

## **Assessment of ICT trials programme (Deliverable No. 6 First Mile Phase 2, IFAD-Agridea )**

### ***Introduction***

In October 2007 we laid out an ambitious ICT trials programme. It would cover how rural market access companies could most effectively connect to the internet, exchange experiences on the internet and put up their own websites. Six of AMSDP's newly emerging Market Access Companies in Hai, Babati, Muheza, Same, Mufindi and Songea Districts were selected for the trial. We learned two hard lessons that greatly affected the ability of these emerging MACs to implement our ICT trials.

- 1) The original set of people from AMSDP's core groups who intended to launch MACs were mostly NGO staff and public servants, with little understanding of the requirements for launching a commercial venture. On top of this AMSDP stopped its financial support to these core group members. Thus core group members had to balance the return to their 'real' jobs with starting new commercial enterprises. Unfortunately, this resulted in a lack of time and energy for effective follow-through on setting up commercially behaving MACs. Activity in Hai, Same and Babati MACs came to a standstill. Muheza, Mufindi and Songea MACs struggle to provide services to their clients. We learned to focus on supporting truly commercially oriented entrepreneurs when starting MACs. In response a new strategy for nurturing the emergence of MACs has been developed. This strategy starts with identifying local entrepreneurs already active in trading in the district. We now support these entrepreneurs to become 'Trade Agents' for transaction security deals between big buyers and small farmer associations. Trade Agents operate individually as market spies (shushushus) and as brokers. Over time, as the volume of their business dictates, Trade Agents grow into Market Access Companies. This strategy is now being followed in six districts as follows: Mwangi, Same, Korogwe, Muheza, Mufindi and Songea. This means we now encourage some members of our 'dormant' MACs to reinvent themselves as 'Trade Agents' as well as start from scratch in Same and Mwangi.
- 2) The availability of the original set of people from AMSDP and the RKN project who provided technical support to the MACs was severely constrained. Since the districts we selected for the ICT trial were no longer supported by the AMSDP it became very difficult for AMSDP's staff to provide technical support. Also the hoped for technical support from the RKN project did not materialize. It took some time to grasp that typical consultant contracts along the regular lines of FAO result in hiring people who don't have an entrepreneurial outlook and therefore fail to support commercial viability of MACs. Indeed, the RKN project is only now identifying its 'Regional Managers'.

This meant that the expected infrastructure of operationally active MACs and technical support wasn't in place to implement the trials as originally foreseen. However, the lessons learned allowed us to redesign the ICT trials. The main new insight was that we must focus on individual "Trade Agents" who over time can graduate to fully functional MACs, and on "Regional Managers" who not only provide support to the Trade Agents and MACs but also provide transaction security services. At the national level technical support will come from the 'Regional Managers' of the newly formed national marketing company – Agriculture Business Development Company as well as the AMSDP.

The fluidity in the evolving operational strategy for the emergence of market access companies coupled with much weakened technical support required us to rethink the process of assessing our ICT trials as well. Instead of putting most of our effort into online mentoring

and conducting workshops we put our time into visiting our struggling MACs and potential Trade Agents. This assessment of the ICT trial programme is therefore based largely on trips through various districts (instead of the planned workshop) and interactions with some entrepreneurs in the ICT businesses.

### ***Trials on Technology***

#### Laptops and GPRS-modem

Connecting laptops to modems has now been proven to be the most reliable and viable internet access for TAs on the move, at least for the foreseeable future. While a good signal is required to be able to surf, which is not always available, geographical coverage is much greater than any other option for the same price. And since Trade Agents need to be on the move this is a clear favourite. Both GPRS modems and laptops are available in Tanzania, but there is scope to define and experiment with the most suitable types.

*Further tests are planned to equip Trade Agents and Regional Managers with this technology. They will operationally test this technology further.*

#### Signal coverage

The originally intended mapping of signal coverage could not yet be carried out. It appears, however, that signal coverage is concentrated along the main roads. Claims of coverage by the mobile service providers often do not bear out in the outlying rural areas where coverage is patchy and erratic. While major towns are reliably covered, this is not yet assured in the outlying local markets which are important for the rural marketing approaches being developed. However, the situation is fast changing. Within a year a lot can change.

*Signal mapping will be done by Trade Agents and MACs wherever they become active.*

#### Wired access

There is an aggressive push by TTCL for wired broadband from their towers in the rural towns. However, this seems to be more on paper, in promotional efforts, than in reality. Marketing for this connection is often poorly done by local TTCL staff, with poor and often delayed response to direct requests for a connection. There are presently also concerns about reliability, with problems not being taken care of fast enough locally. It is expected that this will improve due to competition by other providers and through more qualified connection requests. Wired broadband is shown to be the cheapest solution by far for fixed offices in towns. This becomes relevant as soon as MACs emerge that want to set up a base in a rural town.

*Testing will be on an ad hoc basis when a MAC emerges and comes up with a plan to get a wired broadband connection.*

### ***Trials on operations***

#### Internet cafes and Telecenters

Experience shows that Telecenters in rural towns in outlying districts relying mainly on internet access charges are not commercially viable at present. Even cafes that combine internet access, computer trainings and secretarial services struggle to meet their costs. At the moment there are not enough people using these services. Emails so far are being largely eclipsed by SMS and mobiles. Moreover, there is very little immediately interesting content for rural people on the internet. More e-government services would help to change this. While internet access per se is not a viable business it is still an important tool for marketing. MACs wishing to engage in selling internet access should see it not as an important income stream, but rather a way to cover the connectivity costs for their marketing business.

*No further trials need to be presently done on this issue.*

#### Buying equipment

The lack of reliable servicing remains the one major obstacle for using laptops and modems in rural areas – and of course the lack of electricity in areas outside the reach of the (often

unreliable) grid. For this reason buying equipment is only advised for Regional Managers who have regular contact with reliable and trusted servicing people, and who have the means to raise the required capital or repay the loans.

*No operational testing is required here.*

#### Rental arrangements for electronic equipment

No rental system for electronic equipment in outlying areas has been found in Tanzania. And yet, a rental arrangement presents itself as a solution for taking care of the crucial operational problems of a) high initial capital costs, b) reliable servicing and c) immediate replacements in case of problems. These problems are most pronounced for TAs in rural areas. For this reason trials for developing a viable rental service will be launched. A pilot rental service is planned that concentrates on the following package:

- 1) A laptop. A specific laptop type has been found that promises to be suitable for the rural situations: Inkmedia, <http://www.ink-media.com>. This is a solid state (ie. no movable parts) small laptop operating on Linux, with a sealed system. This means that nothing can be saved on the laptop but only on the flash drives (memory sticks) that the user needs to attach. This combination hits the three main technical problems of laptop use in rural areas: 1) No disk drives means less susceptibility to the dust that seriously reduces the lifetime of any electronic devices, 2) no disk drives also mean less cooling problems and less need for electricity, and 3) since the operating system cannot be written on no catching of viruses.
- 2) A GPRS modem. This operates on the normal scratch card vouchers for mobiles, therefore a very transparent way to pay that is well known in rural areas.
- 3) All servicing, replacements, etc. are included in the rent. This means the client is rid of the problem of finding and trusting suitable service people or sitting on equipment that has a problem. Either the client has a working laptop, or s/he doesn't pay rent. The rental company has an interest to immediately replace faulty equipment.
- 4) A printer (optional). It is expected that TAs will go to secretarial services or internetcafes if they need to print out something.
- 5) Solar power pack (optional). This will be for TAs who have problems for regularly accessing grid electricity to charge the batteries of their laptops.

FUNEA Softnet, a small company based in Dar es Salaam with experience in rural connectivity, has been identified and is planning to operate a pilot rental service for TAs<sup>1</sup>. The company is in contact with the Lao solar company Sunlabob (<http://www.sunlabob.com>) that has been successful in operating rental services for its equipment (awarded with the Worldbank Development Marketplace award and the Ashden Award), and an agreement has been reached that FUNEA will be allowed to replicate Sunlabob's business model in Tanzania. A tentative business plan for a rental service is being drafted by FUNEA, that will be verified by the pilot venture. Initial equipment to implement the rental trial will be provided free by Inkmedia as its contribution to the pilot. Financing for a fully operational rental scheme, should the trial be successful, is not in place and would have to be found.

*This pilot effort is now considered to be the key for making the internet sustainably accessible in rural areas for marketing purposes.*

#### Websites

So far no MACs have reached the point where they may want to present themselves on a website. However, this is expected to happen over the next few months, or also single TAs may want to present their services. The PLC on the other hand is in a situation where it needs to go public fairly soon. A cheap hosting arrangement with content management system has been identified by FUNEA Softnet with a company in Switzerland. The hosting of a

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<sup>1</sup> More details can be seen in the story "A Rental Service for Computers in Tanzania" by Amour Usi, in Annex A.

website will cost 100 usd per year, payable in TSH (presently hosting in Tanzania costs around 250 usd a year, and a Yahoo small business website costs around 140 usd a year). FUNEA Softnet can be approached to arrange for such hosting, and can also be contracted to train and support in website design.

*Testing of this will be concentrating on webdesign, but only after a real need for it emerges from TAs or PLC.*

### **Conclusion**

In conclusion our assessment based on the last five months experience recommends that further trials in ICT access concentrate on the following:

- 1) Test laptops of Inkmedia (and/or some other solid state laptop), together with suitable GPRS modems supported by mobile providers, for their technical and operational usefulness for the business of Trade Agents, Market Access Companies and Regional Managers.
- 2) Pilot the financial, operational and contractual arrangements for a rental service for laptop and modem, plus optional printer and solar power pack so that a business plan for a rental service can be informed by real operational data. This to be spearheaded with MACs and Regional Managers.
- 3) Map where a mobile signal reaches well enough for SMS, voice, and surfing. This to be done wherever Trade Agents and MACs become active.
- 4) Test operational usefulness of TTCL wired broadband wherever an emerging MAC builds a logistical base in a rural town and where TTCL is present.

### A Trade Agent's Eye View

By Bahati Tweve<sup>2</sup>

#### The Role of a Market Agent



*Bahati Tweve at the new market centre in Makungu*

My name is Bahati Tweve. I am from the Murumase MAC in Mafindi. My role in the MAC is as a market investigator. I search for information from different markets and link my clients who are small farmers to small businessmen through deals.

I bring to this work my experiences as a member of the AMSDP Mufindi district core group. I was the core group's 'shushushu' (market spy) and helped farmers sell well, both to the markets in Dar es Salaam and in the local market in Mafinga. I also had contract from AMSDP to train the 'shushushu' in groups in Ludewa. After my training they succeeded in finding better prices for farmers.

#### Communication Links

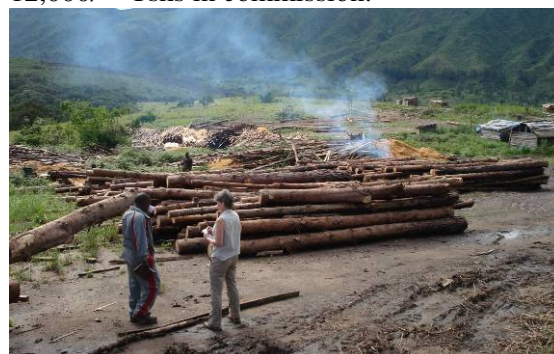
For a trade agent good communication is essential. I use the telephone and SMS but before this I identify the buyers face to face. The area that I am covering is very big, it is the whole district of Mufindi and the neighbouring districts of Njombe, Makambako, Kiroro and Iringa rural district. To get to some places there is public transport; but for others I need to use a bike, take a lift from a truck or walk. We as a MAC are still searching for good information technology to connect us to our clients. We would like to see if TradeNet, the internet and SMS trading platform, could provide us with this service.



*Ueli with Bahati on a visit to the Makambako market*

#### Organising deals in the Timber Business

Murumase MAC has made 6 deals since we have started in the timber business. We identified the circular saw mills where they cut timber into planks. Then we identified the plank buyers and they told us that they needed timber. We explained to them about our business; that for each delivery we would take 2,000/= Tshs commission, and they agreed. So we connected them to the circular saw people and we succeeded for these six deliveries and earned 12,000/= Tshs in commission.



*Bahati with Anne at a saw mill near Magunguli*

#### New Deals

We are also going to link the farmers with buyers of beans. I have already worked with fifty farmers' groups with AMSDP to identify buyers. We will now continue this work with Murumase. As we find the buyers we will get a commission from the buyers according to the tonnage they want (we charge a commission per kilo). We will collect the beans from the farmers' groups and get them to the buyers from the local and district markets and to Dar es Salaam, Dodoma and Arusha.

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<sup>2</sup> Interviewed by Anne Dennig in April 2008