking after them."

Men focus groups felt that there is an increasing inability or refusal by other men to pay dowries unless the wife's parents take sons-in-law to court. However, women

focus groups maintained that this course of action contributed to the "destruction" of their daughters' marriages. In the past, dowry payments to a woman's family consisted of three cows (or the equivalent cash value) for a woman with no children or two cows for a divorced or widowed woman. Today, many young couples are choosing to elope and/or do not seek the permission of the bride's family before marriage. In the past, parents arranged marriage between families.

Reduced rates of dowry payments, parental non-involvement in marriage arrangements, and the early age that young women and men engage in sexual activity are all seen as contributing factors to an increased rate of divorce within the community. Both women's and men's focus groups expressed concerns that instances of divorce reduce the standard of living and adversely affect children. Men focus groups attributed divorce to women's lack of obedience to husbands. Women focus groups, however, believed that the ability to divorce provides women with a sense of increased mobility, allowing them freedom to travel for business. Men focus groups also suggested that recent laws concerning domestic violence cause women to feel that they are equal to husbands in marriage.

Education

Focus groups concurred that obtaining an education is the principal way to improve livelihoods and increase future support to parents. Participants noted a number of recent changes and improvements in educational trends, including an increase in numbers of children attending school, proximity of schools and the re-admission policy for girl students that enables girls who become pregnant in school to return soon after delivering. In spite of this, participants expressed frustration in the lack of employment opportunities for those completing Grade 12.

Poverty and costs associated with schooling were said to be the largest factors affecting pupils' completion of schooling (through Grade 12). Those who qualify to advance to secondary school from Kabula must travel to Lukulu. The distance to Lukulu requires families to pay for expenses associated with transport and boarding.

Pregnancy was mentioned numerous times by women’s focus groups as a major factor that prevents girls from advancing in or completing school. Participants attributed sexual activity among girls to the “bad company” they keep when they leave home. Moreover, many focus group members believe young women are engaging in transactional sex.

Community vision

The community vision for Kabula, presented in Table 2, identifies a number of strategic areas and potential activities to help move community members toward realizing the dream statement of “a healthy and food-secure community residing in a clean environment, including good homes.” In considering the proposed activities, it will be important to bear in mind social and gender issues that emerged from the series of focus group discussions and are articulated in this community profile. Discussants identified factors that have a profound impact on the range of activities and practices employed by those on the first and second rungs of the well-being ladder (Figure 2). Notably, coping strategies, such as

the practice of piecework, access to natural resources, and the impact of various diseases on cattle populations affect the ways in which individuals practice agriculture, marry or maintain food security.

Gender issues to consider in the design of development activities in Kabula include the gendered nature of household activities and agricultural practices, along with changing practices related to personal and household decision-making. It is primarily women who make household decisions related to water provisioning, food preparation and health-seeking behaviors, with significant impacts on community sanitation, nutrition and health-related outcomes—all components of a healthy community directly linked to the dream statement. It will also be important to consider the increasingly early age of sexual activity among youths, and the impact this has on girls’ and young women’s ability to complete an education, which community members considered a key factor to moving up the ladder of well-being.



View of Barotse Floodplain with grasses and lagoon (in background) and vegetable garden and children (in foreground).

Dream statement	A healthy and food-secure community residing in a clean environment, including good homes.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Generating awareness about field expansion • Generating awareness about use of improved seed (rice, maize) • Technical trainings in livestock, crops, gardening and fisheries • Improved extension services • Training in livestock, gardening and crop production
	Innovation and technology	<ul style="list-style-type: none"> • Training in conservation farming techniques • Sources of improved breeds for livestock • Access to and utilization of animal draft power and farm mechanization • Improved irrigation systems
	Postharvest, storage and processing	<ul style="list-style-type: none"> • Improved methods of grain and produce storage • Capacity building in methods of processing agricultural products and indigenous vegetables • Training in calculating household food requirements
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
	Canal management	
Natural resource management	Aquatic plants	<ul style="list-style-type: none"> • Generating awareness about field expansion • Training in harvesting and utilization methods of aquatic plants • Training in production of quality products and linkages to market • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying Barotse Royal Establishment (BRE) and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Water and sanitation	Clean water	<ul style="list-style-type: none"> • Linkages with service providers for provision of water • Generating awareness about water treatment methods
	Waste management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Access to information and services on sanitation	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Fish farming	Fish pond	<ul style="list-style-type: none"> • Facilitation of resource mobilization • Training in fish pond construction and fish farming
Market	Canal clearing and road network development	<ul style="list-style-type: none"> • Awareness meeting on socioeconomic importance of canals • Community mobilization and canal clearing and management • Clearing and management of canals for irrigation, flood control and transportation (access to market) • Lobbying for improved roads

Table 2. Community vision, Kabula.

Kapanda profile

Overview of community infrastructure and services

Kapanda is accessible by vehicle throughout the year. From Mongu, the trip by vehicle takes 8 or 9 hours on a paved and dirt road. From Kapanda to Lukulu is a 50-km trip over a sand road, taking 1 hour. Kabula, the nearest AAS focal community, is located 15 km to the north via a sand road.

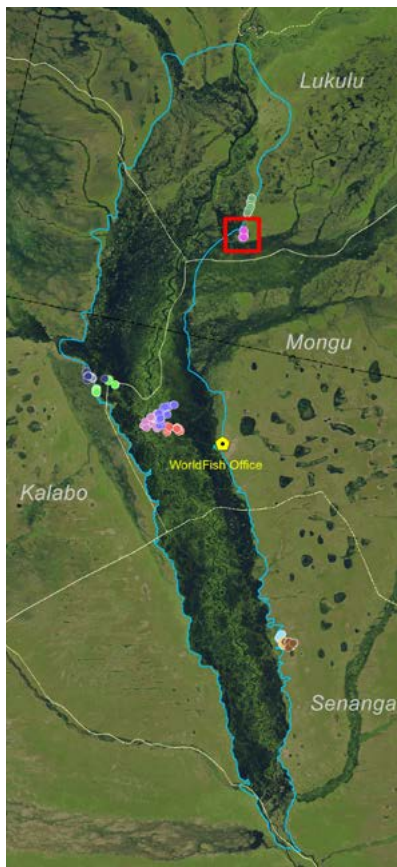
The only school located in the immediate area is Mbanga Basic School, where students attend Grades 1–9. For secondary school, students enroll at Lukulu High School.

For health care, residents of Kapanda access services at Mbanga Rural Health Center. The rural health center provides maternity services, volunteer counseling and testing, and antiretroviral treatment services. The healthcare center and upgrades to the facilities have resulted in improvements in the overall health of the community. With regard to human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) testing and treatment programs, focus groups largely acknowledged the role of Sister Pat of Santa

Monica Mission in Lukulu. Overall, focus groups expressed satisfaction with healthcare services and value—in particular, short travel time to the rural health center, reliable service and consistent stocks of medicine.

Safe drinking water is available from three boreholes. There is one at the Mbanga Basic School, one at Mbanga Rural Health Center and one community borehole. Women and girls typically fetch water. Members of a women’s focus group expressed frustration with long queues (typically 2–4 hours) at the community borehole. According to participants, one of the reasons for long queues is the use of the boreholes for both household water consumption and vegetable garden irrigation. Most households have a pit latrine, which residents credit with significantly reducing the incidence of diarrhea.

Although there is an agricultural extension officer in Kapanda who provides residents with information related to improved agricultural services, women’s focus group members expressed frustration about the limited availability of garden fertilizer.



- ▲ Woman-headed households
- Man-headed households
- 🏫 School
- ⛪ Church
- 📶 Airtel/MTN provider tower

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 3. Map of Kapanda, Lukulu District.

Airtel and MTN provide the highest-quality cell phone service in the area, although the quality of coverage depends on distance to provider towers. Residents also have access to private shops that sell common household items such as soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

As in other focal communities in the Barotse Hub, focus group discussions suggested that woman-headed households and extended family arrangements are becoming increasingly common over time. The most typical household composition, however, continues to be that of a married woman and man living together with their children. Focus group members attributed the increase in woman-headed households and extended family households to divorce and illness-related death. Census data shows that woman-headed households comprise 55% of surveyed households (Table 3). Of these woman-headed households, 44% are headed by divorced women and 27% by widows (Figure 3). In contrast, there are only two single-men households in Kapanda. People perceive that many women are unable to marry or re-marry due to a disparity in the numbers of women and men in the community. As reported by one women's focus group, there are "no men to marry, only boys still being cared for by their parents." A single child-headed household was reported by focus group participants. This was said to be an "extremely rare situation," as the traditional practice in which children live with relatives upon the death of their parents persists in Kapanda.

According to focus groups, the number of polygamous marriages has declined in Kapanda. This is somewhat corroborated by census data, which indicates only two polygamous households (2.7%) in the community (Figure 3). Men focus group

participants believe women who enter these relationships are "real mothers" and "good hearted." Women, however, describe other women in such relationships as being foolish, stupid or looking for money. Women reported that extramarital affairs are prevalent and suggested that this situation has replaced polygamous marriage practices. Other reasons offered for the reduction of polygamy include Christian values held by many community members and concern with the transmission of diseases within polygamous relationships.

Community leadership

The leadership structure in Kapanda aligns with traditional practices of Barotseland. The *Silalo Induna Muleta*, whose palace is located within Kapanda, holds the highest traditional authority in the community. All of the *indunas* within the Kapanda area are men. The *indunas* maintain the traditional responsibilities of dispute resolution, distribution of farmland and community organization, as well as resource allocation.

NGO activities

Focus groups indicated that women's, youth, and savings and internal lending community groups operate in the area. While there are other NGOs that operate in Kapanda, focus groups did not list these organizations, nor did they identify any active men's groups. The seed and fertilizer distribution program Participatory Village Development in Isolated Areas (PaVIDia), the European Union and Peoples' Participation Service (PPS) have provided agricultural extension services and inputs in the area. In September 2013, one charitable organization offered eye and dental services to the community before relocating to Lukulu. In terms of the quality or impact of these groups, focus groups remarked that the PPS program has created a "dependency syndrome" among the most resource-poor and largest families of Kapanda.

	n (=74)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	41	5.34	1.97	1	11
Man-headed households	33	6.00	2.52	1	11
Age of household head (years)					
Woman-headed households	41	50.39	16.69	20	83
Man-headed households	33	46.48	17.77	21	88

Table 3. Household demographic data, Kapanda.

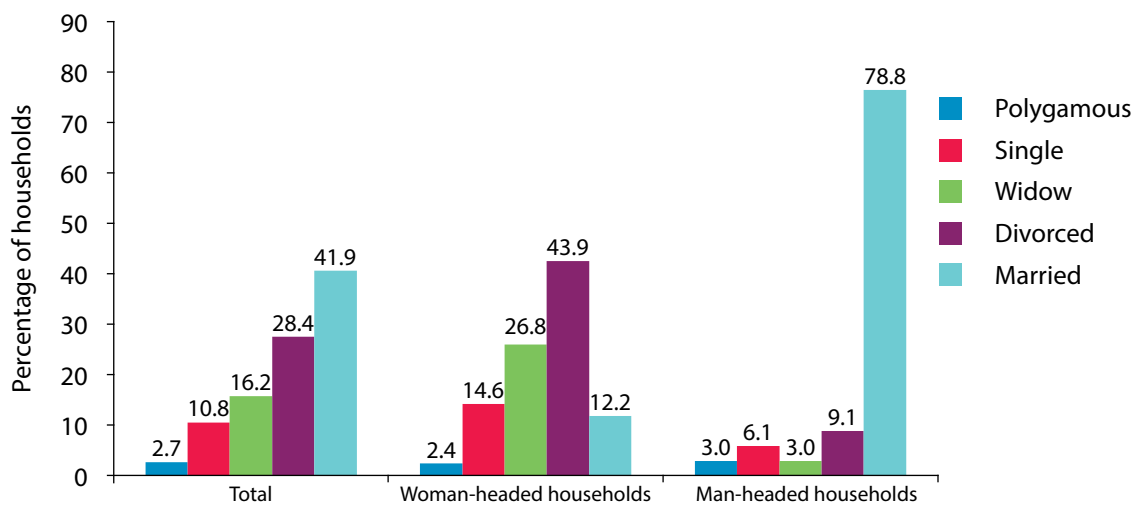


Figure 3. Marital status of household head, Kapanda.

Ecosystem services

Kapanda's natural environment features streams, marshes, lagoons, forest and grazing lands held as common resources. There is also agricultural land, which is privately held and inherited by children (typically males).

Marshes are a common source of water used for drinking, cooking and bathing. Marshes also supply the area with fish, although community members remarked that this is a diminishing resource. Focus group participants attributed this decline to illegal fishing methods, particularly *sefa-sefa*, described as a particularly destructive form of fishing.

Other common-property resources include waterways, trees and wild fruit. Individuals wishing to harvest reeds or grass, for example, must ask permission from local leaders. Although men focus groups reported that men and women have equal opportunity to exploit common resources, women felt that men have greater access to these resources. Focus groups associated a diminishing supply of timber and wild animals with illegal harvesting, poaching and failure to pay fees to the government.

The rainy season in Kapanda begins in November and continues until April. Residents have observed recent changes in the intensity of weather patterns, in which periods of heavy rainfall are followed by drought. Changing rainfall and flood patterns are blamed for reduced agricultural yields and changes in the timing of agricultural activities.

Livelihoods and well-being ladder

The primary livelihood strategies in Kapanda are fishing, cattle rearing and crop production. Residents rank fishing activities as the most important and profitable livelihood strategy. The fishing season extends from March to November. From December to March, the Department of Fisheries and the Barotse Royal Establishment (BRE) impose a fishing ban. Men perform a majority of fish capture, while women participate predominantly in processing and retail activities.

Animal husbandry also provides a significant source of livelihood. Cattle, pigs, chickens and ducks are the most common domesticated animals. The sale of cattle to buyers from as far as Mbanga provides a significant source of income to community members. Cattle also provide milk, manure and draft power. Men generally own the cattle, although it is not unheard of for women to own cattle. Men focus groups noted that the low number of cattle within the community results in poorly fertilized fields.

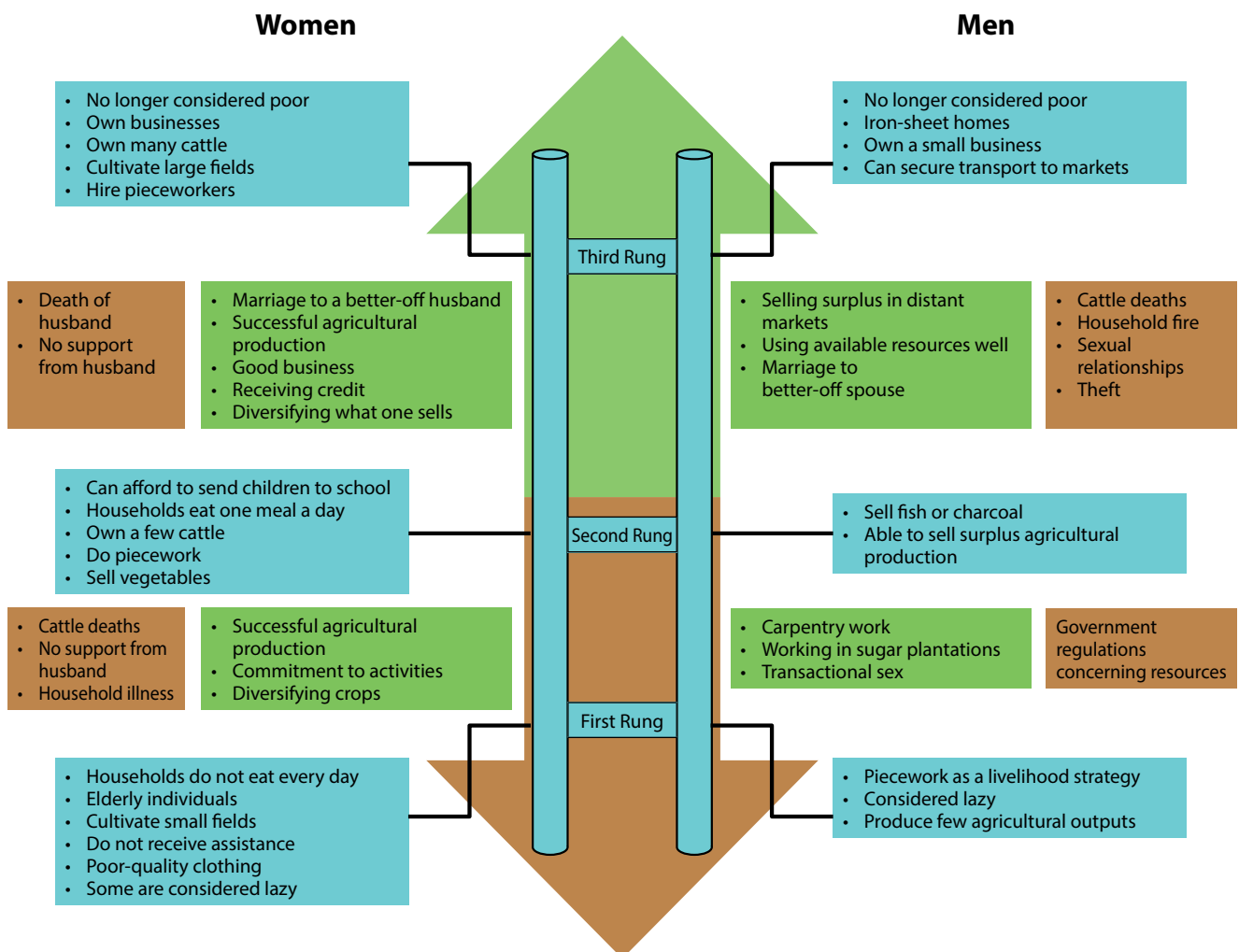
Agricultural crops produced in Kapanda include rice, maize, cassava, sweet potatoes, groundnuts and vegetables. Crops are consumed, bartered, or sold both within the community and in Limulunga. Rice is the primary cash crop in the community, while the majority of maize produced in Kapanda is consumed. Cassava, which was recently introduced to the area, is primarily sold or bartered locally.

In the past, the community members farmed in the Luena floodplain. Due to changing flood patterns, however, few community members continue to practice agriculture in the lowlands. Those who do farm in this area begin to plant in September–October in anticipation of coming rains and floods. Farmers plant upland fields in November–December to take advantage of seasonal rains. These fields are harvested in April or May following the end of the rainy season. Men and women members of the household have different roles in agricultural production. Men have responsibility for land preparation using a hoe or—if accessible—draft animals. Other agricultural activities, including sowing seeds, weeding and harvesting, are primarily the domain of women.

Community members engage in a number of secondary income-generating activities throughout the year to supplement income and cope with periods of insecurity. Small businesses sell common household, agricultural and food items year round and provide some women with an additional source of income.

Women focus groups mentioned the sale of scones, fritters and local beer numerous times as the most profitable items. According to women focus groups, there are limited piecework opportunities from April to August. During this time, women knit, crochet, and make brooms and baskets for sale to supplement income.

Figure 4 presents the well-being ladder for Kapanda. As the figure shows, those considered at the bottom of the community’s socioeconomic ladder make charcoal; collect firewood, reeds and grass; and provide piecework to better-off community members. Better-off individuals tend to be government workers or owners of significant numbers of cattle. Collection and piecework activities are generally performed as coping strategies when people are experiencing a period of insecurity, such as the hunger season, divorce, illness, etc. Piecework is remunerated with cash or in kind. Focus groups said a large number of women in the community rely on piecework, “living hand to mouth” to support large numbers of dependents.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 4. Well-being ladder, Kapanda.

Decision-making

Community members perceived that joint decision-making between spouses has recently become more common. Spouses commonly make joint decisions about agricultural production, family well-being, family planning, piecework and the care of family members.

Both women and men spoke approvingly of couples making decisions after consulting one another. Focus group discussants viewed cooperative couples as having increased ability to make household purchases and lower incidence of divorce. Such couples were described as “enlightened” and “harmonious.” Women expressed an increasing awareness of the rights of women and the ability to make major decisions without consulting husbands. Men believed this change has occurred largely because of government and NGO gender sensitization programs.

Discussants acknowledged, however, that not all relationships are incorporating cooperative decision-making. Some men were said to not accept changing practices and continue to make decisions without discussing issues with spouses. Uneducated men were specifically mentioned as a group that continues to operate in this manner, described by women focus group members as “fearful that their wives are trying to take over the marriage.”

Women did not report major limitations to their movements within the community. Visits to the clinic, friends, family and meetings within the community are acceptable and do not require the permission of husbands or male relatives. Women reported that men and women, rich or resource-poor, are free to take part in the resolution of disputes during community meetings.

Marriage

In recent years, marriage practices in Kapanda have shifted; marriage age has dropped, extramarital affairs have increased, dowry payments have declined and divorce rates have increased. Many girls now marry between 12 and 15 years of age, compared to an average of 18 years in the past. A men’s focus group compared young people’s marriages to *mandwani* or “children building small homes of mud.” A women’s focus group described

marriage today as relationships of “piecework” beset by extramarital affairs.

Focus groups perceived an increasing inability of or refusal by men to pay dowries. In the past, dowry payments to a woman’s family consisted of three cows (or the equivalent cash value) for a woman with no children or two cows for a divorced or widowed woman. Today, many young couples are choosing to elope or cohabit without the consent of parents. Women focus group members expressed the concern that younger women do not see the importance of dowry payments, often stating that they have “human rights” and a better understanding of gender than their parents.

The other observed change in marital relationships is an increase in divorce. At the time of the community census, 28% of households in Kapanda were classified as divorced (Figure 3). Divorce is seen as the cause of food insecurity and reduced material possession in woman-headed households because women are “forced to start all over again.” Community members viewed divorced individuals as failures, drunkards, prostitutes and sufferers. Women’s focus groups attributed divorce to women who “destroy other people’s marriages.” The same focus groups expressed concern that divorced friends would attempt to “take over their marriage.”

Reduced rates of dowry payments, more women than men in the community, and HIV and AIDS were all seen as factors that contribute to the increased rate of divorce within the community. Overall, focus groups cited a lack of respect for the institution of marriage and premarital sex as factors that contribute to the changing nature of marriage within the community. When parents attempt to give advice to children about relationships they are rebuffed by being called “outdated” in their thinking.

Education

For residents of Kapanda, education is seen as the principal pathway to improve livelihoods, increase mobility and ensure future support to parents. Focus group participants indicated that those who complete school “think, behave and work in a preferred manner.” Increasingly high rates of school attendance and the re-entry policy for female pupils are viewed positively.

There are, however, a number of areas of concern and challenges with regard to classroom instruction and educational attainment. Participants expressed concern about the school curriculum and a decline in the quality of educational standards. Parents, as indicated by one women's group, find it difficult to understand the subjects their children learn at school. A great deal of discussion focused on factors that prevent youths from advancing in or completing school (through Grade 12).

The rising cost of education was said to be the largest factor affecting school completion. A men's focus group cited school fees as a major barrier to sending more than two children to school. Widows, in particular, have difficulty covering school expenses. Faced with this hardship, they must make difficult choices about which children to send to school and often give preference to boys over girls. Those who qualify to advance to secondary school from Kapanda may travel to Lukulu; however, high costs associated with transport and boarding prevent students from continuing their education. The distance to these schools requires families to pay the costs associated with transport and boarding. Numerous times, focus group participants referred to pregnancy as a major factor preventing girls from advancing or completing schooling. For boys, alcohol consumption and "bad company" were reported to influence educational attainment.

Community vision

Community members of Kapanda elaborated a collective vision in the following dream

statement: "A healthy, food-secure and educated community, residing in a clean environment, including good homes." The community profile provides insight into a number of social issues that will influence the design and implementation of interventions to support this vision. Some examples of key factors that emerged from the research include the role of piecework as a coping strategy, the introduction of new cash crops, and the impact of reduced fish and cattle populations. These issues have a profound impact on the activities and practices of those on the first and second rungs of the well-being ladder.

There are two key gender issues that were major topics of consideration during focus group discussions. The first is the gendered nature of household and agricultural activities. As the profile indicates, women are increasingly involved with household decision-making and have primary responsibility for the provision of water, food preparation and health-seeking behaviors. They are also central to household agriculture and off-farm activities used to supplement household income. The sexual behaviors of youth were a second major issue. Community members expressed concern about pregnancy among girls and the negative impact this has on school completion. Interventions in this area must further explore and take into account reasons for early sexual activity. These may be sensitive subjects, considering that many focus group members believed young women are engaging in transactional sex.



Fish being processed in the Barotse Floodplain (open air, sun dried on rack made from papyrus).

It is noteworthy that Kapanda is the only AAS focal community in which discussants described rural health center services as adequate. Potential community health programs should seek to build on the existing relationship between the rural health center

and Sister Pat of Santa Monica Mission, who was credited with improving services at the clinic. Kapanda may also provide an opportunity to identify pathways for building rural health center capacity in other communities.

Dream statement	A healthy, food-secure and educated community, residing in a clean environment, including good homes.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Generating awareness and linkages on use of improved seed • Strengthening of extension system • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Trainings in conservation agriculture and agroforestry • Access to and utilization of animal draft power and farm mechanization • Improved irrigation systems
	Postharvest, storage and processing	<ul style="list-style-type: none"> • Improved methods of grain and produce storage • Capacity building in methods of processing of products and indigenous vegetables • Training in calculating household food requirements
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
Natural resource management	Aquatic plants	<ul style="list-style-type: none"> • Training in harvesting and utilization methods of aquatic plants • Training in production of quality products and linkages to market • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan and early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying of BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Energy	Solar	<ul style="list-style-type: none"> • Generating awareness about solar energy for lighting and cooking
	Alternative fuel for cooking	<ul style="list-style-type: none"> • Linkages for stoves and other fuels for cooking
Water and sanitation	Clean and quality water	<ul style="list-style-type: none"> • Linkages with service providers for provision of water • Generating awareness about water treatment methods
	Waste management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Access to information and services on sanitation	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Infrastructure	Roads	<ul style="list-style-type: none"> • Lobbying of government for improved road network
	Canals	<ul style="list-style-type: none"> • Mobilization of communities for canal clearing and management • Awareness meetings on socioeconomic importance of canals • Strengthening of satellite disaster management committees

Table 4. Community vision, Kapanda.

Mapungu profile

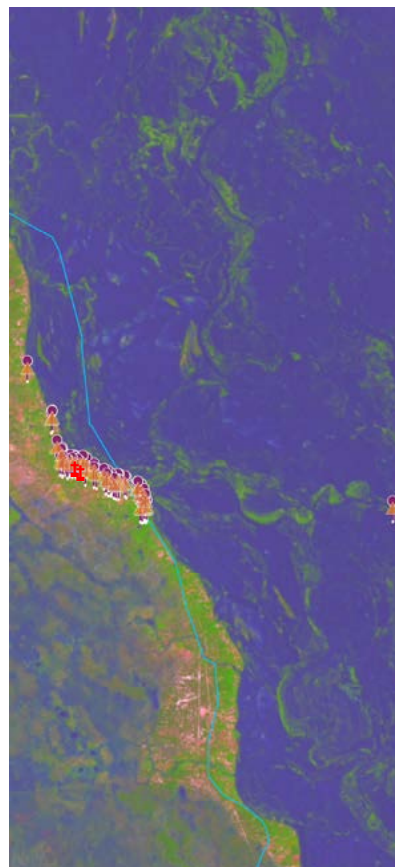
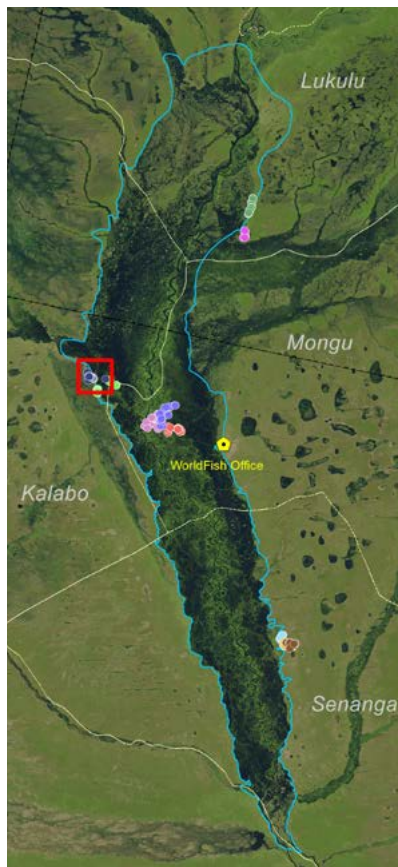
Overview of community infrastructure and services

The community of Mapungu is situated along the Luanginga River. From November to July, the area is accessible by boat transport from Mongu harbor, with transit taking 2–3 hours, depending on flood levels and the condition of the boat. During the remaining portion of the year transport via vehicle is possible. From Mongu, the trip by vehicle takes over an hour on a paved and gravel road. Reaching Kalabo from Mapungu (25 km) takes about an hour due to poor road conditions. Construction of a gravel road between Kalabo and Mapungu is underway and should reduce travel time upon completion. The Mapungu-Mwandi road is a 12-km trip over an unmaintained sand road, taking 15 to 20 minutes.

One school is located in the immediate area and provides students with the opportunity to attend Grades 1–9. Further education options at secondary school are available in Kalabo

and Lukona. A rural health clinic operates in Mapungu. Focus group participants felt that the staff and services provided at the clinic are inadequate. For example, living long distances from the clinic together with a lack of transport options prevent some pregnant women from delivering at the clinic. Some patients also find it difficult to receive antiretroviral treatment on a consistent basis. Complicated medical procedures cause patients to seek specialty care through the referral system at hospitals in Kalabo or Mongu.

Safe drinking water is available from boreholes located at the clinic and school. People (most often women and girls) living away from these facilities retrieve water from ground wells of varying quality or from nearby rivers, lakes and lagoons. An agricultural camp extension officer provides residents with information related to agricultural practices and organizes various government programs, such as fertilizer distribution. The extension officer in Mapungu is the only woman officer working in the AAS focal communities.



- ▲ Woman-headed households
- Man-headed households
- ✝ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 4. Map of Mapungu, Kalabo District.

Discussants described cell phone coverage as fair, yet variable, depending on the distance from provider towers. Airtel and MTN provide the best-quality service in the area. Privately owned shops in the area sell common household items, such as soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

In the past, households in Mapungu consisted of a married woman and man living together with their children and at times extended family members. While this arrangement continues to be prevalent, the number of woman-headed households has increased over time. Focus group participants attributed the increase to the death of husbands from HIV and increasing rates of divorce; in particular, discussants noted the return of divorcees and widows to Mapungu from their former husbands' villages. The belief was expressed that the number of women, and thus potential woman-headed households, had increased in recent years to the point where many women are unable to marry or re-marry due to a disparity in the numbers of women and men in the community. This scenario, while not confirmed, appears to be supported by the census data, which shows that 53% of Mapungu households are headed by a woman (Table 5). Of these woman-headed households, nearly one-quarter are headed by widows and another 46% are headed by divorcees (Figure 5).

According to focus groups, the number of polygamous marriages has decreased in Mapungu. A single polygamous household was recorded during the census exercise. Community members attribute the reduction to Christian values held by many community members and concern with the transmission of diseases within polygamous relationships. Perceptions of

women and men within these relationships were observed to be very different. For example, men focus group participants believed women who enter polygamous relationships are foolish and lack options to support themselves, while men in such relationships were described as "real men" for their ability to support two wives and a large family.

Community leadership

Leadership arrangements follow the traditional practices of Barotseland. Mapungu is under the authority of the Princess Mboanjikana, whose palace shifts from Libonda in the floodplain during the dry season to Mapungu during the floods. Elected *indunas* are responsible for dispute resolution, assigning farmland and community organization. All *indunas* within the Mapungu area are men. Church leaders, area counselors and prominent community members also have a role in leading and mobilizing the community.

NGO activities

Focus groups indicated that one women's group operates in the area, but were unable to identify any active men's or youth groups. Although a number of youth groups were operating in the past, they have reportedly ceased activities since World Vision exited the community in 2005. At the time of data collection, cooperatives, a parent-teacher association and PaVIDia were active in the community. No other NGO programs appear to be present within Mapungu.

Ecosystem services

Mapungu comprises rivers, lagoons, forest and grazing lands held as common resources. Agricultural land is held by individuals and inherited by children (typically males).

	n (=156)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	83	5.82	2.56	1	14
Man-headed households	73	6.68	3.4	2	25
Age of household head (years)					
Woman-headed households	83	49.88	16.22	22	93
Man-headed households*	70	47.41	15.9	24	90

*Three missing households.

Table 5. Household demographic data, Mapungu.

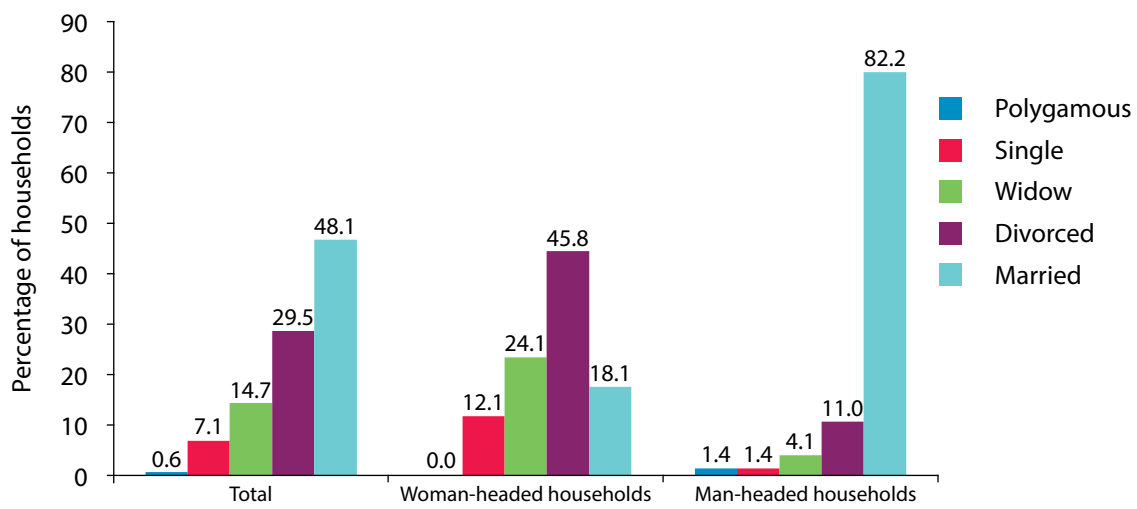


Figure 5. Marital status of household head, Mapungu.

The Luanginga River is the common source of water used for transport, drinking, cooking and bathing. From the river, community members harvest what is said to be a diminishing supply of fish. Women focus group participants blamed the use of illegal fishing methods as a major contributing factor in the reduction of the area's fish population. The *sefa-sefa* fishing method, introduced in 2008, was singled out as a particularly destructive form of fishing. Consuming water from the river was recognized as a health risk, as many people use the river as a toilet and for bathing.

A number of resources from the surrounding environment, including grass, reeds, papyrus, trees and wild fruit, are held as common resources. Individuals wishing to harvest resources such as reeds or grass must ask permission from local leaders and may have to pay a fee. According to men focus group participants, both men and women have equal opportunity to exploit common resources. Women participants perceived that they have less opportunity than men to collect grass, reeds, fish or poles. However, women did feel that they have greater access to papyrus and wild fruits in comparison to the men in Mapungu.

The rainy season in Mapungu begins in November and continues until April. Rainfall and flood patterns have shifted in recent years, reportedly reducing yields and altering the timing of agricultural activities.

Livelihoods and well-being ladder

The three primary livelihood strategies employed by residents of Mapungu are fishing,

rearing cattle and farming. Fishing activities are seen as the most important and profitable of livelihood strategies. These activities are practiced primarily from March to November, only halting for the December–March fishing ban imposed by the Department of Fisheries and the BRE. Men perform a majority of the capture portion of fishing activities, while women participate predominantly in the processing and retail portion of the fishery.

Animal husbandry is an important source of livelihood, with cattle, pigs, chickens and ducks being the most common domesticated animals. Cattle in particular have an important role in providing individuals with milk, manure and draft power. The sale of cattle to buyers from Zambeef in Mongu and Kalabo provides a significant source of income to community members. Men generally own the cattle, although women are not prohibited from owning cattle.

Many people practice farming within the floodplain and upland at different points of the year. Within the floodplain, planting begins in August to September in an effort to generate a harvest before the rains and floods destroy crops. Upland fields are planted in October to November to take advantage of seasonal rains and harvested in April following the end of the rainy season.

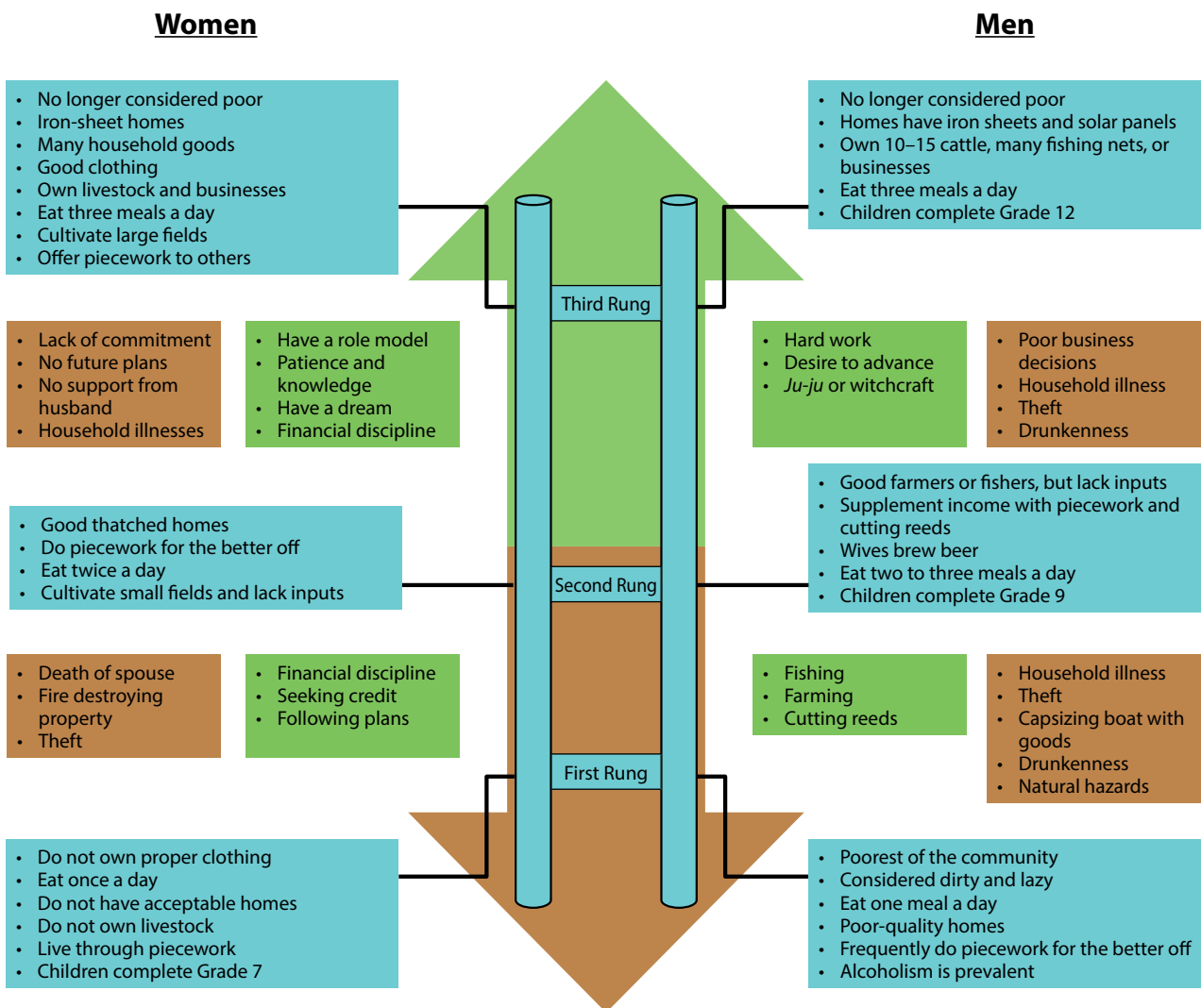
Agricultural products produced in Mapungu include rice, maize, cassava, sweet potatoes, groundnuts and vegetables. The fields in which these products are grown are plowed by male household members with a hoe, or if accessible,

draft animals. Female members of households sow seeds, weed and harvest crops, which are consumed, sold within the community or purchased by “briefcase buyers” from Mongu. Rice was introduced in the community in the 2004–2005 planting season and has since surpassed maize and cassava as the chief source of agricultural income for many people.

A number of secondary income-generating activities are practiced throughout the year to supplement income—notably for women—and cope with periods of insecurity. Small businesses sell common household, agricultural and food items year round. Those considered at the bottom of the community’s well-being ladder (Figure 6) collect firewood, reeds and grass and provide piecework to better-off community members. These better-

off individuals are generally government workers or owners of significant numbers of cattle. Collection and piecework activities are performed as coping strategies when people experience a period of insecurity such as the hunger season, divorce or illness.

Factors enabling women to move up the ladder focused on planning, commitment and assistance from others. Men focus group members felt that engaging in agricultural, fishing and business activities support movement up the ladder, stressing hard work as a major factor enabling someone to climb the ladder. Importantly, focus groups did not believe the spacing between rungs one, two and three were even; rather, advancing from the second to the third rung was described as a very long and difficult process.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 6. Well-being ladder, Mapungu.

Decision-making

Cooperation between spouses in decision-making processes is seen as a recent and positive development. Women expressed an increasing awareness concerning the rights of women and an improved ability to make major decisions without the need to consult husbands or male relatives. Both women and men spoke approvingly of couples making decisions after consulting one another. These couples were described as “real men and women” and “team builders.” However, there was acknowledgment that not all relationships are incorporating cooperative decision-making. Some men were said to not accept changing practices and continue to make decisions without discussing issues with spouses. Elderly individuals, in particular, continue to operate in this manner. Women focus group participants described this group of individuals as “still living in the past.”

Spouses commonly make joint decisions about agricultural production, how much and when to sell agricultural surplus, livestock sales, the purchase of household items, care of family members, family planning, and school-related issues. Men specifically mentioned extramarital affairs, prostitution and topics related to the practice of *ju-ju* (witchcraft) as areas in which joint decision-making is not practiced.

Women did not report major limitations to their movements within the community. Visits to the clinic, friends, family and meetings within the community are viewed as acceptable and do not require the permission of husbands or male relatives. Women reported that they (along with youths) are free to take part in the collective resolution of disputes within the community if they have a constructive role to play.

Marriage

Marriage practices in Mapungu have reportedly been changing in recent years, particularly with respect to marriage age and dowry. According to women focus groups, many girls now marry at age 15 (compared to age 20 in the past). The falling age of marriage is said to cause parents financial hardship, as they are forced to support recently married couples who are unable to manage their own fiscal affairs.

Women focus groups also expressed an increasing inability or refusal by men to pay dowries. In the past, dowry payments to a woman's family consisted of three cows (or the equivalent cash value) for a woman with no children or two cows for marriage to a divorced

or widowed woman. Today, many young couples are choosing to elope and/or do not seek the permission of the bride's family before marriage. Women focus group participants conveyed concerns that younger generations do not see the importance of dowry payments and believed that in the future there will be many more “marriages of convenience.” Discussants cited premarital sex as a major contributor to the changing nature of marriage within the community, as well as the inability of parents to control their children's behavior and the tendency of young people to disregard tradition. Reduced rates of dowry payments, eloping and early age of marriage were all seen as contributing factors to increased rates of divorce in the community.

Education

Women and men in Mapungu identified education as the principal way to improve livelihoods, increase upward mobility and support parents in the future. In spite of this, discussants voiced frustration about the lack of employment opportunities for students completing Grade 12. A number of changes and challenges in educational patterns were noted, including rising costs associated with school attendance, increasing numbers of female pupils, declining quality of educational standards and changing curriculums. The rising cost of education was said to be the largest factor affecting pupils' completion of schooling (through Grade 12). Those who qualify to advance to secondary school from Mapungu must travel to Kalabo or Lukona. The distance to these schools requires families to pay for the costs associated with transportation and boarding.

The high rate of school attendance among girls is viewed positively, but the challenges these pupils face in completing school were discussed extensively during focus group discussions. Pregnancy was mentioned numerous times as a major contributing factor that prevents female pupils from advancing grades or completing schooling. Concern was expressed that girls are engaging in sexual activities with peers and—in some cases—teachers.

Community vision

The community vision presented in Table 6 reflects where women and men in Mapungu community aspire to be in 5 years. It is an aggregated vision that was constructed using the visions developed separately by groups of women and men in Mapungu. The community profile highlights a number of key social issues to consider when using the vision, particularly

with regard to those positioned on the first and second rungs of the well-being ladder. These include piecemeal as a coping strategy, “briefcase buyers” paying below-market prices for livestock and agricultural products, and the impact of reduced fish and cattle populations. Key gender issues to consider when developing activities in Mapungu are the gendered

nature of household activities and agricultural practices, along with the sexual health of young women. The issue of girls becoming pregnant while still students was a major concern, and there are sensitivities around the commonly held perception that young women are engaging in transactional sex.

Dream statement	A healthy and food-secure community, where men and women are working together, residing in good houses in a clean environment.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Advocacy for improved access to land • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Clearing and management of canals for irrigation, flood control and transportation (access to market) • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Access and resource mobilization for improved breeds of livestock • Farm mechanization • Improved irrigation systems
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization and canal clearing and management
Natural resource management	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
Health and nutrition	Nutrition	<ul style="list-style-type: none"> • Training in dietary requirements
	Clean water	<ul style="list-style-type: none"> • Linkages with service providers for provision of water • Generating awareness about water treatment methods
	Hygiene	<ul style="list-style-type: none"> • Generating awareness about good hygiene practices
	Waste and pollution management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Access to sanitation information and services	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices
Improved housing	Iron-roofed houses	<ul style="list-style-type: none"> • Training and promotion of household savings
Gender and HIV/AIDS	HIV/AIDS and population	<ul style="list-style-type: none"> • Generating awareness about HIV/AIDS and its effects on development and population • Generating awareness about coping strategies
	Women’s empowerment	<ul style="list-style-type: none"> • Facilitation of formation and strengthening of women’s groups and training them in entrepreneurship and savings
	Promotion of gender equity and equality	<ul style="list-style-type: none"> • Generating awareness about gender and development
Market infrastructure	Canal management and road network	<ul style="list-style-type: none"> • Development and implementation of community canal clearing and maintenance plans • Lobbying of government for improved road network for improved marketing • Facilitation of establishment of information centers for access to market information

Table 6. Community vision, Mapungu.

Mwandi profile

Overview of community infrastructure and services

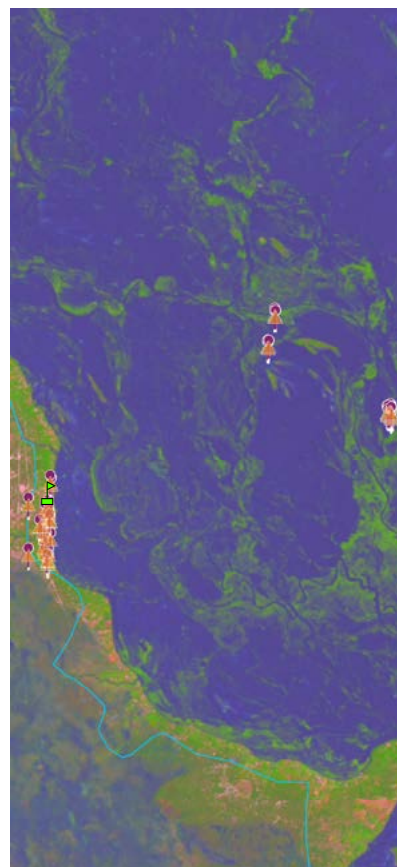
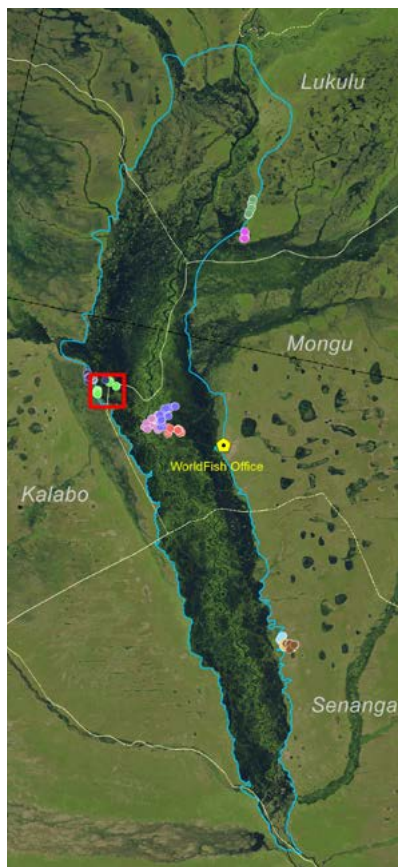
From November to July, Mwandi is accessible by boat transport from Mongu harbor; the trip takes 2–3 hours depending on flood levels and the condition of the boat. From August to October, it is possible to drive to Mwandi from Mongu in under an hour via a paved and dirt road. The nearest clinic is located 12 km away over an unmaintained sand road in Mapungu.

Educational opportunities to Grade 9 are available in Mwandi upland at Ngunyama Basic School. The school has an active parent-teacher association. Students from both Mwandi upland and lowland attend this school. However, some students who live in Mwandi lowland attend Mapungu Basic School due to distance. Opportunities to attend secondary school at Kalabo Secondary School are available to families that can afford costs associated with transport and boarding.

The area's primary health center ceased operation in 2011 following the withdrawal of support from the government of the Netherlands. The facilities have since fallen

into disrepair and would require significant resources to rehabilitate. Basic medical care is received at Tarpo, Shuku or Mapungu rural health centers. Focus groups described a number of situations in which patients walk 2–4 hours to reach one of these clinics. Issues concerning the availability of medication and provision of care were discussed. A women's focus group described situations in which patients are mistreated upon arrival at clinics and are forced to clean the facility before receiving care. Focus groups across Mwandi described conditions in which pregnant women are forced to give birth on the way to clinics because of a lack of roads and transport.

Safe drinking water from boreholes is available to the residents of Mwandi upland that live near Ngunyama Basic School. There are no boreholes in the villages of Mwandi lowland. Residents living away from boreholes retrieve water for drinking, cooking and bathing from nearby streams, lagoons and ground wells. Focus groups stressed the gendered nature of water collection as a women's task. Numerous concerns regarding water quality were raised in both Mwandi upland and lowland. Water quality and contamination by individuals urinating and defecating within wells was said to be a major



- ▲ Woman-headed households
- Man-headed households
- 🏫 School
- ✚ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 5. Map of Mwandi, Kalabo District.

contributor to diarrheal illnesses. This was a particularly important issue to the focus groups of Mwandu lowland, who also indicated that poor soil quality prevents digging proper latrines.

The nearest agricultural extension officer is located in Mapungu. Women focus group participants of Mwandu lowland could not identify any NGO or government services in the community. Cell phone coverage is fair, depending on distance to provider towers, with Airtel and MTN providing the best-quality services. A number of privately owned shops and stalls are found throughout the area, selling common items such as soap, farm implements, clothing and foodstuffs. The sale of alcohol is particularly prevalent within Mwandu lowland.

Household demographics and structure

The traditional structure of households in Mwandu comprised a married woman and man, living together with their children and at times extended family members. While this arrangement continues to be prevalent, the number of woman-headed households and single-men households is reportedly increasing. At the time of the census, 38% of Mwandu households were headed by a woman (Table 7). Of these woman-headed households, widows headed 32%, with another 43% headed by divorcees (Figure 7).

Focus groups attributed the rise in woman-headed households to the death of husbands and divorce. Single-men households are seen by men's focus groups as existing due to alcoholism and abnormal behavior exhibited by some men. A women's focus group in Mwandu lowland attributed the rise in single-men households to fishers choosing not to marry, instead engaging in temporary relationships with local fishmongers. There were no child-headed households reported in the area. Focus groups attributed this to the practice of extended

family members incorporating related children into households upon the death of their parents.

A difference in the presence of polygamous households was observed between Mwandu upland and lowland. Focus groups in Mwandu lowland agreed that polygamous marriages no longer exist in the community due to the high costs associated with dowries and caring for large families. Women's and men's focus groups in Mwandu upland, however, disagreed about the presence of polygamous marriages. Men's focus groups in this area did not believe any of these marriages remain in the community due to the high cost of marriage, fear of disease transmission and strong Christian values. In contrast, women's focus groups said a small number of polygamous marriages do remain in the community. The composition of these households was said to be divorced and widowed women and men above 35 years of age. The community census identified no polygamous households within Mwandu upland or lowland.

Community leadership

Community governance and leadership systems follow traditional Barotseland practices. The palace of Princess Kafuna is located in Mwandu upland. *Indunas* are responsible for dispute resolution, assigning farmland and community organization. Focus groups indicated that community members of higher wealth have a prominent and at times disproportionate role in dispute resolution in Mwandu.

NGO activities

NGO activity has been concentrated within Mwandu upland, where World Vision International and Caritas have carried out programs recently. Women focus groups indicated that a savings and internal lending community group was unsuccessful and no longer carries out meetings. Mwandu lowland focus groups were unable to identify any NGO

	n (=114)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	43	3.81	2.24	1	10
Man-headed households	71	5.69	2.45	1	13
Age of household head (years)					
Woman-headed households	43	48.12	14.95	20	91
Man-headed households	71	44.10	16.68	21	91

Table 7. Household demographic data, Mwandu.

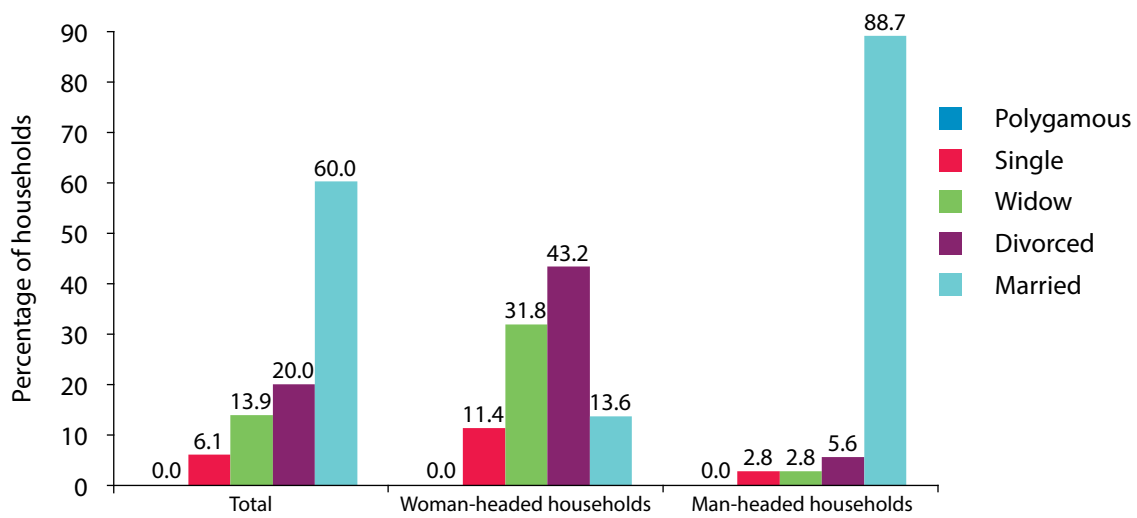


Figure 7. Marital status of household head, Mwandi.

or government activities in the area. Focus groups in Mwandi upland and lowland were unable to identify any operating women's, men's or youth groups.

Ecosystem services

Mwandi features rivers, lakes, forest and grazing lands held as common resources and agricultural land held by individuals and inherited by children (typically males). Rivers and small lakes are common sources of water used for transport, drinking, cooking and bathing. Discussants reported that consuming water from the rivers and lakes causes diarrhea and other intestinal illnesses, as many people use the river as a toilet. The supply of fish from these water resources has diminished. Focus group participants correlate the reduction of fish with the use of the illegal fishing method *sefa-sefa*. Participants described this method as a particularly destructive form of fishing because it kills off fry and fish eggs. As one men's focus group stated with reference to *sefa-sefa*, "If you kill all the babies in this village, would you have adults in the future? No!"

A number of resources form the surrounding environment and are held as common resources, including grass, reeds, papyrus, trees and fish. Individuals wishing to harvest resources such as reeds or grass must ask permission from local leaders. Small lakes are both communally and privately owned and thus require the permission of owners to harvest resources. According to men focus group participants, women and men have equal opportunity to exploit common resources. Women, however, felt that they do not enjoy equal opportunities to collect grass, reeds and

fish, or to cut poles. They do, however, have greater access to papyrus and wild fruits in comparison to the men in Mwandi.

Focus group discussions with men noted that community members illegally harvest resources such as fish and timber as a result of poverty. Discussants expressed fear of arrest and imprisonment for these activities.

The rainy season in Mwandi begins in late October or early November and continues until April. Community members attribute reduced yields to alternating floods and droughts. Discussants also report that climate variability has disrupted the traditional timing of agricultural activities. Reduced yields were reported to cause food insecurity within households and have led to an increase in piecework to secure adequate amounts of food.

Livelihoods and well-being ladder

Overall, the three primary livelihood strategies employed by the residents of Mwandi are fishing, agricultural production and beer brewing, although the relative significance of these livelihood activities varies between Mwandi upland and lowland. While in Mwandi lowland fishing is the predominant activity, agriculture is most important in Mwandi upland. In Mwandi lowland, community members engage primarily in fish capture, processing and trading. While both men and women participate in the capture portion of the fishery, men were said to have an advantage through the use of boats and nets.

Across focus groups of Mwandi upland, discussants indicated that "farming is the core

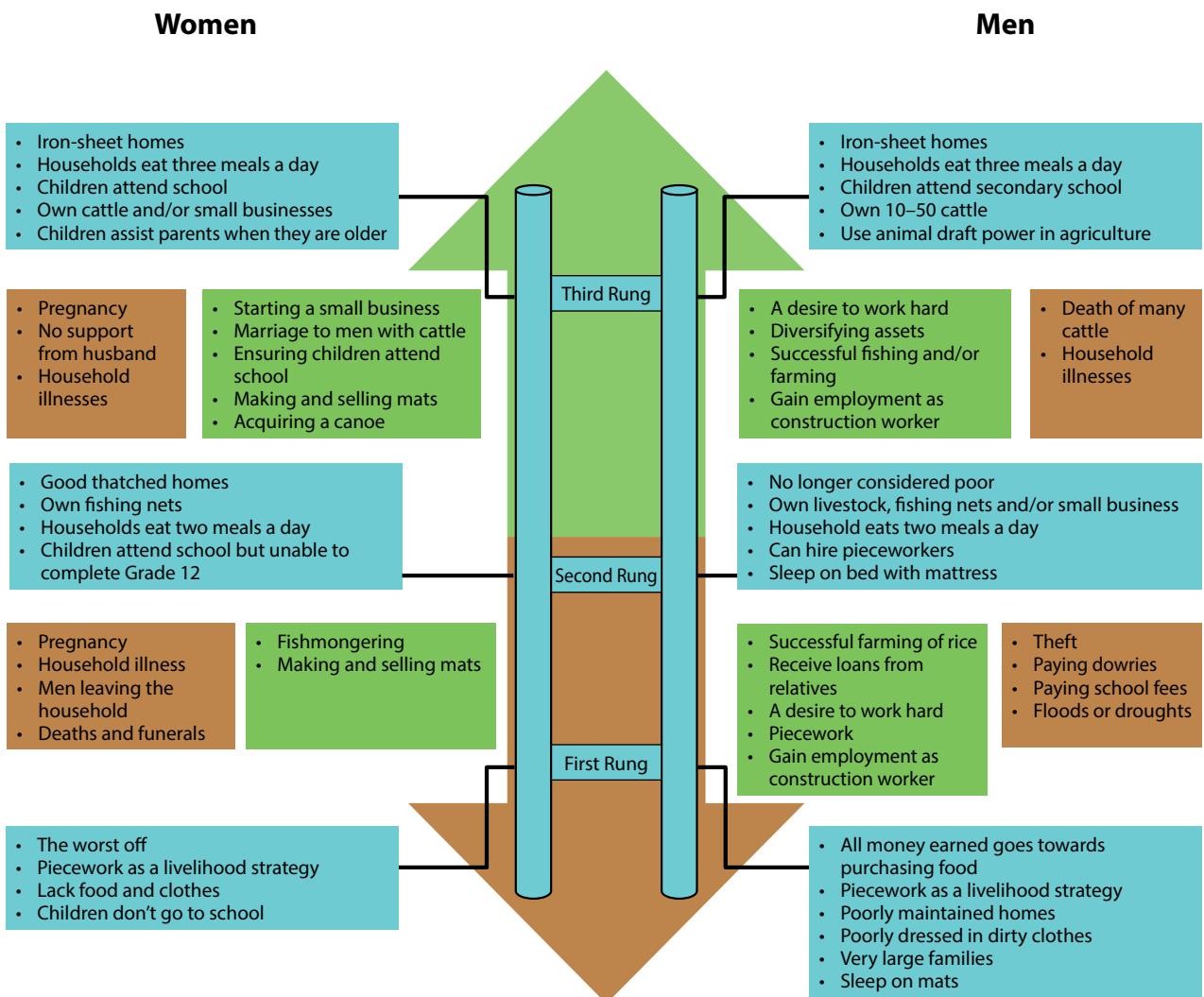
business for the village.” Many people practice farming within the floodplain and upland at different points of the year. Within the floodplain, planting begins in August to September to generate a harvest before the rains and floods destroy crops. Upland fields are planted in October to November to take advantage of seasonal rains and are harvested in March to April following the end of the rainy season.

Agricultural products include rice, maize, cassava, groundnuts, sweet potatoes and vegetables. Rice was introduced to the community in 2011 and has since surpassed maize and cassava as the chief source of agricultural income for many people. Men primarily grow rice with support from women, who assist in harvesting rice. Surplus rice is sold to “briefcase buyers” from Mongu, who purchase rice at below-market prices. Women focus groups in Mwandu upland reportedly cultivate vegetables such as tomato, rape and cabbage for sale. Mwandu upland focus groups reported

significantly higher levels of agricultural production when compared to Mwandu lowland, where vegetables and tomatoes were said to be the primary cash crops.

Livestock rearing was described by focus groups in Mwandu upland and lowland as being practiced by fewer people when compared to the past. Men focus groups described cattle as formerly the “Bank of Barotseland,” but declining numbers have lessened cattle’s importance. The reduction in cattle rearing was attributed to the increasing prevalence of cattle diseases. This reportedly has had a negative effect on agricultural production, because there are no longer enough cattle to provide manure for agricultural uses or to supply draft power. In Mwandu upland, some people raise chickens for sale to other community members.

Figure 8 presents Mwandu’s well-being ladder. The ladder depicts characteristics of women and men in Mwandu from different socioeconomic



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 8. Well-being ladder, Mwandu.

backgrounds, which were identified by both women and men focus group members. The ladder highlights factors that the focus group members identified as helping or hindering movement across the well-being categories. Factors enabling women to move up the ladder centered on planning, commitment and assistance from others. Men focus group members felt that engaging in agricultural, fishing and business activities enables movement up the ladder, stressing hard work as a major factor enabling someone to climb the ladder.

Decision-making

Cooperation between spouses in decision-making processes is seen as a recent development. Disagreement was present between women's focus groups in regard to the level of cooperation between spouses, with some women saying they have the ability to make large and important decisions concerning the household while others said they have the ability to make small decisions concerning cooking, cleaning and visiting relatives. However, all women's focus groups expressed an increasing awareness concerning gender and the rights of women. Both women and men spoke approvingly of couples making decisions after consulting one another. These couples were said to buy "big items," cooperate and be less likely to divorce. Some men were said to not accept changing decision-making practices and continue to make decisions without discussing issues with their spouses. Elderly individuals and jealous husbands were specifically mentioned as groups continuing to operate in this manner and were described by women focus group members as "living in the past" or "not learned."

Spouses commonly make joint decisions about agricultural production, family planning, livestock sales, large household purchases, lending money, initiation ceremonies and children's schooling. Focus groups specifically mentioned extramarital affairs, prostitution and divorce as areas in which joint decision-making is not practiced.

Women did not report major limitations to their movement within the community. Visits to the clinic, friends, family and meetings within the community are viewed as acceptable, only requiring husbands to be informed. Women focus groups noted single women have the

ability to move freely without having to inform relatives. Educated women were also said to be more mobile than their less educated counterparts, though they are still required to inform husbands when traveling long distances.

Women disclosed that they (along with youths) are free to take part in the resolution of disputes within the community if they have a constructive role to play. Although the most resource-poor women speak freely, most community members do not take their opinions seriously.

Marriage

Marriage practices in Mwandia are perceived to be changing in recent years. Many girls now marry at age 15 (compared to age 20 in the past). The early age of sexual activity of boys and girls was noted as a major contributing factor to the changing nature of marriage. Many of the negative aspects of changes in marriage were attributed to new technologies, such as cell phones, the Internet and adult movies.

Women focus groups reported that men increasingly refuse or lack the means to pay dowries. In the past, dowry payments to a woman's family consisted of three cows (or the equivalent cash value) for a woman with no children or two cows for a divorced or widowed woman. Today, many young couples are choosing to elope or use "shortcuts," meaning parents are no longer involved in arranging marriages. Focus groups expressed concern that younger generations do not recognize the importance of dowry payments, seen by parents as an important means to increase household welfare. Reduced rates of dowry payments, eloping and early age of sexual activity are all seen as contributing factors to the increased rate of divorce within the community.

Focus groups viewed divorce as having negative effects on individuals, households and the community. Divorce is seen as caused by extramarital affairs, limited dowry payments and gender sensitization. Men focus groups cited laws distributing household wealth and protecting women from domestic violence as significant factors in promoting women to seek a divorce. Women focus groups voiced concern that divorced women seek to "take over" their marriages. They also anticipate the rate of divorce will continue to increase in the future.

Education

For residents of Mwandji, educational advancement is critical to improving livelihoods, gaining formal employment and increasing future support to parents. Women focus groups expressed the belief that educated daughters assist parents at a higher level than sons because a son can be “influenced” by his wife to assist her family. A number of changes and challenges in educational patterns were noted, including rising costs associated with school attendance, distance to schools and changing curriculums. Distance to schools was cited as the largest factor affecting pupils’ attendance. Women focus groups said that without relatives living near the school, it is difficult for students to travel back and forth on a daily basis due to the time involved in walking.

High rates of school attendance by girls are viewed positively. A school meals program at Ngunyama Basic School was said to contribute to high enrollment and attendance by both girls and boys. The challenges girl pupils face in completing school were discussed extensively during focus group discussions. Pregnancy and early marriage were mentioned numerous times as being major contributing factors in preventing girls from advancing levels or completing schooling. A men’s focus group questioned the benefit of girls and boys attending school together, citing a radio report of high numbers of pregnancy at Kaoma Secondary School. Boys were said to fail to complete school because they joined “bad company” and engaged in alcohol and drug use.

Community vision

The community vision presented in Table 8 reflects the aspirations of women and men in Mwandji in the next 5 years. A number of key social issues need to be considered when using the community profile and vision, including piecemeal as a coping strategy and levels of dependency created between better-off community members and those on the lowest rung of the well-being ladder. Potential initiatives should also consider the impact that reduced fish and cattle populations have on multiple aspects of household structure. In many cases, these issues can affect the ways in which individuals and households pursue vital livelihood strategies.

Key gender issues to consider in developing activities in Mwandji are the gendered nature of beer brewing and consumption, agricultural practices, and the sexual health of young women. The sexual behaviors of youth were a major topic of consideration during focus group discussions. In particular, the issue of girls becoming pregnant while still students was a major concern, exacerbated by the perception that young women and girls are engaging in transactional sex.

Finally, it is important to note that men’s focus groups in Mwandji lowland seek to amend laws aimed at preventing child abuse and domestic violence. Such laws were said to have prevented men from controlling both their children and wives. They also articulated the desire to re-incorporate corporal punishment in homes



Cattle in a *kraal* at dawn in the Barotse Floodplain.

and schools. To do this, it was suggested that victim support units be eliminated from the community. Focus group discussions also revealed that alcohol consumption in Mwandi lowland is significantly higher than in Mwandi

upland. A contributing factor to this may be the brewing of inexpensive local forms of alcohol by women as a coping strategy in combination with large numbers of fishers with disposable income.

Dream statement	A healthy and food-secure community residing in a clean environment with good houses and social amenities for entertainment.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Advocacy for improved access to land and awareness on maximum utilization • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Clearing and management of canals for irrigation, flood control and transport (market access) • Strengthening of relationship with Ministry of Agriculture and Livestock for improved extension, including community-based extension • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries • Access to loans for farm implements
	Innovation and technology	<ul style="list-style-type: none"> • Trainings in conservation agriculture and agroforestry • Access and resource mobilization for improved breeds of livestock • Improved irrigation systems
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization and canal clearing and management
Natural resource management	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Infrastructure development and access to markets	Canal management	<ul style="list-style-type: none"> • Community mobilization for clearing of canals
	Improved road network	<ul style="list-style-type: none"> • Lobbying government for road network development
	Education (schools)	<ul style="list-style-type: none"> • Lobbying government for construction of schools
Water, sanitation and hygiene	Waste management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Water quality	<ul style="list-style-type: none"> • Sensitization programs on water quality and treatment methods
	Access to sanitation information and services	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of households and savings for increased incomes
Gender	Women's empowerment	<ul style="list-style-type: none"> • Facilitation of formation of women's groups and training them in entrepreneurship and savings
	Promotion of gender equity and equality	<ul style="list-style-type: none"> • Generating awareness about gender norms and roles of women in development
Good health	HIV/AIDS	<ul style="list-style-type: none"> • Generating awareness about HIV/AIDS and its impact on development • Coping strategies
	Access to health facility	<ul style="list-style-type: none"> • Lobbying government to construct health centers with qualified staff and well-stocked drugs

Table 8. Community vision, Mwandi.

Nanikelako profile

Overview of community infrastructure and services

Nanikelako is the burial place of the first Lozi king (*Litunga*). From November to July, the area is accessible by boat transport from Mongu harbor, taking 1–2 hours depending on flood levels and the condition of the boat. During the remaining portion of the year transport by vehicle is possible. From Mongu the trip by vehicle takes 30 minutes to an hour on a dirt road. The two nearest AAS focal communities are Situlu and Lealui, located 5 and 10 km away, respectively, over poor dirt and unpaved roads.

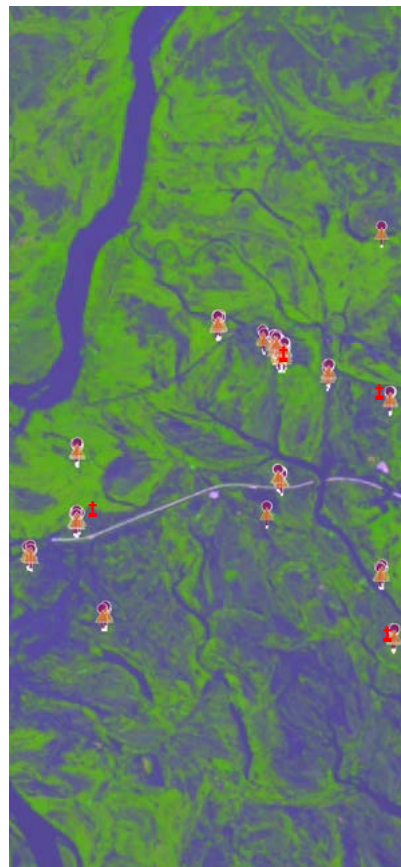
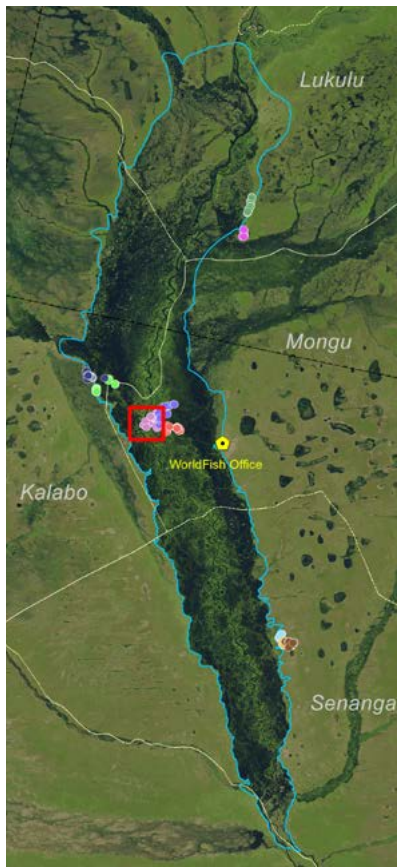
There is one school in the vicinity, which enrolls students in Grades 1–7. Further education options are available in Lealui for Grades 8 and 9, and secondary schools are located in Kalabo and Mongu. The closest access to basic health care is in Lealui, a distance of 4 hours by foot. Focus groups stated that the distance to the clinic prevented community members from receiving timely service. For example, a lack

of transport options prevents some pregnant women from delivering at the clinic. Despite the constraints to accessing the clinic, these women are at times punished through fines for not delivering at the clinic.

Residents retrieve water from ground wells of varying quality or from nearby rivers, canals and lagoons. This activity is carried out predominantly by women and girls. Water quality is a major issue, as a consequence of community members using waterways as toilets and refuse pits.

An agricultural camp extension officer provides residents with information related to agricultural practices and organizes various government programs, such as fertilizer distribution.

Cell phone coverage can be described as fair depending on the distance to provider towers. Airtel and MTN provide the best-quality service in the area. Common household items such as soap, farm implements, clothing, foodstuffs and alcohol are available at privately owned shops.



- ▲ Woman-headed households
- Man-headed households
- ✝ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 6. Map of Nanikelako, Mongu District.

Household demographics and structure

In the past, households in Nanikelako consisted of a married woman and man living together with their children and at times extended family members. While this arrangement continues to be prevalent, the number of woman-headed households has increased over time. Presently, 41% of Nanikelako households are headed by a woman (Table 9). Of these woman-headed households, widows head 23%, with another 39% headed by divorcees (Figure 9). Focus groups attributed this increase to the deaths of husbands, a lack of dowry payments and increasing rates of divorce. No child-headed households were reported. This was connected to the practice of families adopting the children of deceased relatives.

According to focus groups, the number of polygamous marriages has decreased in Nanikelako. Two polygamous households were recorded during the census exercise (Figure 9). Reasons offered for the perceived decline related to Christian values held by many community members, concerns with the transmission of diseases within polygamous relationships, and high costs associated with large families.

Community leadership

Leadership follows the traditional practices of Barotseland. Nanikelako is under the authority of the *Silalo Induna* Nalubuta, whose palace is located in Lealui. Notably, two women *indunas* have been elected in Nanikelako. Another woman who provides leadership is Nomboti Munyembo, the caretaker of Litunga Limbwat's grave. She is credited with having a major role in improving community sanitation and hygiene practices. Church leaders, the elderly and prominent community members also have a role in community leadership and mobilization.

NGO activities

Focus groups were unable to identify any active women's, men's or youth groups in the area. There are, however, savings and internal lending community groups that meet on a regular basis. A number of farmers' groups were operating in the past but have ceased activities. World Vision, Oxfam and the Red Cross were reportedly active until 2009. Currently, the only organizations active in Nanikelako are Concern Worldwide; Mongu Dairy Cooperative Society, known as MADACO; and Caritas.

Ecosystem services

Nanikelako comprises rivers, lagoons, forest and grazing lands held as common resources. Agricultural land is held by individuals and inherited by children (typically males). Canals are the common source of water used for transport, drinking, cooking and bathing. Consuming water from the canals was recognized as a health risk due to the practice of people using the river as a toilet. From the canals, community members gain access to larger bodies of water to harvest what is said to be a diminishing supply of fish. Focus group participants blamed the use of illegal fishing methods as a major contributing factor in the reduction of the area's fish population. The *sefa-sefa* fishing method was singled out as a particularly destructive form of fishing.

The area boasts a number of common-property resources, which are accessible to residents with approval from local leaders or landowners. These include grass, reeds, papyrus, trees and wild fruit. In some cases, use of a resource requires a fee. Women focus group participants reported that they do not enjoy equal opportunities to collect grass, reeds, fish or poles, but that they do have greater access to wild fruits in comparison to men.

	n (=182)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	74	4.20	1.91	1	10
Man-headed households	108	5.80	2.60	1	14
Age of household head (years)					
Woman-headed households	74	42.57	17.22	20	85
Man-headed households*	107	39.93	15.37	21	98

*One missing household.

Table 9. Household demographic data, Nanikelako.

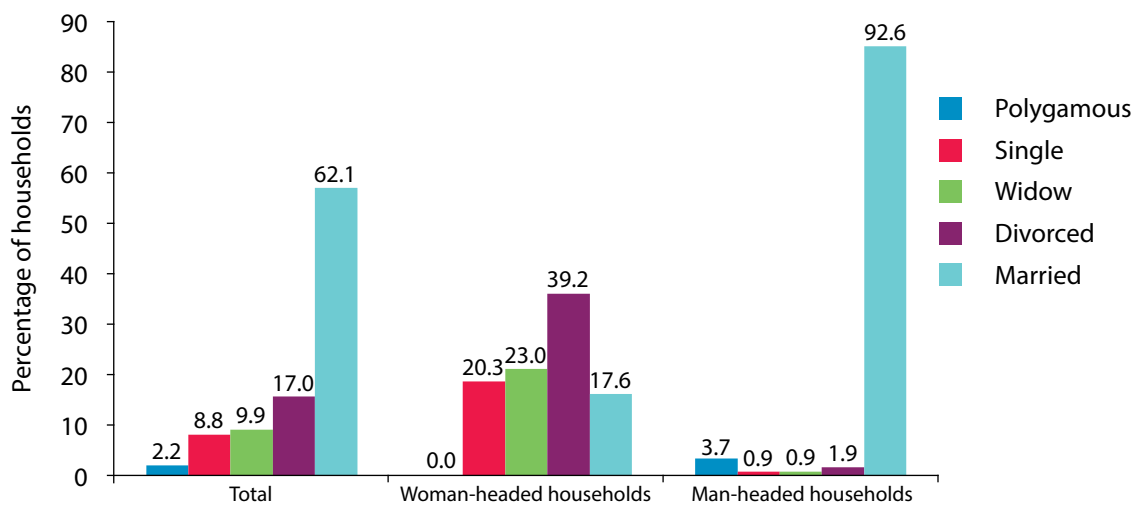


Figure 9. Marital status of household head, Nanikelako.

The rainy season in Nanikelako begins in late October and continues until April. Changing rainfall and flood patterns are blamed for reduced yields and altering the timing in which agricultural activities are carried out.

Livelihoods and well-being ladder

The three primary livelihood strategies employed by residents of Nanikelako are fishing, cattle rearing and farming. Fishing activities are seen as the most important and profitable livelihood strategy. These activities are practiced primarily from March to November, only halting for the December to March fishing ban imposed by the Department of Fisheries and the BRE. Both men and women participate in the fishery, with men responsible for a majority of fish capture and women participating in fish processing and retail. A men’s focus group praised the *sefa-sefa* fishing method for increasing incomes, which has allowed many people to make home improvements, purchase livestock and send children to school.

Animal husbandry is an important source of livelihood. Cattle, chickens and ducks are the most common domesticated animals. Cattle provide individuals with milk, manure and draft power. The sale of cattle to buyers from Zambeef and Star Beef in Mongu is a significant source of income for community members. Men generally own the cattle, though in some cases women also own cattle. Sale of chickens provides household income, which is particularly important for the purchase of

foodstuffs during periods of insecurity, such as during the fishing ban. Most chickens are sold within the community, with occasional sales to buyers from Mongu.

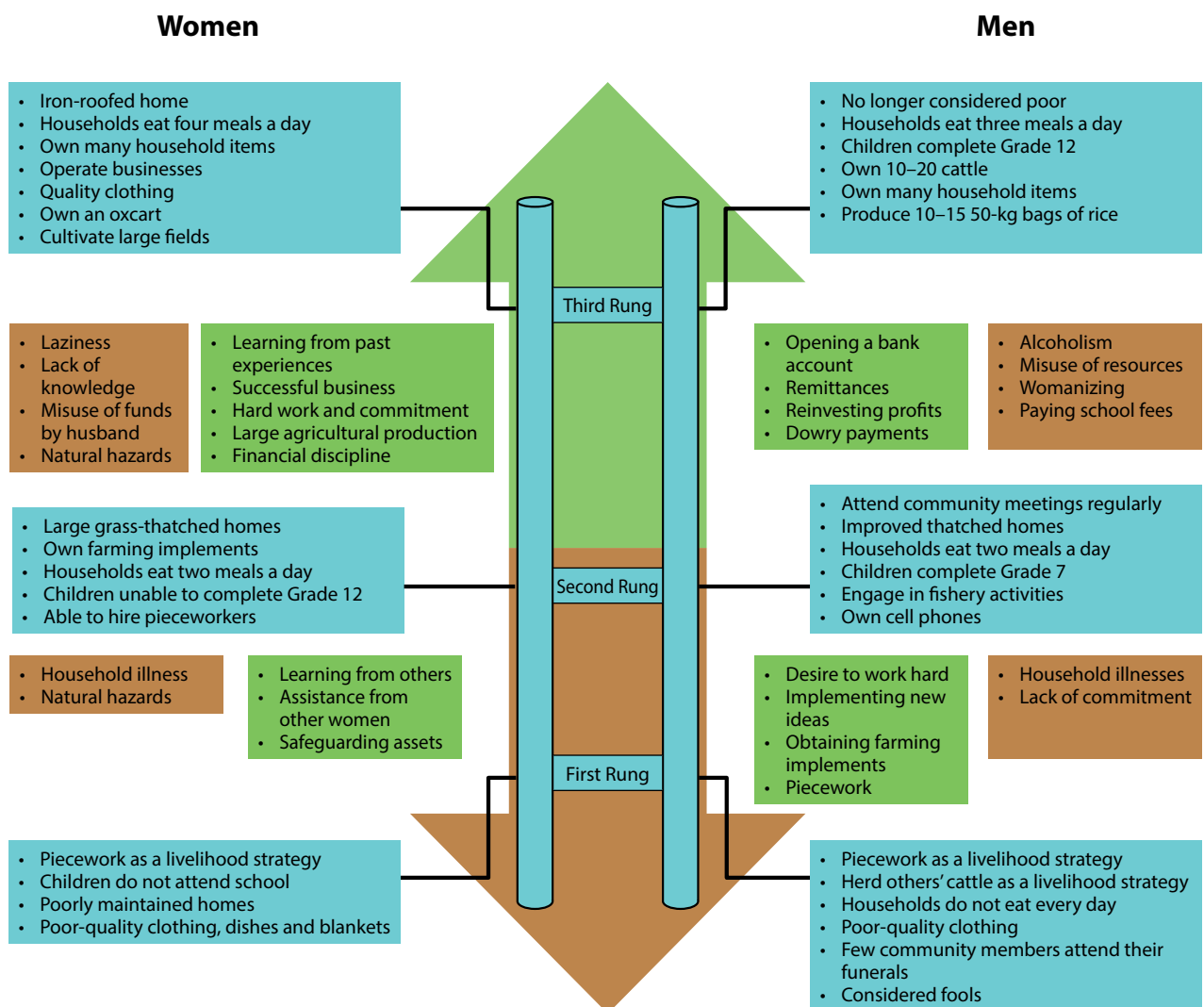
The third most significant livelihood activity is farming. Upland cultivation extends from October to March to capitalize on seasonal rains. Within the floodplain, people farm from August to September, with harvest prior to the initiation of heavy rains. The primary agricultural products in Nanikelako are rice, maize, cassava, sweet potatoes, groundnuts, pumpkins and vegetables. As in other communities throughout the Barotse Hub, men household members plow fields using a hoe or, if accessible, draft animals. Women clear fields, sow seeds, weed, and harvest crops for both household consumption and sale in Nanikelako or at the Gabon Bridge. Rice has surpassed maize and cassava as the primary cash crop since its recent introduction. Demand for rice is believed to be increasing, but poor transportation networks reportedly limit profits, forcing sales to “briefcase buyers” at below-market prices.

Secondary income-generating activities are practiced throughout the year to supplement income and cope with periods of insecurity. Among these, one of the most important is small businesses, which sell common household, agricultural and food items year round. Small enterprises are particularly important sources of revenue for women.

Figure 10 presents a well-being ladder for Nanikelako. The ladder depicts characteristics and mobility of women and men in Nanikelako from different socioeconomic backgrounds, identified by both women and men focus group members. Those classified at the bottom of the community's socioeconomic ladder collect firewood, reeds and grass and provide piecework to better-off community members. Better-off individuals are generally government workers, own significant numbers of cattle or cultivate large fields. Collection and piecework activities are generally performed as coping strategies when people experience a period of insecurity. According to a women's focus group, resource-poor and uneducated community members often develop a dependency on the better off. These patron-client relationships often develop into exploitative situations in which the better-off individuals offer low wages for large and time-consuming work.

Decision-making

Both men and women in Nanikelako remarked that in recent years, spouses have become increasingly inclined to engage in cooperative decision-making. Women are experiencing a greater capacity to make independent decisions on behalf of the household. Both women and men spoke approvingly of spouses that make decisions together and described such couples as cooperative and respectful. Discussants noted, however, that in some cases men are unwilling to accept changing practices and continue to make decisions alone—particularly men classified as wealthy or better off, who “have no regard for their wives.” Spouses commonly make joint decisions about agricultural production, business, the purchase of household items and education. With regard to extramarital affairs, purchase of farm implements and witchcraft, however, women noted that joint decision-making is not practiced.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 10. Well-being ladder, Nanikelako.

Women focus groups also voiced an increasing awareness concerning their rights. They did not report major limitations to their movements within the community. Visits to the clinic, friends, family and meetings within the community are viewed as acceptable, although husbands or male relatives must be informed. Women reported that they (along with youths) are free to take part in the resolution of disputes within the community. In terms of dispute resolution, elders and church leaders are the primary actors.

Marriage

Residents perceived the emergence of negative changes in marriage practices in recent years. Chief among these changes are early marriage age among girls, early pregnancy, a decline in dowry payments and increased divorce. Women reported that many girls are now marrying at age 13, compared to age 18 in the past. Some discussants attributed these changes to a disregard for traditional marriage practices among young people, as well as premarital sex and cohabitation. The falling age of marriage and early pregnancies cause parents financial hardship, as they are forced to support recently married couples and young mothers who are unable to provide for themselves. Both women's and men's focus groups believed children pursuing education exhibit a concern for their future and consequently are more likely to delay marriage.

Focus groups reported an increasing inability or refusal by men to pay dowries. Women's focus groups felt that young women who cohabit or elope are the primary reasons for the decline in dowry payments. It was said these women and their husbands are disrespectful, have no foresight and lack self-esteem. Men focus groups described dowry payments as an important way for a bride's parents to generate wealth and financial security.

Community members perceived divorce to be increasing. At the time of the census, 17% of households in Nanikelako were classified as divorced, with nearly 40% of woman-headed households falling into this category, compared with less than 2% of man-headed households (Figure 9). Discussants identified a number of factors that have led to an increase in divorce, including early marriage, elopement and a decline in dowry. For men, nonlocal cultural influences that are destroying traditional practices were seen as the primary causes of an

increase in divorce rates. Among women, the main causes were seen as extramarital affairs, alcoholism and domestic violence. Focus groups described a number of negative consequences that result from divorce, most notably the increase in hardship among children. Women's focus groups characterized children of divorced households as having higher levels of school absenteeism, incidents of petty crime (e.g. theft) and premarital sexual relationships. In general, residents viewed divorced individuals as adulterers, fools and weak.

Education

For women and men in Nanikelako, the most important way to improve livelihoods and gain employment is education. Moreover, educated people are perceived as more likely to support parents in the future. Particularly among women, girls' schooling through Grade 12 was considered a principal determining factor in women's employment and empowerment. In contrast, a men's focus group expressed distrust of educated women, seeing them as "crooked" and "uncommitted to marriage." This view contradicted a perception articulated by a women's focus group that men seek educated women to marry because they are better able to generate income and thus improve the livelihoods of families.

School fees, compounded by poverty, are the primary constraint to educational attainment for both girls and boys. Community members expressed the belief that unless free education is enforced in the future, only the better off would be able to afford school. If this occurred, it was said, people would suffer because income-earning opportunities for resource-poor households would be limited to low-paying and unskilled activities. Those who qualify to advance to secondary school from Nanikelako must travel to Mongu or Limulunga. The distance to these schools requires families to pay the costs associated with transport and boarding.

Community members spoke positively of high rates of school attendance among girls, although a great deal of discussion focused on the challenges girls face in completing school. Pregnancy was mentioned numerous times as a major contributing factor that prevents girls from going to school. Discussion regarding girls' sexual activity centered on the belief that girls engage in transactional sex to obtain clothing or food while attending boarding school.



Typical dwelling in the Barotse Floodplain (solar panel in the foreground).

Community vision

The community vision presented in Table 10 reflects the future 5-year aspirations of women and men in Nanikelako. In using the community vision as a tool to guide future interventions, it will be important to consider various social and gender issues that emerged from the community profile. As in other communities of the Barotse Hub, piecemeal has become a predominant coping strategy. In Nanikelako, discussants noted the dependence of resource-poor people on better-off people for unskilled, low-wage labor that in turn increases the vulnerability of the resource-poor. The prevalence of “briefcase buyers” that pay below-market prices for agricultural products was also highlighted in discussions, as well as the impact of reduced fish and cattle populations. Notably, Nanikelako was the only AAS focal community to praise the use of the *sefa-sefa* fishing method; sensitization programs may be relevant when discussing fishery conservation.

In addressing gender issues, it is important to note that focus groups identified three prominent women leaders, with one woman primarily engaged in sanitation issues. Incorporating this local knowledge concerning household and agricultural activities could impact community sanitation, nutrition and health-related outcomes, as many of the decisions related to the provision of water, food preparation and health-seeking behaviors are carried out by women.

The sexual behaviors of youth were also a major topic of consideration during focus group discussions. In particular, pregnancy among girls in school was a major issue. Sensitivities around youth pregnancy were heightened by the perception that girls at boarding school engage in transactional sex in exchange for food and clothing.

Dream statement	A healthy and food-secure community where people reside in a clean environment with good houses and have opportunities for youth employment.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Generating awareness about maximum utilization of idle land • Generating awareness about use of improved and appropriate seed and establishment of linkages with input suppliers • Clearing and management of canals for irrigation, flood control and transport (market access) • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Trainings in conservation agriculture (appropriate to floodplain climatic pattern) • Source for loans for improved livestock breeds for milk and good meat • Improved irrigation systems (e.g. treadle pumps)
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops (rice, maize, vegetables and beans), alongside livestock (chickens, pigs, goats and ducks), gardening and fishing for incomes, food security and nutrition
	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization, development and implementation of canal clearing and management plans • Linkages with service providers for resource mobilization (tools and labor)
Natural resource management	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Strengthening of village natural resource management committees
Water and sanitation	Hygiene	<ul style="list-style-type: none"> • Generating awareness about good hygiene practices
	Waste management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Clean water	<ul style="list-style-type: none"> • Sensitization programs on water quality • Application of water treatment methods
	Access to information and sanitation provision	<ul style="list-style-type: none"> • Generating awareness about sanitation practices and linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of savings and other income-generating activities
Socioeconomic issues	Employment opportunities for youths	<ul style="list-style-type: none"> • Facilitation of income-generating activities for self-employment • Facilitation of formation of youth clubs or groups • Facilitation of savings and loan initiatives for increased incomes • Capacity building in various income-generating activities
Markets	Improved access to market	<ul style="list-style-type: none"> • Canal clearing • Road network development • Increased production and quality of produce
Health	Improved access to quality health services	<ul style="list-style-type: none"> • Lobbying of government to construct health center • Sensitization meetings to reduce HIV/AIDS

Table 10. Community vision, Nanikelako.

Situlu profile

Overview of community infrastructure and services

From November to July, the area is accessible by boat transport from Mongu harbor. The journey takes 1–2 hours, depending on flood levels and the condition of the boat. During the rest of the year, Situlu can be accessed by vehicle. From Mongu, the trip by vehicle takes 45 minutes to an hour on paved and gravel roads. Situlu is connected to Lealui (10 km away, taking 30 minutes) by roads in poor condition.

Nakaywe Primary School is located in the immediate area and provides students with the opportunity to attend Grades 1–7. Schooling from Grades 8 through 12 is available in Lealui, Limulunga and Mongu.

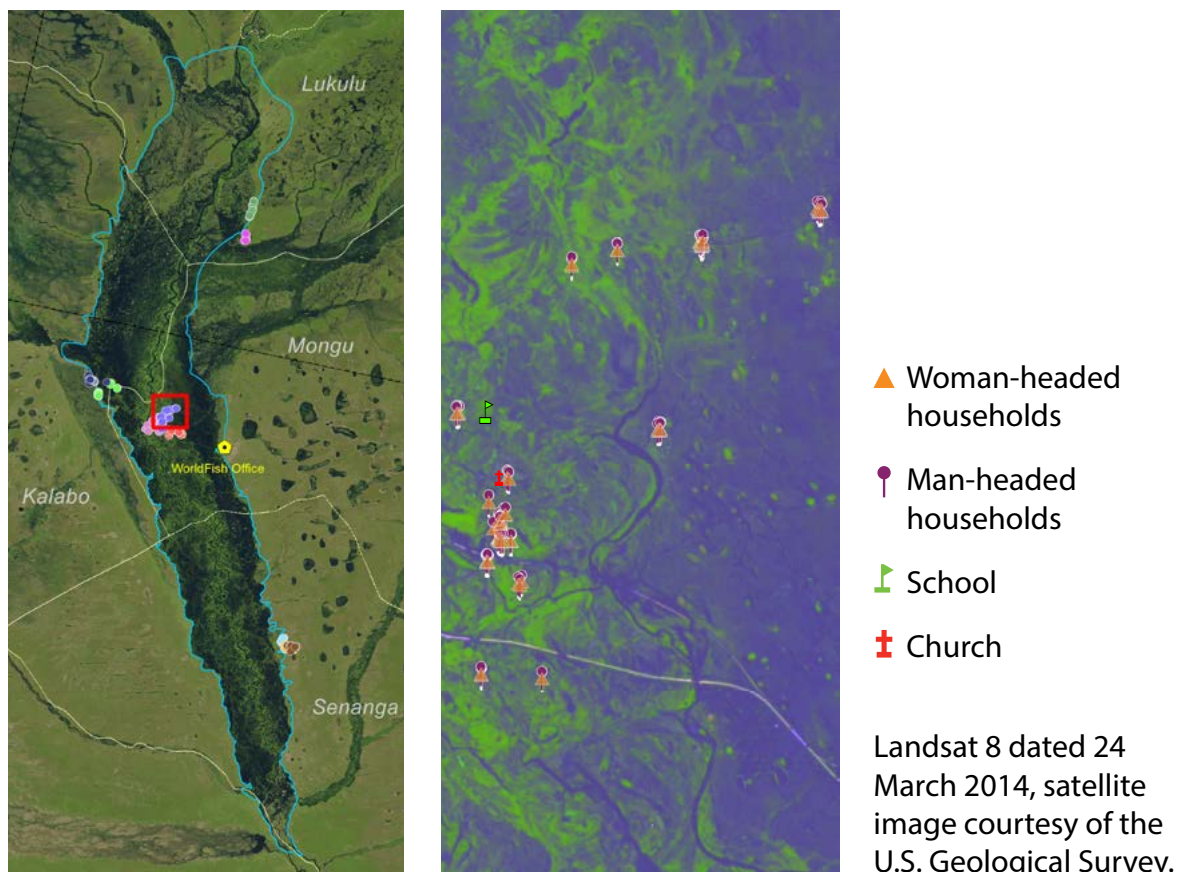
Situlu community members receive health services from the Lealui Rural Health Center, located 10 km away. Focus group participants found clinic staff and services to be adequate since facility upgrades in 2011 and 2013. The distance to the rural health center, however, causes complications for pregnant women who want to deliver at the clinic.

Girls and women retrieve water from nearby rivers, lakes and lagoons. In general, these water sources are a distance of 400 meters to 1 km from households.

Airtel and MTN provide the best-quality cell phone service in the area, described as fair depending on distance to towers. The most commonly purchased household items include soap, farm implements, clothing, foodstuffs and alcohol, available from privately owned shops.

Household demographics and structure

Family composition is undergoing changes in Situlu, as in other AAS focal communities in the area. Commonly, households comprised married spouses living with their children and occasionally extended family members. While this arrangement continues to be prevalent, the number of extended families and woman-headed households has increased over time. Women indicated that extended households have grown because family members send children to live with relatives to be closer to school. Other reasons for shifting family structures included death of husbands and/or relatives and increasing rates of divorce. Community members noted that the number



Map 7. Map of Situlu, Mongu District.

of women, and thus potential woman-headed households, had increased in recent years to the point where many women are unable to marry or re-marry due to a disparity in the numbers of women and men in the community. Of total households in Situlu, 42% were headed by women (Table 11). Among these, half are headed by married women—the highest percentage across the AAS focal communities in the Barotse Hub (Figure 11). Widows head another 20% of woman-headed households and divorcees head 16%. There are no reported child-headed households; rather, orphaned children live with relatives.

According to focus groups, the number of polygamous marriages has declined in Situlu. Four polygamous households were recorded during the census exercise (Figure 11). The primary reason cited for the decline is the cost of schooling, food and clothing associated with supporting a large family. In addition, women focus group participants expressed concerns with the transmission of diseases, jealousy between wives and “charms” (or witchcraft) within polygamous relationships. Discussants described polygamous partners as fools and failures.

Community leadership

Situlu is under the traditional leadership authority of the *Silalo Induna* Nalubuta, whose palace is located in Lealui. All of the elected *indunas* in the Situlu area are men. They have the primary responsibilities of assigning farmland, resource allocation and community organization. Other community leaders include church leaders, area counselors and prominent community members. There are few women in leadership positions outside traditional practices. A men’s focus group attributed this to women’s overall weakness and potential to be “easily influenced” by others. The most resource-poor members of the community are

also excluded from leadership positions, but retain the ability to vote on new leaders.

NGO activities

NGOs present in the community include World Vision International, Concern Worldwide, Oxfam, Caritas, PPS and Action for Africa (AFA), along with the government-sponsored Farmer Input Support Program. Focus groups identified one women’s group, Lyangatoya, which operates in the area. There were reportedly no active men’s or youth groups, although Concern Worldwide, AFA and PPS have organized such groups. Nakaywe Primary School has an active parent-teacher association, which is primarily focused on expanding accommodation options for teachers.

Ecosystem services

Common-property resources in Situlu include rivers, lagoons, and grazing lands. Private individuals hold agricultural land, which is typically inherited by male children. Area canals provide water for transport, drinking, cooking and bathing, as well as fish habitat. According to participants, the supply of fish in canals is diminishing, primarily as a result of the illegal fishing practice of *sefa-sefa*.

Other common-property resources in the area include grass, reeds, papyrus, wild animals and wild fruit. Individuals wishing to harvest resources such as reeds or grass must ask permission from local leaders and may have to pay a fee. While women reported that they have greater access than men to wild fruits, they are less able to harvest grass, reeds or fish or to cut poles. Focus groups also noted a diminishing supply of trees, papyrus and birds. Discussants acknowledged that many community members illegally harvest resources from the surrounding environment, despite risks of arrest and imprisonment.

	n (=147)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	62	4.32	1.81	1	10
Man-headed households	85	5.42	2.81	1	13
Age of household head (years)					
Woman-headed households*	61	43.28	18.24	21	85
Man-headed households	85	43.18	15.37	21	85

* One missing household.

Table 11. Household demographic data, Situlu.

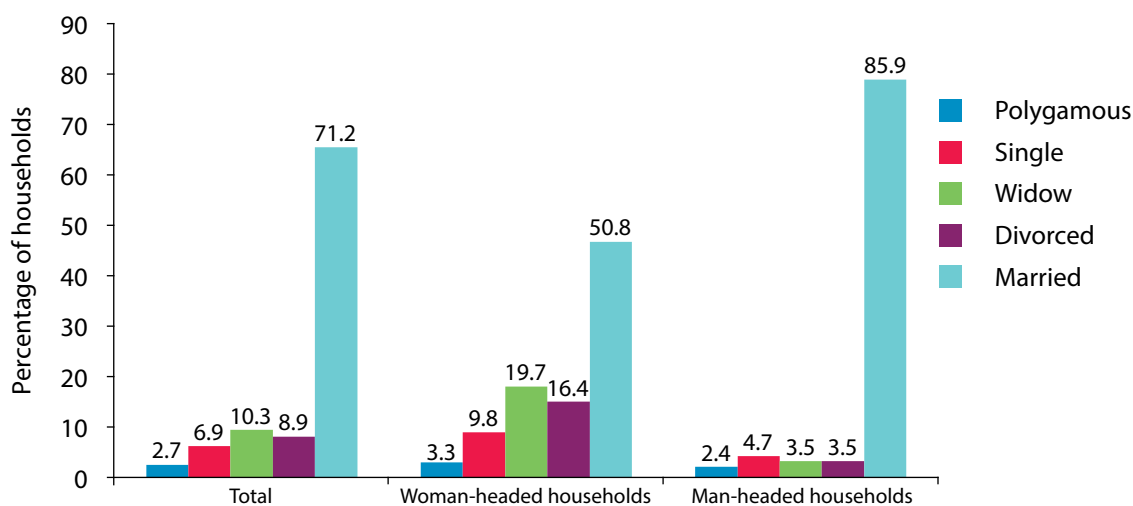


Figure 11. Marital status of household head, Situlu.

The rainy season in Situlu begins in November and continues until April. Rainfall and flood patterns have changed in the area, resulting in decreased crop yields and altering the timing of seasonal agricultural activities.

Livelihoods and well-being ladder

The three primary livelihood strategies in Situlu are fishing, rearing livestock and agricultural production. Fishing, which is practiced primarily from March to November, is the most important and profitable activity. Fishing activities cease from December to March with the fishing ban imposed by the Department of Fisheries and the BRE. Within households, men and women have different roles in the fishery: men perform a majority of the capture portion of fishing activities, while women participate predominantly in fish processing and retail. Boys as young as 7 years of age participate in fish capture through the use of traps. The practice of the fishing method *sefa-sefa* was cited as the major contributor to reductions in fish stocks. It was said that this method leaves nothing behind, removing fish, fry and eggs. A men's focus group believed *sefa-sefa* is reducing the wealth of Barotseland and forcing people to increase agricultural production in an attempt to generate alternative sources of income.

Animal husbandry is the second most important source of livelihood, with cattle, pigs, chickens and ducks being the most common domesticated animals. Cattle, owned predominantly by men, have an important role in providing individuals with milk, manure and draft power. Herd sizes were said to have decreased in recent years due to outbreaks of various cattle diseases. Despite this, the sale

of cattle to buyers from Zambeef in Mongu or Senanga provides a significant source of income to community members. Men focus groups expressed approval of the introduction of new breeds of cattle that have improved the quality of meat and milk.

Women and men focus groups disagreed with regard to the presence of pigs in Situlu. Although women reported that pigs are not present, men expressed satisfaction with the rapid reproductive and growth qualities of pigs and the sale value of this livestock. Men also noted the potentially destructive nature of pig feeding behaviors.

Many people practice farming within the floodplain and upland at different points of the year. Within the floodplain, planting begins in August–September in an effort to generate a harvest before the rains and floods destroy crops. Upland fields are planted in October–November to take advantage of seasonal rains. These fields are harvested in April following the end of the rainy season. Agricultural products cultivated in Situlu include rice, maize, cassava, sweet potatoes, beans, pumpkins and vegetables. Male household members have the responsibility for plowing and fertilizing fields. Men undertake field preparation using a hoe or draft animals, if possible. The primary activities of female household members are sowing seeds, weeding, watering and harvesting crops that are consumed or sold within the community. Community members take rice and milk to Mongu or sell to “briefcase buyers.” Rice was introduced in the community during the 2010 planting season and has since become the chief

source of income for many people. Focus groups indicated community members' preference for conventional maize over hybrid maize due to its ability to withstand seasonal flooding.

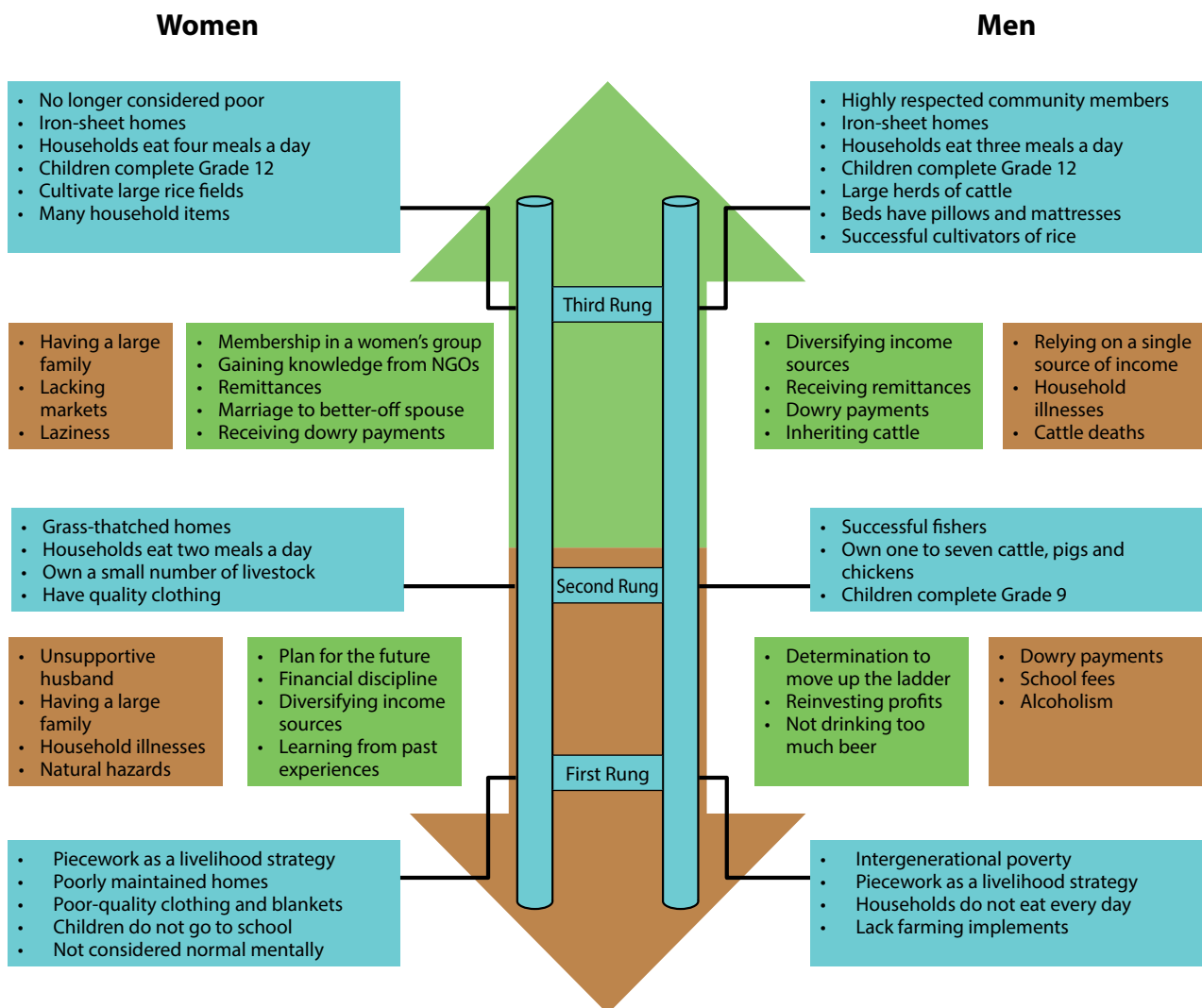
A number of secondary income-generating activities, such as small enterprise, are practiced throughout the year to supplement income and manage during periods of insecurity, particularly for women. Women regarded beer brewing and selling wild fruits as important sources of income in October and November.

As shown in the well-being ladder (Figure 12) and from qualitative discussions, those who occupy the bottom of the community's socioeconomic ladder collect firewood, reeds and grass and provide piecework to better-off community members, who are owners of large cattle herds or successful rice farmers. Focus groups described those at the bottom of the socioeconomic ladder

as asset-poor, uneducated and vulnerable to intergenerational poverty.

Decision-making

Increasingly, men and women in Situlu are making joint household decisions. Simultaneously, women are more often in a position to make decisions without consulting husbands or male relatives. Moreover, men expressed an increasing awareness of gender issues. Women and men spoke approvingly of couples that make decisions after consulting one another, describing them as respectful, coordinated and harmonious. Spouses commonly make joint decisions about agricultural production, the purchase of household items, the care of family members, family planning and schooling. Many of these changing ideas have been introduced to the community by radio programs. However, not all relationships incorporate cooperative decision-making.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 12. Well-being ladder, Situlu.

Discussants observed that some men do not accept changing practices and continue to make decisions independently. These men were described as believing “they are above their wives.” Men also noted specific areas in which joint decision-making is not practiced, namely in regard to extramarital affairs, witchcraft and theft.

In terms of mobility, married women must seek permission from husbands prior to visiting the clinic, friends or family or attending meetings within the community. Women and men offered contradictory opinions about the participation of resource-poor community members in dispute resolution. While women said that all community members’ contributions are respected, men said the resource-poor are free to speak but their opinions are dismissed by decision makers.

Marriage

Marriage practices in Situlu are seen to be changing in recent years. Many girls, for example, now marry as young as age 13, compared to age 18 in the past. Cohabitation was cited as a major contributing factor to the changing nature of marriage within the community. Discussants also attributed many of these changes to children’s behaviors (e.g. disregarding parental advice) and the tendency of young people to adopt Western practices.

Focus groups reported an increasing inability or refusal by men to pay dowries. In the past, the common dowry payment to a woman’s family was three cows (or the equivalent cash value) for a woman with no children or two cows for marriage to a divorced or widowed woman. Women focus group participants anticipated that in the future dowry payments would be reversed, with women transferring assets to husbands. Today, many young couples are choosing to elope and/or do not seek the permission of the bride’s family before marriage. Women’s and men’s focus groups viewed those who do not follow traditional dowry customs as disrespectful and failures. A women’s focus group viewed other women who do not insist that husbands pay dowry as prostitutes. The falling age of marriage and lack of dowry payments in turn cause parents financial hardship.

Instances of divorce are perceived as more common compared to the past. Reduced rates of dowry payments, eloping, domestic

violence and early age of marriage are all seen as contributing factors to the increased rate of divorce within the community. Some women reported that high rates of divorce contribute to disease transmission and high levels of vulnerability. Men focus groups believed that these trends are caused by women who they said see marriage as a “game” or a strategy to acquire assets. Both women and men focus groups viewed divorcees negatively and described them as failures, prostitutes and lazy. A women’s focus group expressed suspicion of divorced women, believing these women have a tendency to engage in affairs with married men.

Education

Community members highlighted the value of education for enhancing livelihood opportunities and providing future support to parents. A men’s focus group expressed the benefits of education by saying, “Education does not change, while other things can disappear.”

Focus groups noted significant changes in education in recent years. Reportedly, there is an increase in enrollment of girls. Women focus groups viewed this as a positive change: boys and girls should have equal opportunity in education so that they can compete for prestigious positions as doctors and ministers. Discussants also observed an increase in the variety of subjects in the school curriculum.

In terms of challenges or negative changes, community members indicated that the greatest factor hindering school attendance at secondary school is the rising cost of education. The distance to secondary schools requires families to pay for the costs associated with transport. The greatest challenge for Grades 1–9 is the closing or inaccessibility of schools during floods. Multiple women’s focus groups mentioned that prostitution and pregnancy prevent girls from advancing or completing schooling. Alcohol and drug use were cited as contributing to both boys and girls not completing school.

Community vision

Table 12 presents the community vision for Situlu. When asked to consider aspirations 5 years into the future, participants developed the following dream statement: “A food-secure and educated community with access to clean water and sanitation, residing in a clean environment, including good houses.”

Dream statement	A food-secure and educated community with access to clean water and sanitation, residing in a clean environment, including good houses.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Generating awareness about maximum utilization of land • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Strengthening of extension system, including community-based extension • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Mobilization resources for purchasing improved breeds and crossbreeding • Trainings in conservation agriculture and agroforestry technologies • Access to and utilization of animal draft power and farm mechanization • Improved irrigation technologies • Establishment of community seed banks
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization and development of canal clearing and management plans • Clearing and management of canals for irrigation, flood control and transport (market access)
Natural resource management	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Good health	Access to health services	<ul style="list-style-type: none"> • Lobbying government for upgrading of health center at Lealui, with increased number of qualified staff and well-stocked drugs
	HIV/AIDS	<ul style="list-style-type: none"> • Generating awareness about HIV/AIDS and its impact on development • Generating awareness about coping strategies for resilience
	Hygiene	<ul style="list-style-type: none"> • Generating awareness about good hygiene practices
Water and sanitation	Waste management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Water quality and pollution	<ul style="list-style-type: none"> • Sensitization programs on water quality
	Access to sanitation information and services	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings for increased incomes
Education	Flood-secure school infrastructure	<ul style="list-style-type: none"> • Facilitation of income-generating activities for self-employment • Facilitation of formation of youth clubs or groups • Facilitation of savings and loan initiatives for increased incomes • Capacity building in various income-generating activities
	Access to secondary education	<ul style="list-style-type: none"> • Lobbying service providers and policymakers for increased number of secondary schools
	Employment for school graduates	<ul style="list-style-type: none"> • Promoting income-generating activities or self-employment

Table 12. Community vision, Situlu.

Lealui profile

Overview of community infrastructure and services

The community of Lealui is home to the Litunga's palace. Recent infrastructure improvements in the road network have brought more transport options to the community, and access by vehicle is now possible year round. As a result of greater connectivity, residents of Lealui have started new businesses to cater to an increase in customers from Mongu. From Mongu, the trip by vehicle takes 20 to 30 minutes on a dirt road.

There are two AAS focal communities nearby. Both Situlu and Nanikelako in Mongu District are accessible by dirt road in 10 to 20 minutes of travel time.

Lealui Basic School provides students with the opportunity to attend Grades 1–9. Further education options at a secondary school are available in Mongu at St. Johns, Limulunga, Kambule and Holy Cross. A rural health center is located in the nearby village of Lwatile. The facility was upgraded in 2011 and 2013 and now has a maternity ward and borehole. A men's focus group expressed some dissatisfaction with the quality of service at the clinic; often the only staff present are casual day employees.

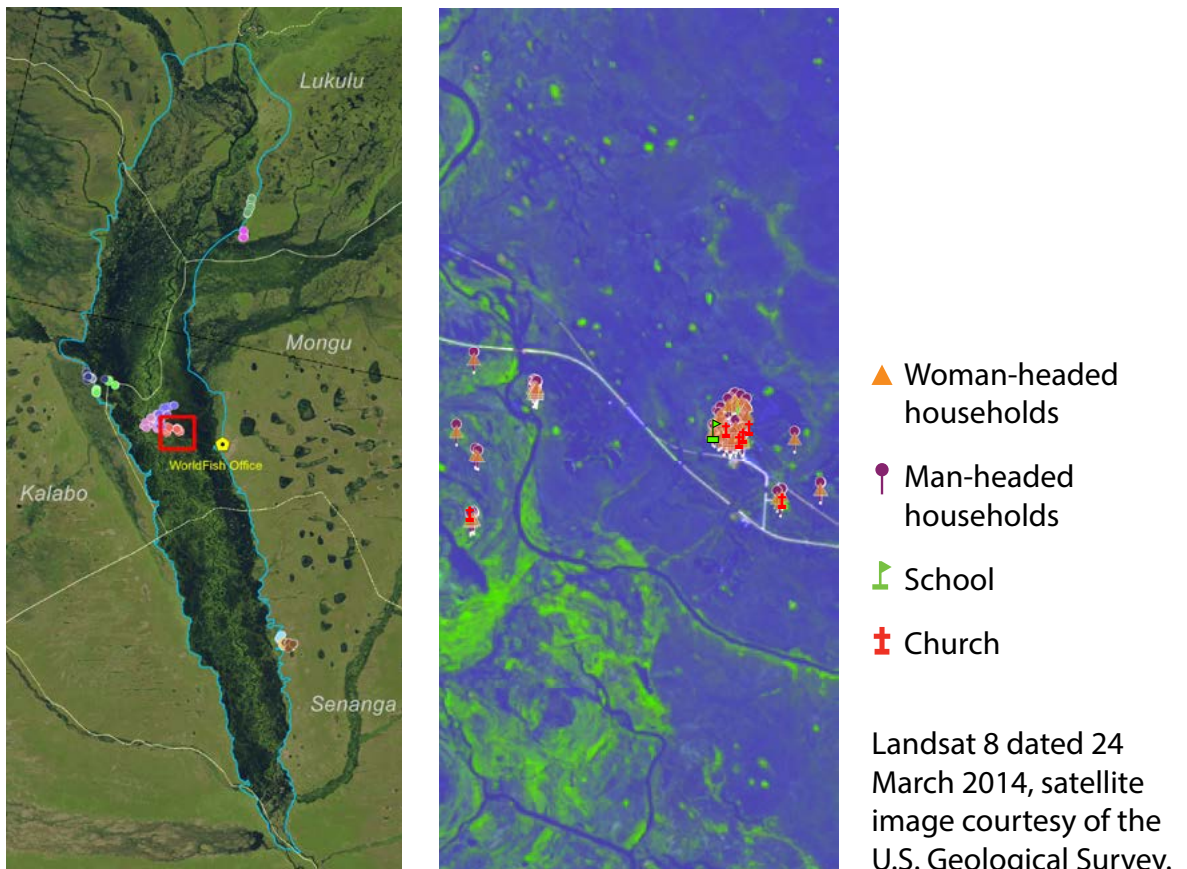
Safe drinking water is available from boreholes at the village near the palace and Lwatile Rural Health Center. For households located some distance away from boreholes, girls and women who typically fetch water walk up to an hour to retrieve water. Alternatively, they access water from nearby lagoons and unprotected wells. Toilets and rubbish pits are prevalent in Lealui, but less frequent in outlying villages. *Indunas* are responsible for enforcing the construction of these sanitation facilities throughout the area.

Although there is an agricultural extension officer in Lealui, discussants reported that he is present only "every once in awhile."

Cell phone coverage was described as fair, depending on the distance to provider towers, with Airtel and MTN providing the best service. Privately owned shops sell common household items such as soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

As in other AAS focal communities, the number of woman-headed households and extended families has increased over time. Of 168 households that participated in the census exercise, 43% were headed by a woman (Table 13). Of these, one-third were headed



Map 8. Map of Lealui, Mongu District.

by widows and another 29% were headed by divorcees. Focus group members attributed the increase to the death of husbands and relatives and increasing rates of divorce. The number of women within the community is seen as amplified by the return of divorcees and widows to Lealui from their former husbands' villages. Women expressed concern about the disparity between the number of women and men in the community; only 8% of male heads of household are unmarried (Figure 13).

According to census data, there are four polygamous households in Lealui (Figure 13). Focus groups reported that the number of polygamous marriages has declined in the community, attributed to Christian values held by many community members, concern with the transmission of diseases such as HIV and AIDS within polygamous relationships, and high expenses associated with large families. Men focus group members described women in polygamous relationships as "real mothers because they are able to withstand the pressures of being in a polygamous marriage." Women, however, viewed them as foolish, failures and destroyers of family names.

Community leadership

The BRE is the principal authority governing Lealui, and it has primary responsibility for resource allocation and dispute resolution. In contrast to other communities where elected *indunas* are most central to community leadership, in Lealui *indunas* are subject to the BRE. Women's focus groups described the BRE as "making the rules" and "informing us of the rules." The Barotseland's traditional police, the *Imilema*, have a presence in Lealui and are frequently involved in dispute resolution. Men occupy all high-level community leadership positions in Lealui, while women are represented in leadership structures as vice chairs, vice secretaries and vice treasurers.

NGO activities

Caritas, Concern Worldwide, PPS, AFA and Oxfam have been present in the community. Focus groups identified a number of women's groups that operate in the area that were created with assistance from Caritas and Concern Worldwide. Activities focused on savings and internal lending communities and conservation agriculture. Women's focus groups expressed satisfaction with NGO activities that place a priority on women's participation, noting that new knowledge gained from NGOs empowers women and allows for an increase in overall household well-being. Participants did not identify any active men's groups. A number of youth groups were operating in the past, but have ceased activities.

Ecosystem services

In Lealui, people have access to a wide range of natural resources, including canals, rivers, lagoons and the fish they contain; and grazing lands and grasses, reeds and papyrus. In contrast to other AAS focal communities in which these resources are considered common property, in Lealui they are held by the BRE. Although individuals hold agricultural lands, inheritance by male children is subject to the BRE officials. According to women focus group participants, men and women have different levels of opportunity to exploit resources.

Community members reported that fish populations are diminishing, primarily as a result of illegal fishing methods. The *sefa-sefa* fishing method was singled out as a particularly destructive form of fishing. Canals are also a common source of water used for transport and bathing, as well as cooking and drinking. Discussants recognized, however, that water from canals and any source other than a borehole is contaminated by human feces and presents a health risk.

	n (=168)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	72	4.51	2.40	1	11
Man-headed households	96	5.85	2.81	1	17
Age of household head (years)					
Woman-headed households	72	44.13	19.07	18	101
Man-headed households	96	42.88	14.41	19	81

Table 13. Household demographic data, Lealui.

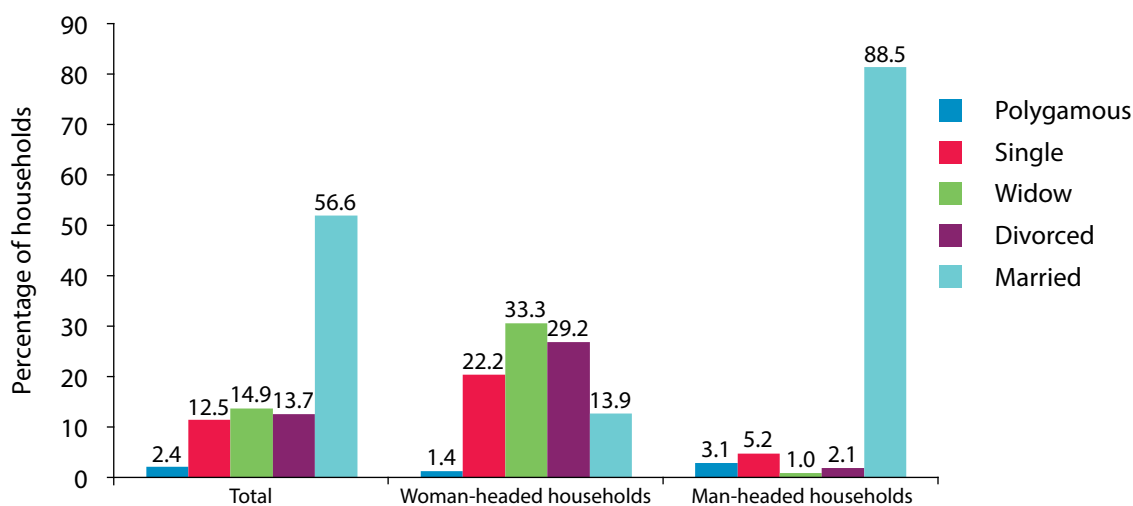


Figure 13. Marital status of household head, Lealui.

Although variability of rainfall and flood patterns has increased in recent years, participants indicated that the rainy season in Lealui typically begins in October and continues until April.

Livelihoods and well-being ladder

People in Lealui make use of multiple livelihood strategies, including fishing, raising livestock and crop production, as well as secondary activities such as small business and the harvest of natural resources from forests and wetlands. Fishing is the most significant activity, described by a men’s focus group as “the bank of Barotseland.” With the exception of a 3-month ban imposed by the BRE and the Department of Fisheries beginning in December, people fish year round. Men focus on fish capture, while women participate predominantly in the processing and retail portion of the fishery. Mongu is the primary market for fish products.

Cattle herding is another particularly important activity, and cattle provide milk, manure and draft power. Despite outbreaks of various cattle diseases that have significantly reduced herd sizes, the sale of cattle to buyers from Zambeef and Star Beef in Mongu provides a significant source of income to community members. Men are the primary owners of cattle, although women can own cattle as well. Other animals that contribute to household livelihoods include chickens and ducks, which are sold to fellow community members to meet unexpected expenses related to schooling, health or other household needs.

Agriculture is practiced both in the floodplain and in the upland at alternating times of the

year to take advantage of seasonal rains. Within the floodplain, planting begins in August or September and crops are often harvested prematurely before they are destroyed by floodwaters. Upland fields are planted in October to November and harvested in April following the end of the rainy season.

Household agricultural cultivation focuses primarily on rice, maize, cassava, sweet potatoes, groundnuts and vegetables. Maize is the primary cash crop in Lealui. Discussants attribute low yields of maize and other cash crops to a lack of key inputs, including fertilizer, hybrid seeds and animal draft power. Men prepare fields with hoes or draft animals, if possible. Women have responsibility for cultivation activities throughout the growing season, including sowing seeds, weeding and watering. They also harvest crops, which are consumed, sold within the community or taken to markets in Mongu.

Secondary income-generating activities are practiced throughout the year to supplement income and cope with periods of insecurity. In particular, small businesses provide additional revenue for some women. Both women and men focus groups noted the importance of milk sales for household income.

The well-being ladder in Figure 14 depicts characteristics of women and men in Lealui from different socioeconomic backgrounds and highlights factors that affect movement from one rung to another. The harvest of natural resources such as firewood, reeds and grass is a primary livelihood activity for community members on the lowest rung of the well-being ladder. These individuals also rely on piecework for community

members on the highest rung of the ladder. Discussants characterized better-off individuals as owning upwards of 10 cattle or large fields for cultivation, or being shop owners. Collection and piecework activities are generally undertaken to cope with periods of insecurity such as a hunger season, divorce or illness. Resource-poor women and men, however, rely on these activities year round to cope with food insecurity.

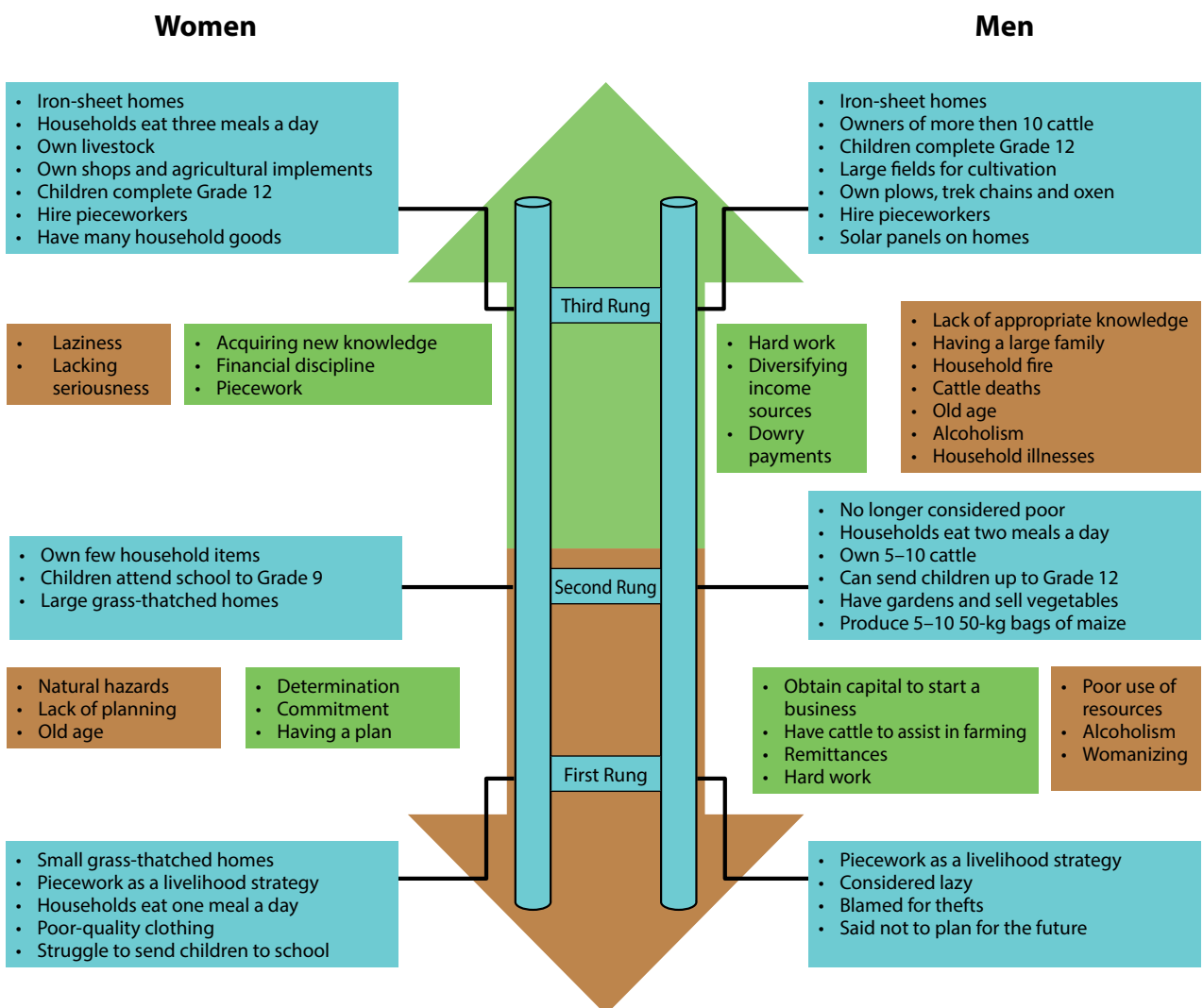
Decision-making

Women expressed an increasing awareness of gender and the rights of women. This has occurred during a period when women said they have an improved ability to make household and business decisions without the need to consult husbands. Both women and men spoke approvingly of couples that make decisions after consulting one another and characterized individuals in these relationships as trusting and loving. However, there was acknowledgment that not all relationships incorporate cooperative decision-making. Group discussions highlighted,

in particular, the reluctance of some uneducated men to accept changing practices around joint decision-making. Women focus groups described such men as not trusting and lacking respect for their wives.

Spouses commonly make joint decisions about agricultural production, the purchase of household items and schooling-related issues. Men specifically mentioned extramarital affairs, prostitution, witchcraft and the opening of bank accounts as areas in which joint decision-making is not practiced.

Women did not report major limitations to their movements within the community. It is considered acceptable for women to visit the health clinic, friends and family and to attend community meetings; they are required to inform husbands or male relatives. Women reported that they are free to take part in the resolution of disputes at community meetings where all those in attendance are able to take part. Men,



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 14. Well-being ladder, Lealui.

however, said the most resource-poor members of the community are not able to participate because they are untrustworthy.

Marriage

Both men and women focus groups perceived that in recent years marriage practices in Lealui have begun to change in primarily negative ways. First, it is not uncommon for girls to marry at the young age of 15 years, whereas in the past, most girls married around age 20. Parents of young women and couples face financial hardship as a result of the falling age of marriage and early pregnancy, as they are forced to support young couples or mothers.

Second, men focus groups felt that there is an increasing inability or refusal to pay dowries, in particular in the case of men under 40. In the past, the family of an unmarried woman with no children received a dowry payment of three cows (or the equivalent cash value) or two cows for a divorced or widowed woman. Today, many young couples are choosing to elope and/or do not seek the permission of the bride's family before marriage. Women focus groups expressed concern that young women do not see the importance of dowry payments and believe in the future that dowry will no longer be practiced.

The third major change is a perceived increase in divorce. A women's focus group blamed divorce on men who no longer take marriage seriously, often causing divorces deliberately. Discussants attributed divorce to the decline in dowry payments, eloping and cohabiting. Moreover, participants relate high levels of divorce to the transmission of HIV and AIDS, prostitution, and theft. Focus groups described divorced individuals as fools, lazy and failures.

Overall, participants blamed many of the negative aspects of changes in marriage practices on intermarriages among different ethnic groups. Premarital relationships and cohabitation were also cited as major contributors to the changing nature of marriage within the community.

Education

Women and men focus groups felt that obtaining an education is the principal way to gain employment and excel in life. A women's focus group mentioned multiple times that girls could not be enlightened or attain leadership

positions without completing school (through Grade 12). Women believed that only through education will women become presidents and ministers. In spite of this, frustration was expressed over the rising costs of school fees, uniforms and books. Participants said that in the future costs would reach a point where the resource-poor will be unable to send their children to school. A declining quality of educational standards and changing curriculums were also noted as concerns. Discussants referenced the inability of Grade 12 graduates to read and write at high levels as important benchmarks in determining the quality of education.

Rising costs of education and parents' inability to financially support children at boarding school were said to be the largest factors affecting pupils' completion of schooling. Those who qualify to advance to secondary school from Lealui must travel to Mongu, Kalabo or Limulunga. Women's and men's focus groups expressed concern that the challenges parents face in supporting daughters at boarding school resulted in girls engaging in sexual activities and prostitution that result in pregnancy.

Community vision

In separate men and women focus groups, community members in Lealui developed the community vision presented in Table 14. A number of factors highlighted in the community profile for Lealui contextualize the vision statement and proposed areas for action. It is important to note, for example, the relatively strong presence of BRE officials in the community. The role of piecemeal as a coping strategy during times of insecurity and as a livelihood strategy for the most resource-poor and vulnerable families is also significant, as well as the impact of declining fish and cattle populations on the dominant livelihood strategies of people in Lealui. These issues have a profound impact on the characteristics, practices and opportunities of those who occupy, in particular, the first and second rungs of the well-being ladder. Focus group participants prioritized education as a pathway for upward mobility. The challenges girls face in attending school, with respect to sexual activity and pregnancy in particular, and the sensitivities around these issues, are critical considerations.

Dream statement	A healthy and food-secure community, where men and women are working together, residing in a clean environment, including good homes.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Advocacy for improved access to land for agricultural activities and expansion • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Strengthening of relationship with Ministry of Agriculture and Livestock for improved extension, including community-based extension • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Trainings in conservation agriculture technologies • Access and resource mobilization for improved livestock breeds and crossbreeding • Access and utilization of animal draft power and farm mechanization • Creation of linkages for improved irrigation technologies
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization and canal clearing and management
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development and implementation of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Fisheries Department to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Health and nutrition	Access to health services	<ul style="list-style-type: none"> • Lobbying government to upgrade health center with qualified staff and well-stocked drugs
	Nutrition	<ul style="list-style-type: none"> • Training in dietary requirements
	Clean water	<ul style="list-style-type: none"> • Generating awareness about water treatment methods
	Hygiene	<ul style="list-style-type: none"> • Generating awareness about good hygiene practices
Clean environment (water and sanitation)	Waste and pollution management	<ul style="list-style-type: none"> • Generating awareness about waste management
	Water quality	<ul style="list-style-type: none"> • Sensitization programs on water quality
	Access to information about sanitation	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Gender	Women's empowerment	<ul style="list-style-type: none"> • Facilitation of formation and strengthening of women's groups and training in entrepreneurship
	Promotion of gender equity and equality	<ul style="list-style-type: none"> • Generating awareness about gender norms
Access to markets	Road development	<ul style="list-style-type: none"> • Lobbying government for improved road infrastructure
	Canal clearing	<ul style="list-style-type: none"> • Mobilizing communities and sharing socioeconomic importance of canals
Access to education	Education	<ul style="list-style-type: none"> • Increased incomes for children's education • Lobbying government to construct more schools within reach

Table 14. Community vision, Lealui.

Sifuna profile

Overview of community infrastructure and services

The community of Sifuna enjoys year-round connectivity and access to roads. From Mongu, the trip by vehicle takes over an hour on a paved and gravel road. Improved road conditions allow travelers to make the 30-km journey from Senanga to Sifuna in half an hour. Sifuna is located near two other AAS focal communities: Nembwele is at a distance of only 1 km over an unmaintained sand road, while to reach Nalitoya takes 10 minutes on a sand road. Focus groups emphasized the value of recent upgrades for enhancing the well-being of the community and improving their livelihoods.

Lyangati Basic School is located in the immediate area and provides students with the opportunity to attend Grades 1–9. Further education options at a secondary school are available in Senanga, Mongu and Mooyo. For healthcare services, residents access a rural health center in Sifuna. Focus group members

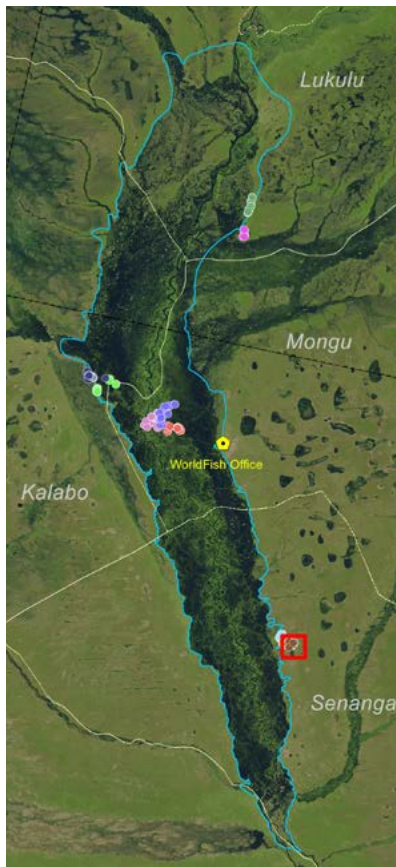
felt the staff and services provided at the clinic are adequate. A number of gravel roads and upgrades to the clinic now ensure women can reach the clinic in a timely manner and have shelter when they arrive.

Safe drinking water is available from boreholes located at the clinic and school. Community members, most often women and girls, who live away from these facilities retrieve water from ground wells of varying quality or from nearby streams and lagoons.

Focus groups described cell phone coverage as fair, depending on the distance to provider towers. Airtel and MTN provide the best-quality service in the area. Community members are able to purchase household goods at privately owned shops. The most commonly purchased items are soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

Traditional household structures in Sifuna are beginning to change. While a nuclear family



- ▲ Woman-headed households
- Man-headed households
- 🏫 School
- ✝ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 9. Map of Sifuna, Senanga District.

arrangement continues to be prevalent, the number of woman-headed households has increased over time. Focus group members attributed the increase to the death of husbands, increasing rates of divorce and men lacking dowry payments. At the time of the census, nearly half of households in Sifuna were headed by a woman (Table 15). Of these woman-headed households, widows headed about one-quarter, while nearly one-third were headed by divorcees (Figure 15). While there are children who have lost parents, there are no child-headed households in the community. Families in Sifuna continue the practice of adopting children of deceased relatives. Focus groups indicated that there are no single-men households. There are, however, three divorced men heads of household and a single widowed man.

According to focus groups, polygamous marriage is less common today than in the past; it is practiced primarily among elderly individuals. Focus groups and census data identified two polygamous households in Sifuna (Figure 15). Community members attributed the decline in polygamous arrangements to Christian religious beliefs as well as concern about the transmission of diseases within these multiple-partner relationships. Perceptions of women and men within these relationships were observed to be negative. From the perspective of women in the focus group discussions, women who enter polygamous marriages are foolish or stupid.

Community leadership

Local leadership structures align with the traditional practices of Barotseland. The *Silalo Induna* Mundale is the primary authority. The palace is located in Nembwele. The community elects various village *indunas* who are responsible for dispute resolution, assigning farmland and community mobilization. *Induna*

Mwangala Wamunyima is the only woman in a traditional leadership position in the area. Women do, however, occupy vice-head positions, lead informal groups and act as church leaders.

NGO activities

Focus group participants identified a few nongovernmental and community organizations in Sifuna. Concern Worldwide currently has a large presence in the community. Activities primarily focus on increasing agricultural production through trainings in conservation agriculture and input distributions. Also, construction of the Lyangati cooperative was completed in 2013. In the past, the Adventist Development and Relief Agency (ADRA) provided cash transfers to enable people to purchase oxen, plows and draft power implements. Keeper’s Zambia Foundation and Ndenyanga were also cited by focus groups as previously having operated in the community.

Ecosystem services

Common-property resources in Sifuna include canals, rivers, lagoons, forests, grazing lands and wild fruits that grow in the area. Canals are a particularly important resource, commonly used to obtain water for drinking and cooking, for transport, and for bathing. Utilization of canal and river water for human consumption presents a health risk for the community, as these sources are known to be contaminated by human waste. Community members rely on the canal network to access larger bodies of water from which they harvest fish. Fish stocks are diminishing as a result of the illegal fishing method *sefa-sefa* and fish diseases. (Note that community members will not eat fish with sores.) Individuals wishing to harvest resources from privately owned lands or water bodies must ask permission from owners and

	n (=104)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	50	4.68	2.16	1	10
Man-headed households	54	6.33	2.96	1	15
Age of household head (years)					
Woman-headed households*	47	46.47	13.67	21	75
Man-headed households†	52	46.25	15.87	22	80

* Three missing households. † Two missing households.

Table 15. Household demographic data, Sifuna.

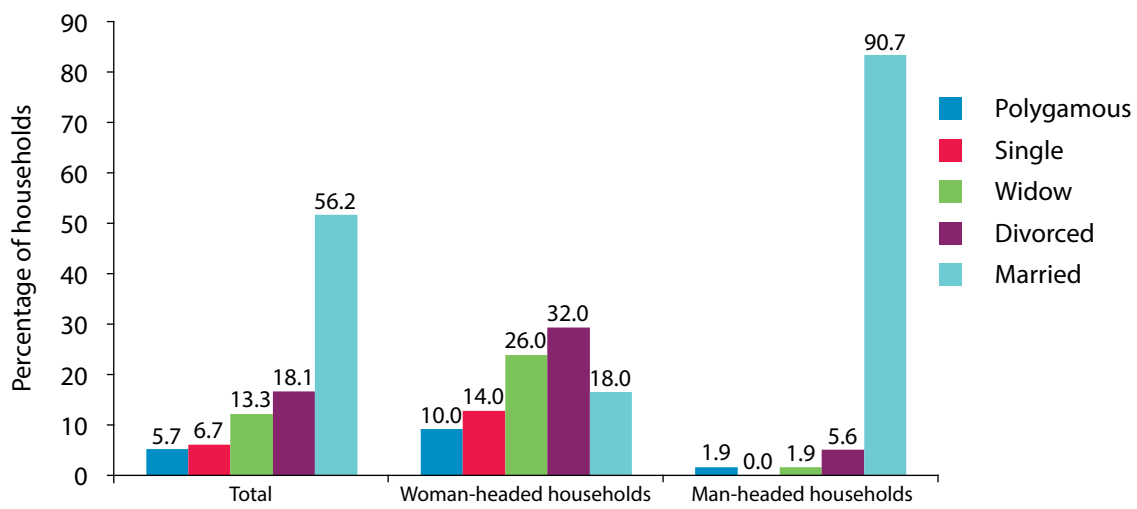


Figure 15. Marital status of household head, Sifuna.

may have to pay a fee. Women participants felt that they do not enjoy equal opportunities in collecting most natural resources, but they do have greater access to wild fruits in comparison to men.

Agricultural lands are privately held and passed down to children (typically males) through inheritance. Discussants have observed increasing variability of rainfall and flood cycles, which has in turn altered the timing of agricultural activities and caused reductions in yields. In typical years, the rainy season in Sifuna begins in late October and continues until April.

Livelihoods and well-being

Focus groups discussed two primary livelihood strategies that are common in Sifuna: fishing and agricultural production. Notably, the importance of fishing activities has declined in recent years. In the past, this was the most profitable livelihood activity for the majority of the community. Focus groups attributed the decline to the widespread use of *sefa-sefa* and poisoning. An additional constraint that women face is the need to travel significant distances to reach well-stocked fishing grounds. Women focus groups expressed reluctance to travel to these fishing sites, thereby limiting their access to this resource. Women's primary activities in the fishery are processing and sale. Men perform the majority of fish capture. As in other communities in the Barotse Hub, fishing activities are practiced primarily from March to November, only halting for the December–March fishing ban imposed by the Department of Fisheries and the BRE.

Farming is the second most important livelihood activity. Although people alternate agricultural cultivation between the floodplain and upland fields to make effective use of seasonal rainfall, upland farming is the dominant type of agricultural production in Sifuna. Generally, upland agricultural activities take place from October or November to April. The primary crops produced in Sifuna include rice, maize, cassava, sweet potatoes, beans, bananas, oranges, groundnuts and vegetables. Since the introduction of rice during the 2007 planting season, it has become as important as maize and cassava as a source of agricultural income for many people. Women focus groups reported that vegetable and tomato production has recently become an important income source, allowing many people to purchase household items and send children to school. Agricultural labor is differentiated between men and women, with men taking responsibility for field preparation with a hoe or draft power, if accessible. Women are involved in cultivation throughout the growing season—sowing seeds, weeding and harvesting crops. Household farm production is used for both consumption and for sale, either in Sifuna or to buyers from Senanga.

Discussants described animal husbandry as a declining source of livelihood in Sifuna. People continue to raise cattle, chickens, ducks, pigs and goats. Cattle in particular are important resources for milk, manure, draft power and household income. The sale of cattle to buyers from Zambeef in Mongu and Senanga provides a significant source of income to cattle owners (primarily men). According to focus groups,

there have been numerous outbreaks of cattle diseases in recent years, compounded by an inability to purchase vaccinations and medications.

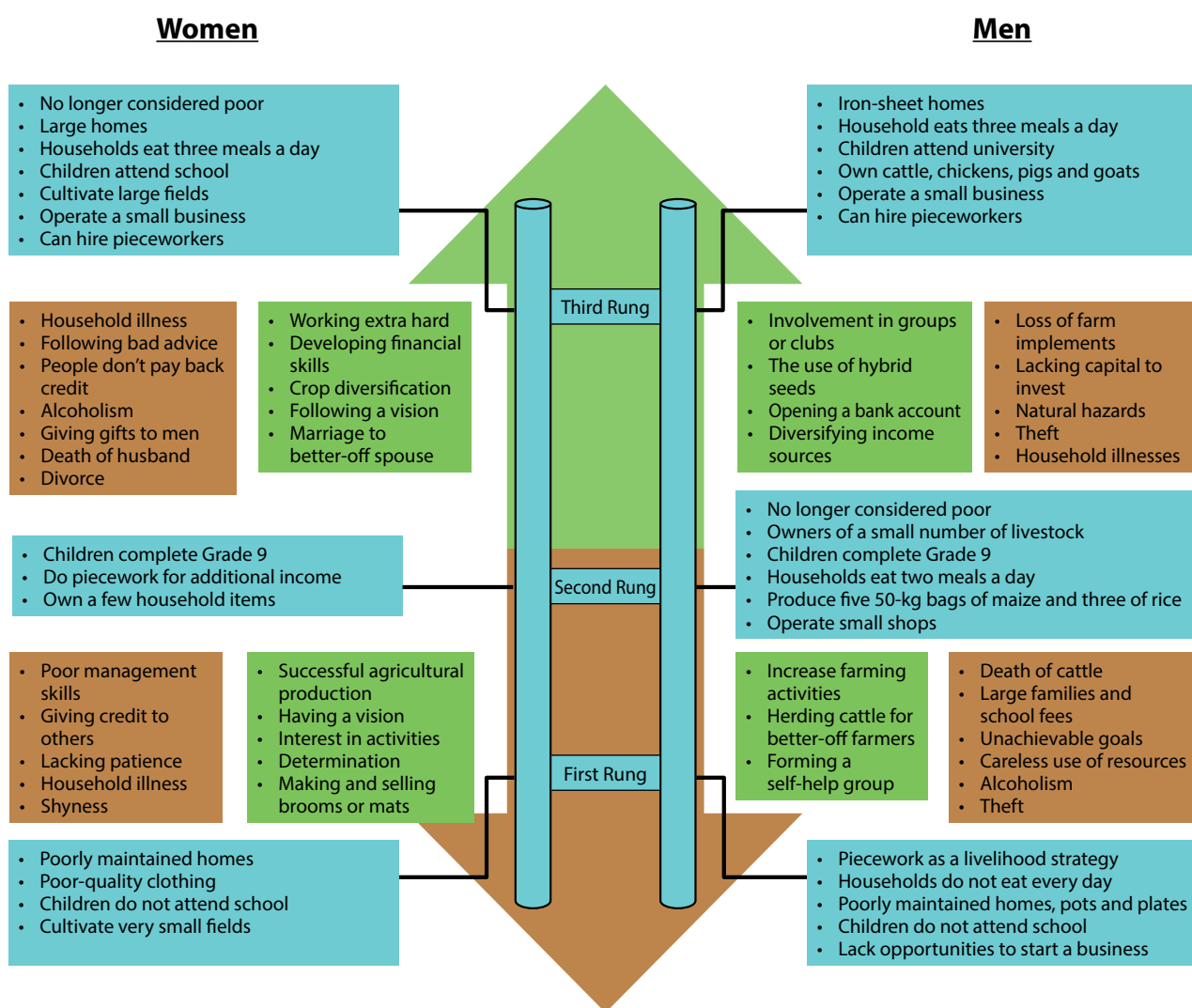
Secondary sources of income include carpentry, charcoal making and beer brewing. These products, among others, are available year round. These activities supplement household income and help people cope with periods of insecurity, particularly for women.

Figure 16 presents a well-being ladder for Sifuna, developed by separate men and women focus groups. Those considered at the bottom of the community's socioeconomic ladder collect firewood, reeds and grass and cultivate small fields. Those who occupy the highest rung on the ladder typically raise a variety of domesticated animals, cultivate large fields and own small businesses. They

are also in a position to hire poorer men and women for piecework. Women focus groups said that individuals engaged in these activities were the elderly, uneducated, unmarried and widows. Collection and piecework activities are generally performed as coping strategies when people are experiencing a period of insecurity, although they are key livelihood strategies for the most vulnerable people.

Decision-making

Focus group discussants observed a recent trend of increased cooperation between spouses in decision-making processes. Men expressed an increasing awareness concerning gender and the rights of women. This development was said to have improved livelihoods in households by incorporating new strategies in the decision-making process. Both women and men spoke approvingly of couples that make decisions after consulting



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 16. Well-being ladder, Sifuna.

one another. These couples were described as having “empowered [women] with knowledge.” In some households, men have not accepted changing practices and continue to make decisions without discussing issues with spouses. Husbands that abuse alcohol were specifically mentioned as a group who continues to operate in this manner.

Spouses commonly make joint decisions about agricultural production, long-distance travel, income generation, care of extended family members and schooling-related issues. Women specifically mentioned extramarital affairs, taking a second wife, large purchases, and issues related to the practice of witchcraft as areas in which joint decision-making is not practiced.

Women did not report major limitations to their movements within the community. Visits to the clinic, friends, family and meetings within the community are viewed as acceptable and do not require the permission of husbands or male relatives. Women reported that they are free to take part in the resolution of disputes during community meetings. This is a departure from past practice in which women were able to attend these meetings, but were not allowed to voice an opinion.

Marriage

Focus groups discussed the changing marriage practices in Sifuna, emphasizing the issues of premarital sex and early marriage. Premarital sex was cited as a major contributor to the changing nature of marriage within the community. Also, it is not uncommon for girls to marry at age 15, compared to age 20 in the past. Both women’s and men’s focus groups felt that there is an increasing inability or refusal by men to pay dowries. In the past, dowry payments to a woman’s family consisted of three cows (or the equivalent cash value) for a woman with no children or two cows for a divorced or widowed woman. Families who pay dowry are viewed as respectful due to the positive benefits to the bride’s family. Today, many young couples are choosing to elope and/or do not seek the permission of the bride’s family before marriage. Couples who do not follow traditional dowry practices are viewed as fools, not normal, and stupid. Community members attributed many of the negative

aspects of changes in marital relationships to children being unruly or rude, as well as to some parents encouraging their daughters to engage in sexual relationships in exchange for gifts for household consumption.

Reduced rates of dowry payments, eloping and early age of marriage are all seen as contributing factors to the increased rate of divorce within the community. Divorce was viewed by focus groups as having a negative effect on children and household assets. Women’s focus groups expressed the belief that women are more severely affected than men, because they must continue to care for children with only half of the marriage assets.

Education

Women and men focus groups emphasized the significant value of education for improving livelihoods, fostering development and ensuring future support to parents. A member of a men’s focus group described the benefits of education as follows: “The educated are better off because education has no roof, it cannot be stolen, it cannot be burnt by fire, and the only destruction of education is the end of human life.” It is notable that Sifuna is one of the only AAS focal communities to report the presence of a school meals program. Women focus group participants expressed satisfaction with school meals at Lyangati Basic School. Discussants credited the program with increasing enrollment, decreasing absenteeism and promoting students’ capacities to learn. In general, focus groups positively viewed high rates of school attendance by girls and the government’s re-entry policy.

The primary challenge facing people with regard to schooling through Grade 12 is the rising cost of education. This is particularly relevant for secondary students. Those who qualify to advance to secondary school from Sifuna must travel to Senanga. Consequently, people incur high expenses for transport and boarding. Women’s focus groups also expressed disappointment that schools no longer teach pupils sewing, carpentry and cookery. People perceived this change in curriculum as negatively affecting livelihoods.

Pregnancy was mentioned numerous times as being a major contributing factor in

preventing girls from advancing or completing schooling. Discussants expressed concern that girls engage in prostitution and other forms of transactional sex to supplement parental support. These activities are believed to result in multiple pregnancies and/or a loss of interest in education. Men's focus groups communicated concern that boys who leave for boarding school engage in drinking and drugs as a result of "bad company."

Community vision

Table 16 presents the aggregated community vision for Sifuna. The vision reflects where women and men in Sifuna community aspire to be in 5 years. The community vision together with the profile provides insight into potential pathways and future interventions to support community development in Sifuna. It is notable that Sifuna is accessible year round by vehicle. It is also important to note some of the shifting livelihood activities in the community. For example, traditional livelihood systems relied predominantly on fishing and cattle rearing. Discussants highlighted threats to these activities that have resulted from illegal harvesting, pollution and disease. Poverty compounds the negative impacts of these

threats, as people have limited opportunities to access clean and well-supplied fish stocks or animal vaccines, for example. Also, Sifuna is one of the only communities in the Barotse Hub to focus on upland farming. For women, the cultivation and sale of vegetables and tomatoes has provided an important and recent source of income, which is used to pay for school fees and household items and to supplement incomes in times of insecurity.

In terms of gender-specific issues highlighted in the profile, both men and women reported increasing gender awareness and cooperative decision-making in Sifuna. Women reported that they are free to move about the community without the consent of husbands or male relatives and to participate in community meetings. A key—and sensitive—issue is the sexual behavior of young women, who in some cases are encouraged to engage in transactional sex in exchange for support to their households or to meet their own secondary school expenses. Early pregnancy and marriage prevent young women from completing school and influence changing marriage patterns in the community.



Women and men attending a social and gender analysis community information session.

Dream statement	A healthy and food-secure community, residing in a clean environment with good and flood-secure houses.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Advocacy for improved access to land • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Clearing and management of canals for irrigation, flood control and transport (market access) • Strengthening of community-based extension system • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries • Trainings in conservation agriculture and agroforestry
	Postharvest, storage and processing	<ul style="list-style-type: none"> • Improved methods of grain and produce storage • Capacity building in methods of processing agricultural products and indigenous vegetables • Training in calculating household food requirements
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
Natural resource management	Aquatic plants	<ul style="list-style-type: none"> • Training in harvesting and utilization methods of aquatic plants • Training in production of quality products and linkages to market • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Health and nutrition	Access to health services	<ul style="list-style-type: none"> • Lobbying government for construction of health centers with qualified staff and well-stocked drugs
	Nutrition	<ul style="list-style-type: none"> • Training in dietary requirements
Clean environment	Waste and pollution management	<ul style="list-style-type: none"> • Generating awareness about waste management
Water and sanitation	Clean water	<ul style="list-style-type: none"> • Linkages to service providers for provision of clean and safe water • Generating awareness about water treatment methods
	Access to sanitation information	<ul style="list-style-type: none"> • Generating awareness about sanitation and hygiene practices
	Sanitation provision	<ul style="list-style-type: none"> • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Infrastructure	Drainage improvement (canal maintenance)	<ul style="list-style-type: none"> • Linkages with service providers and strengthening of disaster management committees • Community sensitization on socio-cultural and economic importance of canals
Access to markets	Market information and linkages with buyers	<ul style="list-style-type: none"> • Facilitation of establishment and strengthening of information centers • Creation of linkages with buyers and facilitation of buyer-producer workshops

Table 16. Community vision, Sifuna.

Nembwele profile

Overview of community infrastructure and services

The community is accessible year round by road. From Mongu, travel to Nembwele by vehicle takes 45 minutes to an hour on a paved and gravel road. Travel to Senanga from Nembwele (30 km) takes about half an hour on relatively good roads. The Nembwele-Nalitoya road is a 1-km trip over a sand road.

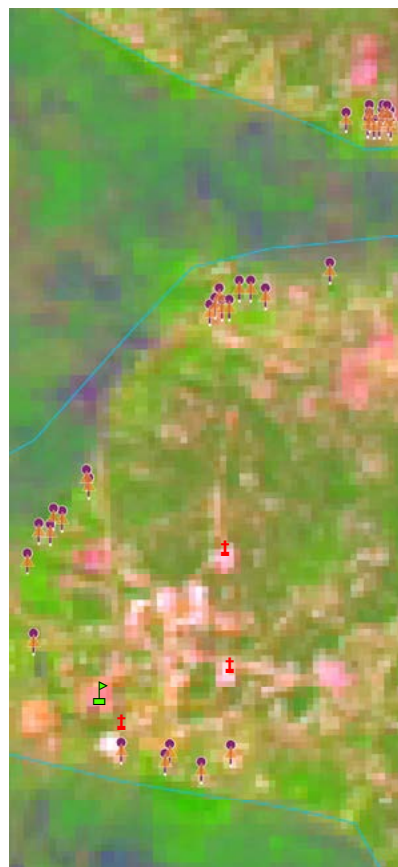
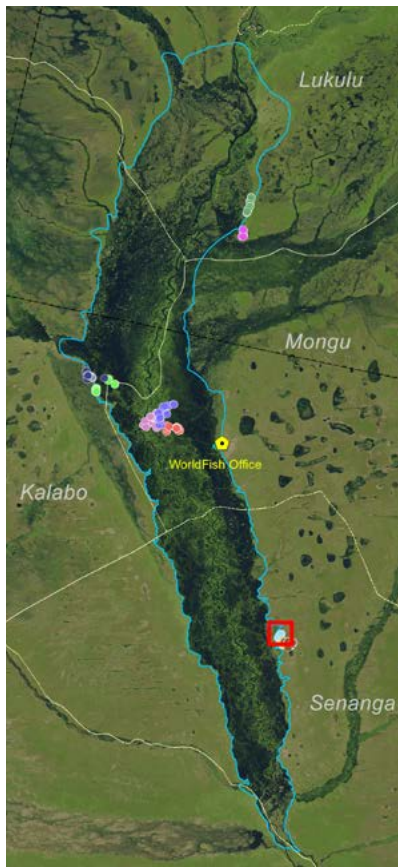
Liyangati Basic School is located in the area and provides students with the opportunity to attend Grades 1–9. Further education options for secondary school are available in Senanga, Mongu and Mooyo. A rural health center is located in Nembwele.

Although the health clinic currently lacks a qualified nurse, focus group participants expressed satisfaction with the staff and services provided at the clinic. They noted that the facility has improved in recent years. In the past, some pregnant women were not able to deliver at the clinic because of long distances to the clinic coupled with a lack of transport options. Today, with improved road networks and a nearby clinic, a majority of women are able to deliver at the clinic.

Safe drinking water is available from boreholes located at the clinic and school. People—most often women and girls—who live at a distance from these facilities retrieve water from ground wells of varying quality or from nearby rivers, lakes and lagoons. An agricultural camp extension officer provides residents with information related to agricultural practices and organizes various government programs such as fertilizer distribution. Airtel and MTN provide the best-quality mobile phone services, although coverage varies depending on distance from provider towers. To access common household items, such as soap, farm implements, clothing, foodstuffs and alcohol, people patronize privately owned shops.

Household demographics and structure

In the past, households in Nembwele consisted of a married woman and man living together with their children and at times extended family members. While this arrangement continues to be prevalent, the number of woman-headed households has increased over time. Focus groups attributed the increase to the deaths of husbands from various illnesses and increasing rates of divorce. In Nembwele, 46% of households were headed by a woman (Table 17). Of these woman-headed households, widows headed 28%, with another 34% headed by divorcees.



- ▲ Woman-headed households
- Man-headed households
- ▬ School
- ✝ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 10. Map of Nembwele, Senanga District.

According to focus groups, the number of polygamous marriages has declined in Nembwele. Four polygamous households were recorded during the census exercise (Figure 17). The most commonly mentioned reason for this decline was Christian values held by many community members. In addition to religious beliefs, the costs associated with dowries and supporting a large family were mentioned multiple times. Perceptions of women in polygamous relationships were negative, as they were viewed as “having failed to look after themselves.”

Community leadership

The traditional governance structure in the community situates Nembwele under the authority of the *Silalo Induna Mundale*. All *indunas* within the Nembwele area are men. However, women have been elected as village treasurers, secretaries and vice heads. A men’s focus group attributed women’s presence in these positions to their “trustworthiness and fear towards keeping money.” Women in Nembwele take part in dispute resolution and are said to be “good at solving the cases because they are merciful and take a balanced stance.”

NGO activities

Focus groups reported that a number of NGOs have entered Nembwele and initiated community groups. Concern Worldwide was central to the discussion, primarily for its role in promoting conservation agriculture. Cooperatives are present in Nembwele, and the community expects to benefit from the completion of Liangati cooperative. World Vision International, ADRA, Keeper Zambia, Caritas and Women for Change have previously operated in the area. Currently, a school meals program is operating at Liangati Basic School.

This program, in combination with Camfed’s support of girls, was credited by focus groups as significantly improving school attendance, especially among girls.

Ecosystem services

Nembwele comprises lagoons, waterways, forests and grazing lands held as common resources. Agricultural land is held by individuals and inherited by children (typically males). Canals are common sources of water used for transport, drinking, cooking and bathing. Consuming water from canals was recognized as a health risk, as many people use them as toilets. From the floodplain, community members harvest what is said to be a diminishing supply of fish. Women focus group participants blamed illegal fishing as a major contributing factor in the reduction of the area’s fish stocks.

People cultivate privately held farmland in the floodplain and upland areas. The rainy season in Nembwele begins in November and continues until April. People blamed changing rainfall and flood patterns for reduced yields and altering the timing in which agricultural activities are carried out.

A number of harvestable resources from the surrounding environment are also held as common property among Nembwele community members. These include grass, papyrus and wild fruit. Individuals wishing to harvest resources such as reeds or grass must ask permission from landowners and may have to pay a fee. Women focus group participants felt that they do not enjoy equal opportunities to collect grass or reeds, fish, or timber, but that they do have greater access to wild fruits in comparison to men.

	n (=63)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	29	4.72	2.40	2	10
Man-headed households	34	5.76	2.79	1	13
Age of household head (years)					
Woman-headed households	29	51.38	13.93	28	83
Man-headed households	34	45.53	15.69	21	79

Table 17. Household demographic data, Nembwele.



Figure 17. Marital status of household head, Nembwele.

Livelihoods and well-being

The three primary livelihood strategies employed by residents of Nembwele are fishing, rearing cattle and agricultural production. Fishing activities are seen as an important and profitable livelihood strategy. These activities are practiced primarily from March to November, only halting for the December–March fishing ban imposed by the Department of Fisheries and the BRE. Men perform a majority of the capture portion of fishing activities, while women participate predominantly in the processing and retail portion of the fishery. Focus groups indicated that the primary market for fish products is Senanga, where they receive higher prices.

Animal husbandry is a central livelihood activity, especially cattle rearing. Cattle provide people with milk, manure, transportation and draft power. The sale of cattle to buyers in Mongu and Senanga provides a significant source of income to community members. Men generally own cattle, but it is not unheard of for women to also own cattle. Notably, cattle disease has significantly reduced the number of cattle in Nembwele in recent years, and cattle deaths constitute a significant loss to households. One men’s focus group stated, “*mafu angombe ulila monyutaule*” or “with the death of a cow, you cry while eating.” People in Nembwele also raise chickens and ducks.

Many people practice farming within the floodplain and upland during alternating wet and dry seasons. Within the floodplain, planting begins in August to September in an effort to generate a harvest before heavy rains and floods destroy crops. Upland fields are planted

in November to December to take advantage of seasonal rains. These fields are harvested in March or April, following the end of the rainy season.

The primary agricultural products in Nembwele are rice, maize, cassava, sweet potatoes, beans and vegetables. Men plow fields, either manually by hoe or with draft animals. Women sow seeds, weed and harvest crops. Produce is consumed, sold within the community, taken into the floodplain for sale or purchased by buyers from Senanga. Focus groups emphasized the importance of canal clearing for crop diversification and flood control.

A number of secondary income-generating activities are practiced throughout the year to supplement income and cope with periods of insecurity. Small businesses sell common household, agricultural and food items. These businesses provide some women with an additional source of income.

The well-being ladder for Nembwele depicts characteristics of women and men in Nembwele from different socioeconomic backgrounds and the factors that help or hinder movement between the well-being categories (Figure 18). Those considered at the bottom of the community’s socioeconomic ladder collect firewood, reeds and grass and provide piecework to better-off community members. These better-off individuals cultivate large fields or own 10 to 20 head of cattle. Those doing piecework were said to be resource-poor, uneducated men and women, who lack assets such as farm implements. A women’s focus group said that many of these individuals rely on wild fruits for a number of months to feed their families.

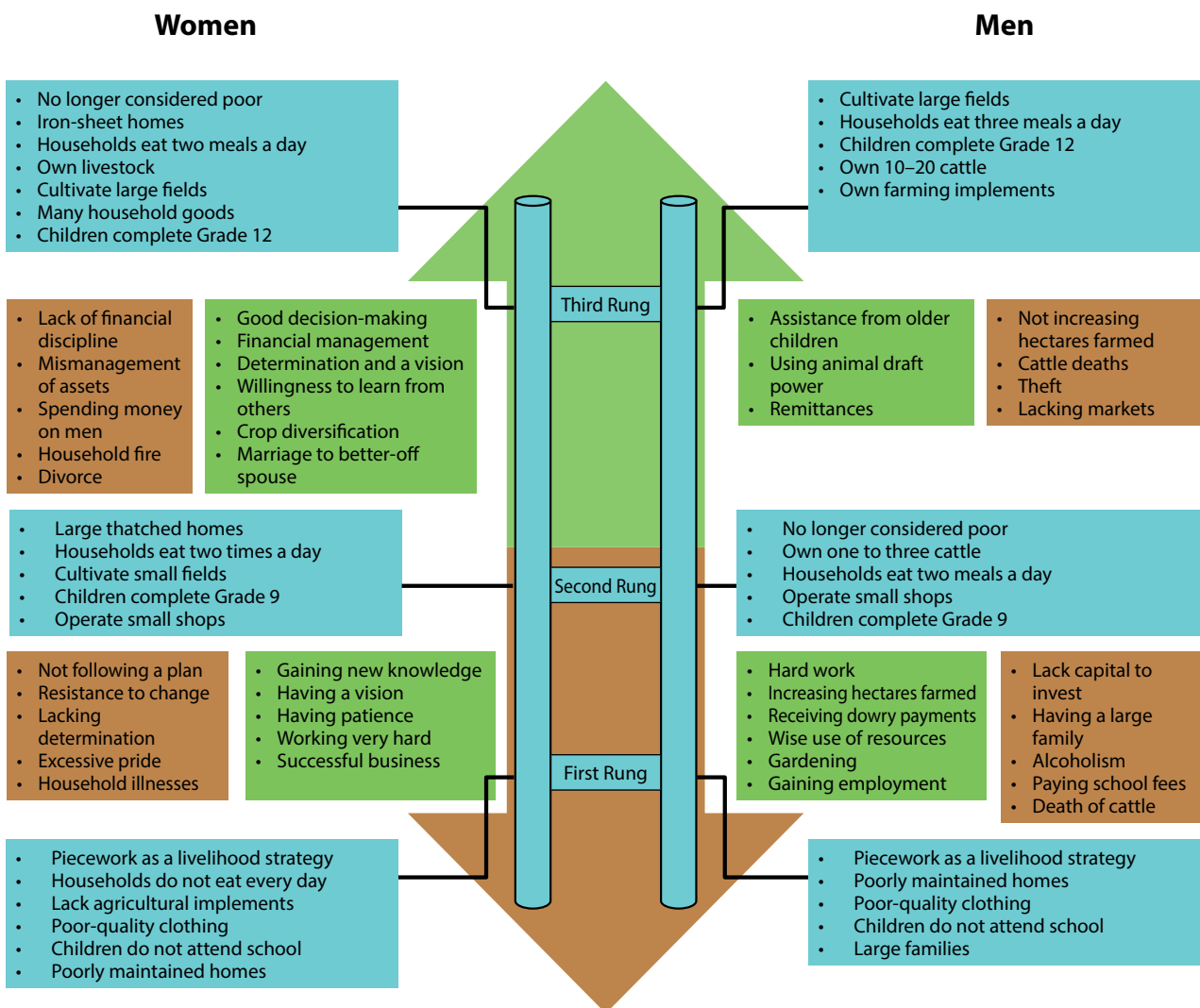
Decision-making

Women expressed an increasing awareness concerning the rights of women and an improved ability to make major decisions without the need to consult husbands or male relatives. However, both women and men spoke approvingly of couples that make decisions after consulting one another; focus groups indicated that cooperative household decision-making has increased recently. Spouses commonly make joint decisions about agricultural production, income generation, livestock sales, family planning and schooling. Not all relationships are incorporating joint decision-making, however. In some cases, men continue to make decisions independently. This is particularly relevant to extramarital affairs, prostitution and issues related to the practice of witchcraft. These individuals were said to “not have a goal” and lack an understanding of women’s rights.

Women reported that they are free to move about the community. Visits to the clinic, friends, family and meetings within the community are viewed as acceptable, yet require the permission of husbands or male relatives. Women reported that they (along with youths) are free to take part in the resolution of disputes within the community. Consequently, focus groups reported an increased acceptance of community decisions, because everyone feels included in outcomes. Women also have a significant role in churches, commonly preaching sermons.

Marriage

Changing marriage practices were a key area of concern in Nembwele. Many girls are now marrying at age 15 (compared to age 20 in the past) according to women focus group participants. Today, many young couples are choosing to elope without permission of the bride’s family before marriage. Premarital sex



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 18. Well-being ladder, Nembwele.



Women attending a social and gender analysis focus group discussion.

by both girls and boys was cited as a major contributor to the changing nature of marriage within the community, with a women's focus group saying that young people "don't wait for their boyfriends to meet their parents, so they just go at night." Many of these changes were blamed on children's disrespect of parents, along with the tendency of young people to disregard traditions.

Women focus groups felt that there is an increasing inability or refusal by men to pay dowries. Traditionally, a dowry payment consisted of three cows (or the equivalent cash value) to the family of a woman with no children or two cows for a divorced or widowed woman. Women focus groups expressed concern that younger generations do not see the importance of dowry payments and believed that in the future few men would pay dowries. If dowries are paid, they suggested that it will be over extended periods of time, in what is referred to as "slow payment." Reduced and delayed dowry payments, elopement, and early age of marriage are all seen as contributing factors to the increased rate of divorce within the community. Women's focus groups described divorced individuals as transmitters of disease, thieves and prostitutes.

Education

Focus groups identified education as the principal way to improve livelihoods, gain employment and provide future support to parents. In spite of this, frustration was expressed in the lack of employment opportunities for those completing Grade 12. The rising cost

of education was said to be the largest factor affecting pupils' completion of schooling. Focus groups cited parent-teacher association fees (ZMW 30) as being a major barrier for resource-poor students and expressed frustration with the quality of curriculum. Reading standards for Grade 9 students were considered much lower than in the past. In a separate focus group discussion, men attributed the poor quality of education to teachers not taking their positions seriously and engaging in alcohol consumption during school hours. This was said to set a bad example for children, who often copy the behavior of teachers.

Community members praised higher rates of school attendance by girls, though the challenges these pupils face in completing school were discussed extensively during focus group discussions. Pregnancy was mentioned numerous times as being a major contributing factor in preventing girls from advancing or completing schooling.

Community vision

The aggregated community vision for Nembwele presents the following dream statement: "A healthy, food-secure and educated community, residing in a clean environment, including good homes." To realize this vision, separate groups of men and women identified various strategic areas and actions to guide future interventions. The findings of the community profile highlight key issues and contextual factors for consideration in identifying and designing activities and areas of future research.

Dream statement	A healthy, food-secure and educated community, residing in a clean environment, including good homes.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Advocacy for improved access to land • Generating awareness about use of improved seed and establishment of linkages with input suppliers • Clearing and management of canals for irrigation, flood control and transport (market access) • Strengthening of community-based extension system • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Innovation and technology	<ul style="list-style-type: none"> • Access to and resource mobilization for improved breeds of livestock • Access to and utilization of animal draft power and farm mechanization • Improved irrigation systems
	Postharvest, storage and processing	<ul style="list-style-type: none"> • Improved methods of grain and produce storage • Capacity building in methods of processing agricultural products and indigenous vegetables • Training in calculating household food requirements • Source of loans for processing equipment such as maize and rice mills
	Diversification	<ul style="list-style-type: none"> • Promotion of different types of crops and livestock • Promotion of other nonagricultural activities
Natural resource management	Aquatic plants	<ul style="list-style-type: none"> • Training in harvesting and utilization methods of aquatic plants • Training in production of quality products and linkages to market • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Health	Access to health services	<ul style="list-style-type: none"> • Lobbying government for construction of health center
	Nutrition	<ul style="list-style-type: none"> • Training in dietary requirements
	Quality, clean water	<ul style="list-style-type: none"> • Generating awareness about water treatment methods and sensitization programs on water quality
	Hygiene	<ul style="list-style-type: none"> • Generating awareness about good hygiene and sanitation practices
	Sanitation provision	<ul style="list-style-type: none"> • Linkages to service providers
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Education	Access to secondary education	<ul style="list-style-type: none"> • Lobbying government for construction of more secondary schools • Facilitation of more income-generating activities for increased incomes
Access to markets	Market information and linkages with buyers	<ul style="list-style-type: none"> • Facilitation of establishment and strengthening of information centers • Creation of linkages with buyers and facilitation of buyer-producer workshops
	Road network and canal management	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
Agroforestry and orchard gardens	Fruit trees (orchards)	<ul style="list-style-type: none"> • Growing of bananas, oranges and sugar plantations

Table 18. Community vision, Nembwele.

Nalitoya profile

Overview of community infrastructure and services

Nalitoya enjoys year-round access by vehicle. From Mongu, the trip takes 1 hour on a paved road. Reaching Nalitoya from Senanga (30 km) takes 30 to 45 minutes on a paved road. From Nalitoya to Sifuna is a 1-km trip on a sand road. Reaching Nembwele takes 10 minutes over a sand road. Both Sifuna and Nembwele are also AAS focal communities.

Students in Nalitoya attend Lyangati Basic School for Grades 1–9. The nearest secondary schools are in Senanga, Mongu and Mooyo. A nearby health post operates in Lyangati. Complicated cases are referred to Itufa Health Center, a distance of 8 km from Nalitoya. Focus groups voiced a number of concerns about the distance to health facilities. For example, living long distances from the clinic together with a lack of transport options prevents some pregnant women from delivering at the clinic.

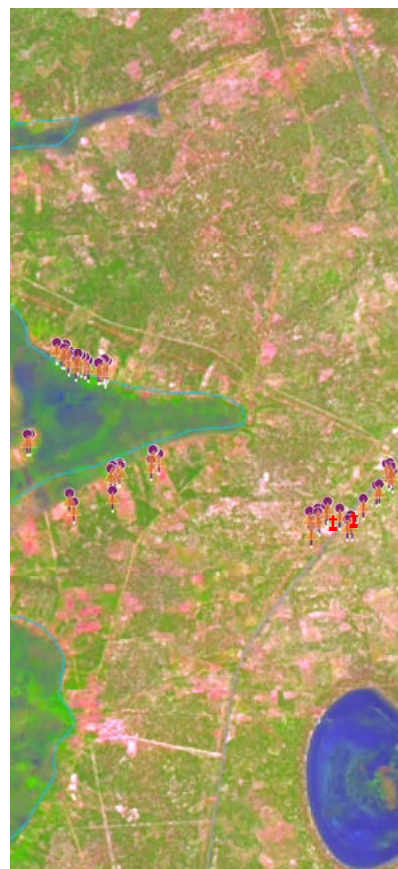
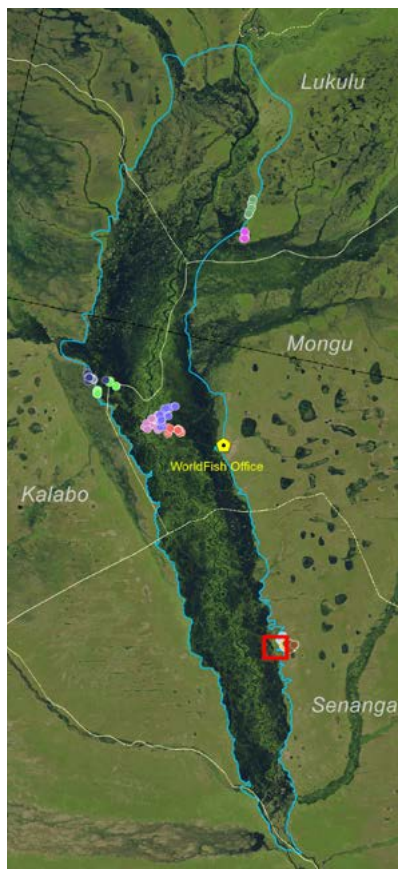
Safe drinking water is available from boreholes located at the clinic and school. Women and girls have the primary responsibility for retrieving water. Those who live a great

distance from these facilities collect water from ground wells of varying quality or from nearby rivers, lakes and lagoons. An agricultural camp extension officer provides residents with information related to agricultural practices and organizes various government programs, including fertilizer distribution.

Cell phone coverage can be described as fair depending on the distance to provider towers. Airtel and MTN provide the best-quality service in the area. Privately owned shops are found in the area, selling common household items such as soap, farm implements, clothing, foodstuffs and alcohol.

Household demographics and structure

Focus groups reported that past nuclear family structures have begun to shift, giving way to an increasing number of women and single-headed households (Table 19). Focus group members attributed the increase to the death of husbands and increasing rates of divorce. The number of single women in the community is perceived as greater than the number of single men—an observation corroborated by census data, which shows that nearly 20% of woman heading households are single (Figure 19). In contrast, no single-men households were reported, although



- ▲ Woman-headed households
- Man-headed households
- ✝ Church

Landsat 8 dated 24 March 2014, satellite image courtesy of the U.S. Geological Survey.

Map 11. Map of Nalitoya, Senanga District.

	n (=100)	Mean	Standard deviation	Minimum	Maximum
Household size					
Woman-headed households	43	4.86	2.21	2	12
Man-headed households	57	5.75	2.82	1	13
Age of household head (years)					
Woman-headed households*	42	47.69	16.52	22	84
Man-headed household†	56	43.04	17.88	22	87

* One missing household. † One missing household.

Table 19. Household demographic data, Nalitoya.

the census found one widowed man heading a household and five divorced men. Discussants articulated the belief that the number of women, and thus potential woman-headed households, had increased in recent years to the point where many women are unable to marry or re-marry due to a disparity in the numbers of women and men in the community. Census data indicates that 43% of Nalitoya households were headed by a woman. Of these woman-headed households, widows headed nearly one-quarter, with another 38% headed by divorcees.

According to focus groups, polygamous marriage has declined in Nalitoya, and no polygamous households were recorded during the census exercise. A women's focus group expressed the belief that in the near future there would be no polygamous marriages. Among women focus groups, the most commonly held perceptions to explain the decline in polygamy were Christian values and fear of disease transmission. Men attributed the reduction to their ability to be married and have multiple girlfriends, allowing men to not incur the costs associated with large families. These girlfriend relationships were said to have replaced the practice of polygamy. Women focus group members believed women who enter these relationships are foolish, abnormal and have failed to take care of themselves.

Community leadership

Nalitoya is under the authority of *Silalo Induna* Mundale, in keeping with traditional governance structures of Barotseland. As in other AAS focal communities, village leadership lies with various elected *indunas*, including women *indunas*. There are also other village leadership positions, such as vice *induna*, secretary and treasurer. Individuals who hold these positions work with the village *induna* to assist community members in times of hardship.

Community leaders are responsible for dispute resolution, assigning farmland, resource allocation and community organization.

NGO activities

A number of NGOs have a presence in Nalitoya. Concern Worldwide focuses on conservation agriculture and organic farming. In 2013, World Vision distributed mosquito nets. In addition, Caritas, AFA, PPS and Women for Change have a presence in Nalitoya. The agricultural organization Ndenyanga increased gardening in the area and was credited with increasing the availability of relish in the community. Focus groups also reported the presence of two active women's groups, as well as a rice-growing group. No men's or youth groups were identified during focus group discussions.

Women's focus groups expressed satisfaction with previous NGO-related activities, trainings and programs. Discussants attributed an increase in women's empowerment and ability to advance along the well-being ladder to NGOs' targeting of women.

Ecosystem services

People in Nalitoya employ a diversity of livelihood strategies that draw on the natural features of the area, including canals, forest lands and grazing lands, which are held as common resources. Agricultural land is held by individuals and inherited by children (typically males).

Local canals provide water for drinking, cooking and bathing, as well as for irrigation. Focus group participants reported a decline in local fish populations, largely attributed to illegal fishing methods. Multiple focus groups expressed concern that future generations would not be able to provide for families due to the significant depletion of fish stocks.

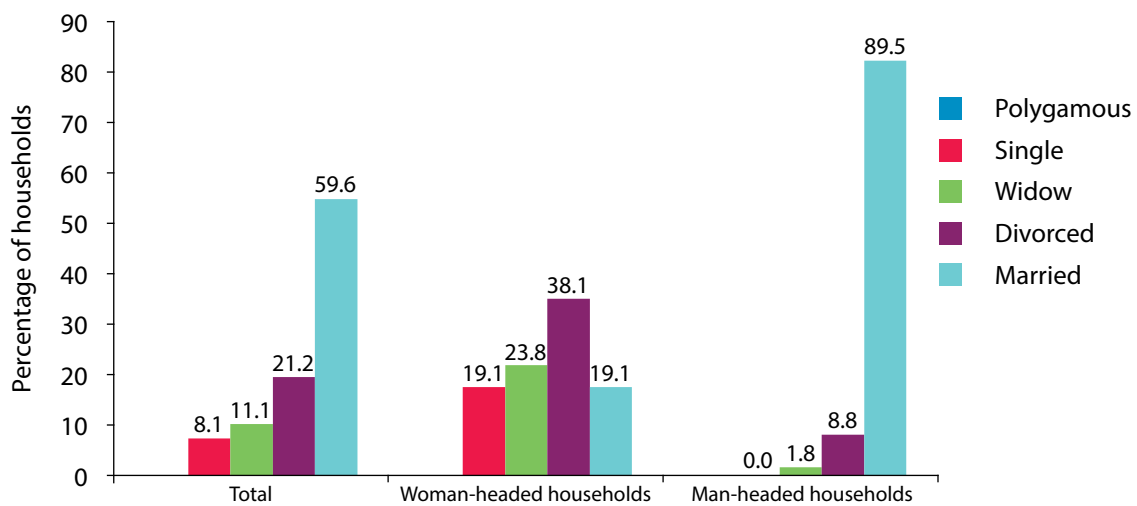


Figure 19. Marital status of household head, Nalitoya.

Individuals harvest papyrus, trees, wild fruit, reeds and grass and must ask permission from local leaders for access to these resources. According to focus group members, both men and women have equal opportunity to exploit common resources, but men are generally considered to have an advantage in resource collection. Fish, wild animals and reeds are considered to be diminishing resources, while grass, small trees and fruits are seen as being in ample supply.

The rainy season in Nalitoya begins in November and continues until April. As a result of changing rainfall patterns, focus groups stated that many members of the community have begun cultivating rice as an alternative to maize, which is commonly destroyed by floods or drought.

Livelihoods and well-being

Focus group discussions identified three primary livelihood strategies in the community of Nalitoya: agricultural production, fishing and cattle rearing. In contrast to other communities in the Barotse Hub, discussants ranked agricultural production as the most important livelihood activity. People cultivate rice, maize, cassava, sweet potatoes, bambara nuts, oranges, bananas and vegetables. As noted above, production of rice has recently increased in Nalitoya in response to changing rainfall patterns. Focus groups identified rice as the current dominant cash crop in the community, surpassing maize and cassava.

People alternate between upland and floodplain agriculture seasonally to make

effective use of anticipated rainfall patterns. Within the floodplain, planting begins in August to September. Upland fields are planted in November to take advantage of seasonal rains. These fields are harvested in April following the end of the rainy season. Men have responsibility for field preparation using a hoe or draft animal. Women sow seeds, weed and harvest crops, which are consumed, sold within the community or taken to Senanga for sale.

Fishing was also identified as an important and profitable livelihood activity. Men are engaged in the majority of capture activities in the fishery, which are undertaken nearly year round. Activities cease from December to March in response to the fishing ban imposed by the Department of Fisheries and the BRE.

The third most significant livelihood activity is raising livestock, including cattle, pigs, chickens and goats. Cattle in particular have an important role in providing individuals with milk, manure and draft power. The sale of cattle in Senanga provides a significant source of income to community members. Men generally own cattle, although in some cases women also own cattle. Focus groups reported difficulty in obtaining medication for cattle. Consequently, large numbers of cattle have died of various diseases.

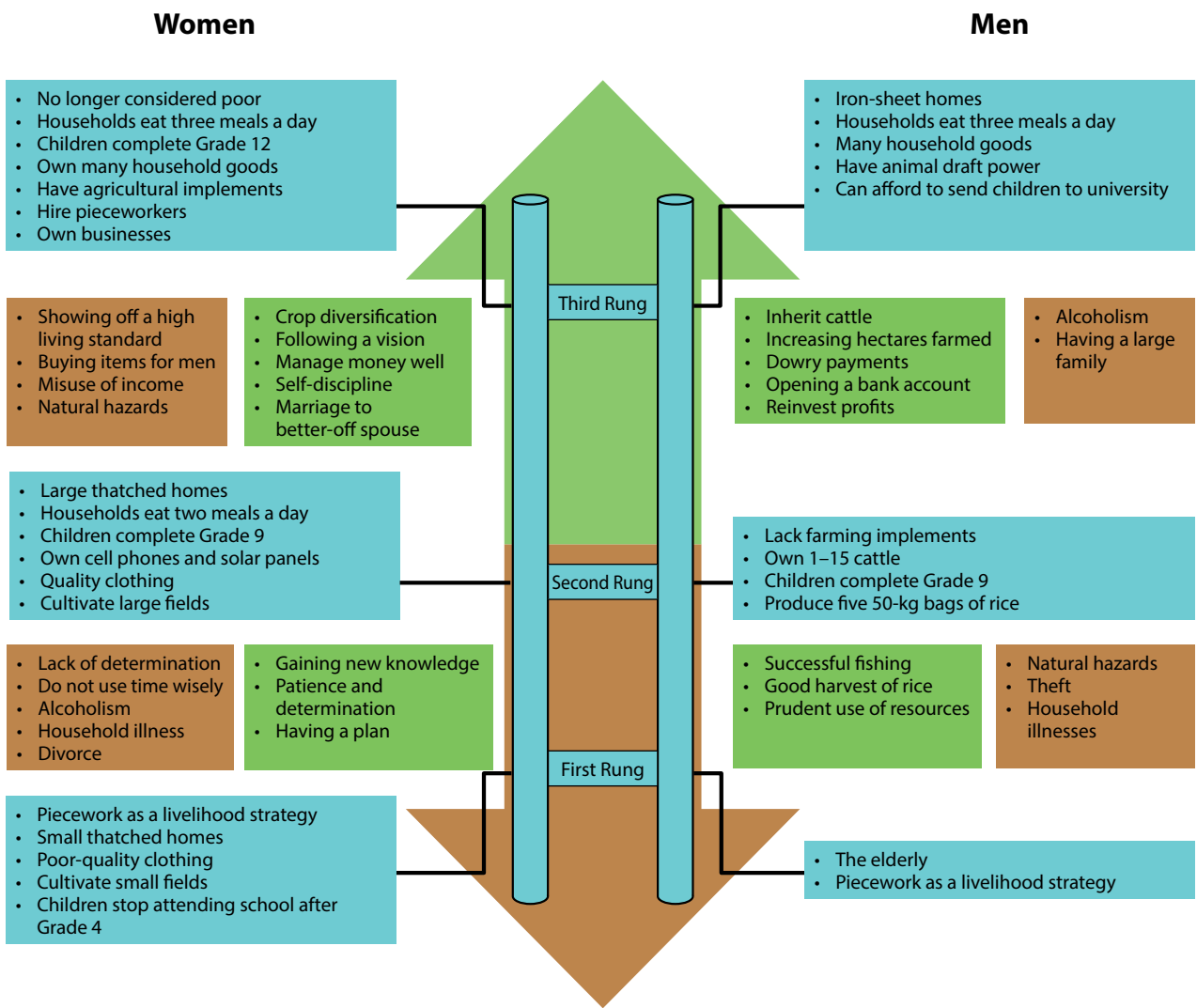
A number of secondary income-generating activities are practiced throughout the year to supplement income and cope with periods of insecurity. Community members operate small businesses and work in carpentry, honey collection and papyrus collection to generate

additional income. Small businesses, which are particularly important revenue sources for women, commonly sell household items, agricultural implements and edible goods.

Figure 20 presents the well-being ladder for Nalitoya. The ladder shows that those considered at the bottom of the community's socioeconomic ladder primarily engage in piecework and cultivate small fields. Focus groups also reported that more resource-poor people collect firewood and herd cattle for better-off community members, who typically own cattle and cultivate larger fields with the use of farm implements and draft animals. Collection, herding and piecework activities are generally performed as coping strategies during periods of insecurity, such as the hunger season, divorce and illness. Payment for these activities is either in cash or in kind.

Decision-making

Focus groups indicated that in recent years, households in Nalitoya have experienced increased cooperation between spouses and greater awareness of women's rights and gender. This in turn has enhanced the capacity of women to make more independent decisions. Both women and men spoke approvingly of couples that make consultative decisions. These couples were described as "partners in development" and "empowered with knowledge." Spouses commonly make joint decisions about agricultural production, schooling, coping with household illnesses, the purchase of household items, initiation ceremonies and business. In some cases, however, men do not welcome these changes. These men continue to make independent decisions, particularly with regard to extramarital affairs and divorce.



Enabling factors indicated in green; constraining factors indicated in brown.

Figure 20. Well-being ladder, Nalitoya.

Both women and men reported some limitations to the movement of married women within the community. Visits to the clinic, friends, family and meetings within the community, while viewed as acceptable, require the permission of husbands in most instances. Single women, however, have complete freedom of movement.

Women reported that they are free to take part in the resolution of disputes within the community. The most resource-poor people of Nalitoya are also free to participate. The role of women in community dispute resolution is a recent development. In the past, women were free to attend meetings, but were unable to take part in discussions.

Marriage

According to focus groups, marriage practices in Nalitoya have been changing in recent years. In the past, young women married around age 20; presently, many girls marry at age 12. Couples are also increasingly choosing to cohabitate. Today, many young couples disregard tradition and choose to elope or marry without permission from the bride's family. Women focus groups reported that men increasingly refuse or lack the means to pay dowries. For women, this raised concern that to marry in the future, younger women will in fact give their husbands money to provide the dowry payment.

Reduced rates of dowry payment, eloping and early age of marriage are all seen as contributing factors to the perceived increase of divorce in Nalitoya. According to focus groups, divorce was rare in the past, attributed largely to the strong tradition of dowry as an investment. A women's focus group cited disparity in numbers of men and women, as well as alcoholism, as factors that contribute to divorce in the community. Focus groups compared marriage to "piecemeal," characterized by extramarital affairs and prostitution. Focus group participants viewed divorced individuals as failures, sufferers and stupid.

Education

In considering the value of education in Nalitoya, focus group participants described education as the principal way to improve livelihoods, gain employment and increase future support to parents. Reportedly, school enrollment and attendance have increased, especially among girls. Discussants attributed this significant

finding to a school meals program at Lyangati Basic School. Women's focus groups stated that this program assisted both students and families, because parents are no longer required to send children to school with food or money. Participants identified distance to secondary schools, poverty and pregnancy as the most significant factors that affect a pupil's completion of schooling to Grade 12. Those who qualify to advance to secondary school from Nalitoya must travel to Senanga, Mongu or Mooyo. The distance to these schools requires families to pay for the costs associated with transport and boarding.

Focus groups held extensive conversations about the challenges girls face in completing school, with pregnancy cited numerous times as a major factor that prevents them from advancing their education. Participants also expressed concern that girls are engaging in sexual activities with their peers and in some cases with teachers.

Community vision

The community vision for Nalitoya, presented in Table 20, reflects where women and men in Nalitoya community aspire to be in 5 years. It is an aggregated vision that was constructed using visions developed separately by groups of women and men in Nalitoya.

A number of key social and gender issues need to be considered when using the community profile and vision, including piecemeal as a coping strategy, transportation costs to Senanga, and the impact of reduced fish and cattle populations. It is also important to note the emphasis on agricultural production in Nalitoya and local adaptation strategies in response to climate variability, such as transitioning from maize to rice in cash crop production. For all of these longstanding and shifting livelihood strategies, men and women hold different roles, rights and responsibilities. In looking toward the future, residents of Nalitoya emphasized the value of education, especially for girls, and the importance of school meals in assisting students and their families. This positive development is threatened, however, by the challenges girls face, particularly in regard to sexual activity and pregnancy. These issues have a profound impact on the activities and practices of those on the first and second rungs of the well-being ladder. In many cases, these issues affect the ways in which individuals practice agriculture, marry or maintain food security.

Dream statement	A healthy and educated community, residing in a clean environment with access to clean water and including good houses.	
Key strategic areas	Specific strategic areas	Proposed actions
Food security	Production and productivity	<ul style="list-style-type: none"> • Generating awareness about use of improved seed • Adoption of flood-resilient crops and timing • Technical trainings in livestock, crops, gardening and fisheries
	Postharvest, storage and processing	<ul style="list-style-type: none"> • Improved methods of grain and produce storage • Capacity building in methods of processing agricultural products and indigenous vegetables • Training in calculating household food requirements
	Technology	<ul style="list-style-type: none"> • Animal draft power • Irrigation technology • Livestock crossbreeding
	Diversification	<ul style="list-style-type: none"> • Promotion of adoption of different crops, alongside livestock, gardening and fishing for incomes, food security and nutrition
Natural resource management	Aquatic plants	<ul style="list-style-type: none"> • Training in harvesting and utilization methods of aquatic plants • Training in production of quality products and linkages to market • Formation and strengthening of village natural resource management committees
	Forest and fire management	<ul style="list-style-type: none"> • Generating awareness about sustainable natural resource management • Development of fire management plan • Early burning sensitization • Formation and strengthening of village natural resource management committees
	Sustainable fisheries methods	<ul style="list-style-type: none"> • Awareness meetings to sensitize communities on best fishing methods • Development and strengthening of community bylaws on management of fisheries; lobbying BRE and Department of Fisheries to ban use of illegal fishing methods • Formation and strengthening of village natural resource management committees
Health and nutrition	Access to health services	<ul style="list-style-type: none"> • Lobbying government for improved health services (sufficient and qualified staff and well-stocked drugs)
	Nutrition	<ul style="list-style-type: none"> • Training in dietary requirements
Improved shelter (housing)	Flood-secure houses	<ul style="list-style-type: none"> • Application of indigenous knowledge • Training and promotion of household savings
Education	Access to preschool education and secondary schools	<ul style="list-style-type: none"> • Lobbying government to construct more secondary schools
Water and sanitation	Access to clean water	<ul style="list-style-type: none"> • Promotion of water treatment methods • Lobbying service providers for clean water delivery
	Access to sanitation facilities	<ul style="list-style-type: none"> • Promotion of waste management • Construction of flood-secure toilets
Markets	Canal management	<ul style="list-style-type: none"> • Awareness meetings on socioeconomic importance of canals • Community mobilization and canal clearing and management
	Road network development	<ul style="list-style-type: none"> • Lobbying government for improved road infrastructure

Table 20. Community vision, Nalitoya.

NOTES

- ¹ Country-level AAS programs are carried out in “learning hubs,” which are located in areas where dependence on aquatic agricultural systems is high. AAS is currently operating in Solomon Islands, the Philippines, Cambodia, Bangladesh and Zambia. (See AAS 2013b.)
- ² Aquatic agricultural systems are those where production in natural freshwater and/or coastal ecosystems contribute substantially to people’s livelihoods.
- ³ AAS in Zambia is working with partners such as the Ministry of Agriculture and Livestock (and the Department of Fisheries), People’s Participation Services (PPS), and Concern Worldwide. See <http://aas.cgiar.org/where-we-work/zambia> for a complete list of partners.
- ⁴ Additional detail on the process and criteria for selection of the 10 focal villages in the Barotse Hub is provided in AAS 2013a, 7–8.
- ⁵ The well-being ladders are adapted from the “Ladder and Freedom” module developed by the World Bank for the 2010 World Development Report on gender (World Bank 2010).
- ⁶ For additional information on the social and gender analysis for the Barotse Hub, please consult AAS 2013b.
- ⁷ Primary healthcare centers are small support extensions of rural health centers.

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ANNEX 1. VILLAGES THAT MAKE UP THE 10 AAS FOCAL COMMUNITIES, BY DISTRICT

Lukulu District

- Kabula (11 villages): Mutulo, North Katoya, Simbundu, Kapungu, Selozi, Kabula Central, Kahoko, South Mbowela, Kazauli, Lyondo and Malengaula.
- Kapanda (1 village).

Kalabo District

- Mapungu (9 villages): Katata, Loti, Nasilala, Nasioma, Nandala, Kamonga, Sitandabia, Sitongola and Kasindi.
- Mwandi (9 villages): Litondo, Looke, Mushimbuluko, Kutema, Ndalo, Nasoma, Nakasinde, Kakuli Malilo and Kakuli II.

Mongu District

- Nanikelako (6 villages): Mashee, Nakambe, Lyatolo, Nangoma, Nalului and Namatanda.
- Situlu (12 villages): Situlu, Ningili, Litongo, Mabuto, Lubama, Sinda, Tuwee, Inyameko, Tichalo, Lindanda, Nemweti and Tikuyu.
- Lealui (7 villages): Imausi, Lwatile, Nasaya, Mashete, Liyala, Maanga and Siliwa.

Senanga District

- Sifuna (16 villages): Kakuna, Musiyalike, Kapumbula, Sichilombo, Samashau, Sakanguya, Ndala Kaunda, Shabiwangu, Shabutete, Shakawewe, Ntamba, Likwasi, Lyundu, Thomasi, Katutu and Kandendu.
- Nembwele (5 villages): Imbulu, Koby, Sane, lilunda and Nembwele.
- Nalitoya (5 villages): Lyunga, Batton, Katota, Lyomboko and Nalitoya.



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About the CGIAR Research Program on Aquatic Agricultural Systems

Approximately 500 million people in Africa, Asia and the Pacific depend on aquatic agricultural systems for their livelihoods; 138 million of these people live in poverty. Occurring along the world's floodplains, deltas and coasts, these systems provide multiple opportunities for growing food and generating income. However, factors like population growth, environmental degradation and climate change are affecting these systems, threatening the livelihoods and well-being of millions of people.

The CGIAR Research Program on Aquatic Agricultural Systems (AAS) seeks to reduce poverty and improve food security for many small-scale fishers and farmers depending on aquatic agriculture systems by partnering with local, national and international partners to achieve large-scale development impact.

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Contact Details:
CGIAR Research Program on Aquatic Agricultural Systems
Jalan Batu Maung, Batu Maung, 11960 Bayan Lepas, Penang, MALAYSIA
www.aas.cgiar.org

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