Helping farmers prosper

Announcing a new model for partnership[1]

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Most people in developing countries live in rural areas and depend on farming. We will never create a better world unless we tackle poverty in the rural areas, which means improving the livelihoods of the many millions of farmers and smallholders on whom millions more depend.

Lifelong learning for farmers: a new model

The Commonwealth of Learning (COL) has created a model to do just this, called Lifelong Learning for Farmers, or L3Farmers. It starts from the premise that we must give farmers easier access to the information and knowledge that could improve their livelihoods. This is the task of agricultural extension services, which are staffed by dedicated people where they exist. Where we work in India, there is one agricultural extension worker for every 1,150 farmers. If you add in the landless labourers, each extension worker has to serve 2,500 people, which is impossible. The consequence is that the wealth of information resulting from agricultural research and development fails to travel the last mile to where it is most needed, the villages of the developing world.

How can we scale up the impact of extension services? Can technology help? In the last few years, many villages in India have been equipped with ICT kiosks as a result of governmental or commercial initiatives. Since each kiosk provides its village with Internet and telephone connections, COL wondered whether these kiosks might help to carry useful information and bridge that last mile to the individual farmer.

We began in 2002 by studying the impact of ICT kiosks in four regions of India. The results were clear. The impact of the kiosks was less than expected. The reason was simple: they had been introduced in a top-down manner without involving local communities. This criticism can also be levelled at agricultural extension systems on the old model. They convey knowledge on new agricultural technologies in a unidirectional way from the researcher to the farmer. That ignores the extensive experiential learning and traditional wisdom that farmers already have. Such communications fail to unleash the huge capacity for innovation latent in the farmers.

So a fundamental principle for the new model was to get away from top-down planning and unidirectional communication. We began in

Labourers in South Asia learning during recess-time

Commonwealth Photographic Awards

2004 in a number of villages in two regions of Tamil Nadu: Theni and Sivaganga, which have different agricultural regimes. Villages with different cultural and socio-economic backgrounds were chosen in consultation with the communities themselves.

Implementing the model

1. **Mobilising the farmers** by encouraging them to form an association and create their own vision of development for their village. This included identifying how they thought that their livelihoods might best be improved.

   The challenge then was to help them achieve that vision, acting first on their ideas about how to improve their livelihoods from farming. These might be acquiring better livestock, growing new crops, or simply improving the process of marketing their produce. Those ideas generate questions – often rather simple questions. How do I identify a good cow? How do I keep wild boars off my land when they are a protected species? How can I get my produce to market in good condition?

2. **Encouraging a sharing of information** to answer such questions. In Tamil Nadu, for example, we helped to create a consortium of the Agricultural University, the Open University, the Veterinary University, a large Engineering University and the University of Madras (for questions with a social science element). These institutions previously operated separately and sub-optimally in their relationships with farmers. Now they work together.

This is important, because local communities of farmers are not as homogeneous as unidirectional models of knowledge transfer have assumed. Each farmer has a different attitude towards risk and has different objectives in participating in the market. These attitudes change as the market evolves. Farmers also differ in their access to resources, which means that the information each needs for improving their livelihoods is different. They need a basket of options of processes, products, technologies, skills, ideas and information from which to make a choice. Furthermore, they learn to make choices through discovery, not through instruction.

3. **Setting up the ICT kiosks** to link the farmers to the consortium and support the community information space. In the villages, these are commercial ICT kiosks, which we prefer to kiosks provided by the government. Farmers are prepared to pay for useful information, such as very local weather forecasts. The commercial kiosk operator and franchisee, usually a local youth, becomes a stakeholder in the project with an interest in providing useful information that helps to make the project sustainable.

    In Tamil Nadu, the kiosks are set up by n-Logue, a company that developed with the Indian Institute of Technology, Chennai, a technology called 'Wireless in Local Loop', which links the village kiosks to the base tower at block headquarters. Each village kiosk has a Pentium computer with digital camera, uninterruptible power supply and printers. n-Logue provides an intranet portal, video-conferencing facilities and some generic content, but the local franchisee, who pays a bit less than US$20 a month for the Intranet, has to develop local content in response to demand.

4. **Getting the commercial banks involved.** The key to development without donors is using local resources. In India, the banks are under pressure from the government to increase rural lending. The Reserve Bank of India has a norm that the public sector banks should focus 18% of their credit on agriculture, but the reality falls far short of this figure because the record of rural repayment has been poor. To give an idea of the shortfall, the 2002–2007 Plan calls for an annual disbursement of US$30 billion of credit to agriculture – which the President of India thinks is far too modest – whereas the figure for actual disbursement in 2001 was only US$13 billion.

    As a consequence, the average capital formation per year is only US$45 per farmer. 55% of the capital required by farmers comes from the informal sector: local money-lenders whose interest rates vary from 36% to 3,600%. The public sector banks reach only 17% of the rural credit market: only 20 million of India's 130 million farmers and almost none of its 100 million landless agricultural labourers.

The banks do so little for the rural economy because of high transaction costs and a high proportion of non-performing assets. The L3 Farmers initiative addressed both issues through three hypotheses:

1. Blending agricultural credit with improvements in the knowledge and capability of farmers will improve productivity, return on investment and repayment of loans.

2. Improving the knowledge and capability of farmers will also enlarge the market for bank credit among small farmers and landless labourers.

3. Using ICT kiosks can help the capacity-building process in a financially viable and socially acceptable way.

The State Bank of India agreed to help us test these hypotheses and we introduced it to the village associations that the farmers had created. The bank's policy is to link credit to a contract farming system, so it puts the associations in contact with potential buyers that it has identified. Once an association and a buyer reach a trade agreement, which defines price and quality, the bank gives credit to the association and its members. The advantages of scale and a direct link to the buyers create an efficient marketing system and reduce price spread.

Facilitating the learning process

This contract farming system determines the content and timing of formal learning in the village, which focuses on how to make a success of the contract. The issues may be choosing inputs, such as how to identify a good cow; how to manage the quality of outputs so as to meet contract criteria; or how to deal with insurance, which is a new concept to most of the farmers. The learning process is simple and addresses needs defined by the farmers themselves through video-conferencing and multi-media tools. Not surprisingly, learners retain new information best when it is immediately useful. Some material is specific to the particular village profile of crop growing or animal husbandry; some deals more generically with quality management, credit management and literacy.

Learning involves groups of ten members in a peer group with a facilitator who uses learning materials available from the Internet, prepared by the community on CD-ROMs, or available from the local service provider's Intranet. Each group has a 60-minute learning programme once a week. Each village may have 250 of its members involved in such classes in the Internet kiosk and each learner has some 24 hours of formal learning over an eight-month period. The Intranet and Internet are also used to study dynamic phenomena such as market prices and the weather.

To give a concrete example, the farmers' association in one of the villages near Theni decided that improving dairy production was their best route to greater prosperity. Their key question to the information providers was, "How do I tell a good milk cow from a poor milk cow?" The specialists worked together and came up with a check list with diagrams that the women of the village, who have learned some web programming, made into an instructional sequence on the computer in the ICT kiosk.

The bank loaned money to the farmers to improve their dairy cows, some US$200,000 so far, and also brought in a dairy company from the nearby town, which agreed to buy a guaranteed quantity of milk and take it to market provided that the farmers agreed to meet certain quality standards.

Gauging the model's success

It is true that such projects tend to benefit from a halo effect in the early stages, but there are good reasons to be optimistic after only

two years, and there has been a change within these farming communities.

1. **Use of local sources:** this really is development without donors. COL has spent less than US$80,000, mostly on local consultancies. All other resources have come from routine local sources, notably the loans from the bank to the farmers. In the four villages, the bank has made loans approaching US$200,000 to 120 villagers. Loans of an equivalent value are now being processed for 100 more villagers and another 300 are preparing loan applications. One of the villages had previously been blacklisted by the banks because of a poor record of loan repayment.

2. **Involvement of women:** some 60% of the farmers involved are women and this project is particularly empowering for them. For example, buying a cow was traditionally the men's responsibility but they then handed the cows over to the women to care for. With L3 Farmers, the women now know how to select and purchase a healthy cow; the steps to be taken in insuring a cow; and how to claim insurance if the cow dies. When a woman whose cow died recovered the insured amount, her fellow villagers were amazed. Insurance was a new concept for them. Furthermore, the men are happy that women are taking over responsibility because it makes them even more committed to taking care of the cows – and they can't complain to the man if they selected a poor cow!

3. **Learning new technology:** some 500 villagers regularly attend the ICT-based learning sessions, which are compulsory if they want to stay in the programme. They are happy to participate because of the benefits. Initially, the communities were hesitant to use the Internet, but when they started to hear local voices and see familiar faces they relaxed and lost their fear of the technology.

The key to success: everybody wins

The logic of the model, and the key to its success, is that each stakeholder wins. Farmers are encouraged to organise, develop a vision of a better future and pose questions generated by that vision. Information-providers work in consortium to answer those questions. This generates a learning process designed to improve farmers' productivity. Banks are prepared to fast-track credit because of the lower risk of loan-default offered by the learning-productivity process – and lower transaction costs offered by the farmers' organisations. Learning and credit leverage greater productivity. Farmers maximise the returns on their productivity by entering into contracts with marketing organisations such as dairies and secure their returns by taking out insurance.

The greater the farmers' income and its security, the more the banks stand to gain so they help to mediate the contracts and the insurance. The farmers' learning is centred on commercial village ICT kiosks whose owners mobilise the community and facilitate the learning. The kiosk-owners' incentive derives from the income they obtain from increased kiosk usage, as well as community status. Banks are willing to fast-track kiosk owner loans. ICT companies gain from better kiosk contract performance and are willing to offer ICT enhancements to encourage further usage.

Learning content is delivered by educational and social organisations committed to serving rural communities. Farmers are motivated to participate in the learning process because it leads to tangible improvements in their lives. They are willing to pay for Internet access to more learning. Farmers give feedback to educational and social organisations helping them to make their knowledge services more relevant. Finally, the success of the model attracts other communities.

The project has kindled the innovative spirit of the neighbouring villagers, who have evolved a proposal for mobile-phone based learning process for a goat-rearing project. According to them such a learning tool would promote both vertical transfer of knowledge (from universities and research institutions to farmers) and also horizontal transfer of knowledge (from villager to villager).

Conclusion

To achieve success elsewhere, all the elements of the model must be reproduced and some areas will have difficulty with this. Technology is probably the easy part. In the many places that don't yet have ICT kiosks, other media, such as radio, and particularly community radio, and mobile telephony can be used. All this requires is for governments to grant community radio licences. Credit is probably the critical success factor. In India, arrangements for credit existed but were not working. L3Farmers has made them work. Other countries may not have credit arrangements at all. However, the strength of a model is that it does help you determine which elements need fixing in a particular situation.

We think we have made a breakthrough in bringing greater prosperity to the rural economy and we are excited and encouraged by the results in India. Have we finally found a model that can contribute to the long-awaited transformation of the rural economy in the developing world?

Endnote

1 Adapted from a paper given at the 22nd Commonwealth Agricultural Conference, Calgary, Alberta, Canada, 14 July 2006.

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As Education Specialist, Food Security and Environment, he is responsible for developing activities where distance education and open learning applications could be promoted and encouraged in the agricultural, animal, fisheries and forestry sectors, including all ongoing work. In collaboration with some developing countries and Consultative Group on International Agricultural Research (CGIAR) centres, he is currently working on non-formal education projects involving training, research and extension.