The key to this development is to apply technology in rural areas, so that farmers can improve their livelihoods. Creating a better world means improving the livelihoods of the many millions of farmers and smallholders on whom millions more people depend.

COL has created a model called *Lifelong Learning for Farmers* (L3Farmers). It aims to give farmers easier access to the information and knowledge that could improve their livelihoods. Agricultural extension services, which are staffed by dedicated people where they exist, are meant to do this, but they are too few to address the challenge. In the region where we work in India there is one agricultural extension worker for every 1,150 farmers. If you include landless labourers, each extension worker has to serve 2,500 people – which is impossible! The wealth of information from agricultural research fails to reach where it is most needed: the villages of the developing world.

**Using ICT**

What can be done? Can technology help? Many villages in India have been equipped with information and communication technology (ICT) kiosks through governmental or commercial initiatives in recent years. Each kiosk provides its village with internet and telephone connections, so COL wondered whether these kiosks might help to carry valuable information that last mile to the individual farmer.

The project began in 2002 by COL studying the impact of ICT kiosks in four regions of India. This impact was disappointing for the simple reason that the kiosks had been introduced ‘top-down’ without involving local communities. Agricultural extension systems on the old model had the same weakness because they conveyed knowledge on new agricultural techniques in a one-way manner from the researcher to the farmer. They ignored the extensive experiential learning and traditional wisdom of the farmers.

**Lifelong Learning for Farmers – step by step**

A fundamental principle for COL’s new model was to avoid top-down planning and unidirectional communication. We began in 2004 in various villages in two regions of Tamil Nadu, India, Theni and Sivaganga, with different agricultural regimes. These villages, with different cultural and socio-economic backgrounds, were chosen in consultation with the communities themselves.

Step one was to mobilise the farmers by encouraging them to form an association and create their own vision of development for their village, in particular how they thought that their livelihoods might best be improved.

Step two 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 aims...
generate questions – often rather simple questions. How do I choose 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?

Step three is to get those who have this information to work together to answer such questions. In Tamil Nadu we created a consortium of the Agricultural University, the Open University, the Veterinary University, a large Engineering University and the University of Madras. These institutions used to operate separately (and somewhat ineffectively) in their relationships with farmers. Now they work together to provide answers.

Working together is vital, because communities of farmers are not homogeneous. Each farmer has a different attitude towards risk and different objectives in participating in the market. Moreover, these attitudes change as the market evolves. Farmers also differ in their access to resources, so each needs different information for improving their livelihood. They need to choose from a basket of options of processes, products, technologies, skills, ideas and information.

Furthermore, they learn to make such choices through discovery, not instruction. Learning is a participatory process that needs a community information space in which both individuals and groups can learn.

The ICT kiosks link the farmers to the consortium and support this community information space. Farmers are quite 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 process with an interest in providing useful information and making the project sustainable.

In Tamil Nadu the kiosks are set up by n-Logue. With the Indian Institute of Technology – Chennai, this company developed and implemented the wireless in the local loop technology, linking the village kiosks to the base tower at block headquarters. Each kiosk has a Pentium computer with digital camera, uninterruptible power supply and printers. n-Logue provides a portal for a local ‘intranet’ network, video conferencing facilities and some generic content, but the local franchisee, who pays a bit less than US$20 a month for the intranet, must develop local content in response to demand.

The role of the banks

The fourth and crucial step is involving the commercial banks. Development without donors means using local resources. In India the banks are under government pressure to increase rural lending. The norm of the Reserve Bank of India is that public sector banks should focus 18 per cent of their credit on agriculture, but reality falls far short of this figure because of the poor record of rural repayment. To give an idea of the gap, India’s 2002-07 Plan calls for an annual disbursement of US$30 billion of credit to agriculture – which the President of India thinks is far too modest anyway – whereas the actual figure for disbursement in 2001 was only US$13 billion.

As a result the average capital formation per year is only US$45 per farmer. 55 per cent of the capital obtained by farmers comes from the informal sector: local moneylenders whose interest rates vary from 36 per cent to 3,600 per cent. The public sector banks reach only 17 per cent 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 challenges for the banks in the rural economy are high transaction costs and too many non-performing assets. The L3Farmers initiative tackled 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 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 COL test these hypotheses and we introduced the concept to the village associations of farmers. The Bank’s system links credit to a contract farming system, putting the associations in contact with potential buyers. 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.

The public sector banks reach only 17 per cent of the rural credit market: only 20 million of India’s 130 million farmers.

This contract farming system drives the content and timing of formal learning in the village, which focuses on making a success of the contract. The issues may be choosing inputs, for instance how to choose a good milk cow; how to ensure output quality to meet contract criteria; or related topics such as insurance – a new concept to most of the farmers. A simple learning process addresses needs articulated by the farmers through video-conferencing and multimedia tools.

Some 60 per cent of the farmers involved are women, and this project is particularly empowering for them.

Learning involves groups of 10 members 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 weekly.

The Commonwealth Finance Ministers Meeting 2006

Elements of the L3Farmers model

The L3Farmers model has six elements. First and last there are the farmers themselves. Getting the farmers, especially women, to organise themselves and letting their vision drive the project is the most fundamental innovation in L3Farmers. Second, there are the information providers, working as a consortium to answer the farmers’ questions rather than pushing information at them separately. Third, there the ICT kiosks in local ownership that facilitate the information exchange and provide a focal point in the village. They are backed up by ICT companies. Fourth, there are the banks, whose fundamental business of making loans is facilitated and enhanced. Fifth, the banks involve other businesses to market the produce. Sixth, there is an organisation that provides the initial spark for the process such as the Commonwealth of Learning.

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 are the key to 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.
A village may have 250 people involved in such classes in the internet kiosk, with each learner having some 24 hours of formal learning over an eight-month period. They also use the intranet and internet to study dynamic phenomena such as market prices and the weather.

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

The logic of the model, and the key to its success, is that each stakeholder wins.

The bank loaned money to the farmers to buy better dairy cows, some US$200,000 so far, and also brought in a dairy company from the nearby town that agreed to buy and market a guaranteed quantity of milk provided that the farmers met the appropriate quality standards.

**Development is learning – learning is development**

The project only started in these villages in the spring of 2005, but what has been achieved so far?

First, 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.

Note that some 60 per cent 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 L3Farmers the women now know how to select and purchase a healthy cow; how to insure 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.

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 they see 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.

Evaluating the initiative, Dr Patrick Spaven writes: “Meetings with farmers in four of the villages produced a wave of personal accounts of benefit, ranging from improvements in milk yields, to attitude change such as a determination to plan for, rather than be resigned to, the future. Some women in particular appear to be experiencing transformational change in their lives.

“Driving all this is the confidence and empowerment that the learning process, the expanding access to information through ICT, and the prospect of financial independence are generating.

“Self-replication is beginning. Three neighbouring villages have formed associations for implementing the model in their villages....”

This is a model that can make a vital contribution to the long-awaited transformation of the rural economy in the developing world. The logic of the model, and the key to its success, is that each stakeholder wins. And the poor farmers of the world have nothing to lose but their debts and dependency!

Sir John Daniel is president and CEO of the Commonwealth of Learning, an agency created by Commonwealth heads of government to help developing countries expand access to learning through the use of technology. After 17 years as a university president in Canada (Laurentian University) and the United Kingdom (the Open University), he was Assistant Director-general for Education at UNESCO from 2001 to 2004.

Dr Krishna Alluri is Education Specialist, Food Security and Environment, the Commonwealth of Learning, with over 20 years’ experience in the field in sub-Saharan Africa.

The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to encourage the development and sharing of open learning/distance education knowledge, resources and technologies. COL’s goals include maximising the transfer of information, ideas, innovations and resources to support this rapid evolution of distance education. Commonwealth governments financially support COL on a voluntary basis. Major contributors have included the UK, British Columbia, Brunei, Canada, India, New Zealand, Nigeria and South Africa.

Commonwealth of Learning
1055 West Hastings Street
Suite 1200,Vancouver
BC V6E 2E9
Canada

Tel: +1 604 775 8200
Fax: +1 604 775 8210
E-mail: info@col.org
Web site: www.col.org

Published in the 2006 Commonwealth Finance Ministers Reference Book by Henley Media Group on behalf of the Commonwealth Secretariat. For more details please see www.henleymediagroup.com

Sri Lanka, 12-14 September 2006