

rural livelihoods

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Understanding rural telephone use

Mobile telephone networks in most low income countries have expanded enormously. Many people, even in poor communities, now regularly make calls. But what difference do telephones make to people's lives? Are they important for development?

A research project funded by the UK Department for International Development examined rural people's attitudes towards phones in India, Mozambique and Tanzania. Most people interviewed value telephones primarily for dealing with emergencies and keeping in touch with their families. They do not generally use phones for business activities, although a small proportion does value them highly for this purpose. Phones are valued more for saving money than for earning it. Very few people find them useful for gathering information.

Phones are displacing letters as a means of exchanging social information, particularly to maintain contact with scattered family members. Keeping in touch by phone is particularly valued in Mozambique and Tanzania, where many rural people have migrated to cities or abroad. One third of the study's respondents in these two countries receive remittances from absent family members and some use telephones to help arrange them.

People surveyed in Mozambique and Tanzania prefer face-to-face communication for obtaining information specific to their needs. Over half the people interviewed get their information from face-to-face contact with teachers, extension workers, customers and business partners for farming, business, education and government matters.

Researchers also found that:

- Phone ownership is growing rapidly and a high proportion of people who do not own a phone aspire to do so in the near future.
- There is a distinct group of 'high intensity users' – those who own their own phone rather than go to kiosks or neighbours and use it more than once a day: they tend to belong to the wealthiest and best educated social level.
- Radio in African countries and television in India are still by far the most widely used information and communication technologies (ICTs) and are the principal sources of general

information such as news and the weather. People attach high value to broadcasting and, in the research countries at least, have confidence in mass media.

Communication flows are much slower to change than communication technologies. Policymakers should realise that universal access has substantial social value, irrespective of the revenue telecommunications operators derive from it. This value is distinct from the use of telephones as tools for business development and income generation.

Policymakers should also acknowledge:

- the extent to which people value face-to-face communication and broadcasting
- that the Internet, even when available, has not become part of the daily lives of the vast majority of rural people:

barriers to use include cost, skill requirements and lack of valued content

- poor people are willing and able to spend a higher proportion of their income on telephony than richer people
- 'development' is not just about improving incomes, but boosting people's capacity to deal with crises and maintaining social ties: this is the key value of phone access for rural people
- the risk that ICTs could contribute to the growth of inequality.

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The economic impact of telecommunications on rural livelihoods and poverty reduction: a study of rural communities in India (Gujarat), Mozambique and Tanzania, Full report, Commonwealth Telecommunications Organisation, by David Souter, et al., October 2005
www.cto.int/downloads_programmes/kar8347.pdf

Most people value telephones primarily for dealing with emergencies and keeping in touch with their families



Overcoming the rural-urban divide in China and India

In the past many developing country governments encouraged development policies that favoured the urban sector at the expense of rural areas. Correcting these distortions should allow resources to move more freely and reduce both rural and urban poverty.

Research by the International Food Policy Research Institute examines rural and urban dynamics of poverty based on evidence from China and India. The researchers argue that redressing biased policies is crucial to strengthening and encouraging greater cooperation between the two sectors. The study also analyses and compares the wider impact of growth in rural and urban areas.

In both China and India, most of the population still lives in the countryside where poverty rates are significantly higher than in cities. In the early 1950s both countries implemented heavy industrialisation policies in favour of urban areas. Various interventions included state pricing and purchasing of agricultural products, money transfers and investment, and restrictions of labour movement.

It was not until the 1970s to the early 1990s that the governments of China and India began reforms leading to some correction of the bias. In China the government raised agricultural prices, abolished the procurement system and lifted restrictions on labour movements. In India the terms of trade for agriculture improved significantly. Subsequently, agricultural growth accelerated and rural poverty declined. Despite these reforms, several distortions remain.

Analysing economic data for both countries the authors highlight the following policy issues:

In China, agricultural growth has contributed to poverty reduction in both rural and urban areas, whereas urban growth solely benefited the cities.

- Investment in rural infrastructure, agricultural research and education yields larger economic returns compared with urban areas.
- In China, agricultural growth has contributed to poverty reduction in both rural and urban areas, whereas urban growth solely benefited the cities.
- Cost-benefit analysis shows a return on investment that is about four times higher for rural roads than for urban roads.
- Remittances sent home partially or fully compensate for the loss of rural labour due to migration.
- Good transportation and communication greatly improves rural-urban linkages as it improves access to markets, employment and services.

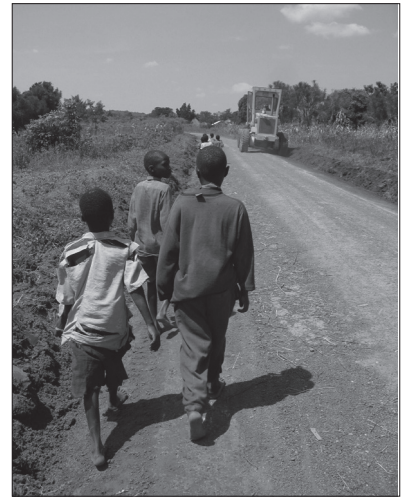
The authors argue that policies which increase growth in agriculture and promote rural-urban linkages have a greater potential to reduce overall poverty. Recommendations for governments include:

- Invest in more rural areas, particularly in areas such as education, infrastructure and agricultural research.
- Reduce restrictions on rural-urban migration to make mobility of productive factors, including labour, easier.
- Develop the rural non-farm sector to provide poor rural households opportunities to diversify their sources of income.
- Develop small rural towns that ease the pressure on bigger cities, while contributing to the growth of the national economy.

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Rural and Urban Dynamics and Poverty: Evidence from China and India, International Food Policy Research Institute: Discussion Paper 23, by Shenggen Fan, Connie Chan-Kang, and Anit Mukherjee, August 2005
www.ifpri.org/divs/fcnd/dp/papers/fcndp196.pdf



Youths in the village of Funyula, Kenya follow a tractor as it opens up a road that will join Ugandan roads and link to busy urban areas. The primary mode of transport in this region is by bicycle.
Credit: © 2005 Felix Masi/Saharapics, Courtesy of Photoshare

case study

Improving rural road networks

Decisions about rural road building have mainly been on made economic grounds. Planners and donors are now keen to include measurements of the potential social benefits new and improved roads can make to rural poor people.

A report by the Transport Research Laboratory, IT Transport and the University of Birmingham examines the social costs and benefits of rural road improvements in Vietnam, Ethiopia and Zambia. Researchers asked whether more and better roads in rural areas improve access to social services, economic opportunities and social networks.

The geographical and economic context of a country or region affects the social impact of new and improved rural roads. Specifically, social costs and benefits depend on:

- **Terrain** – few people in rural areas have motorised transport, so even where roads are present, walking or cycling in very hilly or muddy areas is difficult.
- **Wealth** – public transport or private vehicles require investment and spending by individuals. Therefore, where incomes are low, mobility is often correspondingly low, regardless of whether a road exists.
- **Location of services** – Roads might mean people travel less often than before. This happens because roads can bring services like markets, schools and health centres to the area, making travel less necessary.

If an economy is doing well, people can afford to spend money on travel, allowing them to take advantage of roads for economic benefit and access services. In depressed economies, people cannot afford to use new roads and the government cannot afford to extend services to newly connected villages. When planning rural road investment, policymakers need to consider these broad and interdependent factors at work:

- **Rural roads improve access to social services both by making it easier to get to them and because services are simpler to set up in well-connected villages.**
- **In Vietnam people living near roads travel more because they can afford to, while in Ethiopia people travel less because services come to them.**
- **Economic opportunities also improve with rural roads. However, in an economically depressed country like Zambia, people cannot afford to use the roads to access services or to earn money, so roads have less beneficial impact.**
- **In Zambia and Ethiopia, mobility has to increase for poor people to reap the potential social and economic benefits of roads. Governments of such countries should encourage greater use of bicycles and pack animals by assisting with savings and training schemes.**

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Framework for the inclusion of social benefits in transport planning: final report, Unpublished report by the Transport Research Laboratory for DFID, by DF Bryceson, AFC Davis, F Ahmed and T Bradbury, May 2004
www.transport-links.org/transport_links/filearea/documentstore/322_Final%20Report%2023.3.05.PDF

Tapping into the Mekong region's rural water market

A growing number of small businesses are supplying water to villagers throughout Vietnam and Cambodia. Money has been raised from users and investors but, to encourage further expansion, the governments must address key policy issues, including creating appropriate regulation and subsidies and educating people about the link between clean water and good health.

The World Bank's Water and Sanitation Programme for East Asia and the Pacific studied three cases where small providers use different operating models to supply water to villagers. In Cambodia, lack of regulation has allowed thousands of small-scale informal suppliers to operate. In southern Vietnam small non-profit and for-profit water companies serve about 65 percent of the population, while in central Vietnam businesses are selling users technology to enable them to access their own water. In some cases customers were using more than one provider to ensure a reliable supply.

The private sector has supplied water in Cambodia and Vietnam for many years, but has grown rapidly in the past decade due to an environment that increasingly favours investment. Small-scale private providers fall into two categories: those that sell water directly to consumers and those that provide equipment and knowledge to consumers so that they can access water on their own.

Enterprises are able to obtain funds from both investors and users, and are usually more responsive than the public sector to customers' needs, cutting both waiting

times for new connections and response times for leaks and repairs. The case studies suggest that there are a number of factors important to success:

- Government support for the private sector is critical.
- Government regulation has to protect investments while ensuring that enterprises service, rather than avoid, poor people.
- Pricing controls need to be as decentralised as possible to attract investors, especially in more challenging markets.
- Access to long-term credit is critical for the creation and sustainability of private enterprises.
- Private enterprise needs support in developing the skills to meet standards for water quality.
- Governments need to be open to exploring different operating models and to funding social marketing and health promotion.

The private sector, whether small

In southern Vietnam small non-profit and for-profit water companies serve about 65 percent of the population

businesses, cooperatives or user groups, are ready and able to build on their success and expand rural water supply in the Mekong Region even further. To build a pro-private sector environment, governments (and donors) will need to take the following actions:

- support rather than constrain the private sector, and avoid subsidies that undermine businesses
- educate people to develop their demand for clean water, which will boost demand generally and increase willingness-to-pay for quality
- promote water for productive activities such as irrigation and animal husbandry, as this water is seen as an investment, rather than an expense
- understand the consequences of regulation – positive and negative – to develop an encouraging investment environment and ensure that poor people are supplied
- improve existing technical knowledge to develop sources and treat water, supplemented with management skills.

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Tapping the market: Private sector engagement in rural water supply in the Mekong Region, WSP-East Asia and the Pacific Field Note, Dan Satter, January 2004
www.wsp.org/publications/eap_Mekong.pdf

Maintaining crop genetic diversity through farmer networks

Good seed supplies are the basis for successful agriculture. For farmers in poor and remote rural areas, diverse seed stocks are an important resource. Seed diversity makes it possible to breed plants with a range of useful characteristics. Farmer networks play an important role in protecting on-farm crop genetic resources.

Crop genetic diversity is very important for small-scale farmers. It allows them to adapt crop varieties to different ecological settings. Diversity also enables seed systems to withstand pressures, for example from pests and diseases. Understanding how farmers maintain genetic diversity on farms is a significant task.

Farmers' social relations and networks are vital for maintaining crop genetic diversity. They are an opportunity for farmers to share good seeds and maintain access to a stock of wide diversity. Research by the Centre for Maize and Wheat Improvement in Mexico investigates patterns of seed exchange

among communities of traditional maize farmers in southern Mexico. The research identifies several important features in the conservation of genetic diversity:

- Farmers' seed systems contribute to the preservation of traditional varieties, along with the careful experimentation with and adaptation of new varieties.
- The quality of seed and the characteristics of the plants that may grow from it are difficult to assess. Thus, farmers depend on the information offered by seed providers – this makes trust a key element in seed transactions.
- Farmers' use of social relations for seed is more complex and flexible than the researchers predicted.
- Farmers save seed for a number of reasons, including more faith in their own seeds than commercial seeds or other farmers' seeds.
- Farmers also feel secure if they have saved seeds for the following year. Furthermore, local value systems identify saving seeds as a characteristic of a 'good farmer'.
- There was no evidence of a specialised social organisation based on collective action to mediate seed flows. Seed transactions are not part of an organised system of long-term obligations between buyer and seller.

Policymakers need to support seed systems, particularly where a commercial seed sector

has not developed. They could address several issues, including:

- Identifying appropriate opportunities for introducing low-cost, low-risk access to new and interesting seeds varieties.
- Recognising that programmes supporting large-scale collective sharing networks, such as 'community seed banks', are not always appropriate.
- A 'one size fits all' approach to seed development is not appropriate in most places – it would be better to strengthen existing relationships between farmers, particularly where farmers prioritise diversity in seed resources, rather than single varieties that offer increased yields under particular conditions.

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Collective Action for the Conservation of On-Farm Genetic Diversity in a Centre of Crop Diversity: an assessment of the role of traditional farmers' networks, CGIAR Systemwide Program on Collective Action and Property Rights (CAPRI) Working Paper No. 38, by Lone B. Badstue, Mauricio R. Bellon, Julien Berthaud, Alejandro Ramirez, Dagoberto Flores, Xochitl Juarez and Fabiola Ramirez, May 2005
www.capri.cgiar.org/pubs.asp#wp

Cutting household smoke to improve quality of life

More than two billion people cook using solid fuels: twigs, agricultural residue, dung, coal and so on. Over 1.6 million people die as a direct result of indoor air pollution every year. Raising awareness about the dangers of indoor smoke and encouraging people to take action to alleviate it could save many lives.

Practical Action (formerly the Intermediate Technology Development Group) has developed a framework to strengthen people living in poverty to work together to address these problems. This approach, using a model which is both sustainable and commercially-oriented, ensures that people participate at all levels of decision-making, leading to a sense of ownership both of the problem and potential solutions. Women in particular are supported through this approach.

The project worked with communities in Kenya, Sudan and Nepal to identify, install and monitor sustainable interventions to alleviate smoke. Working with local partners ensured informed and sensitive handling of social and cultural issues. The project also tested a participatory framework, both to see if it could be applied in very different

situations and to try to develop research that led to sustainable infrastructure, instead of just to the simplistic counting of new stoves.

Monitoring has been an important part of the work, ensuring that all the options being promoted are really having a positive effect. The various communities chose quite different solutions to their problems, adapting them to their particular needs and commercial realities. Interventions common to Kenya and Nepal included fuel drying, reducing personal exposure and using more fuel-efficient stoves.

The research highlighted the following outcomes:

- Interventions significantly reduced indoor air pollution, but actual levels varied by country and technology.
- There is evidence of better health, improved comfort and cleanliness and time saved in participating households.
- Kenyan beneficiaries adopted a wide range of technical options, including very low cost 'fireless cookers', intermediate cost windows and eaves spaces to improve ventilation and light for chores, and more costly and metal smoke hoods.
- In Nepal, space heating is needed, so participants were interested in insulation, in addition to improved stoves and smoke hoods.
- In Sudan, liquid petroleum gas (LPG) stoves were universally adopted in the project areas, with nearly 1,000 households adopting this cleaner fuel without subsidy within the project period

and an infrastructure for commercial distributions through women's groups that was set up.

The project is now expanding the successful interventions commercially and developing other popular solutions further. In order to ensure the projects are expanded, the following considerations are important:

- While smoke reduction was a key factor for the project team, important factors for people who benefited were increased prestige and confidence and time and cost savings.
- Partnerships and collaboration have been vital to the project, and will be even more valuable during the scaling-up phase.
- Findings should be disseminated through many different means at local, national and international levels.
- Developing cost-effectiveness, supply chains, skills, revolving funds and so forth, is important, as well as monitoring growth in infrastructure and sales, alongside improvements in health.

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Smoke, health and household energy. Volume 1: Participatory methods for design, installation, monitoring and assessment of smoke alleviation technologies, Practical Action, compiled and edited by Liz Bates, May 2005
www.itdg.org/docs/smoke/Smoke_Health_and_Household_Energy.pdf

useful websites

Livelihoods Connect
www.livelihoods.org

Food and Agriculture Organization, Sustainable Development Department
www.fao.org/sd

International Institute for Sustainable Development
www.iisd.org

Technology for sustainable livelihoods
www.livelihoodtechnology.org

International Food Policy Research Institute
www.ifpri.org

Chronic Poverty Research Centre
www.chronicpoverty.org

Livelihoods and Poverty research group
www.bradford.ac.uk/acad/bcid/research/livelihoods_and_poverty

Practical Action
www.practicalaction.org

International Institute for Environment and Development (IIED) Rural-Urban Linkages
www.iied.org/HS/themes/ru.html

World Bank Rural Poverty and Development
www.worldbank.org/wbi/sdruralpoverty/infrastructure/resources.html

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