



BioKarite products being produced by SongTaab, a women's network.

Helping Farmers in 'The Land of Honest Men'

Experiences of using ICT to support Burkina Faso's agricultural sector

Landlocked between Mali, Niger, Benin, Togo, Ghana, and the Ivory Coast, Burkina Faso – the 'Land of Honest Men' - is the third poorest country in the world (UN). Eighty-five percent of its 14.8 million citizens live on less than US\$2 per day and most live in one of Burkina's 8,000 rural villages (often without paved roads, electricity, or a single telephone connection).

For the last 10 years, IICD has worked closely with local organisations to identify ways in which information and communication technologies (ICTs) could be used to improve education, livelihoods and governance in remote and rural areas. Challenges, achievements and lessons learned from five ICT projects IICD is supporting in the agricultural sector are described below.

A brief history

Widespread poverty, high levels of illiteracy (75%), low life expectancy (51 years), few natural resources, frequent

droughts and crop failures, and an inadequate infrastructure have kept Burkina Faso at the lower end of the United Nation's Human Development Index. According to the World Bank (2004) only 19 people in every 1,000 have a mobile telephone, only 2 in every 1,000 have a personal computer, and only 4 in every 1,000 have access to the Internet.

It is under these extreme circumstances that IICD's Burkina Faso Country Team and local Burkinabe organisations have been working together since 1997 to bring about ICT-enabled development at the grassroots

level. One of the chronic problems they have faced throughout the last 10 years is the shortage of qualified personnel in Burkina Faso who can be called upon to provide basic and advanced computer training to farmers, teachers, government officials and other members of the community who take part in the broad range of ICT activities supported by IICD.

ICT training today

Today, ICT training is provided by two training partners: SULGA Concept and Zongos Consulting and Productions (ZCP). Both are especially adept at adjusting their training courses to suit the needs of local partners. A lot of attention is being paid to improving the skills of end-users of the projects and the project teams which consist of staff members from local organisations that develop and implement the projects with support from IICD.

Matching the ICT tool to the end-users

Like many other African countries, Burkina Faso has a strong oral tradition. This was taken into account when the projects were being developed and strongly influenced the type of ICT tool selected for each project, particularly the five projects in the livelihoods sector which aim to reach small-scale farmers in Burkina Faso's rural areas. The fact that only 25% of the adult population is literate also played a role in the choice of ICT tool used. The goal was to identify ICT applications that would be easy to use, cost-effective to run, and which would have the greatest long-term impact on the local community. Where possible, multimedia tools are used in the local languages.

IICD's approach

Today, the International Institute for Communication and Development (IICD) supports a total of 65 projects in the agricultural sector in the nine countries in which it is active. End-users of these projects include small-scale farmers, farmers' associations, traders and trade organisations, and small and medium-sized enterprises (SMEs). A wide range of ICT applications and services are provided through the projects, based on the individual needs of the end-users in question. These include telecentres that provide access to computers and the internet, mobile telephony services, community radio, television programmes, and voice radio.

Three focus areas in agriculture

The ICT projects supported by IICD in the agricultural sector tend to focus on three specific areas:

- Firstly, enhancing the skills of the producer, particularly the small-scale farmer. In practice, this means training farmers to use specific ICT applications to improve their access to information about key issues. Issues such as crop protection, improved production techniques, market price information, and diversification strategies.
- Secondly, improving the overall quality of the agricultural product or service. Improving the channels through which



agricultural knowledge is gathered, stored, accessed and disseminated has been shown to have a positive impact on the overall quality of agricultural produce.

- Thirdly, improving organisational processes for production, commerce and exports. Using ICT to enhance and accelerate administrative processes relating to planting, processing, storing, packing and delivering the crops, can both improve the quality of the produce as well as addressing the problem of both national and global food shortages.

Instant results

The interesting point to note about the five agricultural projects that IICD is supporting in Burkina Faso is that they very quickly succeeded in having a far-reaching impact on their local communities, even though many of them were launched relatively recently in 2005.

Some of the more tangible results of the Burkinabe ICT projects in the agricultural sector so far include:

- 13 programmes aired on national television about market prices;
- a quarterly newsletter for shea butter producers in French and Mooré (the local language);
- 1633 schoolchildren from 4 villages trained in personal hygiene and the value of clean water;
- a documentary film on the importance of preserving the karité (shea butter) tree which was shown in 5 villages and seen by 500 farmers; and
- more than 6,000 digital photos which have been stored and inventoried in a database for use in training sessions for farmers.

Some challenges so far

Poor connectivity has prevented many farmers from accessing market price information via the IABER website, one of IICD's local project partners that collects market price information and makes it available through its website and a monthly television on national television. To solve this problem, a mobile phone booth will be installed at each market so that farmers can use the mobile phones to collect prices from neighbouring markets whenever they wish.



Sahel Solidarité uses ICT to tell villagers about the hygienic use of water.

Widespread illiteracy. Many of the (female) farmers whom the ICT projects target are illiterate. Therefore, to lower the threshold, training courses are often given in both French and the local language, Mooré, to make them more accessible. This has been widely appreciated by the women farmers. Similarly, radio programmes targeting local farmers are broadcasted in local languages too, as well as French.

Case studies: the IICD Burkina Faso Country Programme

TV Koodo: A Market Price Information System using Web and National Television

Accessing market price information is not easy for farmers in Burkina Faso. To solve this, a lively television show – called ‘TV Koodo’ – that uses animal puppets to divulge the latest market prices was created through a project developed by the Institut Africain de Economie Rurale (IABER). The project provides information about agricultural markets through the TV Koodo show which is linked to IABER’s website – www.iaber.bf. IABER already had a lot of experience in collecting market price information and wanted to find out how great an impact it could have if it were to disseminate the information via national television.

TV Koodo is aired once a month and provides its audience with monthly information about market prices for livestock, grain and oil products. To date, 13 shows have been aired. The same information is also available 24/7 on

IABER’s website. This helps to make the commercial side of the agricultural sector more transparent and enables farmers to sell their crops at the proper market rate.

Key objectives

The project’s objectives are three-fold:

- To provide online agricultural price information through the IABER website and national television.
- To develop IABER’s institutional capacity to use ICT to develop the agricultural sector further.
- To compile agricultural databases for research and decision-making.

Recent developments

To enhance its financial autonomy, IABER has begun to produce video documentaries on-demand for agriculture-related organisations. TV Koodo has also started to contact international organisations such as SNV, CTA and MISTOWA/IFDC that support farmers and agriculture in Burkina Faso in order to negotiate contact input by them.

Sahel Solidarité: using ICT to raise awareness about the importance of water sanitation

This project uses ICT to strengthen the communication skills of staff working for Sahel Solidarité (SaSo), a local organisation and IICD project partner, so that they can inform up to 20,000 villagers living in the remote district of Bokin about the hygienic uses of water.

To do this efficiently, SaSo's local office was equipped with an internet connection powered by solar energy, a few (portable) computers and digital cameras and portable projection equipment to make it possible to organise multimedia sessions in remote villages. SaSo staff are documenting their experiences on the project website and sharing them with other national organisations that work on similar issues.

Key objectives

The project's objectives are four-fold:

- To strengthen ICT skills of SaSo staff
- To strengthen ICT skills and know-how of extension workers in Bokin
- To improve internal communication between the central offices of SaSo and its members in Bokin
- To use ICT to develop experimental methodologies for sensitisation and information services about the use of water.

Results so far

Results of the project so far are promising. To date, 10 out of a total of 23 villages in the Bokin district are being targeted by the project. In total, around 20,000 villagers. The economic benefits for the villages that are being targeted are potentially huge. As better understanding of water related problems and solutions can reduce the incidence of disease and lead to a more cost-effective use of water. The project has a large capacity-building component and will lead to the empowerment of villagers in general and women and young people in particular.

Unexpected outcomes

To date, the project has also had a number of unexpected outcomes. For example, local branches of central government call on the services of the project to digitise their documents, and primary school pupils seem to understand the project's message better through the use of ICT.

Some of the more tangible results of this project include:

- The project was nominated for the African ICT Achievers Awards. See www.forgeahead.co.za/achievers/ for more information
- The project was submitted by Burkina Faso for the E-Committee of Youth Leaders, a UN forum on technological innovation which will take place in Armenia. See www.un-gaid.org
- 142 teachers, hygienists and farmers are now trained to use multimedia techniques
- More than 50% of the population in the project zone now know about ICT tools (digital camera, beamer, laptop)
- Documents are now sent by email from Bokin to Ouagadougou
- SaSo's website is online and updated regularly
- The project manager is often invited to make presentations about this project
- SaSo staff have been trained to use email, edit documents,



The telecentre at Bouré.

take digital photos, make PowerPoint presentations, produce CDs.

- 1633 schoolchildren from 4 villages are now trained in personal hygiene and the value of clean water.

Pag La Yiri: Using internet and local language radio programmes to enhance communication

Pag La Yiri, the local organisation that developed and runs this project, is a dynamic women's association that organises literacy programmes, agricultural information and training programmes, and pharmaceutical services for women and other groups working in agriculture in the Zabré region.

Communication at a snail's pace

Communication between staff members at Pag La Yiri's office in Zabré with those working at its national headquarters in Ougadougou is conducted over the telephone. However, sending newsletters and other information products back and forth is another matter. Up until recently, these have been transported on long and arduous journeys over pothole-ridden roads in order to reach their destination. Such problems are common to all the organisations and institutions working in this area.

No radio or television

Another communication challenge in Zabré is the absence of national television and radio (there are no radios at all within



Internet has made it possible to receive current market price information in the rural areas.

a catchment area of 130 km). Consequently, many people have been tuning into the Anglophone radio stations that belong to neighbouring Ghana. However, as many people only speak the local languages of Mooré and Bissa, there is an urgent need for a local radio station in Zabré.

Results so far

Today, thanks to its recent acquisition of internet and email through this project, Pag La Yiri has significantly reduced the amount of time it takes to send and receive information (such as the latest agricultural information or health newsletters) from its headquarters in Ouagadougou to the Zabré office. The people who directly benefit from this project are the 11,000 members of Pag La Yiri who live in and around Zabré. Indirect beneficiaries of the project include approximately 120,000 non-governmental organisations and associations that work in the area.

Progress has also been made with the local language radio broadcasts too. So far, members of Pag La Yiri are being trained to use radio equipment and conduct interviews. As soon as their training is completed they will begin broadcasting public service announcements, which will include price information for farmers and health information for the general public, in local languages.

Long-term goal

The long-term goal is for Pag La Yiri to link the internet to its radio broadcasts: not only will they then be able to put their

own shows online, they will also be able to make deals with radio stations in Ouagadougou as well.

The MIPROKA project: improving communication flows in Burkina Faso's shea butter industry

Shea butter is an important agricultural product in Burkina Faso and is exported worldwide. It is a sector dominated by women farmers, 1,200 of whom are members of Song Taaba Yalgré (ASY); a women's organisation that helps its members improve their quality of life by providing them with literacy classes and training in entrepreneurial activities such as shea butter production and trade. The overall goal of the MIKROPA project, which is run by Song Taaba, is to set up small information centres (Maisons d'Information et de Promotion du Karité or MIPROKAs) in rural areas for shea butter producers. The women farmers who use these centres can access the internet and to keep in touch with Song Taaba's central office in the capital, Ouagadougou.

More specific objectives include:

- Improving the internal and external communications of Song Taaba
- Improving information dissemination about shea butter products
- Helping Song Taaba's 1,200 members to increase their income with improved publicity campaigns and by using ICT to identify and break into new markets
- Lobbying on behalf of shea at the national level
- Raising public awareness about the importance of the shea

butter industry through radio broadcasts.

- Building of a shea information database for research purposes.

Results so far

- Shea information centres equipped with computers, and run by local women trained to use ICTs, have been set up in the villages of Saponé, Bousse and Gampéla
- Shea butter farmers have been trained to use the internet. They now send emails, browse online, create databases, and compile CD ROMs and videos about shea nut collection techniques, conservation and processing techniques
- Radio programmes about shea-related topics are broadcasted regularly.
- The information centres are also open to the general public.

The Sissili Vala Kori project: improving agricultural information channels to farmers in the rural area of Sissili

The Sissili Vala Kori project was set up in 2005 to improve communication and information exchange between the farmers' federation FEPPASI and its members. To achieve this, two small telecentres were set up in the villages of Vieha and Boura and equipped with computers. Active members of the farmers' federation now follow training courses at the telecentres where they learn how to use the internet and multimedia programmes. Approximately 6,000 farmers benefit from this project as they can now boost their crop yields and income by having quick access to information on market prices and production and food-processing techniques.

Overall objective

The overall objective of the project is to improve farmers' access to information about, and therefore knowledge of, production methods by setting up an enhanced information and communication system for FEPPASI's member organisations.

Specific objectives include:

- Building capacity - FEPPASI staff and farmers will develop general Information and Communication Technologies (ICT) skills.
- Developing local content – This includes the creation of training materials for farmers, as well as a printed quarterly newsletter containing relevant information for farmers in the Sissili area.
- Reducing costs – By using the internet as means of communication, farmers no longer have to travel long distances to send messages to members of other farmers' organisations in different areas. Another way of reducing costs is by accessing digital versions of training materials instead of having to resort to printed, hard-copy versions.

Results so far

Both centres are now up-and-running and at the end of 2006, 150 members of FEPPASI and 5 leaders were trained

in the basic principles of cooperative work using multimedia materials.

To date, FEPPASI has trained over 200 farmers in production and food-processing techniques, using video, photos and PowerPoint presentations. According to FEPPASI, the use of these support materials considerably reduces the length of the workshop and enhances its impact. Farmers who received training have been able to double and even triple their production levels.

Impact of the projects and some useful lessons learned

Sissili Vala Kori project

At the end of 2007, an impact study was conducted among farmers in Sissili. More than 75 percent of the respondents indicated that they are now more aware of ICT possibilities for the agricultural sector. The organisation is now building an international network through the FEPPASI website.

In addition, it will carry out research into the ways and means of accessing the market as well as how to develop and expand farmers' products and services within existing markets.

Another positive impact is that INERA, a farmers' research institute, now uses FEPPASI a lot more than they used to for field-testing products such as seeds and fertilizers. Because farmers now explain the objective of the field tests with (PowerPoint) presentations, other farmers understand the importance of these field tests better too.

TV-Koodo project

An evaluation of the project at the beginning of 2006 revealed several flaws. 'TV Koodo' (see photo above with the main character of the programme: Chévrina the goat) had become so popular that the TV station began showing repeats. However, this meant that the market price information in these shows was out-of-date or erratic. Another problem was that farmers experienced difficulties in finding the market price information on the website.

The project team has now addressed these issues: the market price information is no longer part of the main TV show but is broadcasted separately, and the website has been adapted to make it easier to access the market price information.

Meanwhile, a Monitoring and Evaluation Report from 2007 revealed that almost 65% of the people who were interviewed estimated that, thanks to the project, they got better prices than before. In addition, 80% also felt that they now had a clearer idea about the price they can ask for their products.

MIPROKA project

The project is strengthening the capacity and raising the awareness of over 2,000 women producers of shea butter to improve their living conditions, thus empowering them. Furthermore, the training courses and computer use provided will strengthen the communication flow between

the members of Song Taaba and the head office.

The general public also benefits from the MIPROKA project: as a result of the radio broadcasts made by the shea butter producers, the public will become more informed about the shea industry.

Pag La Yiri project

The project started in 2005. The computer aspect took off rather quickly and the project team has already received extensive training in how to use the computer and multimedia equipment. For the radio broadcasts, however, it took a long time to obtain a broadcasting license. Pag La Yiri finally got its license in 2007 and is now broadcasting test shows to see if everything works properly.

One useful lesson learned by the project team was that

using a mill engine instead of a generator for power reduces the amount of petrol and therefore the energy costs.

The project team also discovered that setting up a cooperative to be able to negotiate electricity use and prices with SONABEL, the national electricity provider, was also helpful. However, to do this effectively, it is necessary to mobilise a critical mass of individuals and organisations that can speak with a strong voice. Other lessons are related to the use of computers in rural areas. The absence of a regular internet connection makes it difficult to protect yourself against computer viruses, for instance. Therefore, in order to make the computers sustainable, many complementary services should also be developed ranging from training, word processing and printing to internet connectivity.



Pag La Yiri's radio station broadcasts information on health and market prices for farmers in the local languages.

Sahel Solidarité project

The long-term impact of this project will include:

- Reducing the digital divide
- Giving people a new perception of what ICT can accomplish
- Create a pool of local ICT resource people who can handle ICT applications and organise ICT awareness-raising events
- Reduce training costs for beneficiaries of the projects by using ICT tools
- Reduce poverty through the use of ICT tools
- Generate a greater understanding and appreciation of the contribution that women make to the work of hygienists.

A Monitoring and Evaluation Report (2007) showed the following results:

- 71 students can now use the computer
- 142 teachers, hygienists and farmers have been trained to use ICT tools
- 20 hygienists can use the digital camera
- Documents are now sent from Bokin to Ouagadougou and vice-versa by email, rather than snail-mail
- The staff of the local organisation that owns the project, Sahel Solidarité, have now been trained to use multimedia tools (email, PowerPoint, producing CDs, taking digital photos).

One rather unexpected outcome of this project is that local branches of the central government now call on the services of the project to digitise their documents.

Contact information

For more information about the Burkina Faso Country Programme and its livelihoods projects in the agricultural sector, visit www.iicd.org or send an email to information@iicd.org.

With the right tools, people in developing countries can considerably improve their livelihoods and quality of life. Better access to information and communication technology (ICT) is particularly vital in enabling them to achieve their goals. This is why the International Institute for Communication and Development (IICD) creates practical and sustainable solutions that connect people and enable them to benefit from ICT. As an independent not-for-profit foundation, we put knowledge, innovation and finance to work with partners from the public, private and not-for profit sectors. Together, we can make a world of difference.

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