



# mAgri Programme

Orange Sènèkèla Midline

SEPTEMBER 2015



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# Executive Summary

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Sènèkèla is a mobile agricultural value-added service (Agri VAS) provided by Orange Mali offering a range of information on agricultural topics and market prices. A helpline, launched in July 2013, is available to all Orange users. A USSD service offering market prices in two regions, Sikasso and Koulikouro, launched in February 2014.

To access agronomy content, users can call the short code '37333' to reach the helpline, which is staffed by agricultural experts and is available from 8am – 7pm from Monday to Saturday. Customers can access agricultural information and market prices in French (the official language of Mali) and Bambara (understood by the majority of Malians). No registration is required to access the helpline. To access market price information on the USSD channel, users can dial short code '#222#' to receive SMS messages about markets in Sikasso and Koulikoro regions. USSD content is currently only available in French.

Sènèkèla was formed through collaboration between Orange Mali, Institut d'Economie Rurale (IER), International Institute for Communication and Development (IICD) and RONGEAD. The service was supported by GSMA as a grantee of the mFarmer initiative until December 2014. Orange is continuing to invest in the service, adding more content including weather information and extending the existing market price function to cover new regions.

## Key findings

- **High demand for the USSD channel was observed** when a blast SMS and radio campaign drew close to 200,000 users, but this hasn't translated into a loyal customer base.
- **The helpline is especially valuable for illiterate and older farmers** and delivers information that is both better understood by and more valuable to users than the USSD channel.
- **Most users are well educated male farmers aged between 25 and 45 with larger than average farms.** Sènèkèla is still reaching smaller farmers, especially in the younger age bracket, but not in the same volumes as larger producers.
- **Repeat users are influential in their communities, providing advice to other farmers.** Almost all users interviewed in the field said that other farmers come to them every month for farming advice. They are also sharing information from the Sènèkèla service: 74% of repeat users in the phone survey said they had recommended Sènèkèla to farmers outside of their household, and 63% reported sharing the advice they received with other farmers.
- **Users are making changes on their farms and seeing the benefits of these changes.** 70% of repeat users in the phone survey reported changing their behaviour due to information received on Sènèkèla. 77% of users say they have benefitted from using Sènèkèla.
- **Despite high customer satisfaction, there is no strong evidence of direct or indirect benefits to Orange business through offering this service.** However, Orange take a long view on the generation of such benefits and expect to see results further down the line once successful services have been established and scaled.

## Recommendations

- **User testing around the USSD channel** should aim to discover why users don't understand the messages. By providing a voice version of the service via IVR or OBD Orange could reach a larger target audience of illiterate farmers.
- **Compliment blast SMS with a strong on-ground presence via customer touch points.** Face-to-face marketing doesn't have to be costly, and is a great way to encourage customer trust and understanding. The market price collection network is a touchpoint between the service and potential customers, and could be used to greater advantage in markets in Sikasso and Koulikoro. Existing repeat users are already acting as unofficial conduits for the service by sharing the information and recommending the service to others. Orange could make them official ambassadors in order to reach more users. These methods may allow Orange to reach outside of their current subscriber base and acquire new users for the network by advertising the service as their competitive advantage.
- **Market the service using a strong value proposition.** Across a number of Agri VAS services, it has been observed that users who have a strong use case in mind when first accessing the service are more likely to be satisfied with the result. Develop a strong brand for the service that speaks to farmers, including use cases that help users to understand what they should use the service for.
- **Invest in other voice based service.** If Sènèkèla is to further scale, it may not be able to rely on the helpline to serve illiterate users and may like to consider other voice-based services, such as IVR, in order to serve this segment.
- **Orange could send occasional reminder SMS or voice SMS to previous users to remind them of the service numbers.** In field agents could also help users to remember by storing the number in their phones.

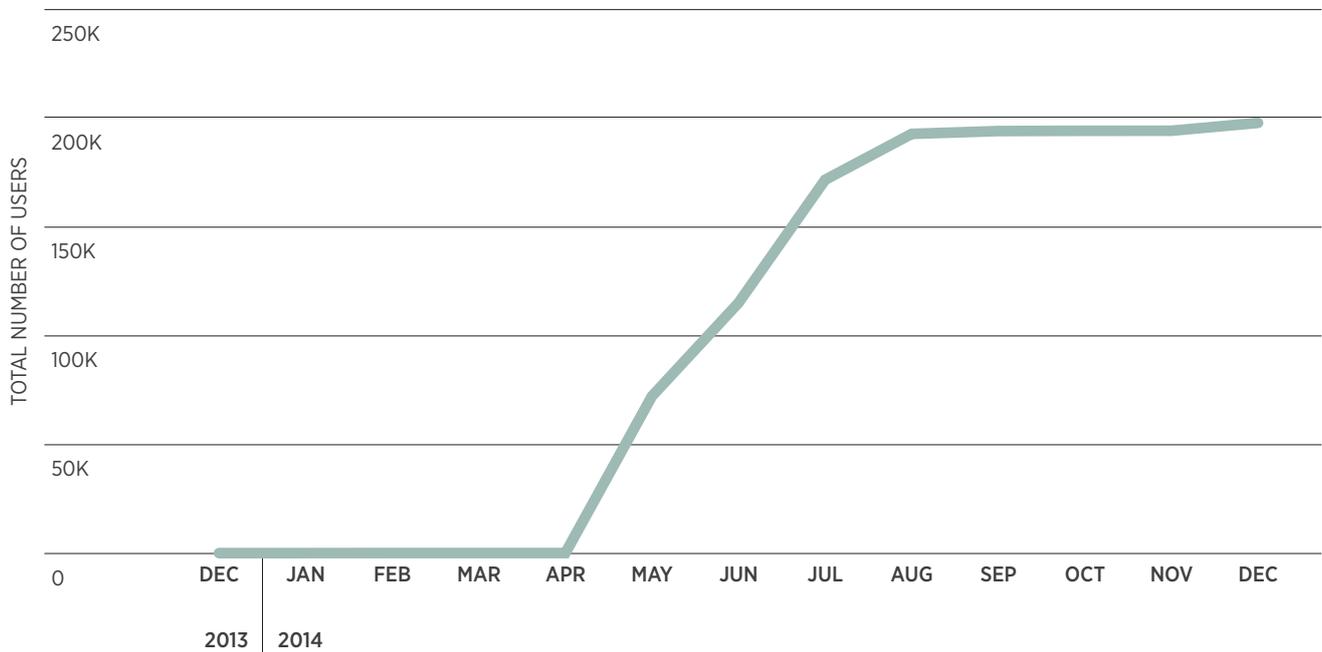


# Sènèkèla uptake and usage

Sènèkèla delivers agricultural advice to farmers through a helpline staffed by extension experts using information specifically developed for the service by IER, a national agricultural research institute. Market price information for markets in Sikasso and Koulikoro are available via a USSD menu, while the helpline is accessible to farmers from across Mali. The helpline charges 50CFA (0.10 USD) per minute, less than half of the cost of a regular call, and the USSD service costs 75 CFA (0.16 USD) per message. Uptake of the service has grown since the baseline evaluation in April 2014, from hundreds of users to over 197,000<sup>1</sup> (Figure 1). Orange originally estimated an addressable market of 1.1 million farmers<sup>2</sup> for the Sènèkèla service, of which it has now reached 18% - higher than any other mFarmer service.

FIGURE 1

## CUMULATIVE NUMBER OF SÈNÈKÈLA USERS USING THE SERVICE



SOURCE: ORANGE TRANSACTIONAL DATA

Most of the new service users were acquired on the USSD service through an above the line marketing campaign in summer 2014. Few of these users returned to the service or adopted it in the long term. User testing is required to understand how to make the USSD service more appealing to users.

1. 'Users' have accessed the service at least once.

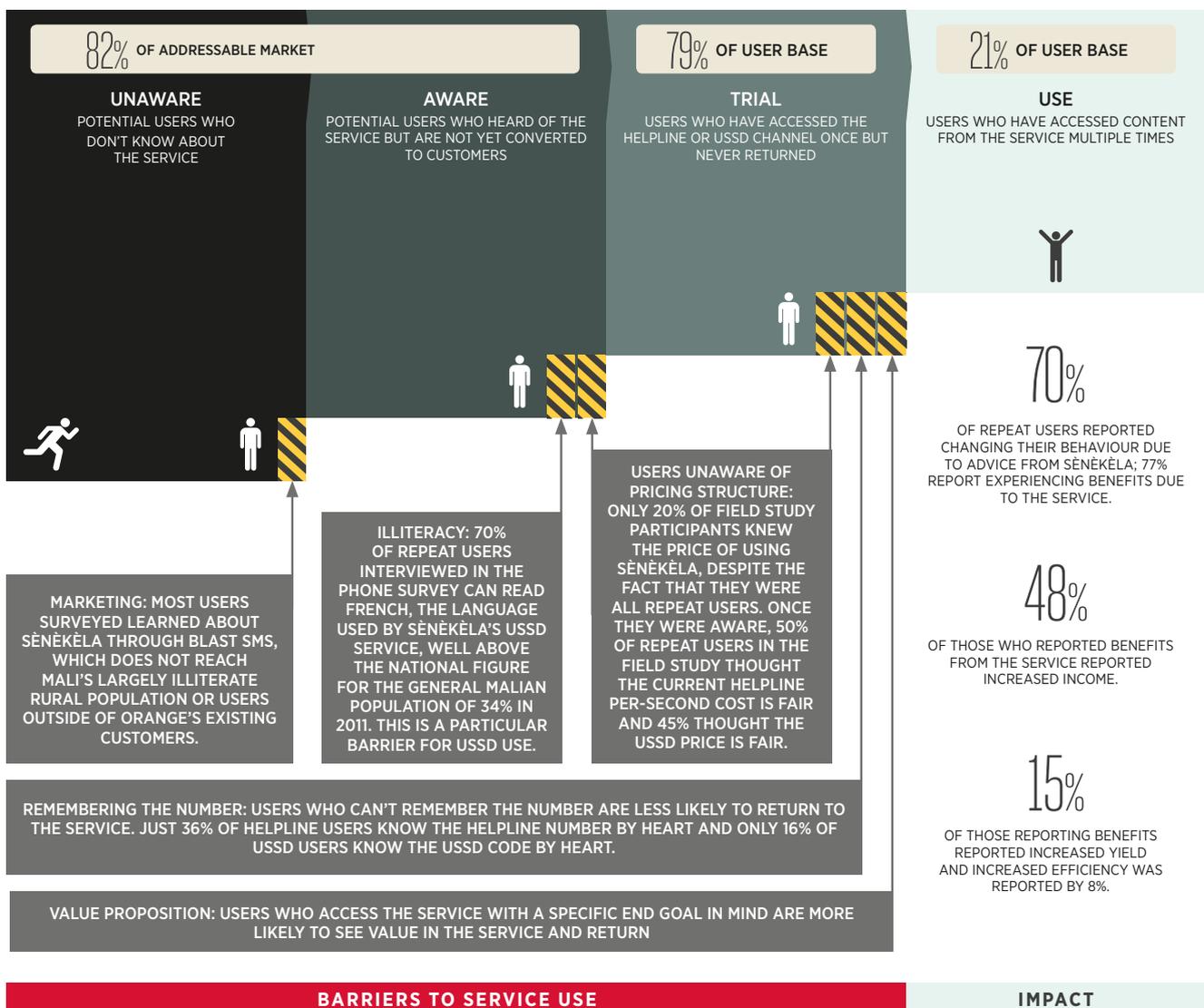
2. Whole Malian population x percentage of agricultural sector x mobile penetration rate in the agricultural population x Orange market share in rural areas.

# Customer journey

Users engage with a service along a customer journey (Figure 2). The customer journey illustrates how a user must progress through a series of stages, from becoming aware of the service, to using the service. Customers may get ‘stuck’ at each stage of the customer journey due to different barriers related to issues with service design, content or marketing.

FIGURE 2

## THE CUSTOMER JOURNEY



DUE TO INCOMPLETE DATA, USER SEGMENT SIZES ARE BASED ON HELPLINE DATA ONLY.

The increase in users over the past year has corresponded with an increase in the frequency of use by each user, with the proportion of repeat users rising from 18% to 21% between May and December 2014.

# Who is using Sènèkèla?

Most users are well educated male farmers aged between 25 and 45 with larger than average farms (table 1). Sènèkèla is reaching smaller farmers, especially in the younger age bracket, but not in the same volumes.

TABLE 1

## USERS PROFILES COMPARED TO THE NATIONAL AVERAGE

PROFILE	REPEAT	NATIONAL
<b>SEX</b> ○ FEMALE	25% <sup>3</sup>	30% <sup>4</sup>
<b>AGE<sup>5</sup></b> ○ 16-24    ● 25-35 ● 35-45    ● >45		
<b>OCCUPATION</b> ○ FARMER ● TRADER ○ FORMAL SALARY		
<b>FARM SIZE</b> ○ < 4 ACRES ● 4 - 12 ACRES ● >12 ACRES		Average farm size 11 acres
<b>EDUCATION</b> ○ FRENCH LITERATE	70%	34%

3. Source: helpline transactional data to April 2014. Consistent logs were not kept after this time. However just 5% of repeat users who participated in a December 2014 phone survey were women. While this is likely to be an underestimate, as women are often less likely to answer calls from unknown numbers, it is nonetheless clear that men dominate service usage.

4. Labour force in rain fed agriculture. <http://www.carepathwaystoempowerment.org/portfolio-view/mali/>

5. Repeat users data source: phone survey of 176 users, Jan-Feb 2015. National data estimated from CIA World Factbook.

Repeat users are on average older than in other mFarmer supported services, especially helpline users: 86% of users are over 24.<sup>6</sup> Younger users are sufficiently tech-savvy to navigate USSD menus, while older users are more reassured by speaking to a person. Younger users on average have higher literacy rates: 88% of under 24s targeted in the phone survey were literate compared to 67% of over 24s. The level of French literacy in the user base is twice the national average, suggesting a disproportionately educated audience.

Repeat users are positive about farming and see it as an investment. 21 farmers interviewed in the field unanimously agreed that farming was the best investment for them, and all were happy for their children to be farmers, suggesting a very positive attitude to farming within the customer base. Fieldwork for mFarmer funded services in Kenya and Tanzania found similar attitude amongst repeat users, suggesting that those who see farming as a worthwhile investment are most likely to use Agri VAS.

Users under 25 years old were 55% more likely to have below 4 acres of land than over 25 year olds. This suggests that younger users were poorer which may in part explain why they were less likely to be repeat users, due to the cost of the service. Users with smaller farms especially value Sènèkèla as a new source of information: those with less than 4 acres of land were 2.3 times more likely to report benefitting from increased confidence and knowledge from the service than those with larger farms.

Repeat users are influential in their communities, providing advice to other farmers. In the field study, only 4 of the 22 interviewed reported no other farmer coming to them for advice in a typical month. 4 reported giving advice to between 6 and 10 farmers each month, and 6 advise more than 10 farmers each month. This suggests that repeat users could be used as ambassadors for the service, perhaps by incentivizing them to bring other farmers onto the service.

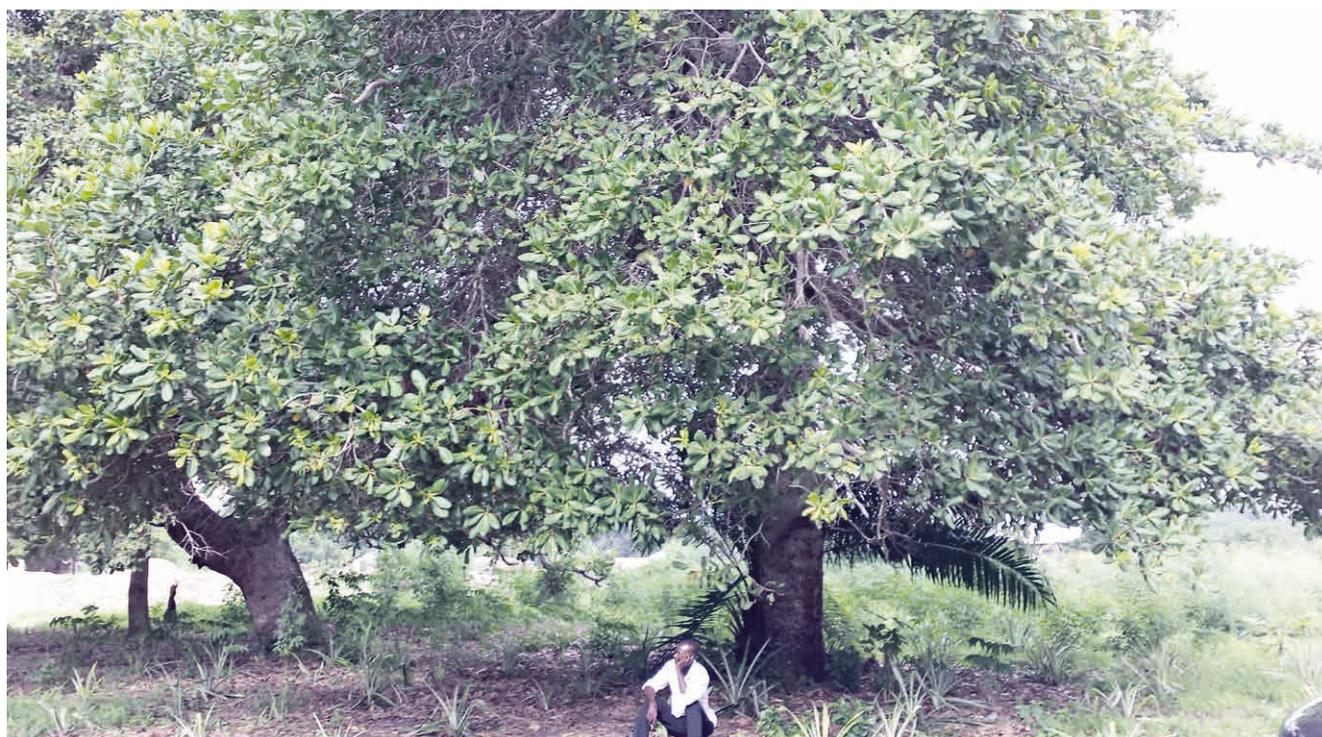


IMAGE COURTESY OF GSMA

6. In contrast to other mFarmer funded services such as Tigo Kilimo in Tanzania, where 62% of users were aged under 25.

# Barriers along the customer journey

## Potential users

18 months after launch, Sènèkèla had reached over 197,000 users, representing 18% of the addressable market. Those reached are highly literate compared to the national average. 67% of repeat users surveyed first heard about the service through a promotional SMS, a method which does not target Mali's majority (66%) illiterate population. Orange invested in a radio marketing campaigns in Q2 2014, however few users attracted by these methods were surveyed. Further analysis of users would be necessary to understand the impact of this more expensive promotion on the lower literacy market, which will include many of the poorest smallholders.

### RECOMMENDATIONS

- **Compliment blast SMS with a strong on-ground presence via the market data collection network.** Although face-to-face marketing can be costly, it is a great way to encourage customer trust and understanding. The market price collection network is a touchpoint between the service and potential customers, and could potentially be used to greater advantage in markets in Sikasso and Koulikoro. This may also allow Orange to reach outside of their current user base and generate new users through the service.

## Trial users

Previous studies suggest that the main barrier to repeat use for this group is network connectivity; in April 2014, 52% of first time users were unable to connect to the call centre and never called back.<sup>7</sup> At that time over 80% of repeat users connected on their first call.

Those trial users who did connect to the call centre often called with a query about the service, rather than with a specific agricultural question in mind. The current study found that repeat users who joined with a specific purpose in mind (69%) are more likely to see the benefit of the service; this finding is echoed in other mFarmer service evaluations. Previous campaigns have not suggested ways in which the service could be useful to farmers (figure 2). Marketing efforts which promote a clear use case for the service can help to put users into this mind set and promote customer satisfaction. A clear example of this from outside mobile agriculture is M-Pesa's simple but very effective "Send money home" campaign.

### RECOMMENDATIONS

- **Market the service using a strong value proposition.** Develop a strong brand for the service including use cases which help users to understand what success with the service looks like.
- **Explore network issues and call dropping** through user feedback and testing.

7. Orange Sènèkèla baseline, July 2013



Orange se met au service de l'agriculture

3 7 3 3 3

FIGURE 3: POSTER FOR SÈNÈKÈLA. "ORANGE IS TAKING STEPS TO SERVE THE AGRICULTURE SECTOR"

## Repeat users

### JOINING THE SERVICE

Most repeat users joined the service to learn about agricultural techniques (34%) or market price information (35%). Only 20% joined just out of curiosity. Repeat users who responded to the phone survey who joined with a reason in mind were 35% more likely to report benefiting from Sènèkèla than those who joined out of curiosity.

### INTERACTING WITH THE SERVICE

90% of users in the field study reported trusting the service more than other sources of agricultural information, most citing the fact that they can get the precise information they need. In contrast, traditional media such as radio shows are perceived to be more general in content and therefore less useful.

“ The most valuable content provided by Sènèkèla to me was about pest/disease control and mineral fertilizer application.”  
*Oumar, male, 54*

Most repeat users recommend the service and share the information they receive with other farmers. 74% of repeat users in the phone survey said they had recommended Sènèkèla to farmers outside of their household, and 63% reported sharing the advice they received with other farmers –both are good indicators of satisfaction with the service. Users who report benefitting from the service are 28% more likely to recommend it to others and much more likely to share the information they benefitted from (70% more likely) compared to users who did not report any benefits.

“ I recommended Sènèkèla service to my colleagues which are generally traders. By this I wished to give possibility for them to get better price of their product.”  
*Ousmane, male, 45*

“ The fact that information provided by Sènèkèla has allowed me to treat my problems with chickens and pepper encouraged me to recommend Sènèkèla to others.”  
*Moussa, male, 59*

Users share agronomic information more than market price information. Those who report benefitting from market price information in the phone survey are 16% less likely to share information with other farmers than users who benefitted in some other way, such as improved yield. This may be due to farmers considering each other as competition for getting the best prices in a way that doesn't apply to increasing their yield.

## ACTING ON INFORMATION

Due to the relatively short time users often engage with agri VAS (compared with the length of agricultural seasons) the impact of services can be difficult to measure. Analysing the propensity of users to change their behaviour not only provides an indication of the level to which users trust the service, but is also a necessary step along the path for the service to provide impact.

70% of repeat users in the phone survey reported changing their behaviour due to information received on Sènèkèla. Over half (52%) of behaviour change concerned using Sènèkèla market price information to bargain with traders. Farmers also used market price information beyond bargaining; one repeat user in fieldwork reported changing the sizes of the farm plot allocated to a particular crop depending on its price. Another reported using the information to decide which market to use for buying food for his family.

With Sènèkèla I get information for more than 12 markets and 16 major crops, this helps me decide when, where and how much to pay or to store...I deal with many people who are not transparent, therefore with Sènèkèla I can compare daily prices on several markets and make my decision.

Daouda,  
48

Other changes were around farming practices: 15% started using new inputs, 9% planted new crops and 8% changed their sowing practices. Users who changed their behavior reportedly did so because they trusted Sènèkèla (89%) or saw it as particularly relevant to their situation (11%).

## SEEING THE BENEFITS

77% of users say they have benefitted from using Sènèkèla.

Most users perceive benefitting from Sènèkèla, even if it hasn't made them change behaviour. A greater percentage of users perceive benefits (77%) than have changed their behaviour (70%). This is because users consider having a new source of information to be beneficial in itself; 26% of users reporting benefits say the benefit was either simply having more information or feeling more confident about what they were already doing.

The most common benefit for users is increased income, reported by 48% of those reporting benefits from the service. 66% of users who reported bargaining with traders reported increased income due to this, suggesting that, unlike in other mFarmer services, farmers in Mali were successful in bargaining with traders. Increased yield was reported by 15% of those reporting benefits and increased efficiency was reported by 8%.

I looked for solution(s) [to my farming problems] with the traditional information system available in the village but no success; then I tried Sènèkèla helpline and the instructions provided to me saved my chickens and my pepper production.

*Abdoulaye, Farmer, age 59*

I talked to a fellow farmer to have information on Sènèkèla after a meeting in the village and one day I decided to call the service to be advised on how to apply micro-dosage of fertilizer on maize and control insect on cowpea in the field. At the helpline service they advised me to put fertilizer close to the maize plant and not to throw it all over the field. For controlling the cowpea pest the service advised me not to use chemical pesticide. I tried to use the information as per my understanding. It helped me in reducing the amount of fertilizer and in controlling the pest to some extent. But, to eliminate the pests completely, I had to use a regular pesticide.

*Moussa, male, 59*

Users who access call centres are 20% more likely to report benefitting from Sènèkèla than those who just use USSD. The fact that helpline information seems to have been more easily understood is likely a strong driver of this increased impact. The nature of the content available on each channel is also a factor; through the helpline, a user could perform large scale risk mitigation e.g. learn about ways to save their crop from disease, whereas the USSD channel is limited to market prices.

## Barriers to behaviour change and impact

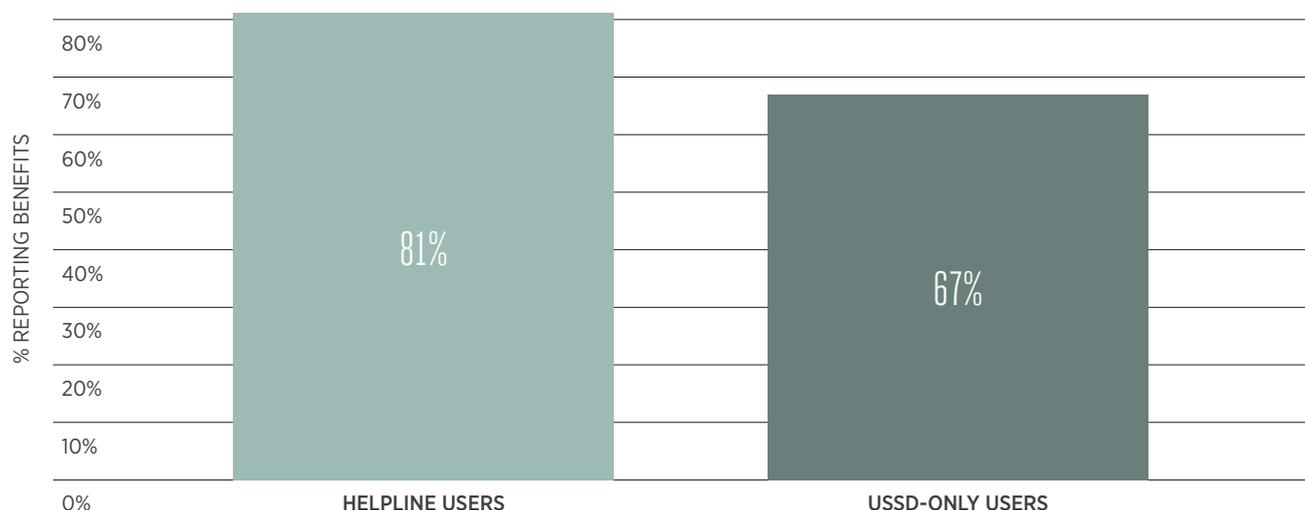
Receiving information is only the first step towards trying new approaches and seeing the benefits. The following are considered potential barriers to users taking this step and putting into practice the information they receive.

### NOT UNDERSTANDING THE INFORMATION

Most repeat users in the phone survey reported understanding the information they receive from Sènèkèla but 15% had problems understanding it. Users who understand all of the information they received from Sènèkèla are 90% more likely to benefit from it than those who experience some problems with understanding. Information from USSD is harder to understand than information from the helpline; those who used the helpline were 40% more likely to understand all of the information they received than those who only used USSD. This may be in part because a call centre staff member can repeat and rephrase information a farmer has misunderstood. Further testing of the format and language of the text-based information could elucidate this problem.

FIGURE 4

### PERCENTAGE OF REPEAT USERS REPORTING BENEFITS DUE TO SÈNÈKÈLA FOR THOSE WHO ACCESSED THE HELPLINE AND THOSE WHO ONLY USED USSD



SOURCE: MIDLINE PHONE SURVEY

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## NOT REMEMBERING THE SÈNÈKÈLA USSD OR HELPLINE NUMBERS

Those in the phone survey who reported benefitting from the service were over twice as likely to report remembering either service number as those who did not benefit. This may be because knowing it by heart means they can access it more readily and therefore benefit more, or simply that benefitting from the service made them more likely to remember it as they could see the value of the service.

### RECOMMENDATIONS

- **Invest in other voice based service.** If Sènèkèla is to further scale, it may not be able to rely on the helpline to serve illiterate users and may like to consider other voice-based services, such as IVR, in order to serve this segment.
- **User testing** around the USSD channel should aim to discover why users don't understand the messages. Testing a voice version of this service using IVR/OBD could reach a larger target audience.
- **Orange could send occasional reminder SMS or voice SMS to previous users to remind them of the service numbers.** In field agents e.g. market data collection agents could also help users to remember by storing the number in their phones

Once users have become aware of and tried the service, literacy ceases to be a barrier to its use. There is no difference between the proportion of literate and illiterate users reporting benefits due to the service. This is in contrast to other mFarmer-funded services where education level had a large effect on the impact of the mAgri service. The likely explanation for this is Sènèkèla's use of a helpline, which allows illiterate users to access and benefit from information in a way they could not from a text-based channel like USSD.

# Impact on operator business

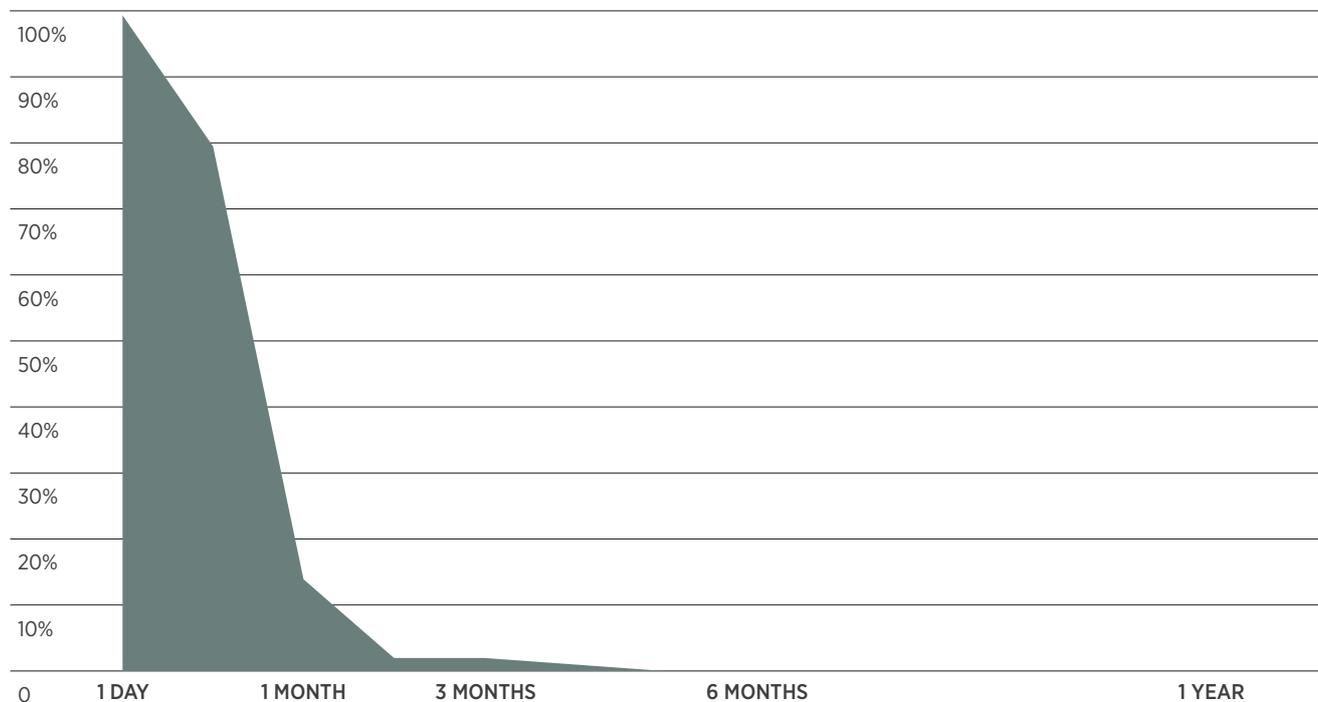
Sènèkèla services are offered at half the market rate and have required heavy investment. Orange takes a long view when considering agricultural products; they expect that such services will eventually generate some revenue, but see the business case largely in terms of indirect benefits.

## INCREASED CUSTOMER LOYALTY LEADING TO CHURN REDUCTION

As noted in the customer journey section, 80% of the user base drop off after one use. Of the repeat users, most access for less than one month; 3 months after their start date, only 2% of the user base is still active on the service.

FIGURE 5

## LENGTH OF TIME ON SERVICE



SOURCE: SÈNÈKÈLA HELPLINE TRANSACTIONAL LOGS

Although satisfaction with Sènèkèla appears to be high, there is no evidence of strong customer loyalty within the service itself at this time. Orange could try to increase customer loyalty by leveraging existing touch points (like market price collection agents) to develop a stronger brand and presence for the product.

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## INCREASED USE OF CORE SERVICES ON THE ORANGE NETWORK

GSMA Intelligence calculates that Malian mobile subscribers own an average of 2.2 SIMs,<sup>8</sup> suggesting that dual SIM use is prevalent. Orange's business would benefit from their customers using core service on Orange, rather than on other networks. Most (77%) Sènekèla users interviewed in the field do use Orange as their main SIM. The main reason given for this is that Orange has better network coverage rather than because of Sènekèla explicitly.

## INCREASED RURAL ACQUISITIONS

96% of users interviewed over the phone were already Orange customers before they started using Sènekèla. Most (67%) of these repeat users became aware of the service through promotional SMS, which are sent to existing Orange users. By targeting existing users, Orange cannot increase acquisitions by leveraging this service. Orange only has one competitor in Mali: Malitel (Sotelma), who had 45% of market share in December 2014.

## REPUTATIONAL INTERESTS

Representatives from Orange value the interaction with international organisations, such as the French High Commission and the World Bank, which is afforded by working on social services like Sènekèla.

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8. GSMAi (Q4 2014)

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# Conclusion

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Sènèkèla repeat users are mostly male, literate farmers with larger than average farms, and Orange should consider targeting other customer segments to increase the uptake and impact of the service. The helpline is especially valuable for illiterate and older farmers and delivers information that is both better understood by and more valuable to users. Young farmers and women are not currently being reached by the service, and should be targeted by future marketing campaigns which reach outside of the existing base.

The investment Orange has made in setting up the on-the ground market price data collection system has resulted in impact on farmers' incomes. The service is mostly used to negotiate better prices with traders, which leads to increased income. Customers who use agronomic advice from the service and see increase in yield share the information they receive with other farmers and recommend they use the service.





The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and Internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences.

For more information, please visit the GSMA corporate website at [www.gsma.com](http://www.gsma.com). Follow the GSMA on Twitter: @GSMA.



## Mobile for Development

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

mAgri catalyses scalable, commercial mobile services that improve the productivity and incomes of smallholder farmers and benefit the agriculture sector in emerging markets. The GSMA mAgri Programme is in a unique position to bring together mobile operators, the agricultural organisations and the development community to foster sustainable and scalable mobile services that improve the livelihoods of smallholder farmers. This report is part of the mFarmer Initiative, launched by the GSMA mAgri Programme in 2011 in partnership with USAID and the Bill & Melinda Gates Foundation.

For more information about GSMA mAgri Programme visit our website at:

[www.gsma.com/mobilefordevelopment/programmes/magri](http://www.gsma.com/mobilefordevelopment/programmes/magri)

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Author: Tegan Palmer

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This report draws on quantitative and qualitative customer feedback collected during the Orange Sènèkèla midline study (March 2015) as well as user and transactional log analysis from service launch to the end of the grant period (July 2013 – December 2014).

Contact us for the research methodology and case study reports: [magri@gsma.com](mailto:magri@gsma.com)



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For further information please contact  
[magri@gsma.com](mailto:magri@gsma.com)  
GSMA London Office  
Floor 2,  
The Walbrook Building,  
25 Walbrook,  
London EC4N 8AF  
T +44 (0) 20 7356 0600