

ICT Update

a current awareness bulletin for ACP agriculture

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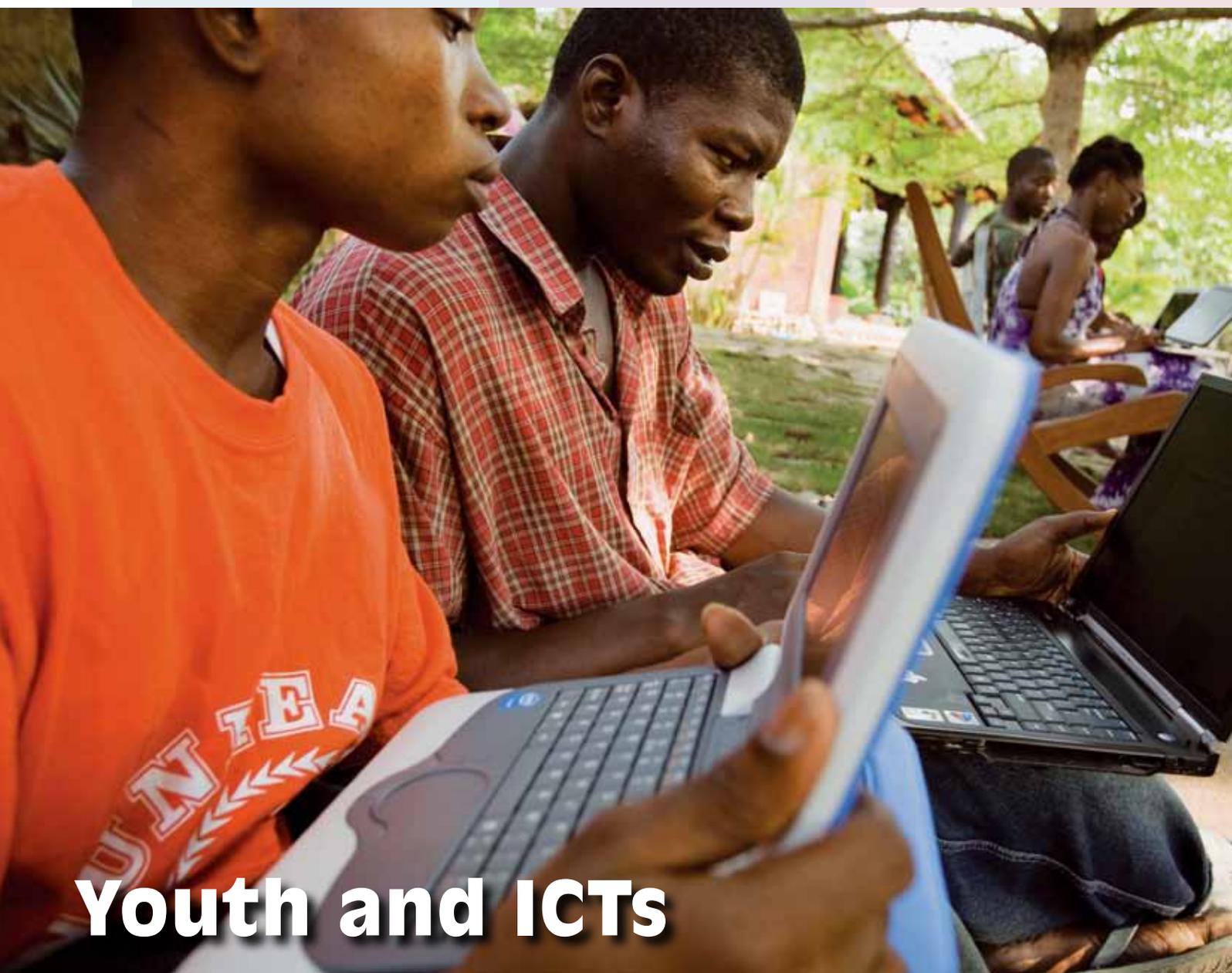


<http://ictupdate.cta.int>

A portable computer kit delivers agricultural training to Ugandan nomadic pastoralists

Audio conferencing helps to make farming a viable prospect for young Ghanaians

Map Kibera uses GIS, SMS, video and the web to gather community data



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ICT Update



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An influential generation

There are more than a billion people aged between 15 and 24 in the world, representing a significant proportion of the global population. More than 80% of them live in developing countries, where, in some cases, more than 50% are unemployed. When all those up to the age of 35 are also considered (as per the African Union's definition of youth) then those figures rise considerably. With limited career opportunities in their home villages, many young people leave to

powered by solar panels, capable of showing the short videos to the young people, wherever they happened to be.

The kit includes a laptop to store the digital video files, and a cell phone with a built-in projector to display the films. The six-month pilot project was so successful that the group, known as Help from the Sun, have recruited 200 young volunteers to bring agricultural information to even more pastoralist families.

Advocacy

The Savannah Young Farmers Network (SYFN) in Ghana is taking advantage of the portability of cell phones to connect farmers with agricultural extension services. They use cell phones with audio conferencing facilities to let farmer groups ask questions and give feedback to extension officers, who are often based in the distant towns and cities.

SYFN field staff organise the virtual meetings for each of their partner farmer groups twice a week. The farmers get quick advice for immediate problems and provide valuable information to help the extension specialists develop their advisory services. SYFN has found that this, and other projects using ICTs, have helped to inspire young people in rural areas to take a greater interest in agriculture.

Technology has also helped a group of young Kenyans living in Kibera, a slum neighbourhood on the outskirts of Nairobi, to take an interest in their local community. Working with the Map Kibera project, the young people have mapped the streets and local facilities, including health and educational services, using handheld GPS receivers.

They added the information to OpenStreetMap, making it available for anyone with web access. Other people living in Kibera can also use the data to make a case for improved amenities, and to influence national and local government policies that might affect their lives.

As they use technology to gather information and develop innovative ways of presenting it, young people are able to explain their situation to their peers, parents and decision makers. Their efforts inspire others and encourage collaboration, allowing them to maintain, or change, their communities in the future.

The farmers get advice for immediate problems, and provide valuable information to help extension specialists develop their services

find work in the urban centres, leaving rural areas with a shortage of labour.

ICTs, however, offer young people new opportunities. The spread of cell phone networks has led to new jobs in a rapidly growing industry, and opened a market for the development of mobile applications and services. Technology makes it easier to work and study from a distance, giving young people the chance to stay at home and still learn and earn money. And, as ICTs are increasingly applied to agriculture in ACP countries – often through initiatives driven by the youth – a new generation is given an extra incentive to get involved in farming.

In Uganda, for example, young people from the Karimojong communities in the north of the country are often driven from the land where they graze their livestock by cross-border violence and drought. They end up in nearby towns where it is difficult to find employment and, since they are traditionally pastoralists, they struggle to grow their own crops.

A group of four young Ugandans developed training material, mostly short videos in the local language, to give Karimojong youth detailed information on how to create temporary farms in their displaced communities, or as they visited their traditional grazing areas. The team collected their own personal savings and developed a portable kit,



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domestic lighting systems. They remove the LEDs and fix them to a stand which gives more light, enough to light a house.

I have also met young people who have adapted battery-charging systems, using solar batteries and solar panels, or the spare energy from generators at video clubs, to recharge mobile phones. Some people are even beginning to use portable computers to create a store of music, political speeches and jokes, which they transfer to cell phones,

their time. For some subjects, question-answer sessions via SMS messaging might be more suitable.

Our approach, therefore, must be one of humility combined with curiosity, to enable us to better understand the real problems of young rural people and help them to find the right solutions. By demonstrating certain kinds of appropriate technology, one can excite their curiosity, and this can lead to adjustments in the technology to meet their specific needs. Organising competitions and discovery activities, and visiting rural areas, will also enable us to understand the rural environment and make it easier for us to help young people.

The approach taken is crucial to the success of any new initiative. And we must remember that the needs in rural areas vary considerably, and so do the solutions. I am currently working with a large farmers' organisation in Burkina Faso to build a database of its members. The need arose when the organisation's membership grew to include many thousands of farmers, but clearly, an organisation with 50 members does not have the same needs, or the same agenda, as this major body.

I have found too, that simply transposing technology into rural areas creates more problems than solutions. It is much easier to support the people who have the ideas, and help those who are already on the right road to forge ahead. One-size-fits-all technical projects have rarely been successful in rural communities. For example, it is better to provide support to private telecentres and help them find ways of getting cheaper internet connections and an uninterrupted power supply, than to install standard community telecentre solutions.

There are also small-scale businesses that repair computers and mobile phones. Those workers can be mobilised and trained to become more effective in what they do, instead of training new young recruits who may perhaps lack the passion for technology. The work needs to be done on a case-by-case basis, providing at every stage the exact minimum in an adapted form, in order to achieve progress. My suggested method, therefore, would be to help young people to help themselves, acting in such a way that, by becoming vehicles for change themselves, they will lead others in the right direction.

Young people lead the way

Youth and ICTs

Young people living in rural parts of ACP countries have the same ambitions as those living in the major cities around the world. They all watch the same television programmes and have similar aspirations: a house, a car, a good job, a smartphone. Many rural youth are drawn to the major urban centres to achieve their goals. For them, village life is too limited. Pressure on the land means it is difficult to have a farm at a young age. They have to wait many years before suitable land becomes available. And even if they do have farming work, they have to find a second job to earn money in the off-season.

But young people are very tough, and often manage to solve their own problems faster than adults can. They are also the drivers of innovation. In the past few years, I have seen numerous examples of young people developing technological solutions for their villages. For instance, they have transformed simple LED torches into

MP3 players or memory cards on radios.

Inspire

It is obvious then, that there are many young rural people who have a real gift for technology. With just a little extra support and encouragement, they could develop useful technological solutions for their communities. If their achievements can be demonstrated, for example by showing videos and photos in other villages, it will be easier for them to realise that their projects are viable.

The question of incentives then arises, because young people cannot take up the role of intermediaries free of charge, nor should they be expected to. They are not going to get involved in technology if the information and services they provide is of no direct benefit to them. Those who produce and disseminate the information must be properly rewarded.

There are instances where young entrepreneurs lack the necessary detailed knowledge to perfect their products. For example, they might not be able to work out energy consumption and the capacity of the devices they use. They are learning on the job, and just a little training would teach them how to use electronic meters to calculate voltages and electrical power, which would reduce the damage to the appliances they use.

Distance learning opportunities can help them to further their study too, but only if the training is devised to fit individual needs. For example, modular training courses, proceeding unit by unit, are not suitable because young people in the countryside can have many different pressures competing for

Young people are already innovating in their villages, developing solutions specific to their local needs.



JAKE NEVILL / ALAMY

Youth and ICTs

Located just five kilometres from the capital of Kenya, Nairobi, the residents of Kibera have grown accustomed to the many foreign experts visiting their community to conduct surveys and ask questions for yet another data collection initiative. As one of the largest slum areas in Africa, it draws staff from development organisations, research institutes and NGOs from all over the world.

As all these organisations and researchers generate more and more

introduction to using the specialised software in a computer lab. The team was supported by five GIS professionals from Nairobi who had volunteered their time. The participants then spent three weeks walking along the roads, pathways and rail tracks with their GPS receivers recoding the location data. They collected more specific information on water and sewage locations, education, religious and business locations, as well as anything else the participants deemed useful.

who had previously come to Kibera but never shared their information. People were, therefore, reluctant to be filmed and photographed. Although the GPS data gathering was less intrusive, the technology presented other difficulties.

The lack of reliable power and inadequate internet access in Kibera were major challenges, especially when it came to uploading large video files to the web, which can take a long time. The slow internet connection also made it difficult to update security

The power of information

The Map Kibera project works with young people from one of Africa's biggest slums. They use GIS, SMS, video and the web to gather data and make it available to the community, where it can be applied to influence policies related to the area.

documents and project reports about Kibera, very little of the information gathered is ever made available to the 250,000 people who live there. Access to the data would give the people of Kibera the chance to present their own view of the living conditions in the community. They would be able to influence public policy to achieve improvements to the facilities that they believe are important.

In 2009, Erica Hagen, a specialist in the use of new media for development, and Mikel Maron, a digital mapping expert, started Map Kibera to help residents use mapping technology to gather information about their community. For the initial phase of the project, they recruited 13 local young people, aged between 19 to 34, including five women and eight men, from each village in Kibera.

The participants received two days training on how to use handheld GPS receivers to gather location data, and an

Collaboration

Rather than create a stand-alone map, the location data gathered by the project was added to the open source project OpenStreetMap, which is a crowdsourced map made by volunteers around the world. Map Kibera contributed to filling their part of OpenStreetMap, which would also make the information available to more people, and help to raise the profile of the project.

The team also wanted to add a multimedia aspect to the maps, by including video footage of points of interest from around Kibera, and uploading them to YouTube. Three members of Carolina for Kibera (CFK), affiliated with the University of North Carolina, assisted with the filming and helped to document the map making process using small camcorders.

The young people involved in the project developed a sense of achievement as they learned the new skills, and gained confidence in using new technologies. They also began to see the value of the information they were collecting and to understand the impact it could have on their community. However, it was not so easy to convince other residents.

There was a lot of cynicism in the local community caused by the NGOs

software on the computers, leaving them vulnerable to damaging viruses.

These were challenges that could be overcome in time, but for the project to be a real success, it would have to show that it could provide useful information to the community. The mapping project was, therefore, expanded to incorporate public participation geographic information systems (PPGIS) to gather information on specific issues affecting the residents of Kibera.

The group focused on collecting detailed data on four sectors: health, security, education, and water and sanitation. In February 2010, Map Kibera developed a partnership with UNICEF and added a fifth topic: mapping girls' security. The aim here was to get the girls' views on possible threats to their security, along with location information, for use in compiling data on their vulnerability to HIV/Aids.

Nine mappers collected data on the five topics using paper forms, gathering, for example, details of the costs and services offered at clinics and chemists in the area. To further encourage community involvement and get feedback on the information gathered, the team produced printed versions of maps for each area and placed transparencies on top so that

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residents could make changes and additions as necessary.

Positive picture

As well as making the maps and multimedia available online, Map Kibera looked for other ways for the community to use the information gathered. For instance, the video material filmed as part of the mapping exercises could also be used to present news stories of the

area. This idea expanded and the team worked with two youth from Kibera, who already had film-making experience.

They trained 18 young people to use small 'ultra-portable' Flip video cameras and the software to help them share their efforts on the web. This led to Kibera News Network (KNN), a citizen journalism initiative to present features and news stories affecting Kibera, showing positive aspects of the

area and providing accurate coverage of negative events.

Mainstream media often focused on the misery and negativity in Kibera. The only events certain to attract mainstream media attention were clashes with the police or when the trains that run along the area's peripheries were disrupted. Map Kibera attempts to change the perception of Kibera by allowing people to create and share their own stories.

Young people used the technology to gather information on health, education, security, and water and sanitation in Kibera.

Kwale Young Journalists

It started in Kibera, but the unique relationship between mapping, citizen journalism and community action has already begun to spread across Kenya, with one of the most successful young groups now in Kwale, about 400 kilometres from Nairobi.

Since 2010, the Kwale Young Journalists – 40 of them, aged between 21 and 30 – have mapped their neighbourhoods, registered schools, pharmacies and community-based organisations. Their aim, they say, is to connect the communities in Kwale to the outside world, and in the process, to help raise awareness of the need for a shift in attitude towards the slow pace

of socio-economic development and, in particular, towards the need for greater child protection. They work to promote the idea of gender equality, and to keep children's rights to the fore.

The youngest of the team is Mialii Mohamed, aged 21, who says her experience with the group has been invaluable, and has equipped her with the ICT skills to make a real difference in her family and local community.

The senior member of the group is 30-year-old Mshihiri Hassan from Mkongani, who has been a cornerstone of the digital mapping exercise from the start, and who also leads the journalists' Violence against Children campaign.

Having started the mapping project in their area, their next move was into

community radio, learning the technical side, as well as reporting. Since then they have also ventured into video journalism, posting the best of their work on YouTube.

Most significant to date has been their video, *The Enemy Within*, which looks at child labour and early pregnancy in communities in east Africa.

As a natural spin-off, the young journalists have now begun training school children in the skills of video production, most recently at Lukore Primary School, where both pupils and teachers got involved – and a whole new generation of energetic young video journalists is already being incubated.

→ <http://kwaleyounjournalists.wordpress.com>

Related links

Map Kibera

→ <http://mapkibera.org>

Voice of Kibera

→ www.voiceofkibera.org

Kibera News Network

→ www.kiberanewsnetwork.org

OpenStreetMap

→ www.openstreetmap.org



The KNN teams edit the videos themselves and post them on YouTube – giving them a direct and immediate link to a global audience. The videos are also available on the Voice of Kibera, a community news website that also hosts the digital map. Residents can even post their own geo-located stories to the map using SMS.

Map Kibera used the open source tool, Ushahidi, to make the contributions via SMS possible. When someone in Kibera contributes an article, an SMS gateway filters the incoming texts according to keywords. Messages with the keyword ‘Kibera’ are fed into the Voice of Kibera

website, where they are mapped using GPS coordinates, and approved by the editor before finally appearing on the site.

In 2010, the team founded the GroundTruth Initiative to support Map Kibera and other future projects. In the same year, UN Habitat awarded Map Kibera with a youth fund grant to expand its work to other parts of Nairobi, leading to co-operation with the community in another slum, Mukuru. A group in Mathare Valley, the second-largest slum in Nairobi, was also interested in creating a similar project, and, through funding from Plan International, a team is now

collaborating on a participatory development programme there.

The Map Kibera Trust, which has a core membership of 30 young people, is working with similar communities in other parts of Kenya, and in Tanzania. A core aim of the Trust is to not only make people aware of openly available technology and information, but also to train local people to use them to benefit the community. The information now available to the residents of Kibera has caused a shift in power, providing them with reliable data to present their own case, and enabling to directly influence the policies that affect their lives.

A word on technology nuts and bolts

Equipment security: Our video equipment was five standard-definition Flip cameras donated by UNICEF, four high-definition Flip cameras purchased for the project, and two donated (and quite slow) computers. We started by issuing each team a camera, which they had to sign in and out at partner organisation, Kibera Community Development Agenda (KCODA). Cameras were kept in a locked cabinet; one went missing for about two weeks and another disappeared entirely. In general, though, hardware security was less of a concern than we had expected. People often carry home – and sometimes lose – smaller pieces of hardware like flash drives and headphones, but when a camera went missing the entire team was very concerned and tried to catch the thief. The GPS devices were carried by us to and from Kibera as needed, and none was lost or damaged.

Viruses: We suffered from many debilitating computer viruses that were often transmitted by the Flips, which also function as USB drives. Viruses are a huge problem in developing countries, where expensive anti-virus software is impractical, as it must be updated over the internet. Even after installing the software, we still found it difficult to keep the computers clean.

Managing data: To some extent, problems arose from the members' lack of computer skills (how to browse for files, use 'Save As' protocols, etc.). File organisation was a frequent part of training, and members had trouble signing in and out of accounts and finding files. But overall, the project revealed that computer hardware and software built for the rich world simply do not work in a developing country context. These examples are far from the whole story.

Internet access: Another challenge was uploading data, reports and videos. KCODA had not yet managed to get the internet installed, partly because providers do not care to come into Kibera and usually do not show up at the appointed time. We later located a cyber cafe in Kibera with decent bandwidth, so members could upload videos themselves. During the mapping, we were able to use partner offices of the Social Development Network in Nairobi, but this required chartering a bus so members could travel to and from the offsite office. Having a location in Kibera equipped with internet and computers would have been ideal; in fact, we have since opened an office to house the trust in Kibera.

Erica Hagen
From Mapping Change, first published in Innovations, volume 6, issue 1. MIT Press. June 2010

An attractive opportunity

Audio conferencing has helped to improve extension services in northern Ghana, and encouraged young people in rural communities to follow a career in agriculture.

Youth and ICTs

The Savannah Young Farmers Network (SYFN) is a youth-led NGO in Ghana that uses ICTs to deliver agricultural and rural advisory services, and promote the active engagement of young people in agriculture. One example of how they do this is their Audio Conferencing for Extension (ACE) project, currently running in selected communities in the Builsa District of northern Ghana.

The project addresses the challenges farmers face with agricultural extension, where services can be irregular, and farmers are not involved in the development of content. Many young farmers feel especially that extension delivery methodologies are not tailored to their specific needs to see agriculture as a business, while the steady decline in productivity leads to the migration of youth to urban areas to look for non-existent jobs.

ACE uses audio conferencing technology to involve farmers in regular meetings with agricultural

officers from SYFN, and a wide variety of agricultural extension experts, agronomists, ICT professionals and researchers from various institutions. SYFN currently works with 25 farmer based organisations, covering more than 200 farmers. Each farmer group has an audio conference twice a week, with the option to call for an emergency meeting, if the need arises.

Community agricultural information (CAI) officers are present with the farmers to facilitate the discussions to ensure that farmers can express their concerns and demands, and actively participate in the development of extension advice. They use a cell phone with an audio conferencing function, attached to a portable loudspeaker so that everyone in the group can hear the responses from the advisers. The farmers contribute by speaking close to the cell phone.

The CAIs document the proceedings of each audio meeting for deliberation afterwards, and to make sure that the farmers understood the responses from SYFN and the other participants. Each CAI has a laptop so that they can type out their reports and connect to the internet, when available, and communicate directly with SYFN central office using a VoIP (voice over internet protocol) application, such as Skype.

Trained CAIs also use digital cameras to make short, simple video documentaries portraying the challenges faced by farmers, and any solutions they might have developed. Where possible, the CAIs use local agricultural information and research (AIR) centres with internet access to upload the short films to YouTube, where SYFN staff and other project researchers can view them. In areas where there is no internet, the videos are saved onto CD-ROMs that SYFN officers can collect on their weekly visits.

Previous videos have featured subjects such as weed infestation, pests and diseases affecting crops and animals, model farms that display good cultural practices, post-harvest management challenges and successes. The videos help SYFN and the other

project staff to develop specific extension advice to address the various issues, and offer guidance on broader concerns affecting the farmers.

Broad benefits

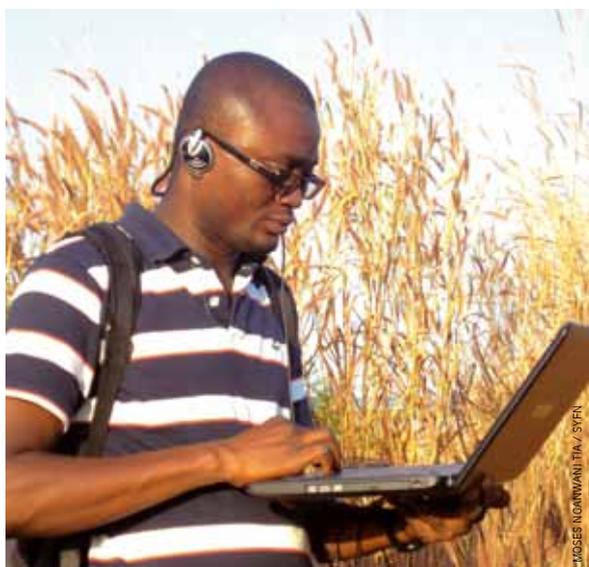
Through the ACE programme, farmers can now access extension information when they need it, in time to tackle problems, increase productivity and improve living standards. These developments, coupled with other SYFN initiatives using ICTs has led to more young people in the target communities adopting farming as a livelihood, and helped them to organise themselves into farmer based organisations.

Specific agricultural business training has led many young farmers to establish a variety of enterprises throughout the value chain, leading to improvements in the system, providing new employment opportunities and reducing migration to the urban areas. 'Through the use of technology, I can now communicate my challenges in farming and receive prompt advice from agricultural experts,' said one young farmer, adding, 'this has indeed attracted me to agriculture ever since I returned from the city.'

The communities where the project was implemented have measurably improved too, as more young people remain and become involved in farming. Agriculture is now seen as a profitable livelihood, worth investing time and resources. Farmers, both young and old, are more aware of how to access and use extension information. They are developing their skills, increasing the pool of capacities in the community and enabling people to find their own solutions to agricultural, and even wider, problems. Food security, for example, has been enhanced as productivity increased for most farmers.

Based on the success of ACE, and other projects using cell phones, specialised software and other ICTs, SYFN is convinced that technology is essential to the delivery of extension services, to make farming a realistic opportunity for young people, and ensure agriculture has a future in rural areas.

Audio conferencing puts farmers directly in touch with expert advice, and helps extension services adapt their information to the needs of the communities.



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Moving with communities

Young volunteers in Uganda are experimenting with solar-powered laptops and cell phones to present training videos to displaced nomadic communities.

Youth and ICTs

Since 1964, Uganda's Karimojong pastoralists have relied on food aid to survive. Their food security depends on their livestock, which provides meat, dairy products and the means to acquire firewood and other basic needs. But decreases in livestock numbers due to disease, frequent droughts and cattle rustling, have significantly reduced the communities' ability to sustain themselves.

These multiple pressures have caused many families to leave and find refuge in safer districts and townships. They then have to settle in to a more sedentary lifestyle. The youth, in particular, face a

number of difficulties as they struggle to find employment and adjust to an unfamiliar environment.

The displaced communities, therefore, have to learn new farming techniques to become self-sufficient, and adapt to a new socio-economic situation. Since their displacement is intended to be temporary, any programme providing agricultural training and other assistance would have to be compatible with traditional livelihood practices. This ensures that the new skills will continue to support the communities when they return to their nomadic pastoralist lifestyle.

To address this complex issue, a team of local agricultural and technology students set up a project called Help from the Sun (HFTS). They designed a solar-powered information toolkit to transfer agricultural and business skills

to young people from the area, in order to reduce their exclusive dependence on livestock for their livelihoods.

Preservation

Beginning in July 2011, HFTS focused on families living in the pastoral zone of the Karamoja sub-region, aiming to reach 30 homestead clusters (known locally as manyattas). The project team included extension workers and community leaders, who conducted initial consultative discussions with the pastoralist families. Together, they tried to identify the causes of the problems faced by the communities.

Unpredictable weather patterns, possibly due to climate change, were a major concern. Participants also identified low or inappropriate extension services and lack of accurate information on cultivating crops in

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temporary gardens as the main constraints to the adoption of crop production in the pastoral zone.

Based on the research, HFTS developed a number of customised strategies to gradually reduce the need for the Karimajong youth to depend exclusively on cattle farming. Instead, the young people were given information on temporary crop cultivation, biogas production and non-sophisticated income-generating activities like beekeeping.

Since the solar-powered training kit was portable, the young people could learn the new skills without significantly affecting their traditional mobility. Each kit is comprised of a mini-laptop computer, a cell phone with an in-built micro-projector, a solar battery charger and a blank banner to act as a projector screen. One kit cost around US\$800, with the small team of four members financing the equipment and pilot phase from their personal savings.

The HFTS team uploaded interactive training videos onto the hard drives of the laptops. When the cell phone with projector facility is connected, the videos can be shown to a group of people at the same time. Several of the videos are of plays acted out by members of the community and recorded in the local Ngakarimajong language. The content was developed with the help of Karimajong extension workers and pastoralists.

Young people from the target communities attend two-hour training sessions every weekday evening, with each homestead receiving one month of continuous training. The communities decided that evenings were the best time, as most of the participants are free from other duties. The videos are also better viewed in the dark and in the quieter hours with fewer interruptions. During the next day's work, the solar panels recharge the system's batteries to make sure it is ready for use again that night.

The training sessions cover a wide variety of topics, including food crop cultivation, intercropping and post-harvest handling. Due to the temporary nature of the growing areas, the main focus is on quick-growing crops, such as certain varieties of cassava, yams, maize, cowpeas, groundnuts and forage grasses for animals.

Growth

In the initial six-month pilot phase, the team worked with 20 homesteads (at least five from three different village

sites), establishing temporary food gardens, nine new beehives and training two beehive builders. Based on this success, the team are now working on the second phase, to reach more than 300 homesteads housing over 25,000 pastoralists.

The expansion of the project also means an expansion of the team in order to sufficiently cover the new target. HFTS has recruited 200 young volunteers, who work in teams of three. As well as the student, each team comprises of a translator (if needed) and a professional with experience in agriculture, ICTs and rural development. Working on the project with guidance from the professional will be valuable experience for the volunteers, and help them with future job opportunities.

The solar training kit has also been modified based on the experiences of the pilot phase. The new kit is more robust – water, dust and shockproof. All the components are carried in a backpack fitted with a solar charger and weigh around two kilograms.

With 20 kits now in operation, the teams can have more contact with the communities in this second phase. Each team works with one homestead for a continuous three-month period, giving face-to-face agricultural training sessions using the solar kit. As before, the teams conduct the training sessions in the weekday evenings. And, while the teams work for these long periods in the field, the project provides real-time weather and security updates online and via SMS alerts.

After the initial three months, the pastoralists have a further support period of around 21 months to solve any new or unforeseen challenges. The training teams monitor the progress of the families they have been working with through a project office that has been set up in the area, and which will maintain a presence in the sub-region for several years.

Wider influence

As well as gaining valuable work experience, the young volunteers also develop a range of social and professional skills. During the day, the project volunteers spend at least three hours of follow-up work to reinforce the skills learned and encourage implementation. A significant part of their job is to carry out monitoring and evaluation tasks, recording demographic details such as the number and age of young people

attending the training sessions. They also gather data on household income, monthly amount of firewood used, amount and source of water for animals, and the number of times the household moved in three months.

The agricultural information collected includes the number, description and location of food gardens, the crop output per hectare, and any biogas projects or beekeeping activities. Project volunteers then assess the relevance and suitability of each skill-set for the assigned community, and suggest future modifications.

Through such a close working relationship, the project hopes to reduce the spatial and ideological isolation that the Karimajong youth have endured for generations, and increase the respect for and preservation of nomadic communities' traditions. And, on a practical level, the

The portable solar-powered training kit ensures that the young people can learn new skills without affecting their traditional mobility

training sessions made possible through the solar kit will contribute to the increased use of technology in the area, powered by renewable energy.

The HFTS team is committed to the further development of their project, and will continue to seek funding to produce new videos and training material, and to share their progress and lessons learned through publications and information on their forthcoming website. Even then, the work won't stop. The team are already making plans to reach pastoralists as far away as Somalia.

Young people from other parts of Uganda gain greater understanding of a pastoralist lifestyle through working with the Karimajong youth.



Tech solutions to agricultural growth

One of the winners in the recent NEPAD-CTA essay contest, Solomon Elorm Allavi, explains how he uses GIS and mapping technology to improve agricultural value chains in Ghana.

Youth and ICTs

Twenty-eight year-old IT professional, Solomon Elorm Allavi, established and manages a start-up company, Syecomp Business Services, in Accra, Ghana. The company strives to implement ICT solutions to address the limited access to marketing outlets for smallholder farmers and others in the agricultural value chain. Syecomp utilises GIS and GPS to provide an array of farmland surveying and mapping services.

GIS surveying and mapping help to establish the spatial locations and concentration of fruits and vegetable farms. The technology determines the supply base of producing firms and establishes a system for traceability and precision production for the farmers. Such services go a long way to addressing the numerous constraints faced by farmers, especially regarding the dispersion of farms, and the lack of location-specific data for production planning, monitoring and targeting. All

of which results in an inability to forecast farm yields; inaccurate assessment of supply base; over-estimation of farm sizes; over-paying for labour and other services; difficulties in resource allocation and targeting of small-scale producers for assistance and support.

Solomon uses the ESRI ArcGIS 9.3, GPS Utility and TrackMaker software for his farmland GPS waypoints. He has available a digitised base map of Ghana (showing roads, topography, water bodies, etc.), two laser-jet printers, Garmin GPS receivers, two laptop computers and one desktop computer. The equipment and software are costly, but these assets really propel the enterprise to meet the needs of its clients.

Visibility

Most agricultural development projects in Ghana traditionally address supply, and focus on crop productivity issues by increasing the use of improved seeds, fertilisers and improved agronomic practices. Few address the demand or marketing side that ensures that the increased production finds its way to the markets without adverse effects on prices and incomes of farmers and others in the value chain.

Unreliable production and marketing arrangements have contributed to a situation where demand for rice outstrips supply due to population increase and improved standard of living for farmers. Solomon addresses this challenge by providing a market information system (MIS) for smallholder rice farmers in Ghana, interlinked with GIS technology.

The pilot project, ongoing in the Volta Region of Ghana, is mapping and profiling all smallholder rice farmer organisations, and migrating the data to the well-known Esoko (formerly called TradeNet) market information platform. So far, more than 280 individual rice farmers, representing 45 farmer groups, have been profiled. Potential buyers or traders now receive up-to-date information on rice

availability from the region, on the web and on their cell phones.

The GIS implementation in this initiative offers the locations and concentration of rice marketing centres, makes smallholder rice farmers visible to multiple buyers, and expands the market for locally produced rice. It is also provides certification support and traceability for rice farmers, helping them to meet international requirements.

Upon completion of the MIS platform, smallholder rice farmers will act as catalysts for a cost-effective and reliable supply chain that provides consistently greater volumes of product, thereby improving revenues at farm, broker, exporter and processor levels along the value chain. This will facilitate a strategic and open marketing platform for all stakeholders to operate efficiently. It will reduce transaction costs through collective action and increased linkages with buyers, and increase the profit margins of their valued clients through providing business services and aggregating quality produce for buyers.

In the long run, Solomon intends to replicate the business model on other food commodities in the country, such as tomatoes, maize, plantain, mango and oranges. There are bound to be drawbacks and issues that affect the smooth implementation of the activities. Difficulty in accessing appropriate financing to scale up the business is hindering Solomon's venture. Having been able to overcome the initial bottlenecks in starting a new business in Ghana, with limited funds for equipment, software licenses and payment to personnel, growing the enterprise to its full potential is becoming an operational hurdle.

Added to that, some clients, especially smallholder farmers, are unable to pay fully for some of the services, due to their limited cash flow. However, Solomon is convinced that he could scale up the business in the coming years. To him, providing IT services for farmers is a passion, and he believes the market is vast and viable.

Mapping the locations of farm and markets improves production planning and targeted marketing.



Solomon Elorm Allavi (sallavi@syecomp.com) is a member-entrepreneur of the Enablis Entrepreneurial Network (www.enablis.org) and IntEnt Ghana Foundation Business Incubator (<http://intent-ghana.com/>) This is an edited version of the essay submitted to the 20011 NEPAD-CTA essay competition: Looking at ICTs and agriculture in Africa through the eyes of women and the youth.

Blogs for an online presence

The recent success of the Youth in Agriculture Blog Competition (YoBloCo Awards) shows the importance of blogging to young people in ACP countries. Young farmers, agribusiness entrepreneurs and rural cooperatives also use blogging platforms to inform clients of the latest products or notify associates of upcoming events.

Youth and ICTs

Developing a dedicated website requires specialised skills and is expensive to build and maintain for many organisations. Blogs, on the other hand, are free to set up, easy to maintain, use advanced social sharing features, and provide a convenient way for individuals and businesses to develop an online presence.

Several blog-publishing services offer user-friendly interfaces and comparable functionalities. One of the most popular is WordPress.com. Others include Blogger, Posterous and Solidaire du monde.

WordPress is an open source project, offering two types of blogging services. Its wordpress.org software can be downloaded and installed on servers. The other option is to visit www.wordpress.com, a web-based service where you can set up a blog quickly, for free, and with no

specialist software installation required. The advantage of this is that you can access your blog from any computer or mobile device that has an internet connection.

Getting started

As with most other blogging services, Wordpress offers many options to populate, manage and tweak your blog after you have signed up. When you next login, you will see a 'dashboard' where you can find links to add new posts, view statistics and authorise comments.

To decide on the look of your blog, use the 'appearance' menu to search the selection of themes. Themes allow you to choose the combination of colours, layout and design to complement the general topic of the blog.

The appearance of your blog can be further improved by adding or removing 'widgets' (also available from the 'appearance' menu). The available widgets vary according to the theme you choose, but most will allow you to add a calendar showing the dates of previously published posts, a list of categories or most popular posts. Select widgets that you think might be useful and relevant to your readership, and use a limited number (5–6) so your blog can load faster on slow connections.

You can add documents, pictures and videos to posts from your computer by clicking the appropriate buttons on the new post page, or by uploading them to your media library by clicking 'media' from the dashboard page. The media library can be more useful when you have media that you want to reuse on other posts, as you can then access the photos or videos from any computer.

When adding additional material from other sources, make sure you have the rights to use and cite the original author accordingly. Using unauthorised copyrighted material could result in your blog being taken offline.

Attracting visitors

To make your content easy for others to discover, use tags and categories, either from the post menu or on a new post page. Tags are keywords that give potential visitors an idea of what your post is about. Consider the keywords you would use to find a similar post, and use them as tags. Keep tags simple and relevant, and to a low number (5 to 7 is adequate). Add them in

Related links

Youth in Agriculture Blog Competition

→ <http://ardyis.cta.int/yobloco/>

Blogger

→ <http://blogger.com>

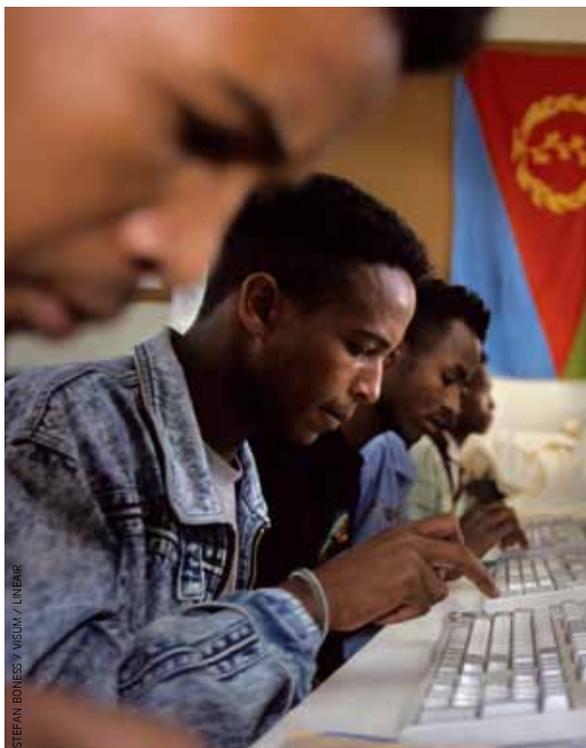
Posterous

→ <http://posterous.com>

Solidaire du monde

→ <http://solidairedumonde.org>

Blogs can provide youth groups, agricultural cooperative and farming business with an easy and free online presence.



the 'add tags' section under each post, separated by commas.

Categories are used to define the broad groups to which your posts belong. They are more general than tags and help people find your blog based on its broader topics. For example, if you write a post about using cell phones to get agricultural market information in Jamaica, you could use tags such as cell phone, market, Jamaica and farm, and use the categories agriculture and technology. The categories are more like a table of contents with the tags being keywords in the index.

Readers will return to your blog regularly if you keep its contents focused on the same few recurring topics. Tags and categories can be reused the need to create them each time you produce a post.

Gaining new readers and maintaining returning ones is essential for your blog's success. It is better to start promoting your blog when you already have a number (4 or 5) of published posts to give readers an idea of what your work is about.

One good way to promote your blog is to visit other related blogs, add helpful comments and join in discussion forums. This will help to get your name known and increase the number of links back to your blog. To keep people interested, publish at least three blog posts per week. Visitors will then bookmark your site and come back regularly.

Bloggers rely heavily on social networking tools, such as Facebook, Twitter, Delicious and reddit, to promote their posts. Promote new posts through the various social media sites and make sure you add the widgets, such as the Facebook 'like' widget, to make it easy for others to share your posts.

Youth in Agriculture Blog Competition

CTA is pleased to announce the winners of the first edition of the Youth in Agriculture Blog Competition (YoBloCo Awards), organised as part of the ARDYIS project.



Youth and ICTs

The Youth in Agriculture Blog Competition (YoBloCo Awards) highlights the issues, successes and challenges faced by young people in agriculture, and to encourage the production of information and the use of ICTs by young farmers' groups and organisations interested in the topic.

The competition was launched in July 2011 and 92 blogs were received. For the individual category, winners were selected from 15 finalists, identified following an online voting process in which more than 3,000 people participated.

Winners

Individual category

1st prize (€ 1,500)

Nawsheen Hosenally

Nawsheen (23-years-old) recently graduated in agricultural studies. With her blog, Nawsheen World, she puts forward the main issues and key news items related to agriculture in Mauritius and other developing countries. She also writes about the many other activities that internet her.

→ <http://nawsheeh.blogspot.com>

2nd prize (€ 1,000)

Sourou H A Nankpan

Biotechnology graduate, Sourou (27), is passionate about agriculture and food production. His blog, Agro Benin, presents and discusses the impacts of rural migration on agriculture, the consequences of climate warming, government projects, challenges facing food security and other issues in Benin.

→ www.agrobenin.com

3rd prize (€ 800)

Anthony Mwangi

In his blog, The Young Agropreneur, Anthony (21) shares his experiences as a young agricultural entrepreneur. He describes his blog as 'a resource for information on matters concerning agriculture in Kenya and the Eastern African region'; it is also 'a wake-up call for the youth to venture into agriculture'.

→ <http://youngagropreneur.wordpress.com>

Institutional category

Winners in the institutional category were selected per ACP region. Based on the submissions received, institutional blogs from three regions - Eastern Africa, Caribbean and West Africa - were eligible each with a cash prize of € 3,000.

CARIBBEAN

Agribusiness Society of the University of West Indies (UWI)

The content of the Agribusiness Society

Related Links

YoBloCo's blog

→ <http://ardyis.cta.int/yobloco/>

ARDYIS Facebook Page

→ www.facebook.com/ardyis

blog focuses on technologies which can positively impact agri-development at all levels. Technologies range from simple devices to high tech and scientific innovations, including ICTs, renewable energy production, water management etc.

→ <http://technology4agri.wordpress.com>

EASTERN AFRICA:

Farming and Technology for Africa

Farming and Technology for Africa (FTA) is a registered association from Madagascar. The creation of this blog followed from a meeting between FTA and students of forestry and rural development at the University of Antananarivo. The blog is an information and discussion platform for youth in the agricultural sector in Madagascar.

→ www.jeuneagrimadagascar.org

WEST AFRICA

Sycomp Business Services

This blog highlights issues on agricultural development in Ghana, including policies, market access linkages, youth in agriculture, ICT applications and funding opportunities. Sycomp Business Services also use the blog to promote their commercial activities.

→ <http://agricinghana.wordpress.com>

Additional information

The YoBloCo Awards have been an exciting experience for organisers and bloggers. Many bloggers are reporting an increased number of visitors to their blogs, more comments, interest and collaboration opportunities.

CTA and its partners warmly congratulate winners, and thank all the participants and everyone who voted and commented on blogs for making this pioneering experience a success.



G RAMBALDI/CTA



Lwanga Herbert
(herbert@logelproject.org) is the co-ordinator of the LOG'EL Project in Uganda (www.logelproject.org)

A source of inspiration

Value chains

How can young people make use of ICTs to support agriculture and rural development?

→ Many young people only see white-collar jobs as being prestigious, but agriculture can provide decent and gainful work too, especially when ICTs are applied to add value to the business. Young farmers are able to master ICT skills and tools, such as geographic information systems (GIS), to analyse and adjust farming practices to cope with prevailing climatic conditions, and ultimately increase profits. They also use technology to creatively and productively manage land, weather, water and other resources, develop maps of these resources and use the feedback from mapping exercises to profile and upgrade specific sites by identifying appropriate measures for planting, stocking materials and providing pest control facilities.

Young farmers are able to master ICT skills and tools, to analyse and adjust farming practices to cope with prevailing climatic conditions, and increase profits.

How do their communities benefit from their involvement?

→ Here, in Uganda, the youth make up 67% of the population, and they bring tremendous benefits to their communities

by applying ICTs to agriculture. Their efforts revitalise the food and nutrition sector, which enhances food security in more households. Their involvement in climate change adaptation boosts other aspects of environmental protection, and promotes the development, production and use of clean energy technology, such as our own LOG'EL customised solar phone chargers. Youth-led initiatives, therefore, lend tremendous support to agriculture, biodiversity and natural resource management in rural areas.

Why are young people important for connecting rural communities with technology?

→ Young people make up a large percentage of the population in most societies. They are talented, enthusiastic and prepared to embrace existing and upcoming technologies, which is critical for boosting agriculture in particular and rural development in general. For example, at the 2011 LOG'EL Project's annual youth science, technology and innovation contest, the best project came from students from Kyambogo University. They are training rural communities near Kampala in mushroom farming by using locally available materials, and promoting their products using their cell phones to share market price information, sourcing of suitable planting materials, identification of vital suppliers and key technical and training sources.

Most young people are based in urban areas, where there is high unemployment. Virtually any programme that taps into their talents, skills and abilities to introduce technologies to rural areas would be a worthwhile engagement. Contributing to the development of their communities, in turn, increases their self-esteem, and helps them to become more inspired and motivated.

What are the main issues limiting the use of ICTs in rural areas, and how can young people help solve those problems?

→ In the case of Uganda, supply of energy is a major constraint, and young people can help here by promoting alternative, climate-friendly solutions.

There is also the issue of lack of, or a minimal implementation of, policies relating to youth issues by government and other service providers. In this case, young people could organise themselves into a coherent voice to lobby government, civil society and the private sector, and insist that policies

and programmes are accessible to the youth, so they can benefit from them.

Youth in the Bunyoro sub-region in western Uganda, for example, came together, prepared and submitted a petition to the speaker of the Parliament of Uganda. They want the government to allocate around 32% of the oil proceeds from the Albertine valley (within Bunyoro) to the youth in that area so that they can start their own businesses.

What more can be done to help rural youth, and what role can technology play?

→ In this country, the government needs to pay more attention to establishing and implementing policies to expedite the development, production and utilisation of technology in rural areas. They could do this by supporting the use of ICTs in agriculture and natural resource management, especially as Uganda is abundantly rich in

Helping rural youth find employment and continue their education.

LOG'EL Project runs a technology outreach programme that identifies talented and interested youth for training in ICTs and their application in a range of sectors. Their internship programme gives young people hands-on training and field experience in science and technology innovations. Afterwards, they go back to their communities to apply their knowledge to address real-life challenges. They could, for example, produce and supply solar phone chargers in the community.

both sectors, giving it a comparative advantage within Eastern Africa.

We also need to mobilise, fund and distribute technical expertise and develop the infrastructure, including laboratories, equipment, materials, accessories and spare parts, in an efficient way.

Finally, but equally important, government needs to work with rural communities – especially the youth – and communicate with other members of civil society, the private sector and development partners. They need to harmonise all the efforts and resources needed to accelerate rural development, promote agriculture through the application of ICTs and technology innovations, while also upholding zero tolerance for the corruption that is currently affecting the accomplishment of development projects and processes in Uganda.





New media studies

With cell phone penetration predicted to reach 100% in Africa by 2014, fesmedia Africa (a project of the Friedrich-Ebert-Stiftung in Africa) has produced a report looking at innovative ways of delivering information to people around the continent. The Texting, Tweeting, Mobile Internet: New Platforms for Democratic Debate in Africa report details several case studies illustrating cell phone and web applications, many of which were also developed to allow users to contribute content. Among the examples are Ushahidi, Mxit and Global Voices. The author, Tom Sarrazin, writes that agriculture is an important focus for many new cell phone and web services, and cites how farmers in India use the Nokia Life Tools system to access market prices, while Google Trader connects small-scale producers in Uganda with potential buyers.

Development organisations have a role to play too, by promoting training courses in the use of new technology and in the general understanding of how various media, new and traditional, operate. 'There is no need to reinvent the wheel,' writes Sarrazin. 'Seeking collaboration with the organisations running existing initiatives and asking them what kind of support they or their users require may be one point of departure for international donors. This sort of approach makes for a more grassroots-driven development process where projects are based on actual needs rather than donor priorities.'

Read the full report:

→ <http://goo.gl/jAJ54>

Brand new domain names

As well as the familiar suffixes, like .com, .org and .int and the two-letter country identifications (.za, .tt, .tv), it is now possible to register other words as internet domain names. Since 12 January 2012, the Internet Corporation for Assigned Names and Numbers (ICANN) allowed the registration of other words for use at the end of a web address. Businesses and organisations can, therefore, have web addresses such as www.ipad.apple, or www.phones.nokia.

ICANN hopes the move will overcome any possible shortage of generic top-level domains (gTLDs).

The decision has drawn criticism, however, from the United Nations, the International Monetary Fund and a number of other intergovernmental organisations (IGOs) who want to protect domains, such as .un or .imf, from being bought and used by anyone else – a process known as cybersquatting.

Lawyers for the organisations wrote to ICANN saying they were concerned about 'the increased potential for the misleading

Smartphones outpace ordinary phones

As of January 2012, sales of smartphones accounted for more than 50% of the total cell phone market. This means that smartphones are now outselling ordinary cell phones worldwide for the first time, according to ABI Research, a market intelligence company specialising in global connectivity and emerging technology. 'It is very much an historic moment,' said Jake Saunders, on the ABI Research blog. 'It means not just mobile phone users in developed markets but also emerging market end-users are purchasing 3G handsets, 3G smartphones and connecting to the internet.'

Smartphone sales in developing countries are an important opportunity for manufacturers, since the growth in 3G phone sales are declining in Western markets. It's also good news for consumers as network providers upgrade their services to meet demand, and manufacturers continue to reduce the prices and develop products suited to emerging markets. This will make smartphones – essentially small, portable computers – affordable to more people, and offer internet connectivity to people in remote rural areas.

→ <http://goo.gl/UTMBO>



registration and use of IGO names and acronyms in the domain name system. Both the Federal Trade Commission and the Association of National Advertisers in the US have criticised the scheme. ICANN responded by saying they would publish the details of anyone applying for the new domains and conduct criminal background checks.

But perhaps the main barrier for potential cybersquatters will be the cost. It costs US\$185,000 to buy one of the new top-level domains.

→ www.icann.org

Update: Gold approval for TIST



The International Small Group and Tree Planting Program (TIST), featured in ICT Update in April 2011, has received the world's first 'gold level' approval for an afforestation/ reforestation project in the climate, community and biodiversity standard (CCB). TIST works with smallholder farmers in India, Kenya,

Tanzania and Uganda, who use

handheld computers and GPS units to monitor and map trees in their communities. The information they gather is used in carbon credit trading schemes, which provides the farmers with an extra income.

It was TIST's fifth project in Kenya that received the award, recognising the accuracy of TIST's methodology, and the positive effects the programme has had on communities. According to Ben Henneke, co-founder of TIST, and president of the Clean Air Action Corporation, 'we hope to expand the TIST program to a number of new countries over the next five years, to respond to the requests of farmers and governments, who want a transparent process to help reverse the damage of deforestation.' For more on TIST, visit www.TIST.org.

See the ICT Update article on TIST: <http://goo.gl/YaEe>

Update: Climate adaptation report



The eTransform Africa project, also featured recently in ICT Update, the December 2011 issue, has released a report looking at the use of ICTs in climate adaptation. The report, entitled

Africa Transformation-Ready: the Strategic Application of Information and Communication Technologies to Climate Change Adaptation

in Africa, was prepared by the International Institute for Sustainable Development (IISD). The authors analysed ICT policies throughout the continent, looked at a variety of ongoing projects, and included three in-depth case studies from projects in Senegal, Malawi and Uganda.

The 149-page report notes a number of challenges in using ICTs in climate adaptation, and other development projects, and states that the 'potential of ICTs to contribute to adaptation is considerable, and deserves more recognition than it has had to date in national communications, NAPAs [national adaptation plans of action] and other development strategies.'

Read the full report: <http://goo.gl/fXl6q>

African app development

The development of mobile applications (usually simply called 'apps') by African entrepreneurs continues to expand rapidly, with many of the new services targeted at helping farmers. A mobile app is a small program that can be installed and run on a cell phone, or on the web. And several agriculture-related apps have recently gained significant recognition in the second annual Apps4Africa competition, organised by Appfrica Labs consultancy company. Four of the six main winners were apps developed specifically for helping farmers. In fact, all three winners from the East Africa competition were aimed at boosting agriculture. First prize there was an app called the Rainy Bunch, a management system that monitors the grain supply chain in Tanzania. Second prize went to the Mkulima Bora app, which cross-checks crop planting times with meteorological data. The Agro Universe market data app, from Uganda, came third.

In the West / Central Africa competition, a web-based app, Hospital Manager, developed in Nigeria, took the first prize of US\$15,000, followed by a natural resource management tool called Eco-fund Forum. Third prize went to Farmerline, a cell phone and web-based app developed in Ghana that provides farmers with agricultural advice.

Special mention also went to two other farming-related apps, Mobile Agribusiness for smallholders in the Democratic Republic of Congo, and AgriRight, which helps farmers determine the most suitable crops for a particular area.

Last year's competition received a special acknowledgement from the US Secretary of State, Hillary Rodham Clinton, who congratulated the winners, saying, 'Your work to develop 21st century solutions to Africa's challenges is a powerful example of what individuals can do to shape a dynamic, successful future!'

→ <http://goo.gl/mUpHj>



700 billion, the number of minutes Facebook users collectively spend on the site per month. Note: 43,800 minutes in an average month <http://goo.gl/rBl44>

15 %, the market share of smartphones on the African continent. About 85% of all cell phones sold on the continent are still 'basic' <http://goo.gl/hTOH5>

140 the number of bytes per standard SMS, which allows for 160 Latin alphabet characters, or as few as 70 using non-Latin alphabets <http://goo.gl/J2f8d>

Encouraging ICT uptake

Websites

Having worked with the Secretariat of the Southern African Development Community (SADC) from 2006 to 2010, involved in regional initiatives on agricultural information management, I still moderate first-time contributions to the SADC Dgroup's discussion forums. Therefore, my mornings start with a lot of emails from the various forums, including SADC-AIMS, FARA, FAO-AIMS, CIARD, ICT-KM Program, CTA's web2fordev & ICM-Strategy Dgroups and e-Agriculture.

After screening the messages, I delete what I do not need immediately (as they can always be traced on the forums) and

- SADC-AIMS Dgroups: dgroups.org/groups/sadc-aims
- CIARD (Coherence in Information for Agricultural Research for Development): www.ciard.net
- ICT-KM Program: ictkm.cgiar.org
- e-Agriculture: www.e-agriculture.org
- FARA: www.fara-africa.org

Social media

My wife and I share our Facebook account. She maintains (and does most of) the conversations, while I am briefed on the gossip. Part of our 'quality time' together involves going through our Facebook updates from our friends, but we also monitor and interact through the Mauritius Agriculture News Channel Facebook page. I use LinkedIn to keep up with professional connections, and I follow selected Twitter feeds from colleagues in the CGIAR (Consultative Group on International Agricultural Research) and FAO.

- Mauritius Agriculture News Channel on Facebook: <http://goo.gl/bn4ka>
- CGIAR: www.cgiar.org
- CGIAR on Twitter: @CGIAR
- FAO-AIMS: aims.fao.org
- FAO AIMS on Twitter: @FAO_AIMS

Software

I am always keen to learn about the experiences of people, networks and organisations with software and information management approaches, so I do not have to start from scratch when applying new methodologies to my own work. I really appreciate open source, especially free open source software, as it fascinates me to see how human goodwill and smart collaboration, based on mutual trust, can achieve wonderful public good. I wish I could contribute more to their efforts too, but I like to send the developers feedback, telling them how much I appreciate their work and how I intend to use their software. My latest trial has been with Open Conference Systems, from the Public Knowledge Project, to help organise a conference.

- Open Conference Systems: <http://pkp.sfu.ca/?q=ocs>

Web 2.0

I currently operate in an environment where most colleagues use web 2.0 tools



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Open source software fascinates me, to see how human goodwill and smart collaboration, based on mutual trust, can achieve wonderful public good

use the one-hour window before the offices open and the internet connection slows down, to download videos and open pages to be viewed later in the day. This constitutes my scan of what is happening in the world of agricultural information management in agricultural research and development. I also scan the RSS feeds of groups and individuals that I follow. I prefer to subscribe to daily or weekly compilations of updates of groups and blogs.

- SADC: www.sadc.int
- FARC: <http://farc.gov.mu>

Sharing ideas with others, even on a small or personal level, can encourage them to make effective use of ICTs.



for social networking, but haven't yet mainstreamed them in their professional life. Because of this, I have adjusted my own web 2.0 use to a more personal level, and try to encourage others to get more involved through emails, group discussion contributions, Skype and phone calls, where I add an occasional link to a tool of interest.

An example of this, and a current favourite, is to say something like: 'There are no clear signposts to my institution, but if you look it up on Google Maps you will get a clearer picture of how to get to us', and, 'Have you spotted any breadfruit trees while driving around that you could add to our public Google Map of breadfruit trees in Mauritius?'
→ Map of breadfruit trees in Mauritius: <http://goo.gl/nsAZq>

Future

I am looking forward to tablet PCs becoming cheaper and more popular. The choice of tablet now seems to be increasingly based on its usefulness for home, work and travel. For now, my laptop computer remains the workhorse that can handle all my working needs.

As for the future of ICTs for agricultural and rural development, I think we should consider the cost of providing full-time broadband access to rural communities as the minimum yardstick for empowering frontline rural advisory services staff. Since Blackberry already offers such a service, I'd like to see the day when competing devices and telecom companies also offer a flat rate for their services, and make information access to rural communities an affordable option.