Extension Services through Mobile Telephony and Internet in Kenya

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BACKGROUND

✓ Agriculture is the backbone of Kenya’s economy

✓ Small scale farmers who form the bulk of the farmers (5Million).

✓ Agricultural extension officers outreach is currently less than 50% of the farmers.

✓ Farmers output can be improved by improved technical support as offered by extension officers.

✓ More than 8.7 Million households owning at least a computer or a mobile phone (2009 Census report).

✓ Mobile Telephony and internet technologies can be used to reach the 5 million farmers.

✓ There is overwhelming response in the use of mobile phones by the illiterate, young & old.
SUBSCRIBER GROWTH FOR MOBILE PHONE

Source: industry sources, Blycroft estimates c. Blycroft 2011
SUBSCRIBER GROWTH FOR INTERNET

Figure 10: Internet penetration

![Graph showing internet penetration with bars and line chart.](image)

Source: CCK, operators compliance return forms
OBJECTIVE

Enhance *dissemination* and *access* to Agricultural Extension Information to the 5 Million Kenyan farmers, pastoralists and fisher-folk by:

- Designing and Implementing a Voice Based information Service with the following features:
  - Accessible through all telephone networks in Kenya
  - Secure and easily updated through the Internet
  - Communicates through Kiswahili & Kenyan English® dialects
  - Scalable
  - Affordable by farmers
SYSTEM DEVELOPMENT STAGES

• Pilot study undertaken which offered information on growing of bananas.
• Development of Agricultural extension information (CONTENT) for each enterprise.
• Development of Web-Update end.
• Development of Text-To-Speech (TTS) systems for data to voice conversion in Kiswahili and Kenyan English®.
• Development of Voice-site
• Integration of all the systems above.
NATIONAL FARMERS INFORMATION SERVICE

(NAFIS)

“IMPROVING EXTENSION THROUGH ICT”
NAFIS

✓ NAFIS is a voice and web information service for providing agricultural extension information developed by the National Agriculture & Livestock Extension Programme (NALEP)

✓ It is a highly innovative system that is updated through the Web by field extension officers.

✓ It enables farmers get extension information simply by Calling or through the website:  www.nafis.go.ke
FACTS ABOUT NAFIS

• It is a Kenya Government Service.
• It is a voice/web service
• The voice service uses Kiswahili and Kenyan English® Voices.
• It is easy to use and requires minimal training.
• There are no extra charges beyond the normal telephone charges.
FUTURE DEVELOPMENT OF NAFIS

• Expand the number of enterprises and information
• Set up call centers to answer farmer’s queries
• Use of speech recognition to navigate and query information
• Use SMS alerts for new information
• Expand NAFIS to use more languages
ONGOING AND PLANNED ACTIVITIES

• Develop NAFIS flyers, posters and banners.
• Publicise the NAFIS through media
• Develop more Content
• Conduct induction course for using NAFIS targeting farmers, staff and collaborators
• Demonstrations on NAFIS during field days and Agric shows.
• Monitor and evaluate the performance of the NAFIS communication system
STAKEHOLDERS IN NAFIS

1. NALEP: National Agriculture and Livestock Extension Programme (MOA & MOLD)
2. Teknobyte (KENYA), [www.teknobyte.co.ke](http://www.teknobyte.co.ke)
3. Speechnet Ltd, [www.speechnet.net](http://www.speechnet.net)
4. Kenya National Library services [www.knls.ac.ke](http://www.knls.ac.ke)
5. AIRC - Agriculture Information Resource Centre
6. University of Nairobi
PARTNERSHIP
KENYA NATIONAL LIBRARY SERVICES

• KNLS is an ISO 9001:2008 certified corporate body
• Sole role of provision of library and information services to the Kenyan public,
• KNLS has a technical and logistical capacity to store, manage, and disseminate information to the public including rural areas,
• Has a main library in Nairobi as well as a network of 58 branches libraries spread all over the country.
Website

www.nafis.go.ke

You can now access and download;

Daily Market Information for Agricultural products and
Monthly Livestock Market Report
Information that Help Farmers Create Wealth