

**IMPACT OF TELECOMMUNICATIONS ON
RURAL LIVELIHOODS: TANZANIA**

SENGEREMA DISTRICT

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Sengerema District

Location:

- Mwanza Region - southern shore of Lake Victoria.

Getting there:

- Flight / Road / Rail to Mwanza then Ferry to Sengerema.

Main livelihood activities:

- Fisheries, agriculture, mining, and livestock keeping.
 - Fishing is becoming increasingly important.

Why Sengerema?

- Sengerema has a lake.
 - Prospect of getting a different type of rural livelihood (different from the other two districts). Due to its proximity to the Lake, fishing is a major activity.

- Sengerema has a telecentre.
 - Telecentre was initiated and sponsored by the Tanzania Commission for Science and Technology (COSTECH).
 - Prospect of getting different insights into the use of telecommunications in the district.
 - The presence of the telecentre did not greatly affect the use and impact of the telecommunications in the district.

Field Study Schedule

Dates:

- 9th August – 18th August.

Team:

- Group of 7 researchers led by Prof. Ophelia Mascarenhas.

Villages:

- 9th – 10th August: Travel to Sengerema, courtesy calls and planning.
- 11th August Fieldwork in Isabageni village.
- 12th August Fieldwork in Tunyenye village.
- 13th August Fieldwork in Sima village.
- 14th August Fieldwork in Tabaruka village.
- 15th August Fieldwork in Nyamisege village.
- 16th August Fieldwork in Katunguru village.
- 17th August Fieldwork in Kijweni village.
- 18th – 19th August: Courtesy calls and travel to Dar es Salaam.

Selection of the Sample

Sample of villages

- 7 villages were selected.
- The basic criteria were distance from the Sengerema District Headquarters and the inclusion of fishermen in at least one of the villages.

Sample of households and traders

- 30 households from one sub-village to represent the whole village. (More than one sub-village was taken if the total number of households in the first selected sub-village was less than 100.)
- For each village 5 traders were purposely selected from a list of traders to ensure variety of trades.
- The sample per village was thus 35 and the total sample was 245 for all the 7 villages.

Data Collection

- Structured questionnaire administered by the group of researchers.
- The respondents were mainly the head of household and mostly male. Less than 10% of the heads of the households were female, which was less than the national average of 23%.

Characteristics of the respondents - Gender

Village	Females		Males	
	Number	%	Number	%
Tabaruka	13	37.1	22	62.9
Tunyeny	13	37.1	22	62.9
Katunguru	16	45.7	19	54.3
Sima	9	25.7	26	74.3
Ibasabageni	8	22.9	27	77.1
Chifinfu	7	20	28	80
Nyamizeze	15	42.9	20	57.1
Total	81	33.1	164	66.9

The respondents were mainly heads of households or their spouses if the head was not around at the time of the interview. During the preparation of the questionnaire for the field research there was a discussion on whether there should be a deliberate attempt to get an equal number of male and female heads of households. The suggestion for such a purposeful selection was discarded in favour of getting a random sample which, it was felt, would be more representative of the village/district population. In Sengerema District, female respondents ranged from 20 – 43 %. Some were heads of households; others were spouses. In most cases the female spouse respondents appeared to have a good perspective of the issues related to livelihoods and use of the telecommunications within the household.

Characteristics of the respondents – Age

Village	<20 yrs		20-30 yrs		31-40 yrs		41-50 yrs		51-60 yrs		>60 yrs	
Tabaruka			10		12		6		4		3	
Tunyeny	2		11		11		3		5		3	
Katunguru			9		7		9		4		6	
Sima			5		12		6		4		8	
Ibasabagemi			1		2		7		8		17	
Chifunfu			5		19		9		1		1	
Nyamizeze			7		11		4		5		8	
Total	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
245	2	8	48	19.6	74	30.2	44	17.9	31	12.6	46	18.8

Most of the respondents in Sengerema District were 20 years and above, with the largest single group being in the 31-40 years cluster. There were only 2 who were below 20 years but a surprising one-fifth were 60 years and above. The 2002 Population and Housing Census found that only 4% of the population was 64 years and above.

Characteristics of the respondents – Education

Village	No formal schooling		Primary education		Lower Secondary- Form 1-4		Higher secondary Form 5-6		Post Secondary	
	No.	%	No.	%	No.	%	No.	%	No.	%
Tabaruka	8		26		1		0		0	
Tunyenye	8		27		0		0		0	
Katunguru	9		24		2		0		0	
Sima	8		25		2		0		0	
Ibasabagemi	3		29		2		0		3	
Chifunfu /Kijeweni	1		32		1		0		1	
Nyamizeze	19.6		19		3		1		1	
Total	No.	%	No.	%	No.	%	No.	%	No.	%
245	48	19.6%	182	74.3	9	3.7	1	0.4	5	2.0

The education levels of the respondents reflect the current situation of the educational level of the men and women in Tanzania. Illiteracy is quite high especially among females (41.2%). The majority of the respondents had reached only primary school level.

Characteristics of the respondents – Occupation

Village	Farming		Business		Fishing		Livestock		Others	
Tabaruka	13		12		0				10	
Tunyenye	12		16		0				7	
Katunguru	16		9		2				8	
Sima	17		11		1		1		5	
Ibassbageni	12		12		0		0		11	
Chifunfu	2		16		14		0		3	
Nyamizeze	17		9		0		0		9	
Total	No	%	No	%	No	%	No	%	No	%
	89	36.3	85	34.7	17	7.0	1	0.4	53	21.6

•There was a surprisingly wide range of occupations of respondents in Sengerema District although the dominant occupations were agriculture and business, with fishing taking a distant but important third. These occupations reflect the main livelihoods of the people though not necessarily the importance of the sectors to the district and regional economy. As stated earlier, in Mwanza Region and Sengerema District, fishing is considered the most important activity followed by agriculture and mining (Socio-economic Profile of Mwanza Region, 2003). Business which was the second most important main occupation among the respondents was not mentioned in the “Socio-economic Profile” so it is difficult to compare these results with the official district or regional perspectives.

•The category designated as “Others” includes Teacher, Govt staff, Machine Operator, Marketing Agent, House Renter, Pastor, Politician, Hired labour, Bicycle repairer, Radio repairer, Carpenter, Selling local beer, Selling charcoal, Retiree, Tailor, Driver, Broker, Dry Cleaner, Butcher, Mason.

Telephone Coverage and Use

- In Mwanza, the fixed line by the Tanzania Telecommunications Limited (TTCL) is supposed to be the dominant telephone line but this was not true for most of the villages.
 - Fixed lines were available only in Ibasabageni (about a kilometer from the district headquarters).
 - The other 6 villages depended on cellular telephones.

High	High Mobile	Low Mobile	Poor Network Access
Ibasabageni	Tabaruka	Chifunfu	Tunyeny
	Sima	Katunguru	
	Nyamizese		

High meaning access to TTCL fixed line plus access to two or more mobile service providers

High Mobile meaning no access to the fixed line but access to two or more mobile services

Low mobile, meaning no access to the TTCL fixed line but having one mobile service

Poor Network access, meaning that the mobile service network was available only in certain spots in the village.

Use of Mobiles

Village	Own a mobile	Borrow a mobile and use it	Ask for a mobile owner to make the call and then Talk	Use a Kiosk	Do not Use	Mobile Services that can be accessed in the village
Tabaruka	8.6	5.7	37.1	--	48.6	Celstel Vodacom
Tunyenyeye	5.7		37.1	--	57.1	Vodacom in certain spots
Katunguru	14.3	2.8	34.3	--	48.6	Vodacom
Sima	8.6	8.6	48.6	--	34.3	Celstel Vodacom
Ibasabageni	22.8	17.1	34.3	5.7	20	Celstel Vodacom
Chifunfu	20	8.6	37.1	22.8	11.4	Celstel
Nyamizese	5.7	5.7	17.1	5.7	65.7	Celstel Vodacom
Total	12.2	6.9	35.1	4.9	40.8	

All the villages had some form of coverage. At the household level there were four categories of mobile telephone users: those who owned and used their own mobile; those who did not own but used the mobiles of others mostly in the village, those who used a mobile telephone kiosk and the majority that did not use mobiles.

General Observations

- The field research in Sengerema District went very well. The District officials, village leadership and households were all very supportive.
- There was more use of radio than television; greater use of mobile telephones than of the fixed line and rare use e-mail except in Ibsagemi, only 1 km from Sengerema District Headquarters and the telecentre where the use was slightly noticeable.
- In some households more than one family member owned a mobile; older persons were quite willing to adopt to the new technology.
- There was a general acknowledgement even among non-owners and non-users of mobiles that telecommunications, particularly mobiles, were important and superior to other means of communication including fixed line.
- The social benefits were more important than the economic benefits.
- Proximity to the district headquarters, type of livelihood, economic status of the households and availability of service providers were major factors.

The last was best demonstrated by Kijiweni Sub-village where there was both a demand and the ability to pay for the service but there were no service providers.

Kijiweni - willing but not able to use telecommunications

Kijiweni is a picturesque sub-village located on the shores of Lake Victoria. It is a very large sub-village with 622 households. It is a fast growing and dynamic sub-village with a wide range of small businesses, shops, services such as repair of car and boat engines, fishing boats and punctures, and restaurants, bars, fish market for fresh and dried fish, etc. The major engine of growth is fishing.

Out of the 7 villages, the household incomes in Kijiweni were the highest. However the sub-village is poorly served; it has no school, dispensary or a safe water supply. The entrepreneurship and affluence of some of the households was reflected by the fact that a few had diesel operated generators that supplied electricity. The level of commerce was indicated by the fact that unlike the other villages where the main market was stated as the headquarters of the District, in this sub-village the main market was in the village itself.

Kijiweni is not served by a fixed telephone line. Mobile service can be tapped into in certain spots of the sub-village. An enterprising business man has managed to tap into one of such network spots and has managed to link this connection to a telephone kiosk in the sub-village. This kiosk is the only reliable source of mobile telephone connectivity in the sub-village and is highly popular. The general opinion was that many of the households would have purchased and used mobile telephones far more if there was adequate network coverage. They had the means but were frustrated by the lack of network coverage.

In addition to the questionnaires the team leader spent time discussing village matters with the village leaders as well as in observing first hand aspects related to the research.