



**mAgri**

# Orange Sènèkèla Baseline

2014





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Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social, economic impact and stimulate the development of scalable, life-enhancing mobile services.



## mAgri

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Research methodology and report writing were designed and supported by Firetail and the ALINe initiative.

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Copies of the regional case study and the study methodology are available on request.

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# Executive Summary

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Sènèkèla is an agricultural value added service (Agri VAS) which launched in Mali in July 2013. It offers a helpline, staffed by agricultural experts, covering a range of agricultural topics and market prices. It also includes a USSD channel for market prices which launched in February 2014 but had not acquired any customers at the time of the baseline. Large-scale marketing commenced on April 1st 2014, however the service was still pilot sized at the baseline and had not broken even.



## Who is using Sènèkèla?

- Men make up 80% of Sènèkèla customers – but women make half of all calls in the repeat user segment
- Most customers are young subsistence smallholder farmers
- Sènèkèla customers are less likely to be below the poverty line than the wider population of Mali

## Customer journey analysis:

Sènèkèla had reached very few users at the time of the baseline. Those who had been connected to the service had mostly called only once ('trial users') – 18% had used the service more regularly ('repeat users'; figure 1). Although this segment is less than a quarter of the size of the trial users segment, repeat users made the same number of calls over the period, emphasizing the importance of this segment to the future sustainability of the service.

## Recommendations for service improvements:

- Increase the reach and awareness of the service through marketing – at the time of the baseline, a radio campaign targeting slots on local stations around other agricultural programming was planned but had not been executed.
- Potential users lack credible, accessible information sources – there is a definite gap in the market for a service like Sènèkèla. However, potential customers are cost-conscious; 95% of focus group participants found the call centre too expensive (at 50FCFA/0.10 USD per minute).
- Connectivity is an issue due to lack of infrastructure, but also due to low balance in the user base. Orange suggest that their customers try to 'bip' the call centre, hanging up as soon as they connect and expecting to be called back. Consider running a subsidised service in order to use Sènèkèla as an acquisition tool; or introduce a freemium model so customers can try before they buy.
- Orange plan to slowly build the service to meet the needs of more and more users by adding new crops to the content database. Users and potential users of the service identified environmental protection, land property issues, fisheries and agro-forestry as areas outside crop agronomy where there were gaps in the information demanded. So far, women are the most loyal users of the service. Including more information about wild fruits and poultry would further meet their needs.

Figure 1

## The Sènèkèla customer journey



See the customer journey analysis for more details.

# Introducing Sènèkèla

Orange Sènèkèla, an agricultural information service, was launched in Mali in July 2013. It is made up of a call centre staffed by agricultural experts and a USSD component delivering market prices. The USSD channel launched in February 2014 but had no users at the time of the baseline.

The service is the result of collaboration between Orange Mali, the government Institute for the Rural Economy (IER) and the International Institute for Communication and Development (IICD) and RONGEAD<sup>1</sup> and is a grantee of the GSMA mAgri mFarmer initiative until September 2014.

At inception Sènèkèla targeted 86,000 people by the end of the funding period. However, service launch was slow, in part due to political instability in the country. Commercial launch occurred later, at the time of the baseline (April 1st 2014) with a TV, radio and press campaign. However, the service was still very small during the baseline study.

SERVICE OVERVIEW JANUARY - MARCH 2014:	
% of target market reached:	0.01%
ARPU (USD)*:	0.16
Orange market share Q1 2014	55%

## Service offerings: Agronomy information

Agronomic information is delivered via mobile phones through a call centre staffed by agricultural experts. The call centre (short code 37333) is manned 8am – 7pm Monday to Saturday and costs 50 FCFA (0.10 USD) per minute to access. This is less than half the usual network rate (108 FCFA/0.21 USD per minute). Information delivered on this channel comes from a database developed specifically for Sènèkèla by the IER, a department of the Malian government. Crops included in the Sènèkèla database are outlined in table 1. Sènèkèla intends to include 20 crops in the database by September 2014. Content is specialized for the areas of Koulikoro and Sikasso (figure 2).<sup>2</sup> No registration is required to access the call centre.

Table 1

### Crops in the Sènèkèla database – agronomic advice and market prices

	SIKASSO REGION	KOULIKORO REGION
<b>Added July 2013</b>	Maize, Shallot/onion Shea (butter and nut),Cashew	
<b>Added October 2013</b>	Rice, Millet, Potato Sweet potato	Maize, Sesame, Shallot/onion Shea (butter and nut)

1. These four bodies are referred to collectively as 'the Sènèkèla consortium'  
 \* Assuming a call length of one minute per call  
 2. This figure is a derivative of "Mali - Koulikoro" and "Mali - Sikasso" by Profross, used under CC BY

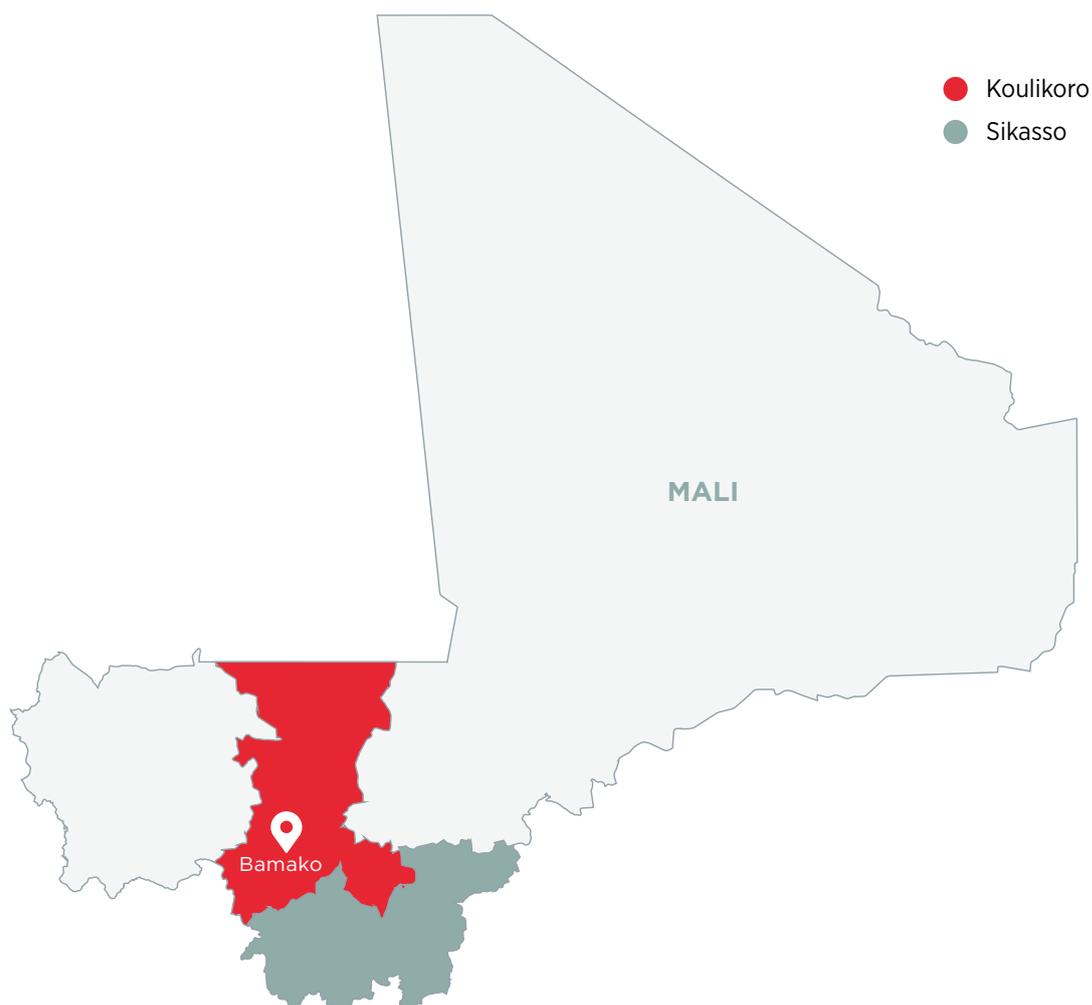
## Content is available for the following topics:

- Planning stage: crop varieties, where in the agro-climatic zone to grow the crop, expected yield
- Growing stage: from land preparation to harvest
- Risks: e.g. illnesses, parasites and how to solve them
- Post-harvest: how to store the crop

If the database does not cover the users' needs, questions are escalated to IER where they are answered by experts within 48 hours. The answer is provided through a return call mechanism at Orange's expense.

Figure 2

## Areas covered by Sènèkèla content database and market price network



## Service offerings: Market price information

Due to a dearth of quality market pricing information in Mali, Orange had to invest in developing this capacity. They did so through partnerships with IICD and RONGEAD. IICD created a network of agents to collect market price information (see ‘How it works: Market price collection’ below). RONGEAD then quality assures the raw market data and analyses it for insights. These are then shaped into market price advisories available to users in the Sikasso region through a USSD channel (short code #222#; XOF 75 (USD 0.16) per message), and in Koulikoro region through the call centre only. In each region, data is collected from markets in the main town and the surrounding area.

The market price information service was launched in Sikasso in July 2013; collection in Koulikoro began in Feb 2014. See table 1 for a summary of the crops available. In Sikasso, the first five crops were chosen due to their importance in the region. The more recently added crops were included due to their expected impact at a national level.

### How it works: Market price collection

Market prices in Sikasso region are collected from a total of 12 markets: four daily urban markets in Sikasso town and eight rural markets in the region which occur once a week. Prices are collected three times daily (in the morning, at noon and at close of business)



1 Market



2 correspondents  
collect 3 prices



1 facilitator...



...calls IICD...



..data uploaded

Correspondents are appointed by local farmers’ organisations and are usually local traders or producers. They gather market prices from three sources: the price at the gate within 5km of the market; the wholesale price at the market; and the price on the retail market. This information is channeled back to the farmers’ organization itself, as well as being communicated to the IICD facilitator who quality assures data from three markets and feeds it back to head office. This mutual benefit accrued by IICD and the farmers’ organisations was a key factor in setting up the collection network. Sènèkèla is updated with the closing day’s prices each night at midnight. Primary analysis is performed by IICD. Data is also shared with RONGEAD, based in France, who produce market forecasts.

The Sènèkèla call centre is available in French (the official language of Mali) and Bambara. There are more than 20 common<sup>3</sup> languages in Mali of which Bambara is the most widely spoken (over one third of Malians speak it), especially in the south of the country where Sènèkèla has been launched.<sup>4</sup> The USSD service is currently in French only.

## Market overview

Mali is a landlocked developing country in West Africa; the majority the population are engaged in agriculture.<sup>6</sup> In the planning stages, Orange estimated the potential market for Sènèkèla to be 1.1 million farmers.

The mobile market contains only two players, Orange and Malitel. Orange currently has a slight market advantage with a 55% market share.<sup>7</sup> Two thirds of the population are mobile subscribers, a figure projected to grow by 32% in Q2 2014. As is common in emerging markets, the vast majority of users continue to use 2G networks and pay as you go (PAYG) SIMs.

MALI POPULATION OVERVIEW <sup>5</sup>	
Population (2012):	14.85m
Contribution of agriculture to GDP (2012):	42%
% Employed in agriculture (2006):	66%
% Below the international poverty line (2005 PPP):	48%

## Information supply and demand

Presently, person-to-person and traditional media sources are most used by farmers due to their long tradition as information sources.

Farmers have a strong preference for direct communication and extension workers and peer farmers are favoured information sources. This could be attributed to tradition, as well as a low literacy rates amongst farmers; in 2011, 34%<sup>8</sup> of Malians were literate, a figure likely to be lower in rural communities.

The mobile market is still nascent in Mali, presenting Sènèkèla with an opportunity to be the first large scale Agri VAS in the country. Only one other mobile-based service could be found in the country, a development project run by mvoices (table 1).

3. 'common' here means spoken by over 100,000 people  
 4. <http://www.axl.cefan.ulaval.ca/afrique/mali.htm>  
 5. World data bank  
 6. World bank databank <http://data.worldbank.org/country/mali>  
 7. GSMA Intelligence data  
 8. World bank databank <http://data.worldbank.org/country/mali>

**Table 2**

## Sources of agricultural information in Mali

	SOURCE	OFFERING
<b>Mobile services</b>	mvoices work package (WP) 5 <sup>9</sup>	A mobile agriculture pilot in the Sahel region leveraging mobile to improve existing agri-services (e.g. selling platforms, events planning)
<b>Person-to-person</b>	Government extension	General information on agriculture via demonstration. Farmers usually travel to the demonstration sites.
	NGOs	Information on peer organisations, credit, and how to add more value to their produce. Farmers travel to the sites but not as far than those of government extension.
	Middleman	Market prices and storage. Information is delivered in a timely manner but potentially biased.
	Fellow farmers	Information mainly concentrated on input availability, cropping, and market prices. One of the most traditional and familiar information sources for farmers.
<b>Traditional media</b>	Radio	Price information of some crops in different markets and weather. Information is available via both local and national stations. Price information is at least one week old.
	TV	Information on best practices, market, and agro-business is available from a national channel.

Information preferred by Malian smallholder farmers was explored through a case study.<sup>10</sup> Participants listed the following issues as most important challenges for farmers (ranked in terms of information deficit from existing sources; table 3):

**Table 3**

## Information needs ranked by farmers from focus groups

RANK	DEMAND	EXAMPLES
1	Infrastructure	Storage; roads to markets
2	Finance	Access to credit
3	Inputs	Access to quality fertilizer, seeds, feeds; water management during the dry season
3	Marketing	Real time price information
3	Others	Environmental protection, land property, best practices
6	Cultivation	Modern equipment and techniques, securing quality labour force, pest & disease control

9. [http://mvoices.eu/sites/default/files/VOICES-D5.1-v1.1-VUA\\_WF\\_SE-16Dec2011-small.pdf](http://mvoices.eu/sites/default/files/VOICES-D5.1-v1.1-VUA_WF_SE-16Dec2011-small.pdf)

10. Case study included focus groups and interviews with 40 users and non-users of Sènèkèla in Bougouni and Kaboila villages of the Sikasso region in the south of Mali.

Table 4

### Supply and demand of agricultural information

SUPPLY	DEMAND						SCORE*
	INPUT	CULTIVATION	INFRASTRUCTURE	MARKETING	FINANCE	OTHERS	
SÈNÈKÈLA	●	●	⊗	●	●	○	9
EXTENSION WORKERS	●	●	○	○	○	○	8
NGOS	○	●	⊗	○	●	○	7
MIDDLEMAN	○	○	○	●	○	○	7
FELLOW FARMERS	○	●	○	●	○	○	8
RADIO	○	○	⊗	○	⊗	●	5
TV	○	○	⊗	○	⊗	●	5
SCORE*	9	11	3	10	7	9	

 Sufficiently provided = 2    
  Provided but insufficient =1    
  Not provided = 0

\* Score calculated by combining weightings ('sufficiently provided' scores 2, 'provided but insufficient' scores 1) in order to rank supply and demand in terms of current sufficiency.

Source: Case study focus groups and interviews

Traditional media (TV and radio) scores the lowest of all information suppliers (table 4); information provided through these methods was seen as generic and impersonal, although their usefulness for weather forecasts was acknowledged. It is clear that personalized information tailored to specific needs is an important factor influencing farmers' judgment of the quality of information. Availability of information was also very important, hence extension workers and NGOs, offering a personal service and expertise, scored lower than fellow farmers who are readily available for advice or discussion. Sènèkèla ranked highest of all these

suppliers – an unusual result, as it is a new entrant in the market and had been used by very few people at the time of the baseline. Nevertheless, farmers interviewed clearly saw the potential of accessing the expertise of an extension worker through the readily available medium of a helpline. Sènèkèla was also seen as covering more topics sufficiently than other sources.

**When considering new areas of information to cover, the Sènèkèla consortium may consider branching out into 'other' areas of environmental protection and land property issues.**



During the case study, farmers reported using mobile phones to exchange agricultural and market information between themselves (outside of Sènèkèla), and seeking this information from fellow farmers continues to be a major use of mobile phones. This is because of the strong traditional belief that “brothers (fellow farmers)” never betray their community by giving false information. Traders also use their phones for business outside of Agri VAS to obtain information from middlemen.

Participants identified two issues that could undermine continued use of Sènèkèla in the long-term:

- **Insufficient coverage of different local markets** - Sènèkèla provides market price information for 12 markets in the Skiasso region. However, participants expressed an interest in having information from a greater number of local markets so they can compare across the markets that may be more accessible to them;
- **Lack of information on livestock, fisheries, agro-forestry, and wild fruits** - fisheries and agro-forestry are not major enterprises for the participants, however they expressed an interest in understanding how they could get involved in these livelihoods. They emphasised the importance of wild fruits and livestock produce (e.g. poultry) for income generation, especially for women.

# Who is using Sènèkèla?

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User log analysis shows that 83% of users are male. The results from the phone survey<sup>11</sup> shows somewhat better female representation; approximately 24% of users are female and 76% are male.

## KEY FINDINGS:

- Over 80% of Sènèkèla customers are male
- Majority of customers appear to be young subsistence smallholder farmers
- Sènèkèla customers are less likely to be below the poverty level than the wider population of Mali

Discrepancies exist between user occupations across the three groups sampled for usage log analysis, phone surveys and case study. At the time of the call, the majority of the call-centre users (64%) report their occupation as 'other' - many callers at this early stage were 'trying the service out', with some users reporting to be from NGOs or from the government. Those surveyed over the phone much more accurately reflect the percentage of Malians working in agriculture compared to national figures (66% of Malians were working in agriculture in 2006<sup>12</sup> compared to 68% of callers who participated in the phone survey). Across all samples salaried work is rare, suggesting that most potential users will be sole traders in one or several capacities.

The farmers recruited for two focus group discussions grow maize (3 ha)<sup>13</sup>, cotton (2 ha), sorghum (1.5 ha), or raise cattle (10ha), sheep (5 ha), and goats (2ha). They are mostly subsistence farmers: 82.5% identify themselves as farmers and 24% among them have another occupation apart from farming including trade (25%), processing (2.5%), and farmer cooperative staff (2.5%).

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11. 43 users were successfully contacted for a phone survey in March 2014

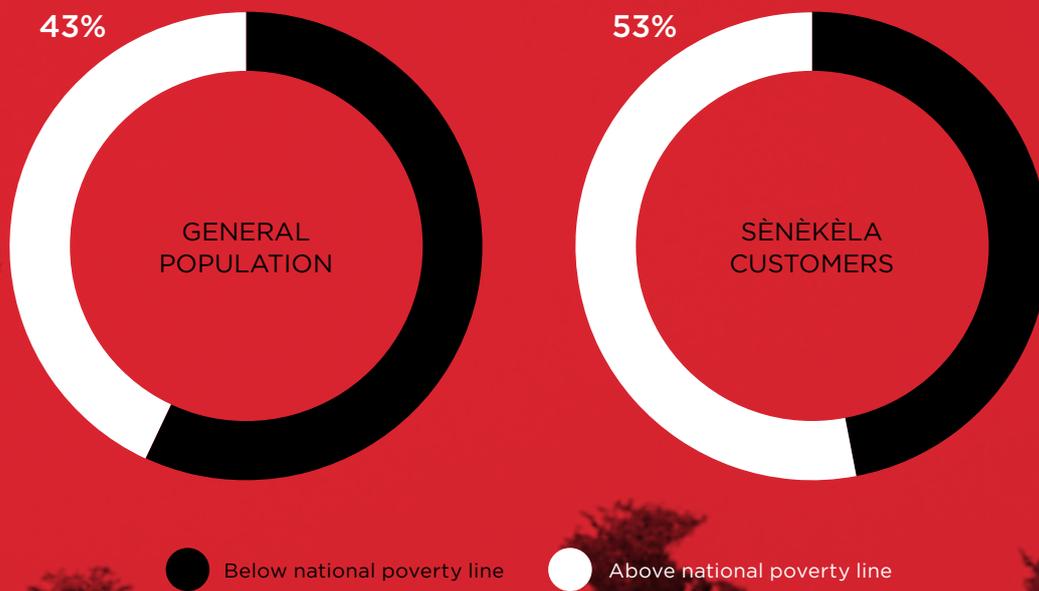
12. World databank data

13. Numbers in parenthesis indicate the average land size in hectares (ha) for each produce

Sènèkèla customers are less likely to be below the national poverty line<sup>14</sup> than the wider population of Mali. Around half of Sènèkèla customers (47.4%) fall below the national poverty line compared to 57% at the national level (figure 3).

Figure 3

### Comparison of Malians falling below the national poverty line in the general population vs Sènèkèla customers



Comparing international poverty levels,<sup>15</sup> the gap is wider: 32% of Sènèkèla customers are below the poverty line compared to almost 48% of the general population.

This under representation of the poorest population of Mali among the Sènèkèla customers may be due to lower phone ownership and access, poorer literacy rates, impact of either additional revenues from other jobs or revenues of non-farmer users, and less disposable income to spend on VAS subscription in the general population. The current price setting may also be a hindrance for the poorest Malians. In fact, 95% of focus group participants (25% of which are Sènèkèla users) claimed that the current service cost of 50 FCFA/ per minute (0.10 USD) is expensive.

14. FCFA 395 (US\$0.28)/person/day. Poverty data collected through a phone survey using the PPI (Progress out of Poverty Index) created by the Grameen Foundation.  
 15. US\$1.25/person/day in 2005 PPP

# How are customers using Sènèkèla?

The evolution of service usage can be illustrated along a customer journey (figure 1). For a service to reach scale, it must make potential users aware (through marketing), encourage them to trial the service (through communication of its value to the user), and finally to become regular users of the service. Customers will become regular users only if they consider the service to be valuable in terms of the quality of information they receive and its cost vs. benefit.

The majority of potential users are at the pre-engagement stage – current analysis does not allow a differentiation between those who are not aware and those who are aware of the service. Within the category of the service users, most (82%) have called the call centre only once and a small percentage have accessed the service more regularly.

The following sections outline the factors that encourage users to follow this journey to the end and become regular customers as well as the bottlenecks that limit them.

## Unaware potential users

At the time of the baseline, Orange had conducted very little marketing and promotion, with limited visits to agricultural events and to villages. Plans for larger scale marketing when the USSD channel is fully operational were in place and included a targeted radio marketing campaign in the areas covered by Sènèkèla. The midline study will address the success of these campaigns in getting traction with customers.

### **BARRIERS:**

No large scale marketing undertaken as yet

## Aware potential users

Field work in the Sikasso region revealed a very receptive audience for an agricultural helpline (see information supply and demand); however the majority of focus group participants were non-users. This may be due largely to a lack of knowledge of the product as potential users were certainly interested in Sènèkèla and prepared to trust it as a credible information source; there is no mention of the trust issues around the service that have been reported in mFarmer supported projects in other countries.<sup>16</sup> Competing sources of information were also judged to be lacking, opening the way for a new source of agricultural information in the area.

### **BARRIERS:**

Perceived high service costs

16. See Tigo Baseline Report Executive Summary

### Trial users

82% of the Sènèkèla customer base accessed the service only once between January and April 2014.

**BARRIERS:**

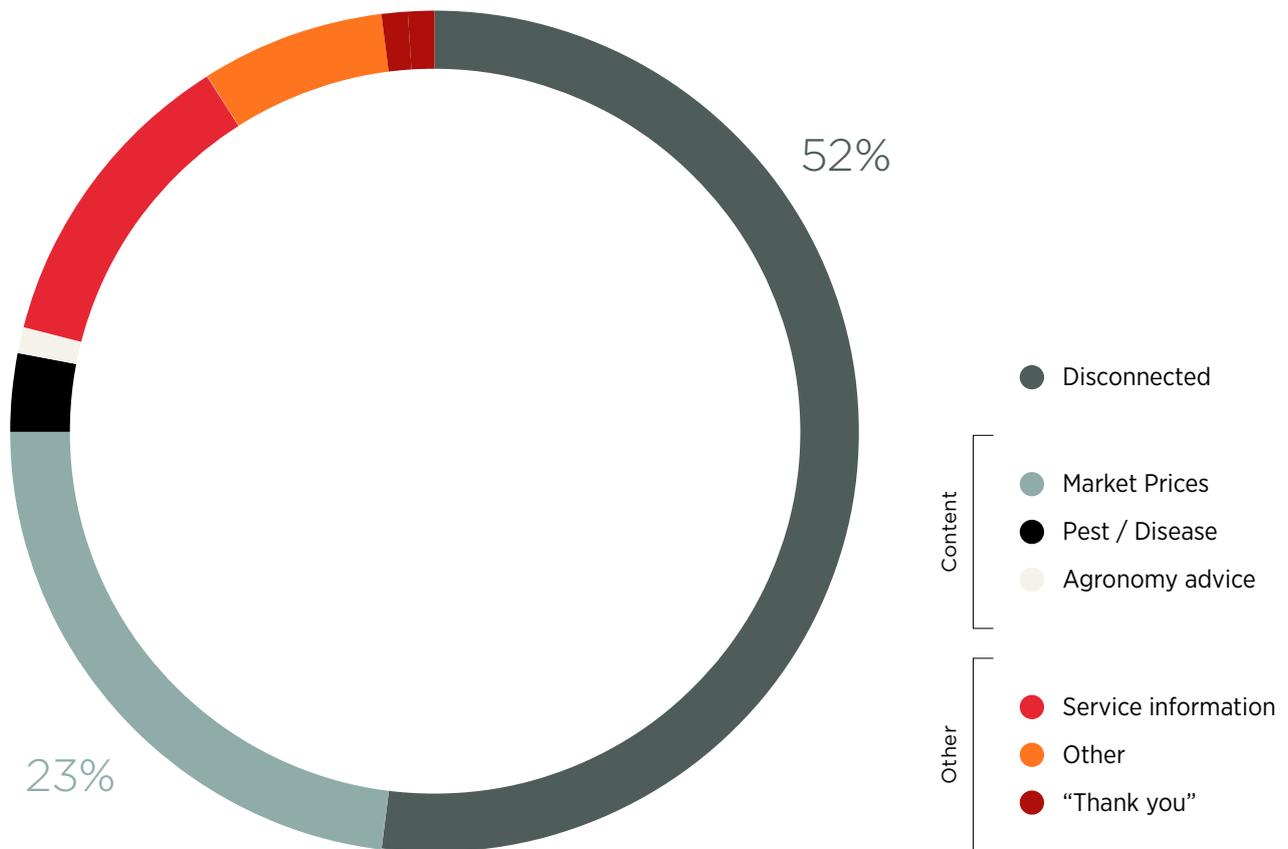
- Lack of understanding of value proposition
- Concerns about charges
- Poor network coverage in some areas
- Low airtime balance of rural users

Trial users are mostly subsistence farmers, over half of whom have received no formal education. About 85% identify themselves as farmers, but very few are engaged in commercial farming – only 8% report that they normally sell all of their harvest, while 75% sell only what surplus they are able to. The remaining 18% do not sell any of their harvest, or only sell in emergencies.

Analysis of usage logs shows a major difference in success rates when accessing the service between trial and repeat users. Whilst almost 80% of repeat users had a successful first call, over half of trial users did not – they never successfully connected to the call centre (figure 4).

Figure 4

### Trial users call status and content request.



Source: Helpline usage logs January - March 2014.

Within the period of the study, over a third of all calls to the service did not connect; in total, 90% of those who did not connect on their first attempt never returned. Orange suggests the following reasons for low connectivity:

- Customers are checking that the service exists
- People are calling with insufficient balance to complete their calls
- People are requesting a return call (this is known as a ‘bip’ in Mali)

**The Orange team suggested tackling this low connectivity rate by cross-selling their ‘emergency credit’ service, which gives a credit loan of up to 200 FCFA (0.40 USD) to be repaid when the account is recharged.** This would allow customers who have a current low balance to immediately complete a call to the service.

27% of trial users called to ask agricultural questions; in line with the customer base, most calls received from this group were about market price information. However, this group registered a disproportionate number of calls not directly related to farming: calls to say ‘thank you’ for the service, unrelated calls, and questions about the service in general. **This implies that users of this stage are not utilizing the full potential of the service. An increased marketing presence should educate users about the service, so these cost-conscious customers do not invest precious airtime collecting this information.**

Customer feedback during interviews and focus groups in the Sikasso region suggests some customers may be reluctant to call back due to concerns about costs. Some case study participants (55%), felt that the current price

(FCFA 50/minute for a call and FCFA 75 per SMS) is too expensive. A further 35% felt higher prices would be acceptable if the quality of information also improved; however as these were unlikely to represent successful service users their ability to judge the quality of the information is diminished. **A subsidised or a freemium model would allow customers to experience the information available before making an investment and paying for the service.** This expenditure is likely to be a significant proportion of the available daily budget of customers.

Network issues can also be problem for rural users; a small proportion<sup>17</sup> of farmers interviewed said that they struggle with poor mobile reception on their farms, which could impede their repeated use of the service. Orange Mali facilitates users in areas where the network infrastructure is poor through methods including their ‘Djamma phone’ service – phones with high powered receivers are distributed in these areas for general use to improve rural connectivity. **Traditional marketing in the form of posters or wall paintings in the vicinity of these phones may boost call centre use from these facilities.**

17. 5 out of 45

# Repeat users

Eighteen per cent of Sènèkèla customers are categorized as repeat users, having accessed the service more than once during the period. Almost half of these were active in April 2014.

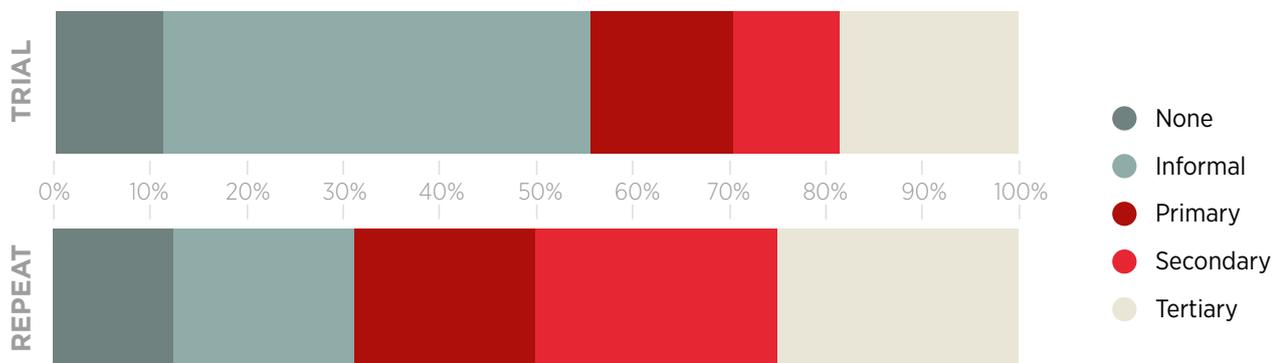
### KEY FINDINGS:

- Formal education levels are higher in repeat users than in trial users
- Repeat users are more market-oriented than trial users: 30% of repeaters sell their entire farm output while commercial farming remains at 10% for trial users
- Women are more likely to become power users at this stage: 49% of the segment revenue comes from them although they represent only 25% the segment users

Repeat users tend to be formally educated: over two thirds have a formal education compared to less than half of trial users (figure 5) and 50% of them have received secondary or higher education. Since national literacy levels are 34%, repeat users represent a disproportionately well-educated rural Malian segment compared to the national average.

Figure 5

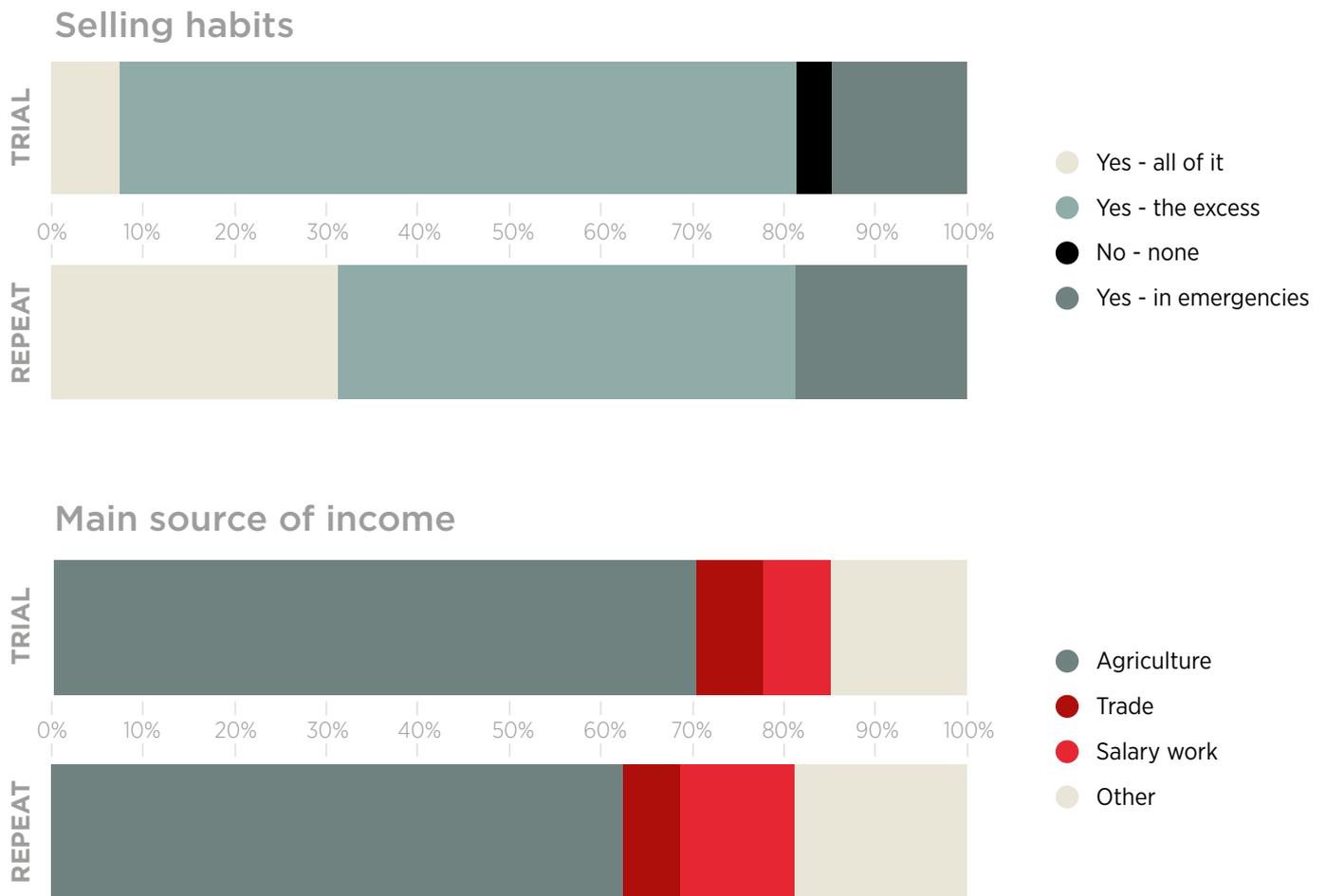
### Level of education achieved in repeat vs. trial users (from phone survey)



In a comparison to Trial users, data indicates that Sènèkèla repeat users are more commercially oriented in their farming - they are more likely to sell all of their crop, and slightly more likely to have a main source of income outside their farm (figure 6).

Figure 6

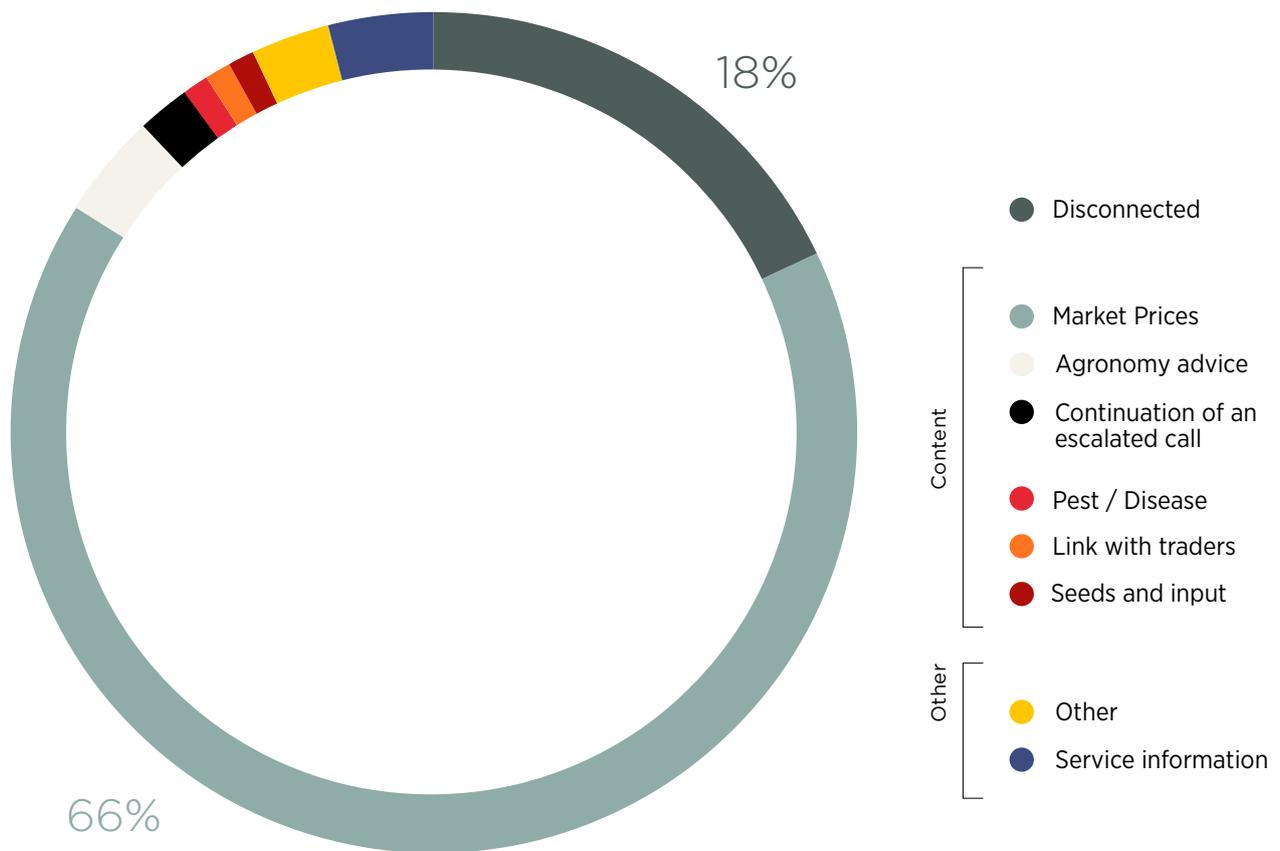
### Selling habits and main source of income in repeat vs. trial users (phone survey March 2014)



Less than a quarter of calls made by this segment were disconnected. Higher connectivity allows repeat users to ask pertinent, agriculture-based questions in proportionally more cases (figure 7).

Figure 7

**Repeat users call status and content request.**



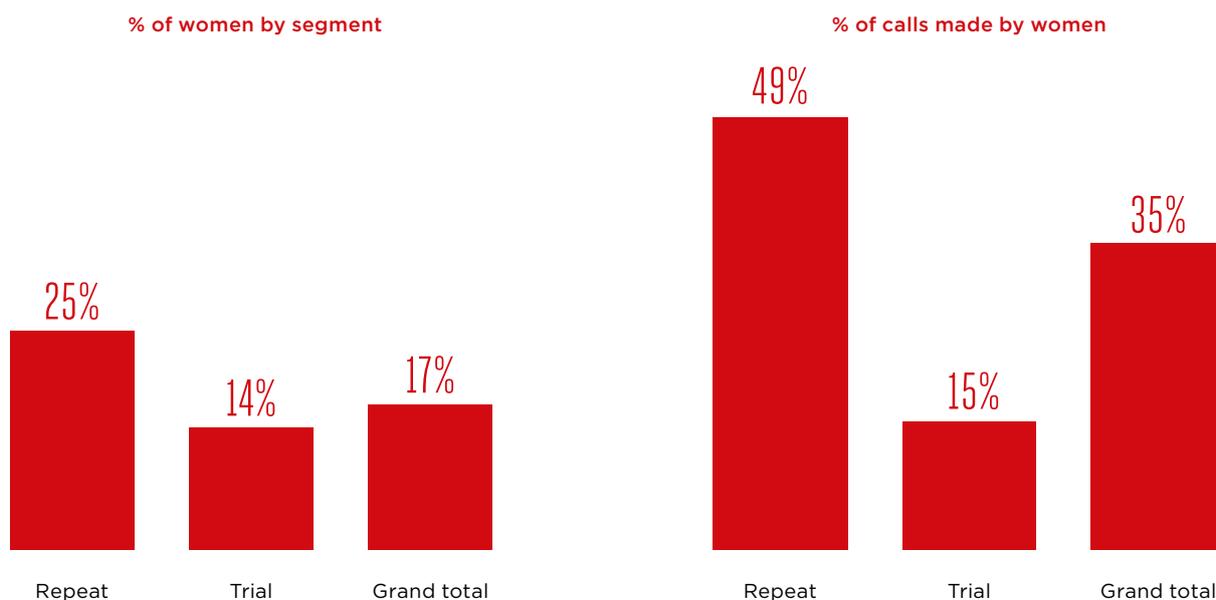
Source: Helpline usage logs January - March 2014.

Market price information was a hugely popular topic for repeat users during this period, despite the main season for selling crops being around October. Two thirds of all calls requested this type of information. Agronomy advice, information about inputs, and market connections (links to buyers/sellers) were also occasionally requested.

Repeat users and trial users made an equal volume of connected calls during the period, although, the trial user group is almost four times larger. Repeat users generate almost nine times more revenue than trial users.<sup>18</sup>

Figure 8

### Comparison of number of women, and number of calls made by women, per segment (from usage logs January - April 2014)



Adding a gender perspective to the analysis on revenue generation suggests another interesting finding. While women represent only 17% of the Sènèkèla customer base, they are responsible for more than one third of all calls (figure 8). Women represent a greater proportion (25%) of all repeat users than of all trial users (14%). Moreover, while women account for 25% of all repeat users, they generate almost 50% of all calls made by this segment. These findings suggest **that appealing to women may increase call volumes and repeat use of the service.**<sup>19</sup> **Evidence from the case study suggests that providing information on wild fruits and poultry may increase the appeal of the service to women.**

18. This calculation is based on each connected call bringing the same revenue.

19. See the GSMA's Women in Agriculture: a Toolkit for Mobile Services Practitioners for more information on how to ensure your service appeals to women consumers.

# Behaviour change among Sènèkèla users

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Some of the Sènèkèla users participating in the case study in Sikasso region reported making changes in their information seeking behaviour owing to Sènèkèla helpline services.

For example, one cereal trader testified that he started to use Sènèkèla service as one of his information sources (besides radio and middlemen) to cross-check market prices. Two cashew nut traders use Sènèkèla to decide on the market and volume of produce at the time of purchase. Another trader changed the storage of his produce: he started to sort maize according to its colours since he learned from Sènèkèla that colours have a bearing on maize prices during the rainy season. Two farmers attested that they no longer wait for a week after loading the trucks to learn about accurate market prices. They can now learn about market prices from Sènèkèla in real time. This evidence illustrates how Sènèkèla's market price information service can be used by both farmers and traders.

Despite the relatively recent launch of Sènèkèla, some of aforementioned Sènèkèla users reported benefits of applying advice through Sènèkèla to their businesses. A cereal trader stated that he now gains FCFA 5/kg more than before having implemented the Sènèkèla advice. One input dealer reported more growth in his business: more farmers purchase his products now that he provides advice from Sènèkèla services to them. More reported benefits may follow as the Sènèkèla service gathers more long terms users.

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## Next steps

The methodology for the baseline study summarised here differs from conventional monitoring and evaluation and provides practical insights and some level of business intelligence to the service provider as well as to the wider mobile agriculture industry. The success of business-led services is better assessed by a business-oriented framework and appropriate user segmentation. Structured business intelligence insights combined with qualitative data are more likely to result in the 'learning' component than a single report on progress against a set of indicators. The mFarmer initiative will continue to apply a segmentation approach, to analyse behaviour changes within the target population across all four mFarmer projects. It will also assess the impact created within the segments of users with higher likelihood of causal changes in income and livelihood, such as repeat and power users, for one of the selected projects.

# Methodology

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The baseline survey was carried out through a combination of three methods: user log analysis, phone survey, and field study.

User log analysis was performed covering the period of January to March 2014. The analysis is based around the MMU customer journey framework and further work outlined in the Mobile User Analytics Tool case study by the M4D Impact team

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In April 2014, Orange's call centre conducted a phone survey which collected profiling data for Sènèkèla users. 48% of targeted customers completed the survey (43 samples) prepared by Firetail. Firetail then cleaned and analysed the data to present a socio-economic picture of the characteristics of Sènèkèla users. The analysis also calculated a progress out of poverty index (PPI) score for users and compared this to the Malian national poverty line and an international poverty line.

In May 2014, a field study was conducted in the Sikasso region (located in the central east of Mali), which had the highest numbers of user calls.

The fieldwork included three elements: focus group discussions (FGD), in-depth interviews, and key informant interviews.

To identify FGD and in-depth interview participants, a pre-screening survey identified 2 geographical clusters<sup>20</sup> of subscribers. These clusters were contacted (and some participants replaced in the case of unavailable subscribers) until the study secured 40 participants (20 participants per FGD). 20 participants attended FGD 1 (2 women, 6 Sènèkèla subscribers) and 20 attended FGD 2 (no woman, 4 Sènèkèla subscribers). In-depth interviews were conducted with 12 FGD participants. Informant interviews were conducted with five key actors in the local agricultural sector<sup>21</sup>.

A semi-structured questionnaire prepared by Firetail was used for informant interviews. A discussion guide and interview guide prepared separately for FGDs and in-depth interviews. Matrix and scoring were also introduced during two FGDs to identify farmers' information needs and existing agronomy information sources available to farmers.

A critical limitation of the study was that only 10 Sènèkèla users for two FGDs (total 40 participants) and 7 Sènèkèla users of a potential total of 12 were secured for in-depth interviews. Additional participants, who had not used Sènèkèla were identified and mobilised with the help of local government officials. As non-users of Sènèkèla did not have any knowledge or experience of the service, they were only asked questions relating to research objective 1, about the wider context of information supply and demand.

The study also later learned that the PAJE-NIETA project<sup>22</sup> distributed SIM cards free of charge and encouraged the local SIM owners to utilise Sènèkèla services. This may have greatly influenced the Sènèkèla usage in the area and may not represent how the other Sènèkèla users came to learn about and join the service at this time in the service's history. Six of the Sènèkèla customers participating in the case study received SIM cards from the PAJE-NIETA project as well as information about Sènèkèla.

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20. Villages of Bougouni and Kaboila.

21. These actors include extension worker, NGO staff, and farmers' cooperative staff. None of them is Sènèkèla user.

22. A USAID funded project to promote agri-business entrepreneurs in Sikasso region. Phone numbers starting with "919" are the SIM cards provided from this project.



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