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About Briefs

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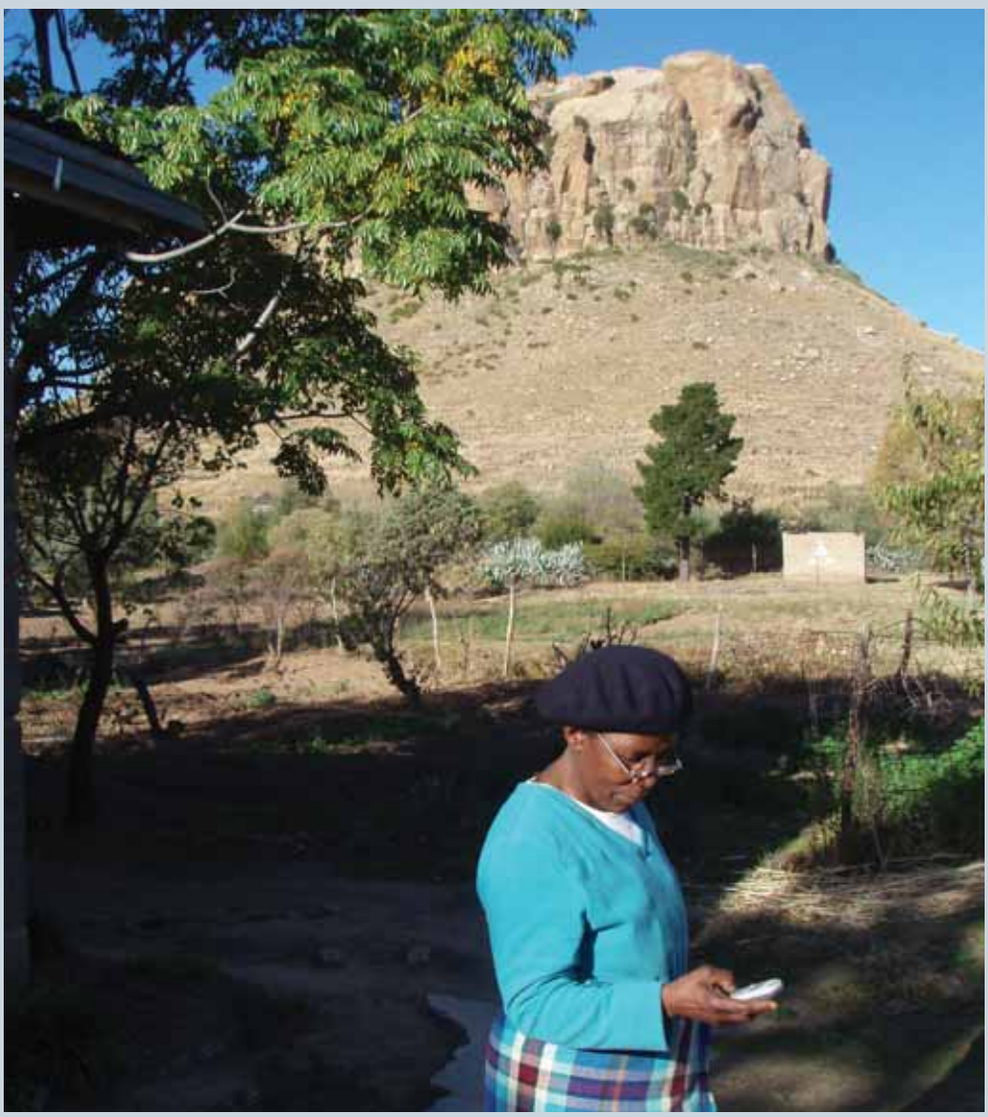
Abstract

As part of its remit to build evidence on innovative approaches to develop better, more dynamic ways of tackling both acute hunger and chronic, predictable vulnerability, the Regional Hunger and Vulnerability Programme undertook a pilot project to see how vulnerable people benefit from cellphones. Ten cellphones were provided to women's farming cooperatives in Lesotho in August 2006 – to people with similar profiles to the beneficiaries of cash transfer schemes. The results show that, contrary to the arguments against using cellphones to deliver cash transfers, even illiterate vulnerable people are able to actively embrace the technology, and their vulnerability is not increased by providing them with a valuable asset. These women's cooperative groups have greatly benefited from improved communications, both in terms of their farming activities and the reduced time and cost of staying in touch with each other. Furthermore, through selling airtime by SMS they have used them as effective income-generating tools.

"Ever Upwardly Mobile": How do cellphones benefit vulnerable people?

Lessons from farming cooperatives in Lesotho.



In April 2006, the Regional Hunger and Vulnerability Programme published a brief called "Upwardly Mobile: Delivering Social Protection by Cellphone". As part of its remit to build evidence on innovative approaches to develop better, more dynamic ways of tackling both acute hunger and chronic, predictable vulnerability, this brief outlined an idea for building on the

growing penetration of mobile telephony within Africa: providing cellphones to beneficiary households with a monthly top-up so that they could sell or trade network services (such as phone calls and text messages) to generate income.

Predictable transfers of cash to vulnerable groups as a form of social protection are raising increasing interest amongst donors, NGOs and national governments in southern Africa, with a number of pilot projects and national programmes having been implemented (for more information see www.wahenga.net). Providing recipients with regular and predictable transfers of cash gives them the flexibility to plan their expenditure to meet immediate basic consumption needs as well as providing the opportunity for investment in productive activities. There is now a growing body of evidence to show that cash transfers are effective in ameliorating vulnerability and chronic poverty, and have wider positive impacts within recipient households and communities (for more information on impacts, see http://www.wahenga.net/uploads/documents/focus/The_Impact_Cash_Transfers.pdf).

Whilst there is growing evidence supporting the use of cash, ensuring effective delivery to recipients in often remote and inaccessible areas can be problematic. Cash transfers have typically been delivered through government departments and NGOs, often in conjunction with payment outlets such as post offices. But there are disadvantages of this mechanism for both the funders and the beneficiaries. Physical delivery of cash is expensive as the liquidity of the resource means it can easily be siphoned off when it passes through many hands on the way from funder to beneficiary. In addition to fraud and corruption is the risk of cash-in-transit heists. This can result in delivery costs representing a disproportionately high percentage of programme budgets. Identifying more effective delivery mechanisms is thus an important policy need.

Information and communication technologies offer new opportunities for delivering cash transfers. A variety of these innovative delivery mechanisms have been proposed and piloted to increase the effectiveness of such programmes in southern Africa. The costs and benefits depend upon specific local conditions such as rural infrastructure, the dispersion of recipients, the technological capabilities of recipients, and installation and operating costs. These technologies are aimed at reducing the risk to implementing agencies when transporting and distributing cash transfers, ensuring efficient distribution to recipients, and reducing the management load on donors and implementers. Relevant technologies include smart cards, mobile ATMs, GPS devices and biometrics.

Cellphones also offer a useful mechanism for delivering cash transfers. A number of highly-publicised schemes have recently begun which allow users to send money by cellphone. The M-PESA scheme in Kenya, for example, run by Vodafone (in conjunction with local operator Safaricom) registered 111,000 users within the first three months, and transferred nearly $6million, with an average transaction value of $45. Zain (formerly Celtel) is about to launch a similar money-sending service across the twelve countries it covers in Africa[1]. Cellphones have not yet been trialed as a delivery mechanism for cash transfers, but they clearly have potential. However, doubts are regularly expressed over the ability of vulnerable, often illiterate groups to handle the technology and the risk of increasing their vulnerability through providing them with a valuable asset. In order to try and address some of these concerns, RHVP undertook a small pilot project in Lesotho involving people with similar profiles to typical cash transfer beneficiaries.

Pilot project in Lesotho

In 2006 ten cellphones were distributed amongst three cooperative women's farming groups in different agro-ecological zones in Lesotho: four went to a chicken farming group in the lowlands area of Maliele (St Michael's), one went to a pig farming group in Nyakosoba (in the foothills); and five went to a seed potato and vegetable farming group in Semonkong (the highlands).

1 Burkina Faso, Chad, Congo, Democratic Republic of Congo, Gabon, Ghana, Kenya, Madagascar, Malawi, Niger, Nigeria, Sierra Leone

The cellphones were Siemens handsets and training was provided by the Maseru-based provider (Vodacom Lesotho). Recognising the lack of exposure to mobile telephony amongst the target users, joint monitoring committees comprising a teacher in the community and a young student, together with the members of each farming group, were established. As it is beyond the scope of RHVP to provide a regular cash transfer, each handset was preloaded with ZAR500 (approx $50) of airtime, with the intention that the recipients would use ZAR100 (approx $10) of this for group communication, and then sell the remaining ZAR400 (approx $40 as airtime or SMS) to other community members, such that the enterprise becomes self-sustaining. A follow-up evaluation was conducted in January 2009 in order to look at the opportunities and challenges that arose out of this small pilot project.

The follow-up evaluation highlighted many benefits offered by the provision of cellphones to the three cooperatives. The most overwhelming advantage relates to how an increase in communication led to a drop in travel times experienced by the women in the farming groups. Lesotho is a mountainous country and outside of the capital, Maseru, transport infrastructure can be poor, meaning that disproportionately long times are often spent travelling short distances. Even within the cooperative, internal communications were arduous. Often letters detailing monthly meetings had to be personally delivered: in the lowlands cooperative, for instance, the distance between groups can be up to 200km which meant a 16 hour round trip by taxi costing ZAR130 (approx $13) and necessitating an overnight stay.

As well as being more economical through reducing transport costs, the availability of cellphones has also improved the productivity and marketing successes of the cooperative groups. In the highland location of Semonkong, for example, women would typically have to make a long and difficult journey to the Bishop Allard Vocational School where impromptu meetings were held concerning the marketing of produce. After cellphones had been distributed, it was possible for the women to call ahead to the market and obtain pricing information, and then to communicate with each other, removing the need for physical travel. In one case, those in Nyakosoba had a surplus of beans, and were able to successfully market them through having access to cellphones. The different groups have also been able to make better use of product exchange, building on their geographical advantages: such that in the last year those in the lowlands could swap maize for wheat from the highlands.

General improved connectivity has also helped the cooperative groups to increase their social capital in terms of access to networks and expertise. They are now in close communication with the Lesotho Ministry of Agriculture, and have also become a member of the Participatory Ecological Land Use Management (PELUM) network. Through these connections they hear about agricultural shows and exhibitions which they can enter; and cellphones allow them to coordinate to best represent themselves – they have recently won many trophies for produce because of this. The weekend after the evaluation the dairy farming group (in the lowlands) were planning to visit a Jersey cow farmer in Ladybrand, South Africa, with a view to buying breeding stock – this is an opportunity that they would have been unlikely to hear about or organise beforehand.

As well as the advantages that come from improved communications, an unexpected bonus is that the cooperatives have been very successful in using the cellphones as income-generating tools. Since Vodacom Lesotho enabled the network facility to transfer airtime from one cellphone to another, the cooperative members purchase airtime at a discount and then sell it on at the retail price to other members of their community, thus making a small profit on every sale. As soon as the cooperative in the lowlands had made ZAR1000 (approx $100), they purchased four more cellphones and distributed them amongst their groups: there are seven groups in the lowlands cooperative and their ultimate aim is for each group to have five cellphones. With the next round of profits the lowlands cooperative purchased two

piglets which they fattened up and slaughtered, thus further generating income through the sale of the meat. This money was invested in a stokvel (savings wheel) for the farming groups, the profits of which enabled a further group to be formed. The lowlands cooperative's next plan is to buy a breeding pair of Duroc pigs which they will hire out to local pig farmers for a small fee and in that way generate further income for the cooperative. With income generated both from airtime sales, and then indirectly through further income-generation activities, they have also raised money for training: four students attended a Ministry of Trade and Industry, Marketing and Cooperatives conference held in Maseru.

One of the Semonkong groups reported similar success with income-generation through their cellphone. Due to its highland location, Semonkong is a popular tourist destination. When the group had made ZAR1000 (approx $100) in profit they loaned this to a community member who was setting up a guesthouse, to enable her to purchase linen. She will pay this money back to the group with 5% interest. It is intended that further profits will also be invested in tourist-related small businesses.

In addition to communication and income-generation advantages, the availability of cellphones has had some other important, and perhaps unanticipated, benefits for the farming groups. The headteacher at the Bishop Allard Vocational School, where the groups from the lowlands and foothills meet, explained how farmers now have much more confidence, both personally and in their farming ability – "cellphones have enlightened us". In Semonkong, which is much more remote and has high illiteracy, the chieftainess reported that members of her community have learned basic English and mathematical literacy through using the phones – they know how to do sums (to work out how much airtime they have used), and understand the instructions on the phone. This completely dispels the oft-cited argument that illiterate rural people will be unable to embrace cellphones.

The provision of a valuable commodity to vulnerable groups has raised concerns that it would inadvertently increase the vulnerability of the recipients. Although there had been no incidents of cellphone theft amongst the recipients, the women were all familiar with incidences of cellphone theft within their social circles, with one lady explaining how her daughter's phone had been stolen at a party attended only by family and friends. Electricity availability for battery charging was problematic, particularly for the highlands groups, where mainline electricity is only available in Semonkong town. Farmers in this community have to travel 20km to get here – but tend to send their phones for recharging (at a nominal cost) with anyone who is going to town. However, solar chargers are now very inexpensive (available for US$30), and would be an ideal solution to this problem for each community as well as providing a further income-generating opportunity for small businesses.

Going forward

Each of the groups has future plans which will be enabled by their newfound communications capability. The cost of calling from cellphones is relatively expensive, and so each community would like a community phone, which is provided by the network provider but has cheaper call costs that are comparable to a landline, as opposed to a cellphone. The Bishop Allard Vocational School is already active in training and is planning to capitalise on newfound access to communications by acting as a "clearing house" of information and ensuring that it is disseminated on a regular (weekly) basis through a radio programme. Now that the network has been upgraded to be 3G compatible, the logical next step would be to provide laptops to each group to enable them to expand the quantity of information that they can transmit, using e-mail. By recording training, this would also enable a greater number of people to benefit from the technical assistance that Bishop Allard Vocational School can provide: even to illiterate people.

Implications for using cellphones as a delivery system for cash transfers

This pilot project was very small scale but the benefits of improved communications are clear: better integration and access to opportunities. These cooperative members have actively embraced the income-generating aspects, such that the number of cellphones has substantially increased, and they have seized the follow-on opportunities that result.

The pilot project contains important lessons to learn for the potential use of cellphones in delivering cash transfers. These farming groups have a similar profile to the beneficiaries targeted by typical cash transfer schemes, and they have shown remarkably fast adoption of technological skills, and little evidence of increased vulnerability through holding a valuable asset. Indeed, when mentioning to the cooperative members the possibility of delivering cash transfers by cellphone, they were very positive about the potential benefits to beneficiaries in their areas, in terms of increased flexibility and convenience.

RHVP has used the information generated by this small pilot in Lesotho to inform the studies on innovative delivery systems for social transfers that it has subsequently undertaken for governments in southern Africa. It has helped the Government of Swaziland, for example, to put out a call for tender for a private sector partner to deliver the Old Age Grant. Similarly in Malawi, it has undertaken a feasibility study on a potential social pension, which included design and costing of potential innovative delivery, including the use of cellphones. In Mozambique, RHVP has worked with the Ministry for Women and Social Action to explore ways to expand its Programa de Subsidio de Alimentario (Food Subsidy Programme, which is actually a cash transfer to vulnerable groups), and is considering the use of cellphones for delivery, amongst other options.

In the Lesotho pilot project the initial capital costs were covered by RHVP, whereas in a pilot or national social protection programme there would clearly need to be some provision to procure and distribute handsets to those programme recipients who are not already in possession of them. Clearly this could be a costly procedure: although retail prices of cellphones are now falling, and new and modern handsets are available in many southern African countries for less than $20 apiece. The potential savings through reduced costs (administration and leakage) of each transfer would be likely to offset this, although to provide this evidence is a catch-22 situation: project implementers are unlikely to trial cellphones as a mechanism of delivery until there is such evidence, yet until trials take place at scale there will be no such evidence. Ownership of cellphones is constantly increasing, and discussion with the Lesotho cooperative members indicates that as a result of introducing cellphones into communities where they were previously unknown, many community members have seen the value of purchasing their own handsets thus making any initial startup costs even lower.

There is also considerable scope for imaginative partnerships between governments and the private sector: the readiness of Vodacom Lesotho to support this pilot testifies that there is untapped enthusiasm for mobile telephony service providers to be partners in delivering public services and transfers. Likewise the preliminary studies in Swaziland, Malawi and Mozambique have shown cellphone operators to be enthusiastic about the potential of partnership: they see the commercial advantages of increased markets and further increases in coverage – while at the same time appreciating the public relations benefits in terms of corporate social responsibility and progress towards universal service obligations.

Indeed, there might even be potential for the GSM (Global System for Mobile communications) operators to turn this situation to their advantage. In Africa, mobile handsets and airtime are often

heavily taxed as a luxury, and national governments frequently impose extra demands on operators in terms of their corporate social responsibility and universal service obligations. How much better would it be for the operators to free themselves of this burden, by acting in enlightened self-interest, and taking the opportunity to establish public-private partnerships with governments to manage a national social fund (part of which could be funded direct through – reduced – taxation on mobile phone usage), and then to deliver social transfers through their own networks on behalf of governments? In fact, a similar idea could even be taken to international scale: in the same vein as earlier proposals for taxes on globalisation, such as the "Tobin" tax on cross-border currency trading, or the more recently-proposed Currency Transaction Tax (0.005% on every foreign currency transaction, which it is estimated could generate $30 billion a year for development), GSM operators in the North could impose a "social tax" on mobile telephony. With estimated annual revenues of over $900 billion, a 3% tax could match the CTT's $30 billion annually, which could be distributed as social transfers, again through the cellular networks, in the poorer countries of the South. On this basis, the term "GSM", which many people in Africa already assume stands for "God Sends Mobiles", could eventually come to designate the operators' role as "Global Social Moderators"!

Places of interest:

About the authors:

Katharine Vincent is the Training Network Coordinator for the Regional Hunger and Vulnerability Programme (RHVP), and is based in Johannesburg, South Africa.

Tracy Cull is the Training Curriculum Adviser for the Regional Hunger and Vulnerability Programme (RHVP), and is based in Johannesburg, South Africa.

Nicholas Freeland is the Programme Director for the Regional Hunger and Vulnerability Programme (RHVP), and is based in France and the UK.

All three are avid cellphone users and are interested in the potential for using Information and Communications Technologies (ICTs) for the delivery of cash transfers.

20 Girton Road, North Park, 3rd Floor, Parktown, 2193, Johannesburg, South Africa
Postnet 307, Private Bag X30500 Houghton, Johannesburg, 2041, South Africa
E-mail: rhvp@rhvp.org Tel: +27 11 642 5211 Fax: +27 11 484 3855 **www.wahenga.net**

Further information is available from **www.wahenga.net** or by contacting **rhvp@rhvp.org.**

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