



Sauti za Wananchi

Collecting national data using mobile phones



Introduction

Sauti za Wananchi (Voices of Citizens) is a new initiative that uses mobile phones to regularly collect information from a broad cross-section of Tanzanian citizens. The initiative will allow survey data to be gathered quickly and efficiently, at low cost.

Policy makers regularly make decisions for the whole country, but with poor access to the experiences and realities of a large majority of citizens. It is also difficult for them to know whether policies are properly implemented or actually working. Citizens also do not have an easy way to know what is going on around the country, and to compare their situation with others’.

Policy makers typically use administrative data – information collected by government bodies at lower levels and compiled at district, regional and national levels – to inform their work. But there can be issues with the integrity of administrative data, due to inadequate technical, logistical and quality assurance arrangements. Alternatively, policy makers resort to using survey data, which can have more robust technical design, sampling, and quality assurance procedures. But traditional surveys based on face-to-face interviews tend to be costly and time-consuming. Surveys can cost millions of dollars each and often take more than two years from concept to the data becoming available. For example, the Tanzania Household Budget Survey 2007 collected data in 2007 but was published on 6 May 2009.

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This state of affairs has meant policy makers have to either deal with poor or delayed and expensive data. It has been virtually impossible to obtain a nationally representative, reliable picture in a quick and affordable manner.

Sauti za Wananchi offers a solution that overcomes these limitations. It provides access to frequently updated statistics on a range of topics, with a focus on quality of public services and citizens' realities. Sauti za Wananchi embodies the rigour and quality of traditional survey methodology but uses mobile phones to lower costs and speed up the process of data collection. Through the infrastructure created, policy makers, analysts, media, other organisations and the public can access data that are collected frequently on a range of issues. The intention is that the data will be collected and published on a monthly basis.

Sauti za Wananchi builds on careful design, testing and experimentation in 2011 and 2012, including pilot work in Dar es Salaam (see www.listeningtohear.org). The current initiative has two phases: the first consisted of a standard household survey with face-to-face interviews, implemented in October - December 2012. A representative sample of 2000 respondents from all regions of mainland Tanzania was randomly selected to participate. During the household visits that made up the first phase, mobile phones and solar chargers were distributed to those who agreed to become Sauti za Wananchi respondents. During the second phase, starting February 2013, these respondents will be contacted monthly through a call centre.

Sauti za Wananchi offers a unique opportunity, particularly to policymakers, to access data that provide insight into the real-time experiences and views of citizens. Additionally the public will have the chance to access the views, voices and realities of people from across the country.

Who are the respondents in the Sauti za Wananchi setup? Do they reflect the diversity of the country in terms of sex, age and geography? Do they have access to mobile phones and network coverage? How are phones used? This brief presents six key sets of findings from the Sauti za Wananchi baseline.

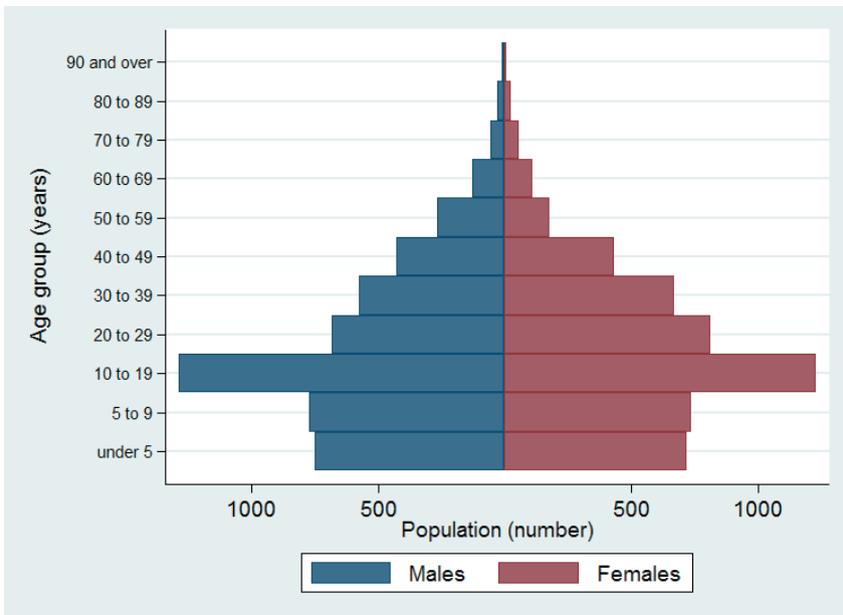
Six facts from the Sauti za Wananchi baseline

Fact 1: Respondent households total 9960 citizens of all ages

The Sauti za Wananchi sample covers 0.02 percent of the 2012 population of mainland Tanzania. However, the design used random sampling in all stages. This means that the findings obtained are good (statisticians say “unbiased”) representations of the average situation in households or the average views held by adults across (areas with network coverage in) mainland Tanzania. The number of 2000 households was chosen to provide findings with generally accepted levels of statistical confidence. These 2000 households comprise of 9960 household members. Out of these 9960 citizens in the households sampled:

- 4973 are male and 4987 are female
- Ages run from 0 to 120 years old
- Most report Grade 7 (primary school) as their highest level of schooling (32 percent)
- About nine percent have not been to school at all
- Most report farming or keeping livestock (44 percent of sample household members above seven years old) and studying (31 percent) as their main occupation

Figure 1: Population pyramid of the Sauti za Wananchi sample households

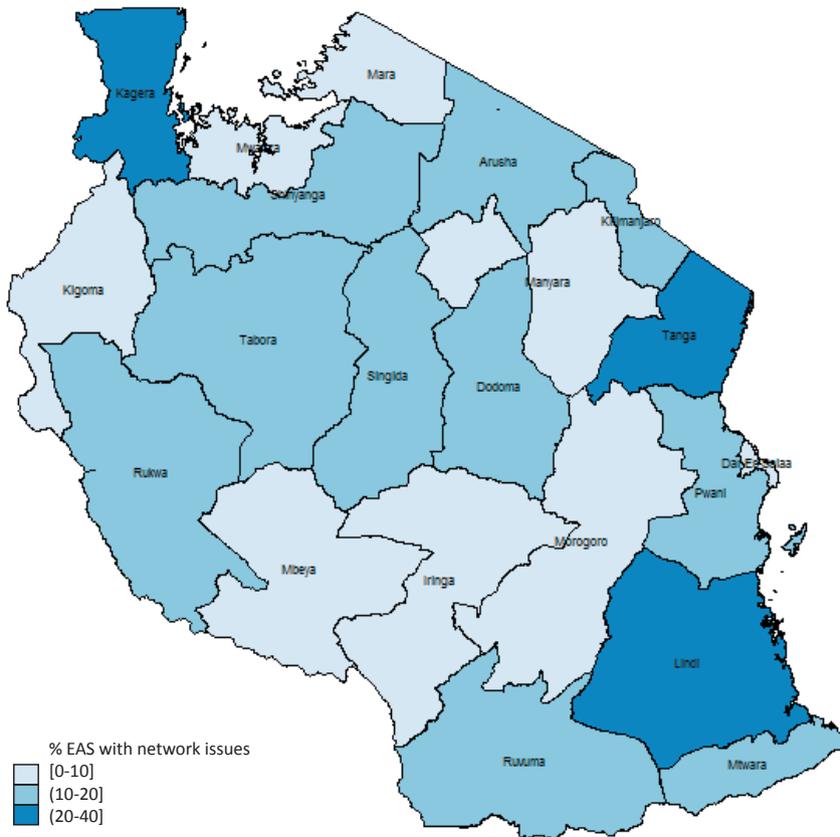


Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Fact 2: 12 percent of the randomly selected Enumeration Areas did not have network coverage

Sauti za Wananchi used a standard three stage survey sampling design: in stage one, so-called Enumeration Areas (EAs) were sampled. EAs are survey areas in rural and urban settings defined by the Tanzania National Bureau of Statistics. Then all households in the sampled EAs were listed and 10 were selected randomly (stage two). And finally, in the third stage, one respondent was randomly chosen from all adult household members in each selected household. One aspect is non-standard: Sauti za Wananchi respondents have to live in EAs with mobile phone network coverage. From a random sample of 200 EAs, 24 EAs or 12 percent had to be replaced because of non-existent or insufficient network coverage. Figure 2 shows the share of EAs – as a percentage of the total number of EAs sampled in each region - that had to be replaced because of insufficient network coverage.

Figure 2: Percentage of EAs in each region that were replaced due to network problems

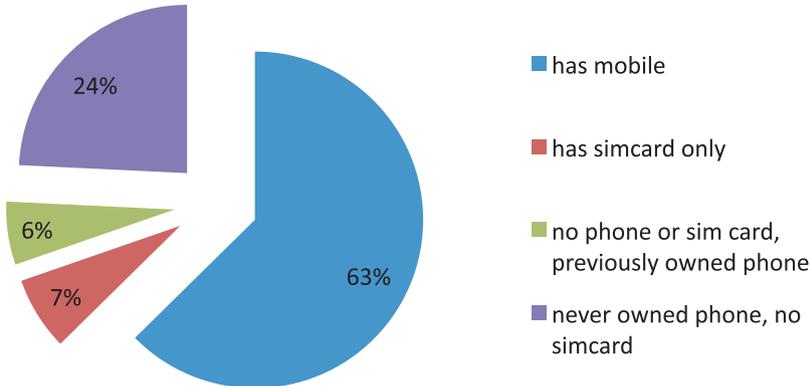


Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Fact 3: 63 percent of adult Tanzanians own a mobile phone

A majority of Tanzanians (63 percent) own a mobile phone. A further seven percent only have a SIM card which they insert into other peoples' phones to make calls. One in four Tanzanians have never owned a phone.

Figure 3: phone ownership

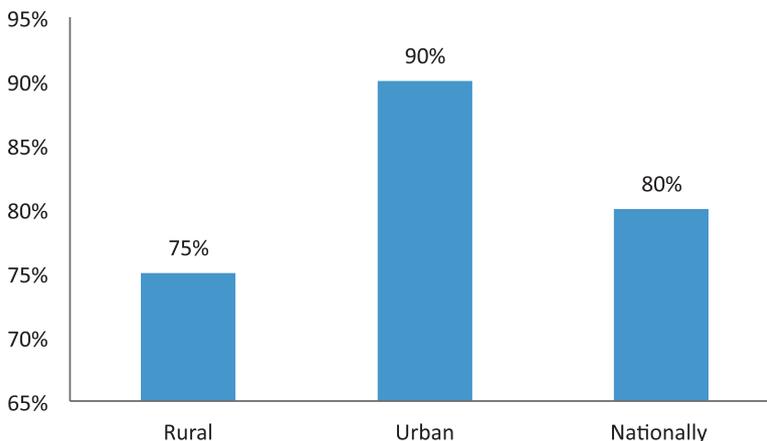


Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Fact 4: 80 percent of Tanzanian households own at least one mobile phone

The Sauti za Wananchi baseline data show that phone ownership is concentrated in urban areas. Nevertheless, a majority of citizens in rural households (75 percent) are living in a household in which at least one member owns a mobile phone. Despite this, when designing the Sauti za Wananchi baseline, the decision was made to provide all respondents with a mobile phone to ensure fair representation.

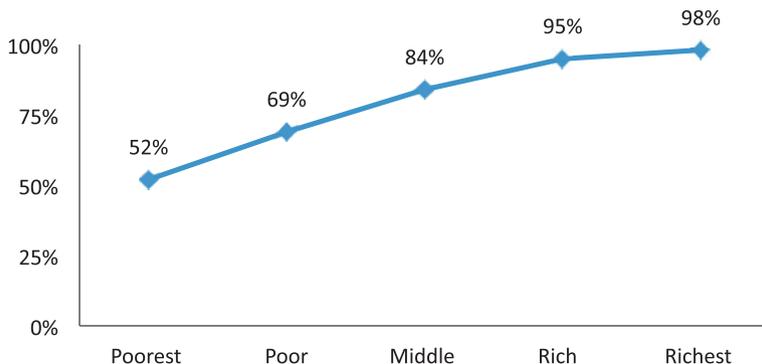
Figure 4: Households that have at least one mobile phone



Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Facts 3 and 4 show that it would have been impossible to contact all individuals in a random sample without distributing phones. As shown in Figure 5, the poorest households are least likely to be reachable over the phone. In other words, the distribution of phones done by Sauti za Wananchi allows some citizens to speak out who in a “standard” phone survey would not have been represented. In particular, poor households (as measured by household assets) are included through this approach.

Figure 5: Mobile Phone ownership at the household across wealth quintiles

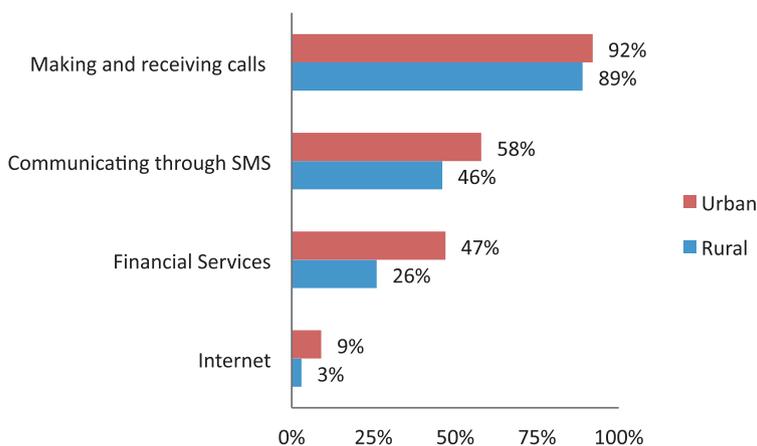


Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013.

Fact 5: Most people use their mobile phone to receive and make calls

A large majority of people use mobile phones for making and receiving calls, and many also use text messaging. Interestingly, nearly half of the urban population uses mobile phones for sending, receiving and storing money. Only a small portion access the internet on mobile phones; even in urban areas this is only nine percent (Figure 6).

Figure 6: Mobile phone usage in Rural and Urban Tanzania

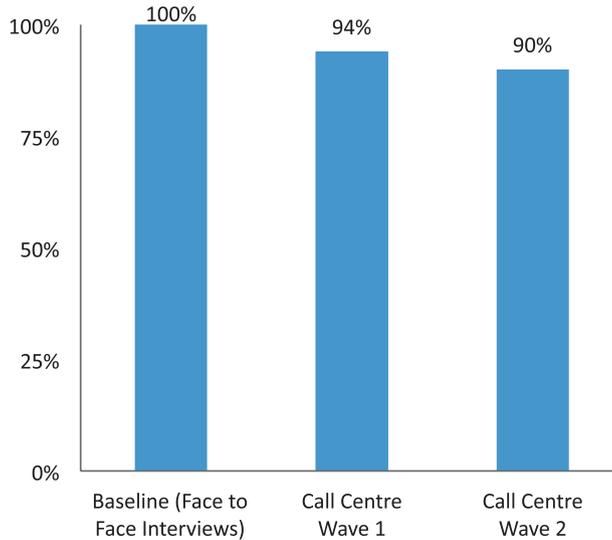


Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Fact 6: Large majority of the respondents can be reached over the phone

An important indicator of the feasibility of any mobile phone survey is the ability to reach respondents after the baseline. Immediately after the baseline phase the Sauti za Wananchi call agents started calling respondents. Figure 7 shows that response rates of these initial waves is between 90 and 94 percent.

Figure 7: Response rates in Sauti za Wananchi



Source of data: Uwazi, Sauti za Wananchi Baseline Survey, 2012-2013

Conclusion

This brief shows how the Sauti za Wananchi initiative will use mobile phone technology to establish an innovative data collection infrastructure. The first phase involved a rigorous multi-stage random sampling procedure – enlisting individual respondents from across mainland Tanzania who provided baseline data and received mobile phones and solar chargers. The launch of Sauti za Wananchi marks the start of the second phase of the project in which respondents will be contacted regularly.

Data will be put in the public domain and findings will be published regularly. The Sauti za Wananchi database is scheduled to grow on a monthly basis through phone calls on a wide range of topics, with a focus on public service delivery, citizen engagement and current affairs. The data will be made public through the Sauti za Wananchi website (www.twaweza.org/sauti; baseline data will be available on the website at the end of February 2013). Moreover, respondent

data will be aggregated and presented in the form of graphs and tables with interpretation of the statistics in accompanying text. Policymakers, MPs, analysts, journalists, donors and the public at large will be able to make use of the data and statistics offered on the website.

Twaweza hopes that the rigorous and high frequency nature of Sauti za Wananchi will provide a powerful new way for citizens to inspire public imagination and inform policy decisions in Tanzania. As Sauti za Wananchi is the first national mobile phone survey in Africa of its kind, it also provides an opportunity for global learning and sharing of experiences with similar initiatives across the continent.