

ICT for development: empowerment or exploitation?

Learning from the *Reflect* ICTs project



**ACCESS TO
INFORMATION AND
COMMUNICATION
CAPACITY ARE AT
THE HEART OF A
RIGHTS-BASED
APPROACH TO
DEVELOPMENT.**

SO HOW CAN
INFORMATION AND
COMMUNICATIONS
TECHNOLOGIES
BE APPLIED TO
EMPOWER PEOPLE
AND REDUCE
POVERTY?

By **Hannah Beardon**

With **Fred Munyampeta,**
Subrat Rout and
Grace Maiso Williams

WE WILL FIGHT
POVERTY

WE WILL FIGHT
IGNORANCE

WE WILL FIGHT
DISEASE

EMPOWERED WITH
KNOWLEDGE

Uganda Reflect ICT theme song

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All images from the pilots
apart from photograph on
page 4 by Sigrun Rottmann



CAN ICTS ENABLE
PEOPLE TO ACTIVELY
CHALLENGE AND
CHANGE THE
POWER
STRUCTURES
WHICH KEEP THEM
POOR AND
MARGINALISED?

Introduction

Information and communication technologies (ICTs) can empower people. They unlock a world of super-fast, globalised communications and decentralised information networks. Once people can access and use the technology, their lives will be improved. According to a recent study of ICT for development (ICT4D) projects in Africa¹, access to communications technologies can improve people's livelihoods, access to services, agricultural practices, participation in government (and government's accountability and transparency), incomes, voice, security, social relationships and health. So can providing access to technology and skills solve the problem of poverty?

Structural inequalities – radical approaches

I imagine a world where everybody has the confidence, capacity and opportunity to make well-informed choices about their lives. A world where development means a good quality of life for all people, where instead of focusing on economic growth our ultimate goal is people's wellbeing and environmental sustainability. I don't know how to achieve it, but I know that some fundamental changes are necessary.

ActionAid International is one of a growing number of development non-governmental organisations (NGOs) which positions itself explicitly as pro-poor, with a 'rights-based' approach to development.

The organisation's strategy, **fighting poverty together**, notes that: '*...the vicious circle of deprivation and marginalisation cannot be ended by addressing only the visible symptoms of material need, or by expanding participation in existing structures and institutions. Poverty and marginalisation are more stubborn than that. From one generation to the next, privilege and prejudice are maintained and reproduced by a fabric of power that weaves the threads of gender, generation, class, ethnicity, caste and belief into all our institutions and practices.*'²

The role of ICTs

This report explores the value of ICT4D from such a rights and empowerment perspective. Can ICTs enable people to actively challenge and change the power structures which keep them poor and marginalised? If so, what are the conditions for this to happen? Is the simple provision of access and training enough, or are there other dimensions that we need to be aware of and deal with?

Our experience

The report is based on the experience of the *Reflect* ICTs project³, which has pilots in Burundi, India and Uganda and is now half way through its three-year life (2003–2005). It is a participatory ICT project, and the early experiences have given us valuable insight into the relationships between communication, power, exploitation and empowerment. I hope some of this learning and observation may be applicable to others in the field.

¹ Gerster and Zimmerman 2003: '*Information and communication technologies and poverty reduction in sub-Saharan Africa – a learning study*'

² **fighting poverty together**, ActionAid strategy 1999–2004 – available from http://www.actionaid.org.uk/index.asp?page_id=166

³ See appendix one for more information on *Reflect*

1

Information and communication for empowerment

Where people are struggling to access even their most basic needs, it may seem strange to prioritise spending money on information and communication technologies.

As a development worker in Nepal said: *'Email is no substitute for vaccines, and satellites can't provide clean water.'*⁴

However, rights-based development requires a multi-layered approach: enabling people to access their rights; influencing policy makers; building the capacity of activists and mobilisers; enhancing communication between actors; and developing new methodologies, tools and resources. Information and communication are at the heart of them all. Information is power, and effective communication can be the key which enables people to become active participants in the development of their communities.

Information and rights in India

In **Orissa**, India, groups of marginalised people from villages across the pilot area tell very similar stories. Despite a government system designed to bring decision-making and accountability down to local level, corruption and misinformation mean that the very poorest do not get access to the benefits and services to which they are entitled. Poor, illiterate people are kept in the dark about 'below the poverty line benefits', for example, and the list of eligible people gets drawn up to include only those with the best connections.

Through participation in *Reflect* circles, people have become more aware of their rights, meaning that they can hold local officials to account. Simply knowing their rights, has resulted in effective action in many villages: people insist on being admitted to assembly and council meetings; they lay siege to district and block offices to press for the dismissal of school teachers who never show up; they demand compensation for failed crops, jobs for potential migrants, plots for the landless; and they expose corruption in the distribution of emergency rations. Following these triumphs, they have initiated the digging of wells, opened grain banks and started small businesses and credit schemes.



Women from Matiabhata village *Reflect* circle, India

One of these women stated:

*'For years ... the rich and upper caste people were taking all the decisions. Now, we have come to know that we are also part and parcel of these **sabhas** [local government institutions]. Now we have started putting our demands forcefully and in one voice. And now the resolutions are based on our issues and demands.'*

*'We can sacrifice a day's earning but we just cannot afford to miss one meeting. Because it is in our interest and if we do not attend these meetings again the rich and upper caste people will influence the **panchayat** members and make the resolutions in their favour and we will be the losers.'*

⁴ Quoted in Human development report, 1999

Information and security in Burundi

In Burundi, survival itself can depend on your ability to evaluate the current and ever-changing threats to your household or village. During initial training for the *Reflect* ICT project, facilitators noted that those people most vulnerable to the effects of conflict are those with least access to reliable and timely information – particularly women, the very old and very young, and internally displaced people.

Access to information is not a simple matter. Sources must be trustworthy and reliable, as false information and propaganda have also been weapons of war. Rumour, mistrust and misinformation make it very difficult for people to rebuild their lives and social relationships – and wrong information about rebel movements or gossip about a neighbour's involvement in previous violence can have fatal consequences.

Murerwa Leocadie, a *Reflect* facilitator from Burundi, explained the importance of reliable information in a conflict situation: *'In the refugee camp, the radio allowed us to know what was going on in our mother country. Old women would spend all night preparing dinner so as not to miss the programme... if it weren't for these programmes, my return to my country would have been delayed by months, if not years.'*

... but power for whom?

The examples show that access to information is central to empowerment. However, though information is certainly necessary, it is not sufficient for changes in power relations to take place. Despite the overwhelming potential of ICTs for rights-based development, there are a number of causes for concern and attention. For one thing, modern technologies, the internet and software, are generally products of powerful, western cultures. This has important implications which need to be explored in order to understand the potential impact, positive and negative, of any planned ICT4D project.

Endangering cultural diversity

Modern ICTs are developed to be simple to use (although it may not always feel that way). They follow a logic which is intuitive to the culture for which they were developed. However, for people who live in completely different cultures it may not make so much sense. For example, in a primarily oral culture, or one where drumming or dancing are considered major forms of communication, it will not feel normal to get information from a faceless, anonymous source. Instead of building on what people already know, the new technologies will compete, changing the way people access and process information, and so devaluing traditional methods of storing and sharing information. So not only are people in different cultures at an initial disadvantage, but over time traditional cultures of communication will increasingly lose their value and eventually may be lost.

TRADITIONAL CULTURES
OF COMMUNICATION
WILL INCREASINGLY
LOSE THEIR VALUE

Uganda youth perform song on HIV/AIDS



ICTs can be used to strengthen local traditions and cultures of communication, but only by design: people need to appropriate the technology, and give it functions which suit their needs and motivations. This requires sensitivity to the communication practices and prejudices of the people in question, both in the way that technologies are designed and marketed, and the way that they are chosen and introduced within a project.

Economic empowerment – or exploitation

For many people, particularly in urban areas, IT skills can lead to higher earning potential and more job opportunities. As such, many ICT4D initiatives aim to provide such skills and opportunities, for their ultimate effect on general development. However, while the ability to secure higher wages is undoubtedly important to an individual and their family, the simple training of people to operate machines does not constitute empowerment. Unless people can appropriate the technology, they will not gain any power to determine their terms or conditions of employment, and will remain vulnerable to exploitation. Furthermore, while some individuals may change their status, the gap between rich and poor, informed and vulnerable, still remains the same.

On the macro level, a semi-skilled, computer literate workforce allows developing countries greater participation in the global economy, though not on an equal footing. They have the lowest rewarded and least powerful jobs, and are vulnerable to decision-makers with different priorities and allegiances.

Any ICT4D project needs to be clearly located on a spectrum between exploitation and empowerment, otherwise the impact of the project may be to widen the gap between rich and poor, powerful and exploited.

Information, communication and power

Information is not neutral. The very power attached to it makes it a valuable commodity which is not shared fairly or equally. People hoard information, or spread misinformation to gain a competitive advantage. Those who are most marginalised are most likely to suffer the consequences of a lack of timely, reliable and quality information, leading to a vicious cycle. But providing them with tools to access it is not enough when the power relations underlying the problem are still there. Information cannot solve the problems of poverty unless it is accompanied by the skills, confidence and knowledge to seek and use it.

Unequal power relations operate at all levels of society, including the household. Just like any other development work, an ICT project needs to be based on an understanding of how such power dynamics work and affect access to resources and opportunities. For example, *Reflect* facilitators in Burundi found that it is women, children, elderly, displaced and disabled people who have least access to the information they need to improve their livelihoods and security.

In an exercise ranking the value of different communications media by *Reflect* participants in Burundi and Uganda radio was near the top. However, in both cases it was found that access to and control over the radio, newspaper and other information sources was more likely to be in the hands of the men.

Anastasia, a facilitator from Burundi, remarked: *'At home we have a radio, the most popular means for getting information, but it is actually the man's information and social tool. When it is time for national news, my husband takes it away to the local pub where he meets other men and when he is back I am forced to follow programmes that are for his interest and not necessary for me. Even if he has travelled, I am not allowed to use it because of fear of breaking it and cannot afford batteries. Anyway, women are so overloaded we don't have free time for radio, so we are very disadvantaged.'*

Burundi *Reflect* circle facilitator training



Structural barriers to accessing information in Uganda

A study carried out by the Uganda pilot team with *Reflect* circles identified many factors that restricted access to information and participation in local decision-making. These included transport, political insecurity, language, illiteracy and apathy. Cost is also a major problem: people miss out on potential income because of inability to pay for good information services, and this becomes a vicious circle. One *Reflect* participant remarked, '*Some of us are too poor to communicate*'.

At a local level people do not know enough about their rights and the role of local government, while people in public positions often lack the skills, knowledge or confidence to fulfil their roles properly. Some government officials block access to information in order to hide their corrupt behaviour.

When it comes to getting voices heard at national or district levels the picture is even more grim, as villagers lack awareness and opportunity, while city officials rarely make it to the grassroots level, preferring to visit sub-county offices. One participant expressed a '*need for accountability to grassroots because some of us pay tax without knowing the use*'.

At a household level further blocks to information flow were identified: husbands don't usually allow their wives to listen to the radio, choose when it is turned on or what it is tuned to. While women do gain access to useful information, through friends, peers and health workers for example, they do not usually have the power to act on it and make decisions. Participants agreed that there was a need for more understanding to be fostered between husband and wife, more gender awareness and equality in decision-making, and for more radio programmes on domestic issues.

From 'Information accessibility and power relations' prepared by Mr Grace Williams, Kabarole Uganda, March 2004

Any project with pro-poor values and empowerment aims needs to be based on a thorough analysis of power relations at all levels. The planning and needs assessment process needs to move beyond consultation and participation to partnership and ownership. Monitoring needs to be based on the expectations of the people involved to ensure that the project is always oriented to meeting their needs. Participation should enable people to better identify their information needs, expand their base of trustworthy sources, and develop their ability to analyse the value of the information obtained.

A two-sided coin

For ICTs to enable real change in lives and livelihoods, people must be able to appropriate the technologies, define their uses and integrate them into their lives. However, just as a supply-driven, technology-focused approach will not achieve this, nor is it sensible to assume that marginalised, information-poor people have all the knowledge they need to expand their communication capacity effectively themselves.

People need the advice of experts on the software and hardware to suit their needs, and proper policies need to be in place at national level to enable good communications. But it is fundamentally important to ensure that all of this expertise is oriented towards the empowerment of the end user, and recognises the value and importance of the knowledge that they bring of their own needs, workable strategies and structural or cultural constraints and considerations.

There needs to be real collaboration and partnership between those with the skills to design and deliver technology, infrastructure and software, and those with the credibility and structures to facilitate good needs analysis and capacity building on the ground.

2

The *Reflect* ICTs model

The *Reflect* ICT project was designed to test some of the assumptions laid out in the introduction: that ICTs can only facilitate real pro-poor structural change when due consideration is given to existing power structures and communication patterns. It is in part a response to a technocentric tendency in the ICT4D field, with a focus on physical access at the expense of capacity.

Context – what’s wrong with telecentres?

A common approach to ICT has been the telecentre in its many varied guises, which is basically a localised access point to ICTs. From an empowerment perspective there are examples of very good and very poor practice, depending on how local people are involved in the design and management of these centres, but overall telecentres are a fairly unimaginative way of approaching the problem of the digital divide. A 2002 Chasquinet/IDRC publication explains: ‘*Since the digital divide is really nothing more than an expression of social, economic and political inequalities, the solution involves far more than simply setting up telecentres.*’⁵

Typically, telecentre projects are developed within the organisational strategy of an international agency and have as part of their planning process a needs assessment or consultation phase. My own organisation, ActionAid International, itself invents and installs telecentre projects or similar for the benefit of poor people. People are approached and asked what they want and need, then the implementing organisation will endeavour to design the telecentre appropriately. Volunteers may be trained to staff or manage the centre, to the benefit of the local community. Stories abound about the

Participants in *Reflect* circle – Burundi



positive impact of the information accessed in such centres. The process seems to be adapted from the private, market-oriented telecentre model, which aims to make profit from providing people with the tools and resources they need.

This may have many positive effects, but there are also many questions, some well known and pondered, others largely unasked. Questions of financial sustainability are debated, though in my opinion without sufficient attention to the issue of cultural sustainability, as I will explain later. And questions of the ability of local people to control the process, and decide how money is spent, are barely considered at all. Communities are too often seen as homogeneous units, who can easily be consulted by asking a self-selecting or existing group – of community leaders for example. In India a large-scale project to make land records available to poor people⁶ failed because it was assumed that terminals put in village council offices would be able to be used by poor people to access the information. It was not understood or considered that these are the same

⁵ ‘Community telecentres for development’ Available from www.tele-centros.org/paraque

⁶ Gyandoot – from analysis by Alok Sanjay of ActionAid India. Available from the author alok@actionaidindia.org

village councils who routinely withhold important information for personal gain, as noted in the previous chapter. Without the meaningful involvement of local people in designing a telecentre, it is difficult to create an appropriate solution for the context.

Ownership and appropriation

After years of debate in the field of development about rusting tractors or failed infrastructure projects, and years of experience built up in participatory communications, it feels as though exactly the same mistakes and shortcomings are being replicated in the rush to make the benefits of new ICTs available to all. Stories abound of government or NGO sponsored telecentres lying empty, equipment abandoned or stolen or being used only by the wealthy. And yet participatory theories developed out of the questions raised by the very same scenario, albeit with different technologies, decades ago.

What practitioners from all fields of development have learned from their accumulated experience is that sustainable solutions require more than just physical investment. Whether it is a well or a tractor, if it is just dumped into a community with no sense of community ownership, or the skills or capacity to maintain it, its impact is unlikely to be sustained. New knowledge needs to be rooted in the existing, and new technologies need to make sense in terms of people's own coping strategies. In terms of ICT4D, this means applying new technologies to meet people's expressed needs, and to tie in with their existing motivations, not as an end in itself. It also means that attention to process is fundamental to the success of a project.

Reflect participants in discussion – India



Objectives

The aim of the project is not to provide ICTs to people. It is to build people's capacity to identify and articulate their information needs, to consult experts and information providers, to hold people accountable, to make demands, to be able to access, share, and act on, information in the long-term. Each pilot receives a grant for equipment and personnel, but the sustainability of the project will be judged not by the continued maintenance of this equipment (though this will be interesting to monitor) but in changes in attitudes and opportunities. In this case, poor people's access to information should continue to increase because of their own confidence, capacity and the effect of their increasing awareness of, and demand for, their rights.

Methodology

The *Reflect* ICTs project links into existing *Reflect* structures. *Reflect* is an approach to adult learning and social change through which groups of people meet regularly to discuss and analyse local issues and devise action plans, using participatory techniques (see appendix one). The basic unit is a circle, or group, usually at village level, supported by a facilitator who is drawn from the local community and trained by the *Reflect* implementing organisation. Within a region, facilitators may meet in a regular forum to share experiences and relevant information.

A recent publication by the international *Reflect* network, 'Communication and Power', brought together a set of resources which could be used to enhance people's communication capacity. *Reflect* therefore provides a good basis for the pilot projects, as groups are established and have begun to analyse together the power dynamics in which they operate. The ultimate aim, though, is to provide tools which any group, network or organisation can use to facilitate a participatory process for developing an ICT or communications strategy⁷.

The project was split into two phases: the first year for participating groups to analyse, discuss and debate communications issues and come up with a plan; and the second two years for the implementation of this plan.

⁷ *Communication and Power* available on www.reflect-action.org or by order from esummers@actionaid.org

Planning:

Five resource sheets were developed for the first stage, to help groups to think and talk about the opportunities and constraints for communication in their own context (see appendix two⁸). The sheets cover the following topics, with ideas for exercises and graphics which can be used to help analysis:

- **The value of information:** exploring how information can make a difference to people's lives and livelihoods and how power issues affect the free flow of information.
- **What makes information useful:** looking at the personal or cultural factors affecting the value or trustworthiness of any piece of information, such as the source, format, relevance, medium, or the recipient's confidence to interpret and adapt it to their own situation.
- **Documenting local knowledge:** recognising the value of one's existing knowledge, thinking about how and why to document it, and building awareness of its value to oneself and others.
- **Accessing information:** exploring existing and potential strategies and resources for accessing information, sources of reliable information and barriers to accessing them.
- **Identifying information gaps:** identifying the types of information people feel they need.



Uganda facilitators receive ICT training, 2003

Using this methodology, and working with groups set up according to participatory principles, pilot teams were able to design communications systems which build onto people's existing communication preferences, practices and prejudices. The process allows planners to focus on roles as well as equipment, and bearing in mind that the poorest and most marginalised people get most of their information through word of mouth, it is incredibly important to build accountable relationships into any sustainable system.

The resource sheets were translated, adapted and used to structure training for *Reflect* facilitators in the three pilot locations. The facilitators were then supported by pilot teams to facilitate analysis of communication issues in their respective circles. The final plans for 'communications systems' were drawn up by teams including staff from the pilot, ActionAid and partner organisations, and representatives of *Reflect* facilitators and participants, based on the analysis already done at circle level.

⁸ The resource sheets in appendix two have been updated to include some of the methods and findings arising from application in the field. The original sheets are available on the website www.reflect-action.org

PILOT TEAMS WERE
ABLE TO DESIGN
COMMUNICATIONS SYSTEMS
WHICH BUILD ONTO
PEOPLE'S EXISTING
COMMUNICATION
PREFERENCES, PRACTICES
AND PREJUDICES



Kamanya circle develop an ICT matrix - Uganda

3

What people want – the pilot experiences

In broad terms, the *Reflect* ICT project is about processes rather than outcomes. Intrinsic to the project is a belief that truly appropriate and sustainable interventions must be context-specific. While the process can be replicated, the findings are relevant only to the specific pilots.

That said, the planning and analysis processes in the three pilots have produced some very interesting insights and findings which are worth sharing, if only to emphasise the point that ICTs are subject to, and must be understood in terms of, political and socio-economic context.⁹

Uganda – poverty amongst plenty

Of the three pilots, Uganda has the best access to telecommunications infrastructure and the highest awareness of modern ICTs. Located in Kabarole district, near the border with the Democratic Republic of Congo, the pilot involves 18 *Reflect* groups and six school-based youth groups. The area is very lush, but *Reflect* circle analysis has shown that most families live in absolute poverty. Most people in the area depend on farming for subsistence as well as cash. Traders come from towns and cities to buy their produce at very low prices, which they sell for double the price at market. Lack of information is considered fundamental to most of the major problems people face.

⁹ The information on the pilots is drawn from the final communications system proposals submitted by each pilot team in December 2003 available in full on the *Reflect* website www.reflect-action.org or by email from hannahb@actionaid.org

Reflect circle in progress – Uganda



Amagezi Itungo – Reflect ICT theme

Amagezi itungo	Knowledge is wealth
Amagezi maani	Knowledge is power
Twine obumanzi habwamagezi	With knowledge we get empowered
Egyo niyo enkora yaitu	And that's our vision
Niturwanisa obunaku	We will fight poverty
Niturwanisa obutamanya	We will fight ignorance
Niturwanisa oburwaire	We will fight disease
Twine obumanzi habwamagezi	Empowered with knowledge
Enkurakurana mumaani	A developed, empowered
Obusinge mubyaaaro	Peaceful society
Nambere hali okwetegereza	Where literacy leads
Ebirungi	To a better livelihood
Niturwanisa obunaku	We will fight poverty
Niturwanisa obutamanya	We will fight ignorance
Niturwanisa oburwaire	We will fight disease
Twine obumanzi habwamagezi	Empowered with knowledge

Communication practices

People get information from outside the community through radio and local leaders. Information flows around the area mainly through word of mouth. This can easily lead to manipulation and distortion, so people identify trustworthy individuals: well-educated and informed people for economic information, or people in bars who are the gatekeepers of crucial social information. Telephone connections are widespread, both landlines and mobiles, including many public payphones. Furthermore, many traders and travellers pass through the area, and hold information of potential value to the local communities.

Reflect circle analysis showed that face-to-face communication, including talking, meetings and drums, were currently most widely used and considered most useful. Radio was available though less affordable, and other communications media, such as video, were considered desirable, but less accessible. Another ranking done by a school group showed the telephone as the most wanted item. Familiarity with the internet is limited, and as such it does not feature heavily in people's strategies for improving communications.

Reflect circles provide access to radio




Information needs

Reflect participants declared sustainable agriculture to be their first priority, followed by health, education and trade. They want good information on agricultural practices and services, control over land, marketing advice and credit facilities.

A break down of information needs by group shows differences in priorities (see *table one*). Women tended to focus on their rights and their reproductive health, especially how to cope with HIV. In particular participants asked for a databank to be elaborated with information on herbs used to fight opportunistic infections. Men were generally more concerned with their income. According to male *Reflect* participants, disease is a product of poverty.

Table one –
information needs, Uganda

Group	Information Need
MEN	<ul style="list-style-type: none"> • where to access credit • markets for their produce • job opportunities • modern farming practices • land ownership rights
WOMEN	<ul style="list-style-type: none"> • where to access credit • agriculture • health: particularly HIV, antenatal, reproductive • education opportunities for girls • cooking • women's rights: dowry; children; property
GIRLS	<ul style="list-style-type: none"> • education opportunities for girls • reproductive health/ HIV/AIDS • women's rights • job opportunities
BOYS	<ul style="list-style-type: none"> • business/ job opportunities • education • agriculture • health: HIV/AIDS, condom use



EQUIPMENT
INCLUDES
INTERNET-
CONNECTED
COMPUTERS,
DIGITAL
CAMERAS AND
WORLD SPACE
RECEIVERS

'Information is like a cow – everything is useful.' Kanyamura *Reflect* group

The communication system

The resulting system developed in Uganda is based around a central resource centre with a full-time coordinator to help develop materials and coordinate information exchange, and a technical assistant to look after the equipment and provide technical training and assistance. This is a central place for information to be stored and shared and provides a one-stop centre for sharing information between partners, including communities, facilitators, local government and traditional information providers. Equipment includes internet-connected computers, digital cameras and world space receivers. Airtime is also being purchased for radio programmes.

Graphics developed by *Reflect* circles will be turned into materials for wider sharing in the community, and information from other sources (including government and the internet) will be collected and repackaged on request, or to tie in with relevant or timely themes. The centre will also develop a databank of traditional medicines and their applications, act as a training centre and undertake pro-poor advocacy with information providers and policy makers on the development and information needs of poor people. Meanwhile the pilot manager will continue to feed the views and lessons from the pilot into national opinion and policy-making processes.

The resource centre will be managed by a nine-person committee consisting of representatives from local government, community members, *Reflect* facilitators and staff, to ensure that it continues to meet the needs of the community. The impact assessment framework, which was developed by participating *Reflect* circles, details people's expectations of the system and how to measure its success in their eyes. Expectations include: support from sub-county government; more cooperative working in communities; greater participation in local politics; better standards of living; and more responsible information sharing. There will also be quantitative monitoring of usage of the centre and the materials developed and stored there, as well as tracking changes to policy.

The Uganda pilot, together with PAMOJA *Reflect* network for Africa, were given the special 2004 Grundtvig Award from the European Commission for projects addressing key competencies for participating in society.

Burundi – **communication for peace**

Since 1962 Burundi has experienced continued ethnic clashes, coups, attempted coups and inter-communal violence, creating an enduring culture of mistrust and suspicion among its people. In 1993 the crisis peaked with an attempted coup on the Hutu majority government, which resulted in the death of an estimated 250,000 people. During this time in Ruyigi, the pilot location, there was widespread displacement of Hutu people to remote mountainous regions and refugee camps in neighbouring Tanzania, while Tutsis remained in their communities or in military protected camps.

Communication is a key issue for peace and reconciliation, as misinformation and mistrust are key factors in the perpetuation of conflict. *Reflect* was first introduced by ActionAid in Ruyigi province to promote peace and strengthen the role of women in peace-building and there are now 89 circles there. *Reflect* groups aim to provide a space for neighbours (both Hutu and Tutsi) to meet and talk, sharing accurate information with people in villages and camps to rebuild confidence and trust. They also develop traditional cultural activities as a means to bring communities together, which links in to national-level policy advocacy around the peace process.

Communication practices

During training for the *Reflect* ICT project, facilitators identified a strong link between information, power and poverty that they saw as very relevant to their work. They were interested in looking at access to information as a factor in vulnerability to conflict, and saw that overcoming barriers to good quality information was crucial to reduce inequality and vulnerability. They were also keen to use ICTs to spread reliable information on security to people in refugee camps, allowing them to make considered decisions about when to return home.

When analysing what made a piece of information useful or valuable, participants stated that information had to reinforce prior knowledge, fit in with existing motivations, and create inner blossoming and cohesion. They also said it needs to be timely, understandable, directed, from a trusted source, inclusive and non-subversive. It was on these principles that the communications system was built.



Group work in Burundi

Song from the Masama *Reflect* Centre

Literacy does not segregate
We have everyone here
Through our literacy we see many things
How we can influence others
Encouraging refugees to come home
Everyone should participate in *Reflect*
Even the youth
Together we can fight against poverty
We can see how we can attain peace and development

VIDEO, TO BE USED TO
CAPTURE AND SHARE
INFORMATION BETWEEN
REFLECT GROUPS AND
RECORD DEBATES,
SONGS, STORY-TELLING
AND THEATRE

The background of insecurity has severely affected people's attitudes towards different information sources. Until recently, the government held the monopoly on radio and television broadcasting, and politicians used radio during the conflict for both positive and negative ends, including propaganda. Despite this, *Reflect* participants ranked radio as the most effective and appropriate media for accessing information. People also share information at market, church, social gatherings and cultural events. Other well-used media include posters, video and the community newsletter, *Ejo*.



Training in Burundi

Information needs

For the community of Ruyigi, just coming out of war, reliable information can mean life or death and is considered very important. In particular, during planning *Reflect* participants identified the need for:

- experiences from elsewhere to stimulate debates on peace, reconciliation and development
- information for income-generation, including organisation, support, markets and suppliers
- information on donors for development work
- information on government commitments and rights relevant to the needs and problems of groups, individuals and communities'
- governance, land policies and local government institutions during the reintegration period.

The communication system

The system developed in Burundi is based around the structure of the community newsletter, *Ejo*. Correspondents are drawn from *Reflect* circles, and the newsletter is read and discussed during circle sessions. It is also distributed as far as the refugee camps in Tanzania and other provinces. The communication system will strengthen participation in *Ejo*, providing a new *Ejo* and *Reflect* information officer to source relevant and requested information, translate and distribute it as necessary, manage equipment and run training.

Equipment will include:

- video, to be used to capture and share information between *Reflect* groups and record debates, songs, story-telling and theatre
- radio, for which programmes will be developed based on analysis by *Reflect* groups
- newspapers
- leaflets
- internet and telephone, which will be accessed by the project staff and facilitators to locate information relevant to the community's expressed needs.

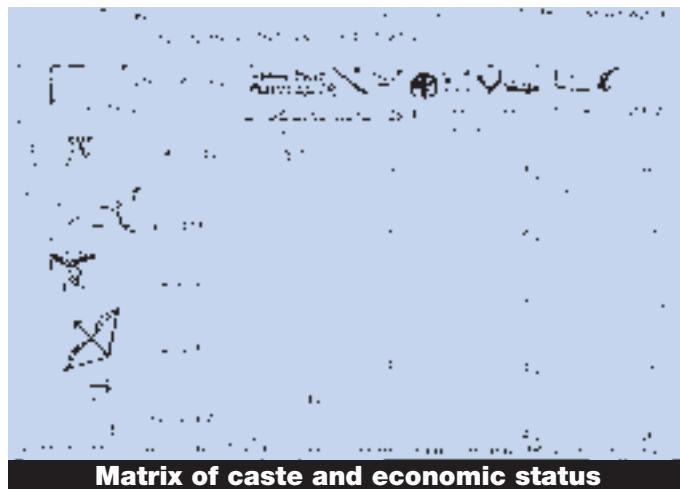
A computer-training centre will be set up in Ruyigi Town to provide training and access for facilitators as well as general internet café style services. This will enable the communities to diversify the information available and spread awareness of the internet allowing future strategies for its adoption and appropriation.

A *Reflect* and ICTs assistant will work with the pilot manager, to ensure a strong link between local issues and national-level advocacy and between development planners, communities and policy makers. They will also be responsible for monitoring the system and documenting learning. Participatory reviews will seek qualitative evidence of changes in awareness, attitudes and behaviour, acquired skills, participation, replication, rate of development and confidence.

India – ingrained exploitation and injustice

The pilot location of Balangir, in Orissa, Eastern India, has a population of around 1.3 million, 90% of whom live in rural areas, and most of whom live below the poverty line. Literacy is under 40% and among women only 21%. A strict caste system permeates social and economic affairs, with ‘general castes’ (high status), and ‘scheduled castes’ (*dalit* or untouchable) among others.

Poverty in Balangir is due in large part to droughts and floods, which are increasing in frequency. Decrease in forest cover has contributed to the cycle of soil erosion, drought and poverty. However, fundamentally it is poor governance – corruption, and poor people’s the lack of participation in decision-making or access to relevant information – that feeds this cycle. Land distribution is highly unequal, and landless agricultural workers are most affected by drought, forced to borrow money and migrate to work. Furthermore, despite large amounts of aid coming into Orissa from central government, corruption and mismanagement means that little of this reaches the intended targets – the poor.



Matrix of caste and economic status

Communication practices

As in the other two pilots, *Reflect* circles identified verbal communication – formal and informal meetings and collaborative working – as the traditional and most reliable form of sharing information. *Reflect* facilitators are considered the most important and reliable sources of information by the poorest people, and the quality of information received depend on the skills and information available to such key people. The president of Bubel village committee said: ‘*We always check back with our facilitator because we regard him to be the best source of information.*’

Radio is also an important resource, particularly for those migrating in search of work. Television, newspapers and the telephone are used by the more educated, literate and influential sectors. Common forms of spreading official information are wall paintings, posters and leaflets. While this is limited in effectiveness due to high levels of illiteracy, it still remains one of the few

Section of Oriya version

Alokara Sikha Ame Jali Jiba – *Reflect* ICT song

We will light candles and the darkness will fade,
Our message will reach every doorstep,
We will wipe tears from the eyes of the starving and reinstate their smiles,
Because we have promised to build our nation in our own hands,
No caste, creed, colour, religion or wealth can be our identity,
We have one blood, one religion and one identity – we are Indian,
Let us wake up friends and comrades! The time has come to demand our rights,
Through smashing the iron walls of exploitation, corruption and discrimination.

options for both government and community organisations, depending on literate villagers, facilitators and other community workers to read and pass on the information provided. *Reflect* participants are generally enthusiastic about electronic media, and wish to be able to access and discuss news, soap operas and other relevant programmes on radio and television. However, only 1% of *Reflect* participants could afford to buy a black and white television set, and this at the cost of mortgaging their land.

Reflect participants expressed their desire to share experiences with neighbouring villages, and in some cases have made plans to put on plays, videos, audio cassettes and radio programmes. A group from Putulamahula village performed songs and dances on health issues, superstition and other themes in over 40 villages. Sargimunda *Reflect* participants carried out cycle rallies to 47 villages to hold public meetings about migration law, insurance for migrants and labour societies, which resulted in the founding of 36 labour societies.

REFLECT PARTICIPANTS EXPRESSED THEIR DESIRE TO SHARE EXPERIENCES WITH NEIGHBOURING VILLAGES, AND IN SOME CASES HAVE MADE PLANS TO PUT ON PLAYS, VIDEOS, AUDIO CASSETTES AND RADIO PROGRAMMES.

Information needs

The main concerns of *Reflect* participants' are fundamental, related to their basic livelihoods. They wish to be better informed about their rights and available benefits and schemes, to ensure food security and to mitigate the causes of migration, including agricultural practices, water conservation and seasonal employment opportunities. Finally, they wish to push for more transparency in governance.



Sources of information graphic

The image shows a "Problem identification matrix" for Temapur village. It consists of a grid with multiple rows and columns. Each cell in the grid contains text in a South Asian script, likely detailing various community issues and their identification.

Problem identification matrix – Temapur village



4 What's next?

Changes for the long term

Sustainability

Overall, the *Reflect* ICT project is more concerned with processes than direct outcomes. We argue that it is the process whereby ICTs are chosen and introduced which determines their impact as much or more than the investment itself. The way we understand sustainability is coloured by this. For it is the process which should be sustained – a process of empowerment to ask the right questions and demand access to information or technologies, which will ensure real change and really start to shift the digital divide.

At international level this means refining our messages and perspectives in order to influence the practice, the policy, planning and implementation of ICT for development, to better meet the needs of poor and marginalised people. For pilots, concern is with the individual communications systems and the people who are part of it. The sustainability of the communications systems rests on the capacity of people to demand the information that they need and to use it. It is not just about having the finances to maintain and replace equipment and staff, but about awareness, mobilisation and organisation.

Monitoring and evaluation

In the second phase of the project, the focus at pilot level, is initially on setting up the planned communications systems, including recruitment, procurement, training and relationship-building. However, after this initial phase the attention will shift to monitoring and evaluation – both of the systems themselves and of the project more widely.

The impact of the communications systems will be measured according to expectations and indicators defined by *Reflect* circle participants and their communities. By defining indicators according to their own expectations, participants will help to ensure

that the project maintains its orientation towards their needs and interests. These indicators will be tracked using participatory review and reflection techniques as well as the information that flows through the communication system.

In all three pilots, participants are looking for evidence that information is being accessed and well used, rather than simply available.

- In **India** indicators include the numbers of landless families, migrants and preventable deaths; orientation of development funding; literacy; and participation in decision-making.
- In **Burundi**, changes in awareness, attitudes, confidence, participation and behaviour will be tracked, as well as skills acquired and the rate and orientation of local development.
- In **Uganda**, participants identified indicators at every level, from sub-county administration to community, household and individual levels. The former include support, sensitivity to poor people's needs and greater participation in local politics, while the more personal changes expected include better cooperative working, more skilled, informed and powerful community members, better standards of living, and more personal responsibility for education and development.

The pilots will also be evaluated more broadly, to look at replication and influence and to enable lessons and insights to be recorded. There will be quantitative monitoring of usage of resource centres and the materials developed and stored there, and changes to policy, participation in local government and support for our work will also be tracked. Changes in communication practices in the pilots will be tracked from the baseline surveys through mid-term and final reviews. This will allow comparison between the pilots and improve influence on policy issues related to ICT4D, enabling us to make connections between the planning and decision-making process and the impact of the resulting system or centre.

5 Learning and recommendations

During the first year of the *Reflect* ICTs project poor and marginalised people in different parts of the world explored the potential contribution of ICTs to their own personal and collective struggles for equity and empowerment. Our experience in designing and managing this process, and of hearing the voices so often excluded from this debate, have given us new energy to challenge the way ICT4D is understood and practiced. Some perceptions and recommendations are examined here.

The bottom-up process

At the heart of the project is a belief in people's ownership of their own development and participation in plans that involve them. However, the experience of the *Reflect* ICT project throws up two major weaknesses to this 'bottom-up' approach. Firstly, there is an inevitable reliance on committed people with integrity to ensure that the participatory process is properly followed. In part this is an issue of recruitment, but it is too easy for participation to become rhetoric, and for the processes to be followed only superficially. Indeed, even where this is not the case, the voices of people involved will inevitably be edited, and choices made will reflect the value judgements of the pilot manager or researcher.

Everyone involved in a project needs to be encouraged to question their own assumptions and attitudes and feel free to challenge each other's.

The basis of good development should be good partnerships, based on shared values and vision, acceptance of different needs and motivations, and clear roles and relationships. It is not about bottom-up or top-down, but about respect, pooling resources and each playing to their strengths.

Secondly, there is the issue of new knowledge and expertise. The focus on people planning for themselves does not imply that they already have all the information that they need inside their communities. Bottom-up does not mean no intervention, it is just a question of control and self-determination. For the *Reflect* ICT project this means matching all the work with people to identify their communication needs with technical expertise on possible appropriate solutions. Whether or not we have managed this in the three pilots remains to be seen.

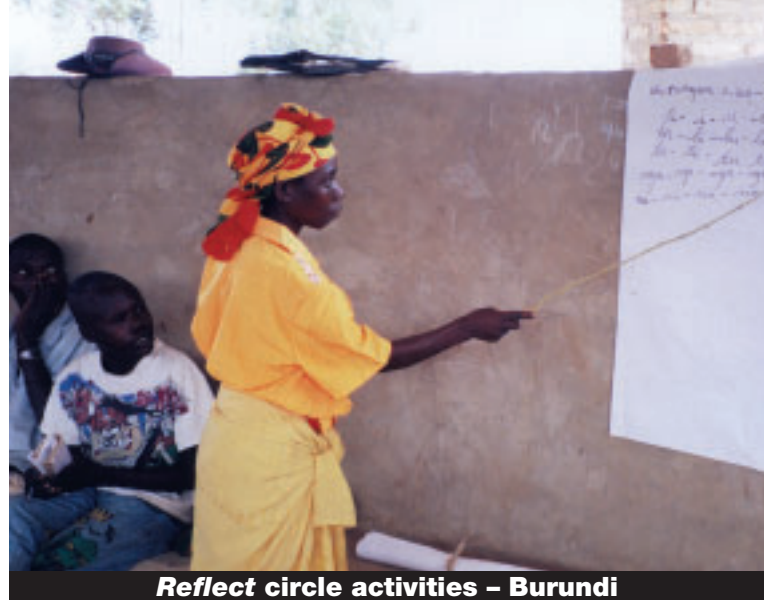
Structure of the project

Just as for partners, internal differences need to be recognised. I am managing the pilots at international level to ensure consistency and overall direction, and involved in networking and materials development to influence and learn from other ICT4D projects and policy makers. For the pilots the aim is to make a real difference to the communication capacity, and therefore the livelihoods, of particular groups of people. Other stakeholders, including ActionAid and the donor, DFID, and individual team members, also have their motivations for funding or taking on the project, which may have to do with profile or knowledge building.

Variety brings richness but also some conflict, and this needs to be properly recognised and managed. It was a difficult balancing process to get a truly bottom-up process funded and established but clear communication and trust are essential ingredients. We developed agreements to state what we needed and expected from each other, particularly in terms of communication. We agreed on overall objectives, timelines and processes to provide parameters for all our work. Then each of the three pilot teams developed their own framework to contextualise the objectives and tie the process in with existing interests and the work of local groups. Although there have been some communication problems (usually created by technology) and conflicts of interest between stakeholders, mutual support and sharing has been strong.

Being clear about the differences between players, while giving equal value and responsibility to each, makes for a good team or partnership. Memoranda of understanding should be developed which recognise and value the different motivations, to ensure that the needs of all parties are met.

PEOPLE SEE THE VALUE OF GOOD QUALITY, RELIABLE INFORMATION AND WANT TO FIND WAYS TO IMPROVE THE DOCUMENTATION OF THEIR OWN KNOWLEDGE.



Reflect circle activities – Burundi

Where now for ICT4D?

In each of the three pilots, poor and marginalised people have thought and spoken about the potential role of ICTs in their lives, and in each case, the response has been overwhelmingly positive. People see the value of good quality, reliable information and want to find ways to improve the documentation of their own knowledge. Beyond that, generalisations are few.

Context is everything

The perceived effectiveness of different ICTs depends not only on infrastructure and capacity, but on ingrained communication culture and political environment. There are no universal, 'off-the-peg' answers. In Uganda, where government policy is pro-ICT, the proposal includes more high-tech solutions such as the internet, and depends on support and involvement of local government officials. In India, on the other hand, the focus is on lobbying government and other information providers

to meet poor people's needs. Meanwhile in Burundi, most telecentre-type solutions are not appropriate due to insecurity, lack of infrastructure and transport problems. The resulting communications system includes an urban telecentre and training centre for revenue-making, staff training and information only, while the main focus is on a community newsletter with an existing distribution network.

However, radio is very popular!

In all three pilots, radio was considered a very appropriate, accessible means of accessing communication. Radio is being used in the pilots as a tool for information, communication and advocacy. *Reflect* groups' discussions will be made into programmes, groups will listen to and provide feedback on other relevant programmes and the work of the project itself will be publicised via radio. In Burundi, this will be done through partnership with broadcasters while in India and Uganda,, through purchasing radio airtime.

ICTs need people:

ICTs cannot create communication capacity. This was not only one of our assumptions, but also one of our findings. We should not attempt to start from scratch but to build ICTs into existing structures to enhance what works, or to increase equal participation in existing communication channels. This means building on resources provided by other projects, run by the government or others, such as community radio, television stations or telecentres. It also means recognising the less formal existing communication arenas and structures, whether that be a *Reflect* group, market, cultural performance or, in the case of the Uganda pilot, bars.

ICTs should be mainstreamed

ICTs are not an answer in themselves, and ICT4D projects should not be competing for resources with other development projects focusing on education, health or safe water. Information is central to rights-based development and ICTs should be too. In the short-term it is important to highlight a few cases of ICT4D work to show the potential and applicability of the technologies. However, in the long-term, our aim should be to consider ICTs part and parcel of all development work, never an aim in themselves.

THE PERCEIVED
EFFECTIVENESS OF
DIFFERENT ICTS DEPENDS
NOT ONLY ON
INFRASTRUCTURE AND
CAPACITY, BUT ON
INGRAINED
COMMUNICATION
CULTURE AND POLITICAL
ENVIRONMENT.

Cultural medium of information dissemination



Appendices



Appendix one: **What is *Reflect*?** page **ii**

Appendix two: ***Reflect* ICT resource sheets** page **iv**

Appendix three: **Technology resource sheets** page **xvii**

Appendix one: What is *Reflect*?

Reflect is an approach to adult learning and social change, conceived by ActionAid and piloted in El Salvador, Bangladesh and Uganda in 1993–95. It fuses theories of Paulo Freire¹⁰ with the methodologies of participatory rural appraisal¹¹. The approach enables groups to develop their own learning materials by constructing maps, calendars, matrices, diagrams or using forms of drama, story-telling and songs, which can capture social, economic, cultural and political issues from their own environment. In this process the development of literacy and other communication skills becomes closely linked to the engagement of people in wider processes of development and social change.

¹⁰ **Freire, a Brazilian educator**, believed that education could liberate, or could be used to oppress, but is never neutral. He said that: *'The act of knowing involves a dialectical moment that goes from action to reflection and from reflection upon action to new action'*.

¹¹ **Participatory Rural Appraisal**: is a family of approaches and techniques that enable development professionals to have a better understanding of people's realities and priorities for action. The best known method is participatory visualisation: the construction of graphics such as maps and matrices, and the subsequent discussion of the findings and their implications for development activities; as well as the structural causes of poverty. *Reflect* emphasises the need for this information to remain in the control of the group, and the need to address and challenge power dynamics and conflicting priorities in a group or community.

How does Reflect work?

Reflect provides an on-going democratic space for a group of people to meet and discuss issues relevant to them and their lives. The participants/facilitator choose the specific topics themselves, according to their own priorities. The discussion is facilitated by a facilitator: someone from the group who has attended a *Reflect* 'Training of facilitators' workshop. The group uses various participatory techniques to represent their immediate reality, systematise their existing knowledge and analyse their situation. This is the basis for micro planning of development and lobbying activities. *Reflect* circles decide where and when to meet, how long for and how often – some groups might meet daily for one hour, others find it more useful to spend one afternoon or evening a week, the fact that the group themselves decide what would suit them best is key to the sustainability of *Reflect*.

Reflect training

The way people are trained is key for the successful implementation of *Reflect*. Both facilitators and trainers attend an initial workshop, however there is also a need for ongoing training and support. A typical *Reflect* training workshop is two weeks. This is sometimes broken into two parts – with the first part focusing on *Reflect* methodologies and the second on developing materials. Ideally there will be a break in the training to allow participants to return to their group, reflect on what they have learnt, practise using *Reflect* tools and collect materials for use in the second part. In this way the facilitators become involved in designing units for use with their group. This not only means that the issues discussed will be directly relevant to the specific group, but also that facilitators become actively engaged in constructing their own texts, taking ownership of the approach and internalising it. Without this internalisation, they will have very limited ability to effectively facilitate a process for others.

Where are we with Reflect today?

In the past five years *Reflect* has spread rapidly with over 350 organisations now working with the approach in 60 countries. The International *Reflect* Circle (CIRAC) is a network of practitioners from diverse organisations across 20 countries. CIRAC promotes the continued evolution of *Reflect*, consolidating learning and developing international publications based on practice.

An extensive evaluation process during 2000 showed the diversity of *Reflect* projects – however they are all concerned with at least one type of communication practice. The focus is on enabling people to articulate their views through any communication means necessary, whether through oral, written, visual or audio-visual modes. This is crucial if *Reflect* is to help strengthen the meaningful participation of poor people in decisions that affect their lives.

Reflect has proved effective at ‘giving people a voice’, however, it is clear that in order to change their lives for the better, *Reflect* participants also need to engage more systematically with (and influence) actors and processes beyond local level. The challenge often remains of enabling people to analyse the linkages between local problems and macro forces, so that they can open doors beyond the local level.

Diversity and ongoing innovation are a major strength. *Reflect* has now been adapted in many contexts for example: peace and reconciliation work in Burundi; land-rights work in South Africa; capacity building for school management in Mali; preventive health work in Ghana; displaced people in Sierra Leone; community forestry in Nepal; holding NGOs and local government accountable in El Salvador; and bilingual and inter-cultural education in Peru.

Why Reflect

This project has *Reflect* as its starting point. This is because we believe that ICTs are only useful tools for poor people if they are linked to people’s capacity to formulate and communicate their own analysis. *Reflect* provides the structures necessary for people to analyse their information resources and gaps and communication needs in a thorough way, ready to make meaningful choices on the technology they want to use. Literacy is also a key element in people’s capacity to make use of information sources and resources, making *Reflect* a natural partner to ICTs for development.

More information:

The international *Reflect* circle has a website – www.reflect-action.org which includes information about *Reflect* activities and contacts in different countries, key materials and resources (including the 2003 resource pack *Communication and Power*) and contact details for more information or dialogue.

Alternatively write to:

Reflect Unit, ActionAid International, Hamlyn House, London N19 5PG, UK

Appendix two:

Reflect ICT resource sheets

This appendix contains revised versions of training resources used in the *Reflect* ICT pilot projects. The sheets contain ideas and exercises designed to get people thinking and talking about the real opportunities and constraints for communication in their own context. These discussions and analyses can then form a good basis for planning for improved access to information... whether this be a telecentre, stronger and more accountable relationships with information providers, or a campaign for better infrastructure. In fact, in our experience it is likely to be a mixture of all three, which is why we refer to planning for a 'communications system', rather than centre.

Contents

The sheets cover five key topics:

- The value of information.
- What makes information useful
- Documenting local knowledge
- Accessing information
- Identifying information gaps

A sixth sheet gives some practical things to think about when turning analysis into fundable and useable plans.

A second set of sheets is also included appendix 3, which aim to give participants information on different technologies available to help them decide what is appropriate for them.

Who are the sheets for?

The *Reflect* ICT project was designed to fit into existing *Reflect* structures and the sheets are primarily written for *Reflect* practitioners, to fit in with the more general resource pack for *Reflect*: 'Communication and Power'. *Reflect* groups are established and built from a basis of acute and critical power analysis – involving the poorest and most marginalised, facilitators are trained to use methods which will encourage participation of those usually less dominant. The sheets themselves do not cover the basic principles of setting up equal and participatory sharing environments, although a lot of this is covered in 'Communication and Power'.

It is hoped that the sheets will be of practical value to others (thinking of) facilitating bottom-up planning of communications systems or ICT for Development projects too. Where the planning process is not bottom-up, or is facilitated from outside of a community, I hope that some of the concepts and ideas could still be adapted and used. Even for groups who have no plans to develop a project, an exploration of their own issues around information, communication and power would give a valuable grounding for any further work or analysis.

You are welcome to use or adapt these sheets to suit your own work. Please let me know how they were applied, adapted or received by email: hannahb@ActionAid.org

First steps – the value of information

Exploring how information can make a difference to people's lives and livelihoods, and what makes a piece of information valuable or useful.

WHY?

If you are working with people who have difficulty accessing basic needs, information may not appear to be a top priority. But to make yourself heard, to articulate well your needs and opinions to a variety of audiences, and to get hold of the latest information on areas of interest or importance to you is a key part of accessing your rights and opportunities. Therefore, from a *rights-based* perspective there a clear link can be seen between people's *capacity to communicate* and their ability to identify and capitalise on entitlements and opportunities. In the context of long-term development then, information is clearly a priority for poor and marginalised people. However, it is important that information is not seen as a goal in isolation, but linked to capacity for action and creating change.

WHEN?

Participants should be encouraged to recognise and analyse the role that relevant information plays in their social and economic lives early on, as it will form the basis of a perspective which links development to communication and power. However, it is also important for this to link to further analysis of the value of our existing knowledge, as highlighted in accompanying sheets.

HOW?

A first step might be to explore the power of information through relevant case studies. Facilitators can share with the group stories of how a piece of timely, relevant information made a difference to someone's livelihood, health, or social life. Some examples are provided in the 'Examples from Practice' section of this sheet, but efforts should be made to create or find locally appropriate examples, perhaps as an exercise during facilitator training.

Examining our own experiences

Inspired by these stories, and using questions such as those in the box (right), participants could think about examples from their own experience when a piece of information has made a difference. This could be through discussion (in a group or in pairs), or through an exercise, as described over.

QUESTIONING THE VALUE OF INFORMATION

To encourage people to share stories of their own experience of the value of information the following types of questions might be asked:

- Have you ever changed your plans because of new information?
- Have you ever increased your earnings/ saved time because of a piece of information;
- Have you ever received information which has benefited your health?
- Have you ever used information about your rights to make/ dispute a claim to something?
- Did you ever act on a piece of information, and wished you hadn't?
- Have you ever held back information from someone who needed or requested it?
- Did you ever get a piece of information too late for it to be useful?
- Have you ever heard of a piece of information which saved a life?



... the information walk

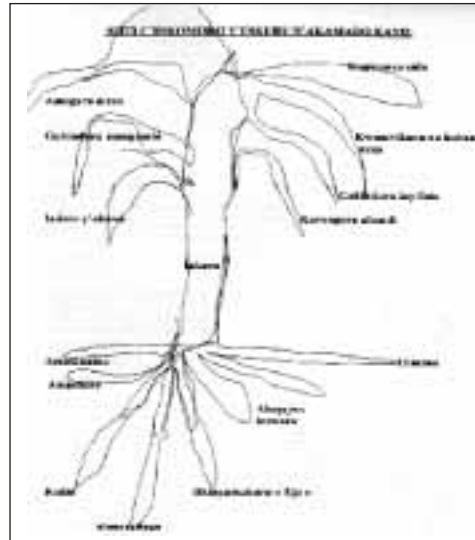
All participants start on the same side of the room or space. The facilitator asks a question and those who answer 'yes' walk to the other side. One or two of those who move could be asked to give examples, telling the group where they got the information, how they used it and what the outcome was. At some stage in the exercise, participants might want to suggest their own questions.

Information and power

It is important to explore the relationship between information and power. Are some people more likely to have timely access to valuable information than others? Do people always give information freely or do they hold on to it? Why is this the case? In what circumstances might people hold onto information and why?

Information trees

A group might develop a tree graphic together to explore some of the factors governing the value of information to their lives and livelihoods. Tree graphics have as their roots factors feeding into a situation, and as its fruits the outcomes or benefits. Applied to information, the roots will show a variety of factors behind good quality, valuable information and the fruits would show the benefits of having access to such. This exercise would lead into the accompanying sheet exploring the factors making any piece of information useful.



Information tree from Burundi

EXAMPLES FROM PRACTICE

There are many stories showing how information improves people's lives and livelihoods coming from the *Reflect* ICT Project pilots:

Burundi: Langude Nizigiyimana, a facilitator from Bisinde village told the *Reflect* ICTs training group: *'once, the Burundian tradition considered women as tools, to be used however and whenever – that is to say a person without rights. But when I learned, through community development meetings, that there were laws defending the status of women, I have blossomed thanks to the training received on the people and families code, I have now actually become part of a group in my village which takes forward cases from within the community.'*

India: Members of *Reflect* circles in Orissa claim that information received from facilitators has helped them to analyse their situation and start rocking the boat. In most villages throughout Orissa, information about rights and entitlements for the poor is not shared widely, and much of the benefit ends up in the hands of those closest to the council.

Reflect facilitators in several villages have been able to find out about the various government schemes and lists of eligible recipients. Armed with this information, *Reflect* participants have been able to hold their local councils more accountable and get their hands on the funds intended to help them. *'Information equals wealth'*, said the President of the Bubel Village Committee, who explained that as more people now attend council meetings and local CBO workshops and training, access to information is greatly improved.



What makes information useful?

Exploring factors which make a piece of information useful or meaningful for a particular individual or context.

WHY?

Information cannot solve the problems of poverty unless it is accompanied by the skills, confidence and knowledge to seek and use it. Furthermore, the meaning and value of any piece of information varies depending on the context in which it is received, the source, format, language etc. People will attach value to particular sources, although these may not actually be as trustworthy as they are perceived to be. It is important for participants to be aware of the factors affecting how useful a piece of information can be to them, in order to develop capacity to source and analyse information that is of potential use to them.

WHEN?

This is an important step to undertake after an initial exploration of the value of information (see separate sheet).

HOW?

The box (right) shows some of the types of factors affecting the value and accessibility of any piece of information. These can be explored through general facilitated discussion and visual graphics, some examples of which are covered here, although more could be developed to fit the local context and issues.

Generating discussion

Role plays or games can be used to illustrate the problems of misinformation/propaganda and hidden agendas. To evaluate the differential impact that different sources, formats or languages might have, participants could be asked to consider and discuss the impact of the same piece of information received in different formats (taped radio item, written, word of mouth etc).

BOX 1 – HOW MEANINGFUL?

Factors affecting the usefulness of information may include any or some of the following:

- **The source:** the same piece of information will have a different impact depending on where it comes from;
- **The format/ medium:** the same piece of information may have more credibility if written than spoken, or vice versa;
- **Relevance:** people will not use information that is not relevant to them, although the relevance can change from day to day;
- **Capacity:** People need to be able to find and decipher the information in order for it to have meaning and value to them. This may mean language skills, literacy or computer literacy, or simply mean having the necessary equipment, such as a video or radio;
- **Confidence:** Perhaps most importantly, a piece of information will only be useful if the recipient has the confidence to demand it and use it. This requires someone to have confidence in his or her own knowledge.

Outcome of discussions in Burundi Reflect ICT training

When is a piece of information valuable?

- When it reinforces prior knowledge
- When it can influence behaviour change
- When it allows you to get what you want
- When it creates inner blossoming
- When it is not divisive
- When it orients someone in their path/ life
- When it relates to work opportunity
- When it can protect you from danger
- When it can serve to re-establish security
- When it allows for social cohesion
- When it gives awareness of the reality overseas

What makes it most useful?

- When it can be a base for development
- When it allows for social cohesion
- When it gives awareness of the reality overseas
- When it is timely
- When it is understandable
- When it is directed at the right people
- When it is given to someone who can use it well.
- When it is read without reductions or adjustments
- When the receiver is sure it is true
- When it is from a trusted and known source
- When it is non-subversive and collective



Mapping types of information

A matrix or table could be developed to illustrate and explore the sources of information which people find useful for different aspects of their lives. A first step would be for the group to discuss and agree categories – for example, across the top areas of their lives to which the information is applied, and along the side the sources of such information.

Once the matrix has been filled in, the group can analyse the findings and look at how useful and relevant they find information from each source in each area of life. A ranking exercise, looking at which sources are most important for which areas of life, could be used to bring about a deeper exploration of how information is valued in the local context, and what makes it trustworthy, useful or meaningful.

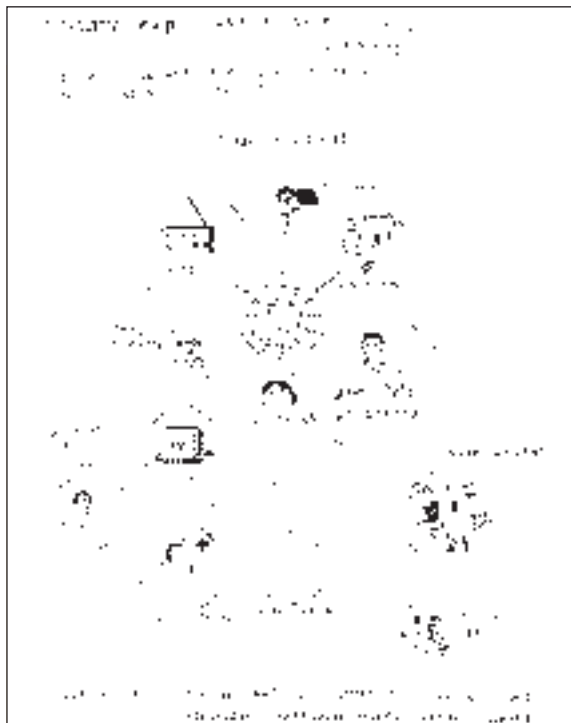
Mapping your own information network

A chapatti diagram could be used for participants to explore their own information and communication habits and resources. Using a topic of relevance and interest to the group, participants map out the different sources of information relating to that subject, adjusting the size and distance of the circle representing each source, and the strength and direction of its links, to represent its relevance, importance and accessibility.

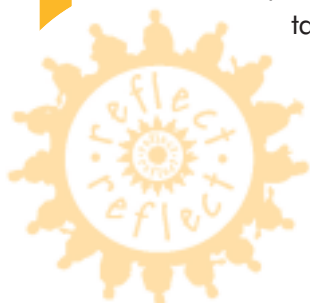
This exercise should be followed by a discussion of the different people and institutions that serve as information sources and the strengths and weaknesses of each. This will lead into an action plan for strengthening links with different information sources, or improving the quality of information received. The example (right) was prepared during the *Reflect* ICT process in Kundamal village, Orissa, and shows the different sources in order of importance, reliability and availability. The group facilitator, child development worker and radio are important and accessible, while the newspaper and local government institutions are outside of their immediate circle.

Who do we trust?

What do you do if you receive a piece of information which contradicts what somebody else told you, or your existing belief? Do you disregard the new information as incorrect, or re-examine what you already believed? Is there a subconscious process by which we evaluate the two sources and disregard the information coming from the 'weaker' source? It may be interesting to facilitate a general discussion on this issue of prioritising information, and tools can be developed to explore further. For example participants could rank different information sources, taking them two by two and deciding in each case who would have more influence on their beliefs.



*Sources of information graphic
Kundamal, India*



Ways for people to recognise the value of their existing knowledge, and think about why and how to document this.

WHY?

People often see themselves as passive recipients of information, and information and communication programmes often mirror this view. However, communication is a two-way process and an exploration of issues related to documentation of local knowledge is an essential element of this process. Being convinced of your own legitimacy in this two-way process through recognition of the extent and value of your own knowledge can lead to greater confidence in communication and provide a basis for further learning, analysis and campaigning.

WHEN?

It is important that the role of participants as information sources and communicators is constantly recognised and reflected in this process. The exercises related here could be run alongside or in between the other resource pages.

HOW?

The box (right) highlights some issues to explore around local knowledge. Once people are aware of their own knowledge, and their value as a source of information, they can begin to think strategically about how and why they might document and disseminate local information and knowledge.

BOX: EXPLORING LOCAL KNOWLEDGE

- What are the strengths in local information and knowledge;
- What is the scope and reach of this knowledge? How is it captured and shared;
- What are the advantages and dangers in documenting and disseminating local knowledge?
- Does a piece of information coming from a poor person have the same impact as from a powerful person?
- How do we strengthen traditional or existing ways of sharing knowledge?

What do I know?

In most cases people do not recognise most of what they know. This might be because it was learned informally or because it is something that everybody locally knows. It is important for people to recognise what they know both in order to think through what other people might be able to use, and to build more confidence in dealing with outsiders. A role-play could be developed in small groups or pairs where participants pretend to be a foreigner or city dweller trying to live their lives in the local/ village context. This should be followed with discussion to bring out the different areas of knowledge we each have in order to live our lives.

Types of traditional / local knowledge – Burundi

Work	Social	Economic	Health	Culture
<ul style="list-style-type: none"> • Building • Traditional medicine • Fishing • Agriculture 	<ul style="list-style-type: none"> • Education • Proverbs • Norms/taboo • Mutual aid • Gossip 	<ul style="list-style-type: none"> • Driving • Sun smoking • Veterinary • Recycling tin 	<ul style="list-style-type: none"> • Traditional medicine • Diagnosis • Medicinal plants 	<ul style="list-style-type: none"> • Music/dance • Poetry • Drumming • Trumpet • Weaponry • Symbols



This exercise could be followed up, or substituted, with a gender or age role swap. Men and women, or parents and teenagers, role-play each other's lives to explore the different things each has to know to get by, followed by discussion of the findings.

When am I a useful information source?

To build on the exercise from the 'What makes information useful' sheet regarding the value of different sources of information, participants could spend some time looking at themselves as sources of information. With a spider diagram, participants could show themselves at the centre and illustrate the different people or institutions that use them for information, the types of information they provide and the strength of the different links. This exercise should be followed by group discussion to explore more potential users of local information.

Who wants to know that?

Once the types of valuable information held locally have been identified, people need to think about who else might be able to use it, how they could access it, and whether they want them to get their hands on it...

ADVANTAGES/DISADVANTAGES OF DOCUMENTING LOCAL KNOWLEDGE ON HERBAL MEDICINE	
<i>From the Uganda Reflect ICT training</i>	
ADVANTAGES <ul style="list-style-type: none"> • Free of charge • Readily available • Locally made • Enhances income • Creates social relations • Curative • Supplements modern science • Provides security 	DISADVANTAGES <ul style="list-style-type: none"> • Bad side effects • Lacks dosage • Undermines social status • May cause loss of popularity and income • Linked to spirits • No documentation skills • Accesses knowledge without payment • May cause death

Two main reasons to document knowledge are for it to be available to people in another place (i.e. another village with similar circumstances, or for national level advocacy) or another time (i.e. future generations in the same village).

Using the following methods, the group could discuss how they got some of the knowledge and skills they need for their lives, and identify some of the things they know which people in another space or time would benefit from.

A river graphic, showing changes during living memory, could be developed to illustrate the types of information which have been useful at different times and anticipate future demand. This could focus on a particular type of activity, and how new information or experimentation has changed ways of doing things. A series of discussions could be facilitated to think through the best methods of capturing, storing and transmitting information to future generations. This could start with a general discussion about the types of information people would like to be preserved for their children and grandchildren, following up by considering how information has been passed down from previous generations. With good information about, and analysis of, different ICTs, this should lead to focused discussion and thinking about the best way of continuing the process – whether through oral history, writing, video, audio etc. In

some cases ICTs may be able to resurrect social spaces for the transfer and sharing of knowledge.

LOCAL KNOWLEDGE IN BURUNDI
 During training for the ICT project, Reflect facilitators in Burundi realised that knowledge which exists in their communities was often taken for granted. To preserve and promote this information for the future they decided they should document it using video and other ICTs.

Another important discussion to facilitate is around the dangers of documenting local knowledge – which may include issues such as exploitation, control, copyright, patenting and ownership.



Identifying and evaluating participants' strategies and resources for accessing information.

WHY?

Information is a valuable resource, and lack of access to it is an important element of people's poverty. In order to tackle marginalisation and misinformation, participants need to identify which types of information they have access to, which information sources are available, useful or reliable and any barriers to accessing such sources. That analysis can then form the basis for strategies and action points for better information and communication, and reducing marginalisation.

WHEN?

This section builds on work in previous sections looking at the value of information and the differing importance and impact of information from different sources.

HOW?

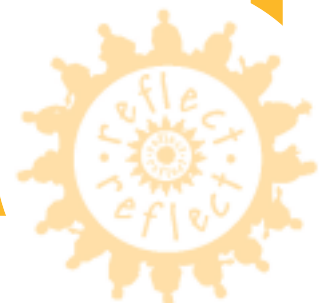
In this section, groups will need to identify the types of media they use to convey and receive information, and assess the reliability, control and accessibility of these. They also need to look at potential resources which are not accessed and the reasons for this, and other possible means to improve communication practices.

Media matrix

Different types of communications media and technology are relevant for different activities and in different circumstances. A first exercise might be for a group to use a matrix tool to list all the types of media and tools that they know of and use in relation to different types of communication. These can then be ranked by factors relating to their usefulness, such as: accessibility, affordability, availability, user-friendliness and appropriateness. The graphic (right) was developed by a *Reflect* group in Orissa, showing meetings as the most appropriate source of information.



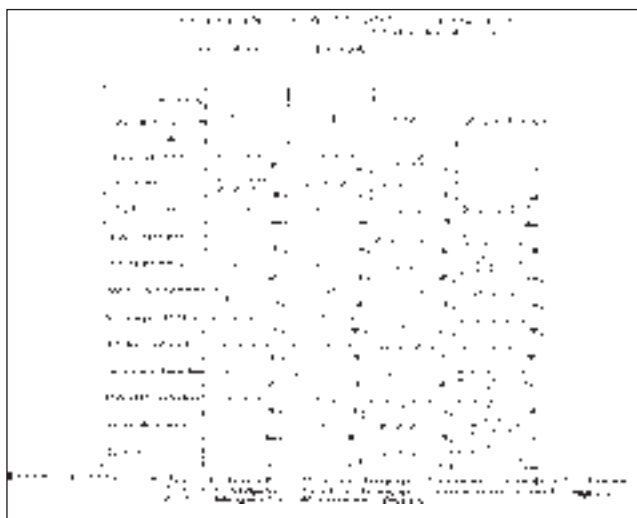
Ranking of different media by Rengali village, Orissa (India Reflect ICT pilot)



... control of communications media

It is important at this stage for groups to examine issues of power and control in communication and information resources. The matrix described above could be further divided by gender, age or class as appropriate to encourage discussion of who has control over different media and equipment or who has the time and skills to access information in different ways. The matrix (right) was developed during the *Reflect ICTs* process in Uganda and shows how men and women rank different media differently according to availability, affordability and appropriateness. The matrix below shows how distinctions were made in India between members of different social castes.

	Rank	Male	Female
Radio	1	3	7
Oral	2	2	8
Phones	3	7	3
Letters	4	2	8
Folklore	5	3	7
TV/Video	6	8	1
Posters	7	5	5
Graphics	8	2	8
Reports	8	3	7
Dance/Drama	10	1	9
Internet	11	6	4
Fax	12	5	5
Email	13	5	5
Radio call	14	5	5
Books	15	4	6
News papers	16	9	1



Ranking of different media by Rengali village, Orissa (India) Reflect ICT pilot)

Building on existing roles

The obstacles to accessing good information resources, and disadvantages of particular tools, have begun to be identified in the previous exercise. Based on this discussion, the group can look at potential ways of overcoming such barriers, whether language, distance, cost or literacy. One way to structure such a discussion might be to map out community resources which can help to overcome such obstacles – perhaps teachers or facilitators who speak English; traders who travel regularly to nearby towns where internet kiosks are located; community radio stations etc. In this way, using a map or systems diagram, alternative means of access can be identified and action points established.

FACTORS LIMITING ACCESS TO INFORMATION	POSSIBLE SOLUTIONS
<ul style="list-style-type: none"> • Technical jargon • Untrustworthy sources • Financial constraints • Unfavourable political climate • Apathy • Poor time management • Lack of transparency • Language barriers • Ignorance • Bureaucracy • Lack of technology • Distance • Gender bias • Distortion of information 	<ul style="list-style-type: none"> • Advocate and lobby • Involve leaders in meetings • Provide education • Seek funds • Build team work and trust • Be time conscious • Legal reforms • Prioritize issues • Timely community meetings • Gender sensitization • Timely reports • Introduce appropriate technology • Network • Increase facilitation



Identifying information gaps

Building on previous analysis of development needs to identify priority areas for action.

WHY?

In order to develop realistic and relevant plans, and choose appropriate ICT equipment, an identification and prioritisation of information needs is necessary. Rather than being a separate activity, this should build on other discussions and analysis around key local issues and needs, and on existing projects and areas of work. Analysis of information needs and existing resources will provide the foundations for planning a local information and communication system or strategy. This might identify what new resources and skills would be most useful and where, or in whom, they could be most usefully located, and how benefits can be assured to the poorest and most marginalised.

WHEN?

In the *Reflect* ICT project, this is an important stage between the group's analysis of the value of information and their current information resources, and a more detailed look at the types of technology available for information and communication.

HOW?

If you are working with a group that already has a body of documentation of analysis on development needs, then a first step will be to look through that as a group and identify priorities and action points. Based on these, the group can think through what further information might be useful, where it is available from and how they might access it. In any case, it is also important to hold discussions about current or emerging issues of concern, not yet covered within general group discussions. These could be issues of community or individual concern. It might help to think through several categories, such as income generation, social activities, health or childcare, to focus attention and aid discussion. Again, the facilitator can help the group to identify where information could be of benefit, what types of information and how it could be accessed.

It may be that the process of identifying a gap or explicit need is enough for potential solutions to emerge. However, in many cases the information that participants identify may not be easily accessible, and a more detailed action planning may be necessary, including campaigning and lobbying of information sources or telecommunications policy makers, capacity building, or fundraising for equipment.

QUESTIONING THE VALUE OF INFORMATION

To encourage people to share stories of their own experience of the value of information the following types of questions might be asked:

- Have you ever changed your plans because of new information?
- Have you ever increased your earnings/ saved time because of a piece of information;
- Have you ever received information which has benefited your health?
- Have you ever used information about your rights to make/ dispute a claim to something?
- Did you ever act on a piece of information, and wished you hadn't?
- Have you ever held back information from someone who needed or requested it?
- Did you ever get a piece of information too late for it to be useful?
- Have you ever heard of a piece of information which saved a life?



EXAMPLES FROM PRACTICE

In all three of the *Reflect* ICTs pilots an identification and ranking of information gaps and needs was undertaken as part of the planning process. In India, groups completed matrices showing the importance of information on various issues to the social and economic lives of participants. The matrix below shows the analysis of Patharla village, where information on laws and rights relating to seasonal migrant workers was considered a priority, along with general information on entitlements and land rights.

In Uganda, another matrix detailed the types of information needed under different categories (health, agriculture and employment), along with the specific information gaps felt by the group and possible solutions. For example, under employment, the group felt that information on job opportunities would be useful, but that in particular there was a lack of timely information and news, skills on searching and applying for jobs and understanding of the types of job categories applicable. Ideas generated during this primary brainstorming included to ask friends and networks, read newspapers, make visits as well as in general think more creatively.

Information Area	Information Need	Importance	Rank	Score
General Info	General Info	20	01	01
Land Rights	Land Rights	24	02	02
Health	Health	20	03	03
Education	Education	15	04	04
Employment	Employment	18	05	05
Social Security	Social Security	12	06	06
Legal Rights	Legal Rights	10	07	07
Agriculture	Agriculture	12	08	08
Transport	Transport	10	09	09
Communication	Communication	10	10	10
Market Info	Market Info	10	11	11

Ranking of information needs – Patharla Village



Some points to consider when turning analysis into concrete plans

Once a group has reflected thoroughly on their information needs, gaps and potential solutions, they may feel ready to make an action plan. This may involve fundraising for equipment and/or personnel, or it may be a plan to divert or influence existing resources and efforts. To make such plans, groups will probably need more information on the types of technologies and tools available for information and communication, their potential uses, infrastructure needs and costs. Some research into locally available ICT solutions can be done locally, and it may be worth thinking about paying for some impartial expert advice.

In the case of the *Reflect* ICTs Project, funding was already assured for a communications system or centre to be created in each of the three pilot locations, planned according to the analysis described in these sheets. This sheet highlights some areas that were included in the plans, and could be used to guide the development of funding proposals or plans for further communication work. Answers to all of the sections needs to be based on the opinions and analysis of the groups involved, rather than generally received wisdom or assumptions by managers.

BACKGROUND

- Development priorities of poor people in the area.
- Groups involved in the planning and implementation, their social make-up, and partnerships with other organisations and individuals.
- Existing communication practices of poor people in the area – facilities, resources, alliances and media.
- Other ICT projects, information resources etc in the area.

PLAN

- Key information needs of the group and their community.
- Expected equipment and human resource needs (how people, traditional media and new technologies will work together to bring in, store, translate, share and document information and knowledge).
- Activities to implement the plan.
- Roles and relationships, including management structure.
- Logistical details (storing equipment, access etc) Budget (personnel/ equipment/ training/ overheads etc) including potential/ agreed sources of funding.

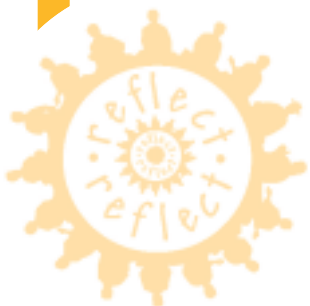


ANTICIPATED CHANGES

- Objectives.
- Impact: it is important that groups identify for themselves the benefits and changes they expect to see from the implementation of the plan or system. Then indicators can be developed to track changes towards those expectations. This will ensure that the programme is constantly oriented to meeting the needs of the target beneficiaries, and will not be overtaken or appropriated by more powerful members of the community/ partnership.
- Beneficiaries: who else is expected to benefit from the plan?
- Anticipated problems, and ideas for how to resolve them.
- Accountability and power: it is important to consider how new skills and status attributing from the system or plan will be distributed, and how this might affect power relations in the community. For example, if it is decided that the group facilitator is to have primary access to the Internet, and expected to share requested information with the group verbally, it needs to be considered how this person will be held accountable to the group.
- How will the groups involved in planning and decision making continue to be actively involved in the implementation phase of the project?
- Sustainability: is the system expected to continue beyond the initial plan/ funding period? If so, how is this expected to be funded/ managed?

DOCUMENTATION AND SHARING LEARNING

- Networking: what relationships were formed during the planning process with external organisations including other ICT projects, local government and media?
- Audience: who do you think might benefit from hearing about the processes and outcomes of your system or plan, and what methods will be most effective in getting that learning across to them?



Appendix three: Technology resource sheets

The following resource pages were designed to help participating *Reflect* groups and facilitators to match available or existing ICTs to the information needs and priorities they identified. They were developed in early 2003 and are already out of date! However, they are included to show the types of analysis that were made of different technological solutions, including power issues.

Groups are encouraged not to 'cherry-pick' different technologies, but instead to think about a whole communications system, based on their existing resources, relationships and skills. It is therefore important that these sheets are only used as part of a process which focuses on the information and communication needs. Furthermore, it is important to stress that ICTs need to be thought about not individually, but in terms of how they can work together – convergence. For example, community radio can be used to enable access to the Internet, or telephone to access radio.

Overall, the system needs to contain:

- Ways of bringing information in – e.g. Central computer with internet access, library, government information shop;
- Ways of making information locally relevant and accessible – e.g. drama and song captured on video or audio, written articles, radio programmes;
- Distribution networks – e.g. Agricultural extension workers, radio or television channels, mobile phones, facilitators, campaign networks, websites etc.

There are five pages available, covering:

- **Cameras**
- **Radio**
- **Video**
- **Mobile phones**
- **Computer systems**

However, due to the changing nature of technology, these will need adapting heavily to context and to keep up to date and relevant and are really meant more as templates than solid information.



Cameras

Cameras capture still images and are one of the older, simpler and more commonly used communication technologies. The simplicity of a camera gives it a great advantage with both ease of use and directness of the results. As a purely visual media, both for capture and playback, it has the advantage of transcending language and literacy barriers.

Digital cameras are becoming increasingly affordable and have the added advantage that pictures are available to see immediately without the time and expense of finishing a film and getting it processed. This has opened up the simple technology to many more potential uses, including immediate discussion and feedback of pictures.

One of the more innovative uses of cameras is for people to take a camera and document things which are important to them, or represent changes they have experienced. This gives people a chance to express themselves directly, without intermediaries or complicated and intimidating equipment. Disposable cameras are cheap, lightweight and ideal for this type of exercise.

Constraints

Infrastructure: although traditional cameras use film, which requires specialist processing at some cost, digital cameras are now available which store pictures taken on a chip in the camera or in some cases on a disk. These pictures can be viewed immediately on a screen on the camera itself, and then either deleted, stored or downloaded using simple cables and software which come with the camera, onto a computer or laptop. Photographs taken with digital cameras can be printed onto photographic paper if necessary, but can just as easily be printed on a home printer, added to a website or sent on by email. All a digital camera needs is a power source to recharge the batteries.

Skills: few technical skills are needed to operate a camera, whether mechanical or digital, and it is easy for people to gain confidence using the equipment. Cameras are one of the easiest ways for people to express themselves using technology, as they are able to just point it and click to record an image.

Costs: the costs of digital cameras varies wildly – the more you pay the better the quality of the resulting pictures will be, so think carefully about what you will need the pictures for. If you are going to use the photos just to show to friends and family, then a lower-range camera costing US\$100–200 will do. However, if you want to produce pictures good enough to print in magazines, or use on a professional looking website, then you will need a camera of at least 3 mega pixels which will cost upwards of US\$200. Other considerations will include the size and ease of use of the cameras.

Power issues

As cameras require no literacy, do not usually have a great status attached to them, and require few technical skills, they do not fall prey to significant power issues.

Examples from practice

In **Uganda**, the *Reflect* team gave women cameras to document the changes they had experienced since the beginning of the *Reflect* circle. One woman was able to show how very powerfully the impact *Reflect* had made on her life. She took a picture of her youngest daughter, a healthy looking baby. She explained that her older children had not looked so well at that age, as she had not known about nutrition before joining *Reflect*.

In **Kenya**, a local NGO gave disposable cameras to Masai tribes women to document things of importance to them. The photos were then exhibited with one-line captions at the entrance to the Masai Mara safari park, and viewed by all the tourists passing through. One photo showed a man milking a cow. The caption claimed that men never usually do this work – he was just showing off for the camera!

Radio

Radio's wide reach and low cost provide effective communication in rural and remote areas. Unlike newspapers and magazines, radio does not require literacy, and unlike television, radio receivers are affordable and accessible even without electricity or telephone connections. Even in very poor communities, radio penetration is vast – an average of one in five people in Africa has a radio¹². Furthermore, production is cheap compared to other mass media.

Radio has many uses, from entertainment to education and broadcast of personal messages. In some cases, radio stations have linked people to the internet by searching for, translating and broadcasting requested information on air. In other cases, expert panels or local officials answer questions submitted by listeners by telephone or email, promoting accountability or extending relevant expert knowledge. Radio has also been used by minority language or cultural groups to assert their identity and provide a cultural reference point.

Community radio: In recent years there has been a growth of community or rural FM stations. A community-oriented station not only gives information but also gives the community a voice, enabling local people to actively produce material for broadcast, share their analysis and experience, influence others and gain new skills. Where these exist locally you should give consideration to including them in your communications system, as for little cost, your group can create or feed into programmes with wide reach. Where there is no community station, audience pressure can be effective to encourage existing stations to extend their coverage to new areas or to start programming in new languages or even open new stations.

Constraints

Infrastructure: The infrastructure needed to make programmes is minimal, although broadcast stations require electricity, and receivers require coverage.

¹² FAOSTAT 1998 – in 1995 the ratio of radios to people in Africa (not including South Africa) was 1:5

Electric power is not necessary for radio receivers as they can run on batteries or even clockwork power. Where there are not many local radio services, specialist receivers can be purchased to receive programmes sent out by the WorldSpace satellites (AfriStar and AsiaStar). These receivers cost around US\$200 and are battery powered.

Licensing: Community and packet radio stations (see computer systems sheet for more information on packet radio) need broadcast licenses and in some countries these can be difficult to obtain.

Skills: Programme quality depends on skills from interviewing to recording and editing and confidence, as with all communication.

Cost: The cost of setting up a community radio station is upwards of US\$40,000, although running costs are relatively low and digital technology bringing cost down even more. However, to produce programmes for existing radio stations does not require a lot of equipment or money. The equipment needed is similar to that for digital video: a minidisc or cassette recorder, microphone, headphones and simple editing equipment. (anyone estimate costs?). Many participatory radio projects exist using listener groups to provide structured analysis and feedback on educational programmes, and suggesting topics to be covered. This costs nothing but time and *Reflect* groups are in an ideal position to do this.

Power issues

Although many poor households own a radio set, in many countries it is the man of the house who controls when it is used and what programmes are listened to. This has been flagged as an issue in Uganda, where women and children cannot touch the household set, while research in Bangladesh showed that 71% of males and 44% of females surveyed had regular access to radio broadcasts. Furthermore, the division of labour and roles for men and women

Video

means that different programmes will interest or be relevant to men and women.

In many communities, radio is a valued source of information while in others experience has shown the medium to be untrustworthy and open to political influence. During the ethnic conflicts in Burundi and Rwanda in the early 1990s, radio stations were key weapons used to spread violence. In contrast, Radio Ljambo, set up after the conflict in Burundi, played a crucial role in collecting authoritative news from multiple sources and facilitating roundtable debates between opposing parties that helped to lay the foundations for the peace process. Radio must be a trusted source in order to have a positive impact on people's lives and livelihoods.

In India, rural radio stations not permitted to broadcast independently of state broadcasting authorities.

Examples from practice

In **Uganda**, *Reflect* participants contribute to a regular discussion panel on gender and education on the local radio station. The panel breaks taboos, openly discussing sensitive issues such as rape and harassment in schools or early pregnancy. Many more examples are available from organisations such as:

- **Developing Countries Farm Radio Network**
– helps community radio broadcasters share experiences, provides scripts and training in scriptwriting.
- **AMARC** – supports the development of community and participatory radio along the principles of solidarity and international cooperation.
- **OneWorld Radio** – www.oneworld.net/radio has audio clips to download and links to further resources, including training for producers and broadcasters.

Video can be a very powerful means of communication, and with good planning, can present complex issues very clearly. The process of making a video can be a good way of getting diverse voices into a debate or planning process. Video can also be used to create good, locally relevant information resources in local languages, or as an advocacy and campaigning tool. Technology to show video is getting better, smaller and cheaper all the time so the possibilities for use of materials created are very broad.

In the past, the usefulness of video has been limited by the cost and size of the camera and editing equipment and specialist skills required. However, with the advent of digital video these limitations have practically been eliminated, making video one of the most promising media for communication in marginalised communities. Digital cameras now make it reasonable for groups to produce their own videos, in local language and for a limited local audience.

Constraints

Apart from initial equipment and training costs, video is a relatively accessible technology as it can be used in any language and does not necessitate either producers or users to be able to read or write. There are three main elements to using video: shooting, editing and disseminating:

Infrastructure: While the editing process relies on a fast computer with a good electricity supply, the actual camerawork requires only a handheld, battery-operated camera and can take place anywhere. Distribution is also very flexible, as the resulting video can be shown via portable, battery operated players or placed on websites, depending on the needs and facilities of the video-makers.

Skills: While camerawork requires some very basic technical skills, just as important are creativity, communication skills and having something to say! Editing digital video requires more technical skills, which can be gained with a little training and mastered with experience!

Costs: Set up production and editing costs include:

- cameras (US\$500 each)
- computer for editing (US\$2000)
- editing software (US\$100)
- specialist cables (US\$50)

Depending on the dissemination strategy costs will range from a few VHS tapes, television and video player, to portable DVD or Video CD (VCD) players which cost from US\$50–200. You may also decide to invest in a minidisk player to make audio recordings for local radio stations.

Power issues

Tools and techniques must be employed to ensure that the concept, scripting and shooting are openly discussed among the group. However, a lot of power is concentrated in the editing process, and often not recognised. In a large area, the editing facilities are likely to be concentrated in a central point with good electricity supply. Furthermore, it will probably be most efficient and effective to only train one or two people to operate the editing equipment. This means that while production and dissemination can be widespread and locally controlled, the editing process is more centralised. To compensate, editorial control and accountability should be clearly negotiated at the beginning of the editing process.

As with other technologies, video has traditionally been seen as predominantly a male medium. Women may have less confidence using or appearing in videos, and in some cultures it may be unacceptable to record women at all. Used well, video can be a tool to empower women, as shown in the example of ITDG in Kenya.

Examples from practice

In Bangladesh, **ActionAid** and Worldview coordinated a project where people were trained on participatory video production, and returned to their communities to make a video on a subject of their own choosing. One group filmed the unhygienic practices of the butcher in the local market and showed the tape on a mobile television unit in the market square, prompting action to force the butcher to improve hygiene.

Gamos (www.gamos.org) have trained several organisations and groups in different countries on the use of digital video and editing equipment. In one project in Ghana, health workers carry videodisks on visits to households to enable them to share health promotion information directly and immediately. In Kenya, agricultural extension workers use a similar scheme, carrying videos on topics such as grafting techniques or dealing with pests.

Video SEWA in Gujerat, India, is a collection of self-employed women from different backgrounds who produce video films. Taking off from an initial training, Video SEWA now has employees and makes simple, appropriate and modern video technology, and the resulting videos, available to members, organisers, policymakers and planners from local to international level. Videos are screened at worker's education classes at SEWA giving members the opportunity to see and understand issues pertaining to their own and other trade groups. www.videosewa.org

Mobile phones

The potential of mobile phones (or cell phones) is expanding all the time as the coverage, reliability and range of services increase and the costs come down. The most basic use of a mobile phone is to make or receive a telephone call, but increasingly handsets are being developed to send short text, picture and even video messages or to browse the internet.

Mobile phones quickly become invaluable communication tools where reception and coverage is good. Apart from obvious social uses, small-business owners can use them for marketing and logistics, cutting down the need for travel. They can also be useful to the process of organising people across communities, enabling people to work together on common issues and maintain regular communication. Furthermore, as mobile phones become more widespread in an area, all sorts of information services spring up targeted at mobile phone users. This might include daily messages with the latest commodity prices, exchange rates, entertainment, sports or news etc.

Constraints

Infrastructure: Coverage of mobile phone networks is growing very fast, and in many cases mobile phones connectivity is reaching areas which have never been connected to traditional landline telephones. However, there are still areas where mobile phones have not yet penetrated (see section on satellite phones below). Other than that, mobile phones batteries require recharging every couple of days, depending on use. Solar handsets are not yet available, although you can get solar battery chargers for around £30.

Skills: The basics of a mobile phone are as simple as dialling a number or pressing a button to answer a call. Even more complicated tasks are not hard to master. However, there are particular communication skills associated with telephones, especially when dealing with formal situations. Being able to frame an argument, make a case, and secure progress when there is no one physically in front of you requires practice, and confidence is needed to ensure that you are not constantly transferred between departments or lost on hold.

Costs: The cost of buying, connecting and using a mobile phone vary enormously from country to country. As mobile phones become more popular, competition and economy of scale tend to force prices down. On the whole you need to buy the handset, although this may be subsidised by your line provider, and choose to either pay for calls in advance (prepay) or by monthly bill. As a guide, in Uganda calls on a prepay mobile cost from 180–340 shillings a minute, while in India from 2–5 rupees per minute depending on where and when you are calling.

Satellite phones

Power issues

Where a phone is purchased as a shared resource for a *Reflect* group or community decisions must be made such as:

- who looks after the phone;
- who can use it and for what purposes;
- how will the phone bills be paid? Can charges be made for all, or certain types of uses of the phone?

Examples from practice

In **Bangladesh**, GrameenPhone is a private company providing mobile phone services at affordable prices both for profit and social development ends. Their Village Phone programme links to the famous Grameen Bank to provide telecommunications facilities in rural areas while giving poor rural women a good earning opportunity. The Village Phone works as an owner-operated pay phone, providing telephone services in rural areas where no such facilities existed before, and allowing the rural poor access to phone services without subscribing. Typically, a woman Grameen Bank borrower takes a loan to buy a handset and subscription and is trained on how to operate it and charge users. By March 2003, there were more than 26,000 Village Phones in operation.

In Pune, **India**, the Vidya Pratishtan Institute of Technology are providing a service whereby relevant commodity prices are made available by phone. The system works by interactive voice recognition system, whereby the user dials the number and responds to a series of options to receive the information they are looking for. In other places, text messaging is starting to be used for this type of service, whereby subscribers receive daily text messages to their phone giving relevant prices or exchange rates.

There are two types of satellite phone available:

- LEOs (Low earth orbiting satellites) circle the earth at a low altitude. The handsets are light and small, but the system and phones are complex to manage.
- GEOs (Geo-stationary orbiting satellites) orbit the earth at much higher altitudes in a fixed position relative to the handset. Although GEO phones are bulkier and there is considerable delay in transmission, they are much simpler to manage and work out cheaper.

A LEO handset will use a local mobile phone network as first choice and only use the satellite if this is not possible. This gives it greater versatility than the GEO handset, which always uses satellite. However, technical developments are under way to reduce the delay experienced during satellite voice communications using GEOs. GEOs are also the number one choice for data, fax and broadband communications.

Typical costs:

A typical LEO provider would cost:

- Handset US\$1760
- Calls US\$2 per minute
- Subscription US\$ 20 per month

A typical GEO provider would cost:

- Handset US\$2400
- Calls US\$1 per minute
- No subscription fee

However, the economics of this technology means that individuals need financial security or backing to access to satellite phones. Furthermore, in some countries licence fees can make the cost of owning a satellite phone even more prohibitive.

Computer systems

Computers have many potential uses depending on the needs of the user. Computer systems consist of two main parts: the hardware, or machinery, and the software, or programme.

Hardware and equipment

The personal computer (PC) is made up of a central processing unit (CPU), screen, keyboard and mouse. The CPU does all the work, while the other items allow the user to interact with the machine. For some functions you might need to add an extra piece of hardware to your system, such as a modem for accessing the Internet or a CD burner for making CD-ROMs.

Scanner: used to capture images or text from paper to screen (or digital file) For example you can scan in a graphic and then save it as a file and record it to disk or email it to another computer.

Printer: to print a file from the computer onto paper. Often the main means of getting information from the computer to a wider audience – like printing a letter to send or a story to take back and share with your group.

Modem: enables your computer to connect to the internet and email service via a telephone line. You must have access to a landline or satellite service.

CD ROM: a compact disk that can store text, still and moving pictures, and audio. CDs are lightweight, durable and can hold a large amount of data making them an ideal medium for storing and disseminating material. To use CD ROMs you need to have a CD drive and to record them a CD-burner and recordable disks. They are particularly useful for:

- **Training** – different media can be employed and controlled by the learner using basic computer operating skills;
- **Reference materials** – storing lots of data and information compactly;
- **Recording** – for archiving, safekeeping or distributing your own material.

Software and functions

There are software packages for producing text (word processing), calculating and presenting numbers (spreadsheets), sending messages (email), accessing the internet (browsers), editing audio and video, book-keeping, drawing pictures, editing photos... and nearly anything else you care to think of. Most new or refurbished PCs come equipped with basic software packages to enable word processing, email and internet browsing etc. Beyond that, an information technology (IT) specialist will be able to help you decide which programmes are available to suit your particular needs. Some of the more common programmes include:

Desktop publishing: for producing brochures, newsletters etc. at low cost.

Databases: stores data and organises it according to any chosen criteria: for example, a list of contacts can be stored and searched according to name location, interests etc, (you can draw up a list of all contacts living in Ghana, named Patel or working on *Reflect*, for example).

Geographic Information System:

organises data on geographic areas to help analyse relationships between social, economic and environmental conditions e.g. land-use planning, environmental impact assessment. Requires digitising tablet for computer and maps or data on the area for analysis. Quite specialised skills required to set up and use, as well as supply of geographical data.

Internet and Email: internet and email are the result of combining your personal computer with a modem and telephone line, enabling it to communicate with other computers around the world.

- With *email* you can exchange messages, documents and pictures with other email users. You can get an email address through work, from specialist websites or by signing up with an email provider. The cost of sending an email is no more

than the cost of a local call, even when you are sending a message to the other side of the world. What's more, the message will arrive in the recipients 'mailbox' within seconds or minutes of leaving yours. Email has revolutionised the way many organisations work, including international campaigns such as Jubilee 2000 and NGOs such as ActionAid, as colleagues across the world can share information and ideas cheaply and quickly.

- The *Internet*, also known as the World Wide Web, is a massive network of information, opinions and services. You can find information about anything on the web, you can even buy and sell things, but there is no quality control – anyone can put information up and there is no saying whether it is reliable. For that reason both confidence and skills are needed to find useful information or appropriate services on the web. You can both contribute and access information on the web: to contribute you will need web design software and skills and a good telephone connection; to search you will need to sign up to a service provider and install basic 'browser' software. Access costs include either a monthly subscription or the cost of a local call for as long as you are connected.

Computer systems (continued)

Constraints

Infrastructure: Computers require a stable electricity supply, as if the supply is interrupted work in progress can be lost irretrievably. Internet and email access usually requires a telephone line, although there are some wireless solutions such as the WorldSpace satellite, which can deliver web content direct to a computer.

Skills: Different levels of skill are needed to actually operate a computer, from basic use (typing, playing audio or video) to programming. Computer skills may not be directly transferable, but they can be used directly or indirectly to increase livelihood opportunities and are therefore attractive to many poor people. Most programmes require some literacy, although some are more visual than others. Using a mouse or joystick, a user does not necessarily need to be able to read or write to interact with a machine, depending on the software and content they are accessing.

The Hole in the Wall experiment in India showed how easily people with no experience or literacy can pick up the skills needed to operate a computer, as long as they are motivated by interest or need. NIIT installed a computer screen and control stick in a wall of a poor slum and within hours curious local children had worked out how to write words, move documents and browse the Internet. Perhaps the more difficult skills to acquire are those of filtering information, which is where skilled professional intermediaries have an important role to play, researching and translating relevant and quality information or sources.

Costs: At present the cost of a computer capable of processing quality video and audio files, including video editing, is around £1500–2000 in the UK. Software programmes vary in cost, generally around £150, although the basic word processing and internet browsing programmes usually come pre-

installed on a new computer. Digital Links International is a charity which supplies refurbished computers (with software and training) for development projects in developing countries for around £60. The local distributor in Uganda is SchoolNet and in Burundi Information Pour Tous at New School in Bujumbura.

Maintenance: Both hardware and software can break down and the skills needed to fix them are quite specialised.

Power issues

Computers are powerful technical resources reliant on the skill and training of users and as such closely linked to status and power. If the control and training is not carefully managed in favour of the poorest and most marginalised they are in danger of becoming the tools of the elite, further widening gaps between the (information) rich and poor. Conversely, where computers are introduced in the hands of previously low status people – e.g. women – this can have a positive transformative effect on power relations in the community.

On a global scale, a ‘digital divide’ is evident and reflects more traditional divides between rich and poor. There are two main strands of this exclusion: access and content. On the one hand the infrastructure to enable internet access is just not available in many remote and marginalised communities. On the other, the information available on the web only reflects the needs and interests of the majority of its users. As with any communications technology, computers are not value free machines, but intricately linked to the objectives / agendas of their users. Half of all Internet users live in the USA and as such most of the information on the Internet is in English, very little in minority languages. Use of the Internet will only diversify as content is developed locally and information becomes more relevant and accessible to a wider diversity of people around the world.

Examples from practice

The **MSSRF information village research project** in Pondicherry, India, provides information services to people in remote rural areas through a mixture of technology, training and information services staff. The project started with a full survey of 20,00 people in 13 villages on existing services and needs. Access points were set up in each village, owned and run by villages for the benefit of the whole community. Volunteers were chosen by community members to run the centres, which are all linked to a regional hub. The hub itself takes relevant or requested information from the internet and other sources and translates it into Tamil for provision to the community access points. People can submit or request information and services to the system for sharing with the other villages. This experiment is now being scaled-up into a global network of hubs and villages through the Open Knowledge Network.

Many international campaigns have been able to be much more effective in international networking since the advent of email. For example, the **Jubilee 2000 Campaign** to drop the national debt of poor countries was able to share information and tactics between NGOs around the world as well as communicating messages to a wide audience of policy-makers and sympathisers in rich and poor countries alike.

The *Reflect* ICT team



Grace Maiso Williams
Uganda Pilot Manager

Grace has wide experience in research working for both national and international NGOs. While working with this project he has been equally at home working directly with *Reflect* groups to devise the communication plan and develop networking relationships with policy makers at national and international levels.

The Uganda pilot also employs Jane Nabwire as IT Officer and is recruiting for an information officer.

The pilot has been heavily supported by the board of Literacy and Empowerment and staff of ActionAid Uganda. Maria Nandago also made a very important contribution to the establishment of the pilot and input into the methodology design.



Fred Munyampeta
Burundi Pilot Manager

Fred came to the project with experience of *Reflect*, poverty and rights-based development gained through study, internship with ActionAid Burundi and research with UNICEF Rwanda. He works closely with Fidele Ndindiye who has lengthy involvement with *Reflect* in Ruyigi region and Kizito Papin, IT expert for ActionAid in the Great Lakes Region.

The Burundi pilot also employs an *Ejo* Editor and is recruiting for an IT Officer.

The pilot was developed with invaluable input of Salvador Nkurunziza (ex ActionAid Burundi).



Hannah Beardon
Project Coordinator

Hannah has been involved in this project since its inception, working to develop the concept, build working partnerships, gain funding and design the methodology. Her role now is to provide support to the pilots while identifying and sharing their key learning.

She is supported by David Archer and Kate Newman in ActionAid UK.

Thanks also to Sigrun Rottmann for her contribution during the initial stage of the programme.

Reflect circles and facilitators

Facilitators are the lifeblood of *Reflect*. They are usually chosen from the community by *Reflect* participants and are trained to use participatory methods to facilitate analysis, discussion and planning for action. Most facilitators work hard to make relevant information available to their circles, and initial analysis for the ICT project showed that *Reflect* participants consider their facilitators essential and trusted information sources. In participating *Reflect* circles, facilitators have been involved in the analysis and planning of the communications systems and now are responsible for many elements of the implementation of these plans. They are too many to mention individually, but deserve recognition for the important role they play in this project.

Reflect participants dedicate time and energy to the circles and implementing the action plans. Many are also now involved in the management committees of the communications systems being implemented.



Subrat Rout
Orissa Pilot Manager

Subrat is an experienced social activist with a commitment to collective action. As pilot manager he has worked tirelessly to coordinate the planning and implementation of the communications system, always with the aim of provoking or facilitating pro-poor social change. He also writes evocative and moving updates on the struggles of the people of Balangir.



Padmalaya Mishra
Orissa Pilot Assistant

Padma is the communications expert on the *Reflect* ICT team. She came to the project from a background in journalism, as reporter and producer for a local television channel and a local newspaper. She has also worked in public relations and conducted participatory research with video documentation.



Chintamani Mohapatra
Orissa Pilot Assistant

Chintamani has a strong background in *Reflect* as organiser and trainer. Before joining the *Reflect* ICT project Chintamani worked with an Indian NGO IRRM using participatory methods (including *Reflect*) to facilitate micro-level planning and strengthen people's forums in Balangir villages.

The Orissa pilot also employs 13 **Block Coordinators**. These are: Bhagabat Nahak; Pravakar Lenka; Khageswar Manhira; Pradip Kumar Sahu; Chakananda Kampa; Madan Kumar Sahu; Laxmikanta Sarangi; Gitanjalee Tipathy; Nityananda Thanapati; Saktiswar Mugri; Branshidhar Naik; Nisakar Behera; Chinmayee Samal.

The Orissa pilot is very large and depends on the support and input of numerous individuals and organisations. CADMB network is the foundation on which the pilot rests.

Alok Rath and Umi Daniel of ActionAid India were involved in setting up the Orissa pilot, and Alok continues to offer valuable input and advice. The pilot also enjoys considerable support from Sharanya Naik, ActionAid Balangir and other staff throughout ActionAid India.



For further information contact:

Hannah Beardon
ActionAid
Hamlyn House
Macdonald Road
Archway
London N19 5PG
Tel: UK 020 7561 7561
Fax: UK 020 7263 7599

Fred Munyampeta
Ruyigi DA
c/o ActionAid Burundi
PoBox: 2170
Bujumbura
Burundi

Grace Maiso
Reflect ICT project
Literacy and Empowerment
Bukuuku sub-county
P.O.Box, 831
Fortportal
Uganda

Subrat Rout,
AA India Balangir FO
Adarshapada, near Rajendra
College Road
Balangir
Orissa
India