DFID Department for International Development

ITDG PRACTICAL ANSWERS TO POVERTY

STRENGTHENING THE KNOWLEDGE AND INFORMATION SYSTEMS OF THE URBAN POOR

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March 2002

Acknowledgements:

We are indebted to everybody who has contributed to the research, the analysis of data and the production of a series of contributory reports. Our gratitude goes in the first place to the hundreds of residents of informal settlements in Colombo, Kandy, Galle, Epworth, Gadzema, Lima, Tarapoto and Cajamarca, who have given their time, insights and opinions on how they access information and develop knowledge for their livelihoods. Similarly, we are thankful to many other informants and development agencies in Sri Lanka, Zimbabwe and Peru, who freely shared their views and knowledge too. We would not been able to obtain these results without the assistance of some excellent field staff and local researchers, particularly Sangeetha Nessiah and Vishaka Hidellage in Sri Lanka; Furious Chitongo and Muroro Dziruni in Zimbabwe; and Carlos Frias and Miguel Saravia in Peru, who all deserve our thanks.

We are also grateful to the 600 participants in the electronic conference on the research issues and to the 200 of them who added their insights to the discussion, to B. Shadrach for moderating and summarizing the conference, and to Darren Saywell and Julie Woodfield at WEDC for providing their expertise and logistical support. Our thanks go also to Otto Ruskulis for his review of the world wide literature and his analysis of a range of cases of strengthening the knowledge and information systems of the urban poor, and to the staff of 11 agencies who produced more detailed case studies: APNET and the Arthacharya Foundation in Sri Lanka; Dialogue on Shelter and Theatre for Development in Zimbabwe; Yancana Huasy and Informando in Peru; Groundwork in the UK; SIDAREC in Kenya; SPARC in India; ARTPAD in the UK and Brasil; and Niños de la Calle in Ecuador.

In the UK, our thanks go to the Department for International Development for funding the research, and contributing their insights. We are grateful to Pat Norrish, Clare O'Farrell and John Lindsay for their advice on modeling and support to staff in the field, and to Andrew Scott, Priyanthi Fernando, Maggie Foster and Stuart Coupe for their expertise at various stages of the research. Our special thanks go to Lucky Lowe, for her close collaboration throughout the research, and to Maristela Coupe for work behind the scenes.

Disclaimer:

The UK Department for International Development (DFID) supports polices, programmes and projects to promote international development. As part of that objective, DFID provided the funds for this research to strengthen the knowledge and information systems of the urban poor (Contract No: 00 1515), under its Resource Centre Scheme with ITDG (Contract No: 00 1558). The views and opinions expressed in this final report are those of the author and do not necessarily represent those of DFID.

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SUMMARY

A key reason for embarking upon this research was that earlier surveys, evaluations and experience had concluded that development agencies and researchers who possess knowledge on urban development had not been very effective at disseminating that knowledge to the urban poor, resulting in only limited uptake and impact at the grassroots. There appeared to be various reasons for that: they were not spending enough attention to exploring the information needs and resources of the urban poor; dissemination was too often top-down and using inappropriate information resources; and, whilst some successful examples existed, participatory communication methods were still to some extent being developed and certainly needed wider replication.

Where most surveys of access to knowledge and information by the urban poor have looked largely at the supply side, this research project aimed to complement that picture by looking at demand, and how that currently is being met. It explored this through fieldwork in informal settlements in the capital city and at least one secondary town of 3 Third World countries: Peru, Zimbabwe and Sri Lanka. Local teams of researchers interviewed residents, key informants and information suppliers. 11 cases where local information systems had been strengthened were analyzed in more detail. Literature was reviewed, in those countries and beyond, and 600 people participated in a world wide electronic conference on the issues researched.

In the context of this research, knowledge was defined as information which has been internalized by individuals, a community or a society. Information is different in that it can be shared or transmitted through communication. People often consult different sources of information to develop knowledge. The best way of representing that complexity is through knowledge and information systems (KIS), rather than single flows.

The urban poor do require knowledge and information to improve their livelihoods. In fact, they often have a complex range of information needs. It is difficult to summarize those, except in rather general or abstract terms, such as income or housing. Their specific needs vary from location to location, and in order for development agencies to respond to them effectively, a certain amount of investigation will always be required. Some of the factors which contribute to the variation in information needs have been identified as: politics and the local policy context; the age or degree of consolidation of a settlement; the size of settlements; urban-rural linkages; and target group characteristics. As to the latter, this report concludes that women are often disadvantaged in terms of access to information compared to men; the needs of other marginalized groups, such as the disabled or homeless, are not well served either.

Social networks are the foremost source of information of the urban poor. To some extent, this is by default. Yet, it is also a recognition of the fact that the poor themselves are an important source of knowledge which development agencies should not ignore, but in practice sometimes do. The most important networks are based on kinship, proximity or friendship; more distant ones can be based in the workplace or on association. Individuals who belong to several such networks may be well informed, although there often also is evidence of the information circulating being incomplete, unreliable or otherwise of poor quality. The poor are not always able to check this, but even where they do, they sometimes tend to believe people they trust (close friends or relatives, religious leaders, teachers, etc.) rather than perhaps better informed contacts who are more distant to them.

Many networks function on the basis of reciprocity, and those residents who have little to offer in return do risk rejection. Social exclusion is a real problem, also in terms of accessing information. Whilst the internal rules of the game of networking may stimulate exclusion, this can be made worse by external rules or circumstances, e.g. the non-provision of information by the authorities to residents of informal settlements in some countries, an increase in urban violence creating distrust and preventing people to meet, or politics. The development of community social capital can help to overcome this by generating conditions which make it easier for individuals to access information and for a community as a whole to develop its knowledge capital.

Key informants are an important further source. They were defined as people inside, or sometimes outside, a community who are knowledgeable in particular livelihoods aspects, and are willing to share that knowledge. Many key informants are respected and trusted, but not always by everyone; some are known to act as gatekeepers and provide information selectively. It is important to notice that key informants do not have all the answers and that the information provided by them can at times be unreliable. This can become a problem when they are blindly trusted, or when the urban poor have no way of checking the information provided.

In most cases, there is also a wide range of information producers and suppliers, who do so out of duty or desire; we called these infomediaries. There is not always a clear distinction between key informants and infomediaries; some infomediaries go beyond their own initiatives to disseminate information and also act on request; in such cases, their staff is often considered to be key informants. The performance of infomediaries in our research locations proved to be patchy. The public sector is often criticized for selectively refusing people access to information and occasionally for treating them badly; smaller authorities seem to do better than large ones on this point. On the whole, non-governmental organizations (NGOs) are considered to perform better than the public sector, but in several locations some were also singled out for gatekeeping, pushing their own agenda, or circulating inappropriate information. Religious organisations are clearly more trusted than others. Some suggest that NGOs have an important role in improving information flows between communities and authorities, in generally strengthening the KIS of the urban poor, and in helping to address social exclusion. In our research locations, the private sector did provide information too, but was not perceived to be a key player. It did not particularly focus on the urban poor, nor always cover their specific needs, though a couple of useful commercial information providers could be identified in Peru.

So far, modern Information and Communication Technologies (ICTs) have not played a major role in getting livelihood information to the urban poor. The poor rarely have direct access to them, a factor which some think does increase their exclusion. Whilst most key informants are not connected either, most infomediaries do have access to ICTs and global knowledge, but many of them do not make the most of this in transferring information to urban communities. ICTs have worked well in a number of pilot projects, including telecentres, community databases, community videos, radio and television, but many of these were subsidized. The establishment of ICTs that are sustainable remains a real challenge; with the exception of cellular phones, this is likely to take time and considerable effort.

A range of models was developed to represent the information systems analyzed, including supply- and demand-led models and a windmill model combining these with the 8 livelihood issues investigated. These were tested, in slightly different ways, in the three countries. The research team concluded that such models did help to identify the various actors involved, the weak and strong linkages, the direction of information flows, and they were useful to start identifying solutions. However, it did not prove to be easy to capture complex systems in generic models, and researchers found that some issues could not easily be expressed. These included for instance political tensions or a lack of knowledge or response by certain actors.

An investigation of attempts by various development agencies to strengthen the KIS of the urban poor allowed the identification of a number of factors contributing to success. Most prominent amongst those were: the involvement of the poor themselves as equal partners; building on local knowledge; the use of community based communication methods such as theatre or audiovisual media as well as exchange visits; and building the capacity of CBOs and key individuals within them.

The assessment of the impact of information dissemination activities remains difficult, amongst others because information chains tend to be long and it is often difficult to attribute impact to a single intervention, within a systems context. Development agencies should pay more attention to this issue, and keep learning from each other. ITDG found that following information trails and interviewing beneficiaries did produce useful qualitative data on impact, but it is a rather expensive method. The cost of impact assessment is a concern, particularly for agencies in the South, and they may have to select more affordable methods, using for

instance proxy indicators. The involvement of the urban poor was again stressed as an important contributing factor in achieving impact, partly because it empowers them, but also because it targets development efforts at real needs and makes them more effective.

Development agencies can undertake a number of activities that would help in making the knowledge and information they hold more suitable and accessible to the urban poor. These do not always have to be designed as stand-alone dissemination activities; some can be incorporated in existing or future urban development projects. It would also be beneficial for agencies to collaborate on some of the bigger issues, e.g., on establishing sustainable ICTs that do not exclude the urban poor, or pooling the information they hold to better address the range of needs. Agencies should consider to:

- *rethink their information strategies*, to ensure that the poor get equal access to information, treat them as equals who are a source of knowledge too, create two-way communication, and address a range of needs comprehensively. Following on from this, they may also want to rethink their knowledge and research strategies.
- *reduce exclusion,* by targeting groups of poor people that have problems in accessing information, and by reducing external factors that increase exclusion such as violence, oppressive politics and illegality.
- *support urban communities to build their knowledge and information capital,* amongst others by taking stock of existing resources and addressing gaps, building the capacity of key informants, empowering communities, stimulating meeting places and exchange visits.
- *improve the attitudes and impact of infomediaries,* by sensitizing and supporting public authorities, producing appropriate information resources and building capacity, by documenting and sharing good communication practice, and using a range of media including traditional and modern ones.
- *invest in developing sustainable ICTs for the urban poor,* which will require research into a number of issues, the inclusion of ICT equipment and training into urban projects, and the production of appropriate information materials for ICTs.
- *look at the impact of their information dissemination on the urban poor,* develop additional methods and indicators, as well as more knowledge of the cost-effectiveness of alternative communication methods, and document and share the results of urban development work more widely.

1. INTRODUCTION

E.F. Schumacher, the founder of the Intermediate Technology Development Group (ITDG) once said: *"The gift of material goods makes people dependent. The gift of knowledge makes them free"*. Knowledge is critical for development (World Bank, 1998). But how do the residents of urban informal settlements access the information and develop the knowledge they need to survive and improve their livelihoods? Do they obtain what they need and is it appropriate? And how could development agencies like ITDG and the Department for International Development (DFID) fill the gaps and strengthen the knowledge and information systems of the urban poor? These were the key questions addressed in an action research project implemented by ITDG with funding from DFID.

The urban poor do have knowledge of their own, but this may be inadequate to cope with the complexities of urban life. To mitigate risk and to move out of poverty, the urban poor do require additional knowledge (Castañeda and Xjimenez, 2001). Access to information and communication are essential to develop that knowledge and thus enable the poor to be aware of and make the most of any opportunities in a dynamic urban environment (Lowe, 2001:1). Lack of information can be a source of concern for poor people (Narayan et al., 2000). The sustainable livelihoods literature emphasizes the many facets of poverty, but also the diverse and dynamic nature of livelihoods strategies which many of the urban poor have adopted (DFID, 1999). According to Stavrou (2001), poor households need to reduce the uncertainty caused by external factors that impact on poverty. They need information to increase the accuracy of their forecasts, reduce their vulnerability and improve their livelihoods. Thus. the urban poor not only need access to resources, but also to the information, knowledge and skills to turn those into positive livelihood outcomes. To access those, poor people interact with family, friends, public and private sector bodies and a range of others. It is the nature and substance of these multi-faceted and complex interactions, which exist in any society, that are being referred to by the term Knowledge and Information Systems (KIS) (Lowe, 2001:1).

In this context, the research team defined knowledge as information which has been internalized by individuals, a community or a society. Information is different in that it can be shared or transmitted through communication; people can consider it in the light of what they know already, and either add it to their knowledge base, or reject it. Social networks can also be used to evaluate information before it becomes knowledge.

It is nowadays often assumed that modern information and communication technologies (ICTs), such as telephones, computers, the Internet and radio, have great potential to significantly improve the urban poor's access to knowledge and information. But do they, in reality, or are they merely increasing the knowledge gap between the rich and the poor? This was another question this research had to look into. The arrival of these new technologies has certainly increased the need to understand better how popular KIS work, so that they can be introduced effectively and sustained.

A major reason for embarking upon the research was a concern, shared by both DFID and ITDG, about what seemed to be a lack of impact and uptake at the grassroots of the results of urban development research. Two independent surveys funded by DFID, looking at knowledge transfer in the urbanization sub-sector (Max Lock Centre, 1998 & 2000), and at dissemination in water and sanitation and urbanization (Saywell and Cotton, 1999) as well as a range of project evaluations by ITDG and others seemed to confirm that experiences from many development projects did not get widely disseminated and accepted by the urban poor. Thus, their impacts may have been largely confined to the people those projects have been directly working with. There appeared to be several reasons for this: limited consultation with end users resulting in products that were of not much use to them; the use of linear communication models which relied heavily on intermediaries; information products which were inappropriate or simply wrong; and limitations in access to the information by the urban poor. Other surveys in the natural resources area came to very similar conclusions (Norrish, 2000& Norrish et al.,2001). Most surveys of the access to knowledge and information by the poor seemed to consider mainly the supply side; this research aimed to complement that picture with a look at demand for knowledge and information at the grassroots, and how that is currently being met.

Where there is formal and informal urban development, the same distinction applies to knowledge and information systems. Whereas the informal KIS, in which the urban poor are key actors, consist of multi-faceted and complex interactions which, in this research, have proven to be difficult to model, the formal KIS tend to be more structured, but this also has its disadvantages. One of the problems in accessing information on urban development is that much of the knowledge in the public domain has been developed and organized on a sectoral basis. This research has established that the information needs of the urban poor are many and varied. This is in line with the current thinking that urban poverty is a matter of multiple deprivations, which only a more holistic or integrated approach can begin to address (Syagga et al., 2001:49&141 and Rossiter, 2000). The urban poor often fail to understand why they have to go to several different sources to solve what they see as a single information need. Another problem is that information in formal KIS is often hard to access particularly for poor people, out of date, in the wrong language or incomplete (Ruskulis, 2001b:3).

There are also problems with how information is disseminated. New communication strategies tend to follow on from new development paradigms, but that takes some time and the old approaches do not always disappear (Norrish, 1998). The earlier development models focusing on economic growth and modernization relied on mass media and technology transfer to generate change (Norrish, 1998). Communication tended to be top-down, developed and controlled by experts, focusing on a single issue, and message or product driven. Whereas it produced occasional results, it was finally recognized that the poor have different needs and cannot be targeted effectively with mass messages. Current development models are based on building the assets and livelihoods of the poor. One of these assets is human capital, but some have argued that knowledge and information ought to be a separate asset (McLeod, 2000:5). Within these models, partnerships and participation have become much more important. In terms of communication, participatory approaches recognize that target audiences have knowledge and ideas of their own which need to be integrated with external ones, that communication is a two-way process and can be a powerful tool for self-expression, analysis and empowerment. Communication is no longer focusing on a single issue, but on a range of livelihoods issues and using several channels. Communication theory has not quite come to grips yet with the complexities of participatory communication. What is certain is that it implies a change in roles for the main stakeholders, some of whom may be more willing to change than others (Lowe 2001). In rural development, various models of good participatory practice (e.g., Mody 1991, FAO, 1989) and guidelines for practitioners have been developed both in relation to overall strategies and for specific media (e.g. Norrish et al., 2001). But what is good practice in urban development, how it can be disseminated, and how people and organizations can be made aware and trained for their new roles, are all questions that require further attention and to which this research can contribute.

Whilst many researchers have analyzed the dissemination of information to the poor, far fewer seem to have looked at their demand for and access to knowledge and information, and most of this work seems to have focused on rural development. Researchers in The Netherlands, for instance, developed the RAAKS methodology which is a participatory research approach focusing on farmers knowledge and information systems (Engel, 1997 and Salomon and Engel, 1997). RAAKS can be used by researchers to develop an understanding of the social organisation of innovation, based on inputs of those involved, and to use that knowledge to plan further action. According to these researchers, innovations result less from purposeful single interventions, than from diffuse interactions with many actors. There is therefore a need to look at knowledge and information systems (KIS) rather than single flows. Such systems could be represented in maps or diagrams. Pat Norrish and colleagues at the IRDD (formerly AERDD) in Reading have taken this on board in mapping village level information systems in the Philippines, India and Bangladesh (Norrish and Lawrence, 1997). The FAO applied the RAAKS method in the Philippines to get a better understanding of how farmers did get access to essential agricultural information, and the roles played by various intermediaries. In this case, participation and two-way information flows were crucial to the result (FAO, 1996).

2. RESEARCH METHODOLOGY

The international research team included ITDG staff members and external consultants and assistants with experience in communication, research and urban development, based in Peru, Sri Lanka, Zimbabwe and the UK. Given that the knowledge and information systems of the urban poor appeared to be a relatively unexplored area, the team decided to adopt an action research approach, in which cycles of field work, desk study and analysis were alternating with international workshops for the team to reflect on results and plan ahead.

An initial workshop in the UK was followed by a three month pilot phase in early 2000, used to develop a better understanding of the issues involved. It included field surveys in Suduwelle, a small slum in inner city Colombo, Sri Lanka; Epworth, a very large settlement on the outskirts of Harare, Zimbabwe; and several informal settlements in the secondary towns of Cajamarca and Tarapoto, Peru. These settlements were by and large chosen for their ease of access to the researchers. This phase involved semi-structured interviews and some focus group discussions with over 100 residents in those settlements, who helped to identify key informants and infomediaries. It also included a succinct literature survey in the three countries, and an initial world wide survey; the latter confirmed that relatively little work had been done so far on urban KIS, and that this research therefore appeared to fill a gap (Schilderman, 2000).

A proposal for a longer second phase was subsequently developed in consultation with the international team and DFID. This started with another international workshop, in September 2000 (Ruskulis, 2000). This phase aimed to widen and deepen the coverage in the same countries. This was achieved by focusing on two or three settlements in each country, at least one in the capital city and one in a secondary town; this would allow for differences in urban KIS to emerge between larger and smaller urban settlements. Thus, the research locations in Sri Lanka included Suduwelle in Colombo, as well as the settlements Dadelle in Galle and Deiyanawelle in Kandy (ITDG South Asia, 2001c). In Zimbabwe, this research phase covered the formal settlement of Overspill and the informal settlement of Domboramwani, both in Epworth, as well as Gadzema near the town of Chegutu. And in Peru, Cajamarca was dropped as research location and replaced by the José Carlos Mariategui settlement in the San Juan de Lurigancho district of Lima; Tarapoto was maintained, and the research there extended with a survey of urban-rural linkages.

A combination of methods was used to achieve greater qualitative depth in the more extensive fieldwork of this phase, including semi-structured interviews, focus group discussions and observations, covering around 200 residents. In Sri Lanka the three target communities were approached through other NGOs and government programmes working in the areas; without that introduction, residents would have been suspicious and not so forthcoming with responses. In Zimbabwe, ITDG had been doing some work in Epworth, though not in Gadzema, but access was less of a problem there. Twenty questionnaires were administered in each of the three settlements, to residents who had been randomly selected, whilst taking care of achieving a fairly representative sample with regards to location, gender, age and ethnicity (ITDG Southern Africa, 2001:6). In Tarapoto, a first round of in-depth interviews was carried out with sixteen respondents – men, women and young people; these were selected from a total of 25 families identified using 60 filter guides. After an internal workshop, the sample was extended with a further 26 interviews. The settlement in Lima was new, which required meetings with its Board of Directors to get approval for the research. The Board subsequently approached households and key informants. A total of 23 interviews was carried out with a range of residents: male heads of households (12); female heads of households (5); young men (4); and young women (2) (ITDG Latin America, 2001). Besides, four participatory workshops were held: with the Board, young people (2) and women. In each location, the researchers, local leaders and residents also identified a number of key informants and infomediaries, who were surveyed separately.

The research team also proposed to develop models to describe and explain KIS. There was initially some doubt as to whether people's exchanges of information would be systematic enough to allow modelling, and if so, whether a single model would be able to capture them. It might be necessary to develop two models, whereby a “push model” would represent external

influences on poor urban communities, whereas a “pull model” would show the communities’ own needs and resources. The researchers workshop in September combined these two in a theoretical “windmill model” which was to be tested in the field work (Ruskulis, 2000).

This phase also included a three months electronic conference, in an attempt to broaden the coverage of the research and its contents. The dialogue was kicked off with an introductory paper by ITDG and a number of key questions. The conference was moderated by WEDC, following an agenda set with ITDG. The conference attracted about 600 subscribers, of which over 60% came from developing countries; they generated over 200 messages and a number of useful recommendations (Shadrach, 2001).

The literature survey started in the first phase was expanded, in the three countries as well as world wide. The latter sought to further explore six issues raised in previous discussions: social networks; the impact of external agents on urban communities; communication with and between the urban poor; strengthening Community Based Organisations (CBOs); the development of human capital; and 8 specific areas of livelihood information (see section 3). The country surveys each had a more specific focus, often exploring gaps discovered in the earlier research. Thus, the survey in Peru concentrated largely on social networks, the one in Sri Lanka on urban development projects and programmes, and the one in Zimbabwe on the 8 livelihood issues identified in the researchers workshop (Ruskulis, 2001b).

Finally, the research team identified, researched and analysed 11 case studies on strengthening poor people’s knowledge and information systems, two in each of the three participating countries and a further five world wide. These were selected from 40 potential cases identified through personal contacts, the e-conference and the literature. In doing so, the team aimed to select and analyse a fairly broad range of experiences (Ruskulis, 2001a).

The rough data from the research at the level of each country were analysed and presented in draft reports to national workshops, and subsequently discussed by the international team in a workshop in Harare in July 2001 (Ruskulis, 2001c). The present report builds on that overall body of information.

3. RELATING KNOWLEDGE AND INFORMATION TO SPECIFIC NEEDS

3.1 Pilot phase

The pilot phase uncovered a wide range of livelihoods issues of importance to the urban poor (Schilderman, 2000).

Researchers in Suduwelle, Sri Lanka, related the issues raised by residents to the Sustainable Livelihoods Framework (SLF). With respect to vulnerability, residents were worrying about eviction, the rising cost of living, the threat of flooding and related illnesses, and prostitution and drug addiction. In terms of assets, the nearby lake with its fish contributes natural capital and income derived from that, which people risk to loose when evicted. Suduwelle also had substantial social capital, with a community development council and several CBOs. Physical capital was very poor and people thus worried about poor housing, water, sanitation, drainage and power. Financial capital was limited as well; employment was a key issue, and this extended to the future of their children; retirement benefits were an issue too. As to human capital, this was largely restricted to unskilled labour which limited employment potential; health problems and the lack of health care in the settlement were important issues too. The key institutions impacting on the settlement were the Colombo Municipal Council, the Urban Development Authority and the National Housing Development Authority. These come together within REEL, an institution pursuing a policy of slum clearance and resettlement of residents in apartments elsewhere; this was also on the cards for Suduwelle, and obviously a major worry for its inhabitants. Lesser institutional issues concern the acquisition of identity cards, birth certificates and voter cards. There were noticeable differences in answers by gender, with men considering housing and resettlement,

health care and retirement benefits as priorities, whereas for women these were children-related issues and sanitation. Similarly, there were differences in answers by ethnic group.

In Epworth, Zimbabwe, the key issues raised were housing; land allocation; access to cheap materials and finance; provision of all types of infrastructure; health services; education; child welfare; income generation; and transparency and the clarification of the role of local institutions in providing information and services. Whereas the Zimbabwe based researchers did not relate these issues to the SLF, there is a clear asset link to most. The declining economy is an important vulnerability factor, and relates to the issues of income generation and access to affordable land, materials and finance. In terms of institutions, people were often unclear what to expect or what their rights were.

In Tarapoto, Peru, key issued raised by residents included the lack of sanitation in the settlement as well as unemployment, and the resulting difficulties to pay for school and health fees. Other issues were the increasing competition in the informal sector, access to and the repayment of credits, the lack of organisation and politics leading to competing groups in the neighbourhood, the lack of institutional support, as well as domestic violence. In Cajamarca, residents faced similar problems with employment, markets for the informal sector, health, education and institutional support, and roads and services, as well as with exploitation in some types of employment.

The pilot phase also confirmed that, where the urban poor relied heavily on information sources within their settlements, they also did get hold of some information from external sources, but at times this was unreliable or in the wrong format. In all cases, important information gaps remained.

3.2. A focus on eight livelihood issues

The second international workshop of the research team, in September 2000, considered the above results and concluded that there were four broad areas where the urban poor required information: income; housing; infrastructure; and facilities. To achieve a more detailed understanding, these were broken down into eight more concrete issues of everyday concern; these were (Ruskulis, 2000):

- House
- Money
- Water
- Waste
- Illness
- School
- Getting places
- Security.

By focusing on these eight livelihood issues in each location, the research team aimed to achieve greater comparability and to avoid a dilution of resources by focusing on too many issues. However, this also meant that some of the richness of the first phase was lost. The selection provided for good coverage of the physical and financial assets within the SLF, and partial coverage of the human and natural assets, whereas social assets were particularly considered as a means to access knowledge and information.

3.3. The second phase in Sri Lanka

A more in depth picture was obtained of information needs in the above eight livelihoods issues, of who were providing this information, and where gaps remained. This resulted in a number of tables, of which the following, for the peri-urban informal settlement Dadelle in the secondary town of Galle, is an example (ITDG South Asia 2001a; 2001b and 2001c):

Table 1: The demand and supply of information in Dadelle

Information Needs	Information Sources	Information Gaps
House		
Access to credit for housing improvement, sanitation and electricity.	This service and the related information is now well supplied by various NGOs.	People know where to go for information and do obtain it; there are no apparent gaps.
Design of a house plan.	Municipal Council and draughtsmen, including the public health inspector.	
Regulations governing house design and construction.	Public health inspector.	
How to get a plan approved.	Friends, relatives or neighbours who had gone through the process already.	
Finding a builder or mason.	Family members or neighbours.	
Money		
Making money from waste recycling.	Arthacharya Foundation training programmes.	Prior to the waste management project introduced by the Arthacharya Foundation, people were facing a lot of economic difficulties. As a result of this project, these have now diminished and information gaps also.
Other employment opportunities, including self-employment schemes.	Mainly friends, relatives and neighbours and newspapers. Also work places, the market, some public officers, returnees from employment in the Middle East.	
Marketing the products of self-employment schemes.	Some provided by the Arthacharya Foundation.	There is still a gap here which, if filled, could increase employment.
Basic information about day-to day expenses and where to complain when over-charged		Residents want to know what their rights as consumers are and how these can be used to prevent abuse.
Water		
Sources of water.	Neighbours and people in neighbouring settlements; the municipal council.	There was a gap a while ago, but since the Arthacharya Foundation has come in with micro finance and information, this gap has now virtually disappeared and better services are in place or being installed.
How to get connected to a piped water supply.	Family member or neighbour with a connection; *Gramasevaka*; Arthacharya Foundation field officer.	
Credit for such a connection.	Arthacharya Foundation field offcier.	
Arranging for a connection.	Arthacharya Foundation field officer and from there the Water Board.	
Waste		
Garbage collection in the settlement.	The major supplier of information on all these issues has been a waste management project of the Arthacharya Foundation. This works closely with CBOs, and organises awareness programmes, lectures and meetings.	Some people not involved in the waste project still dump garbage along the road: how can they be corrected?
How to deal with a smelly major dumpsite nearby, for this and surrounding areas.		
Waste management and recycling; technologies to improve compost quality.		
Income generation from waste.		
Provision of equipment and support.	Additional support is being provided by the Council, divisional secretariats, public officers and the *gramasevaka*	
Environmental law and how to tackle polluters.		

Illness		
Poor environmental health, causing epidemics.	Health and hygiene education by NGOs; public health inspector.	There used to be a substantial information gap in this area which the NGO waste project seems to have by and large filled.
Ill health.	Midwife and public health inspector who visit the settlement frequently; and less so public hospitals, private medical practitioners.	
School		
Admission to nearby state schools.	Neighbours, relatives, principals and teachers.	
Nursery education.	Contacts in town.	
Establishing Montessori education in the settlement.		People do not know how to go about this, yet see this education as a means to a better life.
What to do with dropouts.	NGO social activities and entrepreneur training	
Vocational training programmes to achieve self-employment	Arthacharya Foundation has provided some information	There is inadequate information in this area; if addressed, it could lead to more self-employment
Getting places		
There is easy access to transport, albeit sometimes of poor quality. Roads are in good condition.	Relatives, neighbours, friends. Transport companies.	This is generally not an information priority.
Price controls and government subsidies help to make transport affordable, but there is still an issue with over-charging.	Even though much transport is private, price ceilings are set by government and announced through the media.	There is an information gap on what consumer rights are and how abuse can be prevented.
Security		
Crime prevention.	Mostly taken care of by the community itself.	
Security problems.	Police, *gramasevaka,* or help from neighbours.	
Basic rights in interacting with law-enforcement authorities such as the police.	Awareness programme and leaflets on legal rights by specialist NGO, Lawyers for Human Rights and Development.	There are some illegal activities in the area (drugs, prostitution) which cause conflicts with the police. There remains a gap on this issue.

In the settlement of Deiyanawelle in the secondary town of Kandy, quite a few needs emerged that were similar to those of Dadelle. But there were some differences too. Some households had had their houses demolished to allow road construction, and had needed to get information about compensation and building loans; this is where politicians got involved. The community was also concerned with the dumping of refuse by Kandy hospital in a nearby canal and with its flooding; in turn, they were afraid this affected water supplies and public health in general. An NGO is now providing information and supporting action on these issues.

When comparing the above two settlements with Suduwelle in Colombo, which was also surveyed in the first phase, a number of additional differences emerge. These are particularly related to the fact that Suduwelle is considered an illegal settlement and is therefore targeted for relocation. The need for information on resettlement and housing was therefore particularly acute. Besides, with the nearby lake providing a major source of income, there was a need to obtain information about alternative employment after relocation. Being an illegal settlement, waste was not collected, resulting in pollution of the Beira Lake and its

surroundings. The community was also not entitled to water, electricity or other public services, and only managed to get two water taps installed after much lobbying of politicians. Similarly, there were also only two toilets for the whole community. In terms of security, the residents have to cope not only with the Police, but also with the Air Force, which is occasionally looking for suspected terrorists; this can be both and advantage and a problem.

3.4. The second phase in Zimbabwe

The issue of legality is equally crucial in Zimbabwe. Amongst the three survey locations there, the Overspill area of Epworth is formally recognised (although it contains pockets where informal densification has occurred), but Domboramwari is not. The same applies to Gadzema, a large squatter settlement about 15 km from the secondary town of Chegutu. The Zimbabwe authorities, such as the Epworth Local Board, do not provide services to informal settlements, out of fear that this might attract more migrants. Almost by extension, they do not provide them with information either; the only message such informal settlers are provided with is to move out. Over the past 1-2 years, political developments in the country have also negatively affected a free flow of information. Residents in urban low-income settlements have therefore given up going to the authorities, and rely largely on neighbours, friends and relatives. Many of these people have important information needs which often remain unfulfilled. Unfortunately, other development agencies, mostly NGOs, who could have helped to fill this gap, seem to concentrate their efforts more in the formal than in the informal parts of Epworth. The following table summarises the settlement conditions and resulting information needs in those three locations (ITDG Southern Africa, 2001):

Table 2: Settlement conditions and information needs in Zimbabwe

Information Needs	Information Sources	Information Gaps
House Conditions are better in Overspill, where housing is formalised. The squatters in Domboramwari and Gadzema live in poor houses often with mud and pole walls. Their key questions are: Where to get a plot? What are the procedures to get secure tenure? Where to get a house or room to lodge? Who to approach for house plans? Where to obtain credit? Where to source affordable building materials?	Local and external NGOs that have housing programmes in Epworth. Local or Area Board, councillors, ward chairpersons. Social networks. Resident associations, including savings unions and co-operatives, particularly in Overspill. Political contacts.	Where information needs in Overspill seem to be reasonably covered by the public and the private sector, this is not so for the squatter areas. The same suppliers provide little information there, and this is not made up for by NGOs. People thus rely on their networks and contacts, but these are often inadequate. When it comes to seeking information from local councils, including accessing plots, it often becomes the privilege of sitting party supporters; and there is no transparency.
Money Some residents of Overspill are formally employed in Harare, others engage in cottage industries. In Domboramwari, hawking and vending are predominant; few of these are licensed. Closures of factories and farm invasions in Chegutu ended up with the retrenched settling in Gadzema. They work as farm hands, in hawking or vending, or in	Social networks are an important source of employment and business development information everywhere. In Overspill, this is also provided by development agencies such as NGOs, who are encouraging the establishment of business associations and do provide support.	Though the situation is better in the formal than in the informal settlements, there are gaps everywhere.

illegal gold panning. Information needs include: Where to get formal employment (particularly for the young)? Where to get a market stall? Where to get a business plot? Where and how to get business licenses? Where to source products for resale? What are the markets for products and services? Where to get grants and loans? How to get social security or welfare funds (for the retrenched)?	The business associations become a source of information in themselves. There are also some credit and savings clubs. In addition, people look at newspapers and listen to the radio, for adverts and advice. The Local Boards are a source of some information, e.g. on business plots. The private sector rarely provides business support services in informal settlements; the exorbitant fees charged make them unaffordable to most entrepreneurs.	
Water There is a better piped supply in Overspill than in Domboramwari, where open wells make up for the shortfall; these can be an unsafe source. In Gadzema, drinking water is fetched from a dam also used for laundry and bathing. Information needs are: How to secure piped water? How to detect sources of water and sink protected boreholes? Who to seek assistance from? What are the health hazards involved in using unsafe water?	The main source are the social networks within the communities. The public sector does not provide information on this issue to informal settlers. The private sector is not involved.	There is a wide unmet information gap in this area. For instance, there is virtually no external information source for settlers on how to access safe water or on cheap methods for treating it.
Waste There is no waste collection to speak of in any of the settlements. For human waste, many residents in Epworth use pit latrines. In Gadzema, latrines are often in poor shape; some compounds have none and use the bush. Information needs are: How to dispose of garbage safely? How to construct proper toilets? Where to get assistance from? What are the related health risks?	Social networks are the key source of information. People also observe how others construct their toilets. The private sector is not involved in this area, but one NGO is in Epworth.	There is a wide gap of unmet information needs on waste. For instance, there is hardly any information or education on the health risks of poor garbage disposal and sanitation.

Illness There are health facilities in Epworth, but those who can afford it go to Harare. There are a number of health community workers who visit residents. There is no clinic in Gadzema, people have to travel to Chegutu (15-20 km), and a health worker only visits once a month. Key information needs are: Which health facilities exist and where are they? How to access them? What fees are being charged?	When transmittable diseases occur, Epworth Clinic will launch a campaign. Community health workers are an important source of information, and not only on health issues such as HIV/AIDS or reproductive health. They do expand into other issues such as gender or the environment. People also consult traditional healers, particularly where services are not available or expensive. There is a single private surgery, in Overspill. Social networks. Religious groups. Some NGOs	There are important information gaps in Gadzema, but to a lesser extent also in Epworth. Affordability is certainly as big an issue as lack of information, for many it involves transport costs too; that is why the use of traditional healers is more prevalent in Gadzema. Some religious groups, e.g., the Apostolic Faith in Epworth, are criticised for advising their followers not to use modern or traditional medicine.
School There are schools in Epworth; those who can afford it send their children to better schools in Harare. There is only one primary school in Gadzema and no secondary; most children there do not go to school because their parents cannot afford it. Information needs include: Where are the formal schools? What is the availability of non-formal or technical training facilities? What are the fees?	Friends and relatives are an important first source of educational information. This is followed by visits to schools. Some religious groups do advise their members. Lastly, there are the Local or Area Boards. There is no private sector involvement.	As for health care, affordability seems to be at least as important a constraint as lack of information. There are also problems with some religious groups, e.g., the Apostolic Faith, advocating that education is not a priority, especially for girls.
Getting Places Epworth is well serviced by private commuter buses doing the Harare route. Gadzema is transsected by a main road served by long distance buses, but residents complain that they are over-charged for the short distance to Chegutu. Getting to the main road can take an hour on foot. Information needs are: Where to get transport? What is the range of options? How much do they charge? What security and compensation is there in case of accidents?	Friends, neighbours and relatives are an important source, as well as people at shopping centres. People also learn through personal observations and experience. They also obtain some information from key informants.	As above, affordability is a key issue. This could be linked to insufficient information about pricing and what to do if over-charged. Where there are plenty of private companies providing transport from Epworth to Harare, this seems to be less so between Gadzema and Chegutu, which could be due to poverty suppressing demand. As a result, residents of Gadzema not only have poor access to transport, but also to health, education and other services.

Security Political violence now has reached alarming levels in Zimbabwe; Epworth is a hot spot. There are no street lights and Gadzema has no police post. Information is required on: What are the legal rights of residents and what to do in case of violations? Who people can report to, other than the police? How to survive and avoid political suppression and violence? Details of the new Public Order and Security Act	Friends and relatives are a key source of information. Some residents have attempted to establish neighbourhood watch committees, but this has not always been easy. In Epworth, people working as security guards in Harare have used their knowledge to form vigilante groups. There are also political and other pressure groups. There is no police post in Gadzema, but even in Epworth, where there is one, it no longer offers equal protection, and police are much feared by some residents.	There are important information gaps on human rights and new legislation that has just been brought in to suppress opposition. But even if more information was available, it might be difficult for residents to act upon it in the current political climate. The increased violence also forces people to remain indoors at nights, thus reducing their opportunities to meet, gather information, and build social and knowledge capital. What is more, it has increased distrust. People are no longer sure who they can talk to, nor what to say in public; this is greatly affecting the dissemination of information in settlements which are already deprived.

3.5. The second phase in Peru

The research team in Peru produced detailed tables on the information needs, suppliers and methods of communication on all eight livelihood issues in both survey locations. Tables 3 and 4, below, provide an example for each settlement.

Table 3: Information needs, sources and media relating to schools in Tarapoto's informal settlements (Agreda and Contreras, 2001)

Information Needs	Information Sources	Communication Methods
Access to primary and free secondary education	Relatives, friends and neighbours	• Person to person
Costs and quality of higher education	Pre-university academies; technological and pedagogical institutes; university.	• Visits to provider
Educational centres, technical and/or professional careers	Media Friends and relatives	• Radio and TV adverts • Person to person • Visits to provider
Scholarships and easy terms	Institutes of Higher Education	• Provider visits the school • Provider visits people at home
Sexuality and reproductive health	Regional Health Directorate Educational centres and teachers Relatives Church National Police Media	• Talks • Educational campaigns • Person to person • Educational programmes
Religious and moral training	Church Educational centres	• Reading a book (bible) • Reading a magazine • Teachers' advice
Basic information for students	Internet	• At the institutes and academies
Technical education (agriculture, sewing, accountancy)	High Schools	• Formal education

Education information and motivation	Relatives	• Transfer of experiences
Information about students' progress in their studies	Teachers	• Parents visit the school
Artistic and sports activities and others	Educational centres	• Workshops • Courses of manual work
Information on institutional work/others	Municipalities Other institutions	• School work
Institutions identified as information providers: Educational centres, Pre-university centres. Tarapoto Public Pedagogical Institute, State University of San Martin, Private Pedagogical Institute, Technological Institutes (i.e. *Ciro Alegria, Blaise Pascal, Nor Oriental de la Selva*), *El Huayco* Health Centre – DIRES, Media (i.e. *Radio Tropical*), Jehovah's Witnesses, Provincial Municipality of San Martin		

Table 4: Information needs, sources and media relating to money in José Carlos Mariategui, Lima (Xjimenez and Castañeda, 2001)

Information Needs	Information Sources	Communication Methods
Employment opportunities	Networks of family and friends Church Notice boards National newspaper Posters and advertisements Job agencies Employers Ministry of Labour	• Person to person • Through recommendation • Boards in job locations • Read the papers • Against payment • Approach the agents in their office or by phone
Business establishment	Networks of family, friends or neighbours From previous work experience	• Person to person • By observing people's purchases
Establishment of informal sector activities, e.g. vending	Networks of friends or family Direct observation	• Person to person • Observation and experimentation
To obtain business loans on easy terms	Institutions (MiBanco)	• Person to person • Provider visits the market
Credits	Credit institutions	• Person to person • Visits to the provider • Radio or TV adverts
Trade apprenticeships	Family networks Experienced artisans Trade schools	• Person to person • On the job learning • Theoretical and practical education
To feed or improve the nutrition of children in times of crisis	Glass of Milk Organisation (*Vaso de Leche)* Communal kitchens Mothers clubs National programme for food support (PRONAA) District of San Juan de Lurigancho Province of Lima NGOs	• Meetings of the members of the CBO • Bureaucratic procedures • Workshops, meetings and training by NGOs in touch with CBOs
Institutions identified as information providers: TV programme *Entre Caseros*, Credit Institutions such as MiBamco, *Vaso de Leche* CBOs, Organisation of communal kitchens, District of San Juan de Lurigancho, Province of Lima, Ministry of Women, Trade Schools, Labour Centres, Ministry of Labour.		

The national report on the second phase of research in Peru (ITDG Latin America, 2001:10-11) recognises that there are differences in information provision between Lima and Tarapoto. It cites two main reasons for those: a different density in institutional networks, with Lima being more complex and varied; and different economic and geographic characteristics. This explains for instance why in Lima vending is important as a source of income, against agriculture in Tarapoto. Likewise, disaster prevention is important in Tarapoto, but in Lima residents are more concerned with juvenile gangs.

The following table summarises the information needs and sources for the eight livelihood issues in Peru, whilst commenting on the differences between the two locations (ITDG Latin America, 2001:11-12):

Table 5: Analysis of information flows by livelihood issue in Peru

Information needs	Information sources	Communication methods	Remarks
House			
• Access to land for invasion, construction techniques. • Access to plots, collective services, securing land tenure • Legalisation and access to basic services • Quality and cost of materials, house design	• Networks of friends, family and neighbours • Board of directors of the settlement • Municipalities and EMAPAS (Empresa Municipal de Agua Potable, Alcantarillado y Saneamiento) • Hardware stores and masons	• Person to person • Meetings and other activities convoked by the board • Visits to these institutions • Visits to the provider	On the issue of housing, the municipality is much more important in Tarapoto than in Lima. In the latter city, other institutions, such as COFOPRI (Comision para la Formalisacion de la Propriedad Privada), ENACE (Empresa Nacional de Construccion y Edificaciones), ELECTRONORTE (Electricity company in Northern Lima) and others participate more.
Money			
• Jobs, supply and demand of products and services, credit, business opportunities, knowledge about new crafts.	• Networks of friends, family and neighbours • Teachers and technicians • Credit institutions	• Person to person Advertisements, newsletters • Person to person direct observation • Visits to these institutions, visits by institutions to the community, via the media	In Lima, the information on this issue generally focuses on retail, and more specifically on vending. In Tarapoto, it concentrates on agriculture. While information panels and boards displaying job information are found in both locations, they seem to be more important in Lima than in Tarapoto.

Water • Installations in the house • Paperwork required to access services, payment dates, etc. • Paperwork required to access services. • Quality and cost of materials	• Networks of friends, family and neighbours • Board of directors of the settlement • Municipalities and EMAPAS (Municipal Water, Drainage and sanitation company) • Hardware stores	• Person to person • Meetings and other activities convoked by the board • Visits to these institutions • Visits to the provider	In Tarapoto people are very concerned about pollution and the media reflect this concern.
Waste • Places to discard garbage • Community cleaning activities • Paperwork required to access services, costs and payment dates.	• Networks of friends, family and neighbours • Board of directors of the settlement • Municipalities and EMAPAS (Municipal Water, Drainage and Sanitation Company)	• Person to person • Activities convoked by the board • Visits to these institutions	
Illness • Prevention and treatment of illnesses, nutrition • Contraceptive methods and home medicine • Natural medicine • Food and nutrition	• Ministry of Health • Family and neighbours • Shaman, herb and bone doctors • NGOs	• Campaigns and media • Person to person • Consultations • Campaigns, talks, direct care	There are other information providers: health promoters and midwives in Lima, whilst in Tarapoto the police campaigns in schools against alcoholism. In Lima, information providers of natural and home medicine are more important, as against social media – particularly the radio – in Tarapoto.
School • Quality, costs, security etc. of primary and secondary education. • Quality and costs of higher or technical education • Religious and moral training • Sexuality and reproductive health.	• Networks of friends, family and neighbours • Institutions of higher or technical education • Church and educational centres • Ministry of Health	• Person to person • Visits to the institutions, media • Church groups, readings, lessons and advice from teachers • Campaigns and talks	

Getting Places • Transport routes and costs • Characteristics of the service • Solutions to transport problems	• Networks of friends, family and neighbours • Transport companies • Board of directors of the settlement	• Person to person • Person to person Advertisements in vehicles • Meetings	
Security • Combat delinquency, creation of committees • General security measures • Residential protection, combat delinquency, security in other areas.	• National police • Security committees or neighbourhood watch • Friends and relatives	• Meetings, visits to leaders, talks • Meetings, talks • Person to person	In Lima, there are juvenile gangs; to tackle them requires a different type of information. In Tarapoto, the respondents directly relate security to disaster prevention and information needs in this area.

3.6. Factors influencing information needs.

A number of contextual factors seems to determine the relative importance of the livelihoods issues and their related information requirements. The ones that were important in the survey locations are listed below; they are likely to be important in other locations too. This is not an exhaustive list; additional factors may be identified elsewhere (Schilderman, 2001).

Local politics and policies

In the case of Zimbabwe, the public sector is reluctant to extend services and provide information, to residents of informal settlements. The political struggles of the past 1-2 years have increased the problem further. The residents of these settlements are often desperate for information, particularly on their rights, on land tenure and on security, but face great problems accessing it. The private sector, including NGOs, are not really filling that gap (ITDG Southern Africa, 2001). Similar laws preventing authorities from servicing illegal settlements do apply in Sri Lanka, and were a key reason for not extending services to Suduwelle. But residents there were more forceful and used political connections to secure two water taps.

In Sri Lanka, a new policy of slum clearance and resettlement has replaced the upgrading strategy advocated by the previous government, particularly in areas with high land values and good commercial potential. As a result, Suduwelle, in the centre of Colombo, is under threat of clearance. Thus, resettlement, tenure and employment have become key issues for its residents. In Dadelle, the same applied to residents whose houses were being demolished for the construction of the Kandy-Colombo road(ITDG South Asia, 2001c).

The other settlements in Sri Lanka, Overspill in Zimbabwe, as well as those surveyed in Peru, appear to be have greater security of tenure, though this did not always go as far as having a title. This is when getting information on issues such as improvements to infrastructure and facilities were becoming more important. Getting places was a particular concern of residents in Zimbabwe, but much less so in Peru and most Sri Lankan settlements, where the private sector provides an adequate and apparently affordable service. In most settlements in Sri Lanka and Zimbabwe, security was an issue, particularly with regards to dealing with the police. On the one hand, people wanted the police to provide personal security, but on the other they also distrusted them and lived in constant fear of harassment. Problems between the poor and the police are also frequently reported from other countries (Narayan et al., 1999:183-187 and Narayan et al., 2000:162-166). In both countries, residents also complained about raids by the armed forces in guise of national security. This appeared to be less of an issue in Peru; but in the Lima settlement residents were afraid of youth gangs

terrorising their neighbourhood. As a result, information about human rights, what to do in the case of abuse, and neighbourhood watches, became a priority.

Age of the settlement

As settlements develop and consolidate, their residents go through different stages of information needs and their information sources vary too. In an large settlement such as José Carlos Mariategui, established in 1984 and now having a population of about 150,000, one notices different settlement stages which have reached different levels of development (Castañeda and Xjimenez, 2001). The same applies to Epworth. When people settle in a new location, their first information requirements are to do with finding a secure base and often also a source of income, for which they may approach kinsmen. In these early stages, people depend on not very complex social networks which are largely restricted to the settlement. As settlements develop, information needs change: schools and other facilities may become an issue, or accessing markets. At that stage, people's social networks have extended, not only within but also outside the settlements, and a range of institutions including CBOs and NGOs may have been established or become accessible. Urban social problems such as crime, violence, addictions, accidents and exclusion can become more prevalent at this stage (Ruskulis, 2001b).

Size of town or city

The problems of large urban settlements differ from those of smaller ones, hence information needs may vary too (Shadrach, 2001:12). In smaller towns, quite a few residents may depend on agriculture or the vending or processing of agricultural products, for income; there may be less pressure on land, and transport is usually a minor issue due to the lesser distances involved. The sources of information do vary too, with smaller towns having a lesser range: the survey of Tarapoto (Agreda and Contreras, 2001), for instance, lists less infomediaries for all livelihoods issues analysed, except health, than that for the informal settlement in Lima (Xjimenez and Castañeda, 2001). But what makes up for that is that local authorities and institutions in smaller towns like Galle and Tarapoto are closer to their residents and more responsive to poor people's needs than those of the larger cities Lima, Colombo, or Harare.

Urban-rural linkages

This factor is closely related to the previous one, because such linkages appear to be stronger in the smaller towns. The research only looked at this issue in any detail in Tarapoto, Peru (Frias et al., 2001). There, it appeared that such linkages were very much part of a diversified income strategy. Often, people would prefer to live in town, because of the better services and the educational opportunities for their children, but with the skills they had, they would sometimes have problems to make sufficient money in town; in such cases, individuals would go back to the countryside for a while to work in agriculture. This permanent stage of "circular" migration allowed people to expand their information networks too. However, they tended to be at a disadvantage in an urban setting, because their traditional skills passed on by parents and grandparents were not always appropriate for life in town, and they often lacked adequate education.

Target group characteristics

Different individuals have different information needs and sources. This had become apparent already in the pilot phase, which for instance had noticed clear differences in information priorities between men and women in the case of Suduwelle (see 5.1). In the case of José Carlos Mariategui, information about income generation is crucial to male adults; education is an important contributor to that, but so are social networks. The men tend to evaluate and compare information in their networks. And they often pass on their knowledge and experience to their children. Adult women appear to have different livelihoods strategies, some of which may depend on vending, from home or elsewhere; in the latter case, getting there becomes an important issue. Young men and women form strong networks with other young people of the same gender. Whilst they acknowledge the value of education, they often find it difficult to finish their studies. And they have to rely on networks of family and friends to access jobs. Beyond this, people with similar characteristics or aims often form some sort of association: mothers clubs, *Vaso de Leche* (milk distribution) committees, communal dining rooms, market sellers associations, church groups, etc. Such associations often try to access information of use to their members which is then shared (Castañeda and Xjimenez, 2001:15-17).

The information needs of women, the young, and disadvantaged groups such as the disabled or homeless do require special attention. In the case of women, the electronic conference raised four important issues (Shadrach, 2001:19), which are by and large confirmed by our fieldwork and the literature review (Ruskulis, 2001b:8):

- The information needs of women in poor settlements are quite different from those of men, and often these needs are ignored;
- Women's social networks are different from those of men. They are based much more around the neighbourhood and are generally with other women;
- Women's access to information from sources outside their social networks and communities are often restricted by men. However, such information can prove to be powerful and very effective;
- Women are constrained in many ways in accessing information. The reasons for this include their position within society, high rate of illiteracy and the lack of authority. But at times they have managed to overcome these constraints, and in Sri Lanka several have become key informants as a result (see chapter 5).

Ruskulis(2001b) concludes that, as a result of these disadvantages, women often fail to participate in development programmes, unless a special effort is being made to include them. Sometimes, project results become inappropriate because women have not participated; this applies for instance to house plans, determined by men, which make household tasks difficult to undertake. Lindsay (2001a:7) cites the example of high rise apartments built in Colombo where no attempt was made to find out the sort of fuel women use for cooking; they use firewood, but no chimneys were provided.

Whereas a lot of the adults or elderly people may have migrated to urban settlements, most of the young will have been born there. They appear to relate more with other young people to access information than to approach older people. They also tend to be more literate and better educated than their elders, especially in the more mature settlements. From focus group discussions in Lima, for instance, it became evident that the young are looking in the first place for information on education and employment. But, even with their schooling, they often do find it difficult to enter the labour market, and some become delinquents; thus the second generation can become a problem in such settlements, as observed by Anderson (2000). The young also include special needs categories, such as street children and orphans, many of whom are not reached by conventional systems of education and information.

In traditional societies, the elderly are key sources of information and knowledge, which they share orally or by demonstration. In the urban context, this tradition is increasingly being challenged. This can lead to confrontation and to a reduction of status of the elderly. It is important to find ways to combine their indigenous knowledge and communication methods with external resources and different media (O'Farrell et al., 2000).

The disabled are a category that face particular problems in the Third World. They may be rejected by society; parents and teachers of disabled children frequently have little belief in their potential for integration (Staeheli, 2001a). The disabled and their carers and relatives often have specific information needs, for instance with respect to health, income generation or housing, which largely remain unanswered.

3.7. A complex range of needs

This research focused on eight livelihood issues on the basis of the understanding developed in a pilot phase. This appears to have been useful, since all of these were considered important by the urban poor in the research locations, though perhaps not to the same degree. For instance, they seem to have less information needs on getting to places; on the other hand, security is becoming a very important issue, and this is where perhaps the biggest information gaps are. In a recent study of the information needs of the urban poor in South Africa, Stavrou (2001) identified unemployment, inadequate education, lack of skills, health problems, poor infrastructure and high levels of crime as the key issues people required information on. These issues, and the detailed questions people had, showed great similarity with the information needs pursued in the KIS research.

Everything learned so far leads us to believe that people in low-income urban settlements have a complex range of information needs, many of which remain unsolved. This is in line with current holistic thinking on urban livelihoods and urban poverty. And whereas it is possible to analyse information needs in terms of livelihood assets, or under some other form of classification, as in this research, this does not take away the complexity and the inter-relatedness of these needs.

Increasingly, therefore, information strategies are moving away from a focus on single issues, towards covering multiple issues. This is certainly part of current thinking on participatory approaches to development and communication described in the introductory chapter (Norrish, 2001). And whereas many of the successful case studies of strengthening the KIS of the urban poor had a single issue such as health or pollution as an entrance point, this always appears to have been done within the context of a holistic view of a community's needs, which could then also be addressed (Ruskulis, 2001a:60). Similarly, participants in the electronic conference concluded that the tendency to focus information on concerns in a single sector ought to change. An information approach should revolve around the day-to-day needs of the people to find information-based solutions to such problems (Shadrach, 2001:13).

4. SOCIAL NETWORKS: THE KEY SOURCE OF KNOWLEDGE AND INFORMATION IN POOR URBAN COMMUNITIES

All sources within the research agree that the urban poor get most of their livelihoods information by word of mouth. In the three areas surveyed in Zimbabwe, there were no major differences among the respondents with regard to sources of information: informal sources among the people themselves ranked highest (ITDG Southern Africa, 2001: 16). The survey of three urban communities in Sri Lanka concluded that people in those settlements relied primarily on informal networks for information on the eight livelihoods issues; these included relatives, friends, neighbours, and people at the work place (ITDG South Asia, 2001c). The same is confirmed in Peru, where the family is the primary source, followed by neighbours and friends (ITDG Latin America, 2001:18). And participants in the electronic conference also state that people often rely upon the information passed on by family members, leaders in the community and local groups rather than formal channels such as newspapers, radio, television, libraries and the Internet (Shadrach, 2001:10).

It appears from our research and the literature that poor people are highly dependent on their social networks for information, support and advice. For poor people, social capital is likely to be one of the most important assets of their livelihoods. It can, to a degree, compensate for lack of financial or physical capital, principally through reciprocity, which allows people to access services by offering something else in return. Additionally, for poor people, social capital and human capital are very closely linked; many people draw skills and knowledge from other people in their network, and sometimes these are pooled in co-operative activities (Ruskulis, 2001b:10).

Social networks are based on links of different types; their importance can probably be ranked as follows:

1. *Kinship.* – to other members of a nuclear or extended family, or people originating from the same region. Kinship links are thought to be particularly important for new migrants and in new settlements, but over time other linkages partially replace them. Researchers in Peru concluded that the family is the primary source of information for any subject. Usually, it is the father who accesses the information within a family, but sometimes educated or well connected children take on that role (ITDG Latin America, 2001:18). This seems to confirm some of the findings of the pilot phase in Suduwelle, where decisions were mostly taken by men and educated children, because women were less informed.
2. *Proximity or friendship* – generally within the immediate surroundings for neighbours, but friends can be more distant. If a neighbourhood remains stable, links between neighbours can become quite strong; they are particularly important for women.

According to researchers in Peru, these links are relied upon when the information gathered within the family is insufficient, or needs to be compared or checked. The interaction with neighbours and friends allows new information to flow into the family and also enables feedback (ITDG Latin America, 2001:18).

3. *Workplace* – to other people associated with work or business, such as colleagues, clients or suppliers. If some people work mostly outside their community, this can be an important source of bringing in external news, information and knowledge.
4. *Membership* – to people belonging to the same organisation they have deliberately joined, such as mothers clubs, savings and credits groups, churches, or sports clubs. The existence of communal social capital, such as CBOs, can be an important font of information, and is treated in more detail below.
5. *Associations* – to people encountered by chance, e.g. at the bus stop, on the market, or at a school. Most people do not deliberately cultivate strong links through this kind of association, but for some it is an important source of news and information.

People who have a range of linkages of these different types can be considered to have quite effective networks for support and access to information. The quality of this information, though, should not be taken for granted: there is often evidence of information circulating in such networks to be incomplete or unreliable. Urban communities are not homogenous, and residents' networks therefore differ. Those of women tend to be more within neighbourhoods, whereas men have more links outside. But many of the poorest do not have such a broad range of linkages (Shadrach, 2001:16). Social exclusion can be a real problem, and will be further discussed below.

The strength of the linkages in social networks can also be an important factor in information dissemination. Researchers in Peru found that strong linkages can actually hamper the flow of information, because of the rules involved; weak linkages, on the other hand, seemed to allow information to flow more freely. The strength of the linkages within social networks in Peru was influenced particularly by the type of network and by the length of its existence, which is often related to the age of a settlement.

The importance of social networks for accessing information can vary with the livelihoods issue at stake. In José Carlos Mariategui, for example, it appeared that the large majority of jobs young people had acquired, were accessed via friends and relatives. In Tarapoto, social networks were of key importance in getting up-to-date information on housing issues.

Social networks are also important to be able to discuss, analyse and evaluate information before it becomes part of their members' knowledge. It can be useful, therefore, to generate opportunities within urban communities to have these discussions. A neighbourhood needs some places where people can meet and talk at ease; these could include community or health centres, bus stops, water points or market places. Having CBOs does also help, because they encourage people to meet and discuss.

Woolcock (2000) considers social capital to consist principally of three components:

- *Bonding Social Capital* – to friends, neighbours, relatives and other regular contacts within their community;
- *Bridging Social Capital* – links to people of equivalent livelihood status to themselves, who are located away from the immediate community, e.g. at work or in a rural area;
- *Linking Social Capital* – links to people with power, influence, authority or resources, which can affect the development of a settlement or community.

Many poor people are considered to be disadvantaged because few of them have significant Linking Social Capital and thus have little control over the allocation of resources and the development of policies affecting their settlement, nor easy access to this important source of knowledge and information. In our research, there are a few examples of people having exploited their links with local politicians and councillors. In Suduwelle, for instance, residents had accessed water points via this link. And in Gadzema, which is fairly isolated, the local councillor appears to be the single major information source.

Communal Social Capital, e.g. in the form of CBOs, can help to bridge the gap with people in power and authority. Many CBOs take a proactive role, encouraging communities to innovate,

developing skills and local organisational capacity, facilitating access to resources and overcoming bureaucratic constraints. In order to fulfil such roles effectively, people need access to a wide range of information - both technical and non-technical (Lowe, 2001:16). There is evidence in Sri Lanka, for instance, of residents, when requiring information on a key topic, being able to work together as a community and get it, by directly approaching the institutions concerned, using politicians, or even staging demonstrations (ITDG South Asia, 2001). In Peru, CBOs have enabled families to have access to information which they could not have accessed individually. Collective needs are the main reason encouraging community organisation; and the strength of the organisation is often directly related to the degree of need (ITDG Latin America, 2001:19). In Cajamarca, an association of domestic servants has to be cited as a particular successful example of an organised network which has done a lot to empower and improve the working conditions of its hundreds of female members. It has also organised useful exchange visits with similar groups in other towns of Peru. And members were involved in producing their own radio programme (Schilderman, 2000). The Boards of Directors of Peruvian informal settlements (which are resident leaders) also fulfil an important role in making the link to higher authorities, as do the Community Development Councils in Sri Lanka.

There are many good aspects of social networks, particularly if they get well organised. They can be used to disseminate information, but how successful this is depends on a number of factors, such as the perceived need for that information, the structure of the knowledge base, culture and intelligence, the willingness and ability to share, and the strength of its linkages. Some people, however, are known to guard information in the interest of close family and friends. This tends to leave out people who do not belong to core groups and may marginalise the poorest even further. There are equally a number of factors which may inhibit the development or full exploitation of poor people's social networks; Ruskulis (2001b:12-14) cites the following:

- *Social Exclusion*: Many of the poorest and most vulnerable people only have limited social networks. Where networks are based on reciprocity, people who are unable to offer something in return are at risk of becoming excluded. Organisations working with the poor may also identify principally the most active and well-connected in a community as representatives or counterparts. Thus, the poorest and most vulnerable can become excluded from development activities. An extensive World Bank study into poverty (Narayan et al., 1999:189-195) cites five mechanisms which contribute to exclusion: geography, entry barriers, corruption, intimidation and physical violence, and those often excluded are: women, children, the poor, the elderly, ethnic minorities, people with HIV/AIDS and the disabled.
- *Crime*: Criminal activities in a community are a considerable disincentive for people to form social networks. Many people would be afraid to go out and meet people, particularly at night, but in some places even during the day. In Epworth, for instance, many residents aim to stay at home after dark (ITDG Southern Africa, 2001). Women can be particularly at risk of violent crime and having their social activities impeded.
- *Political involvement*: Political parties can be very influential organisations within poor urban settlements. Sometimes, political mobilisation can stimulate development, but more often the opposite happens. There are often conflicts, where only people belonging to a particular party are allocated resources, whilst others become marginalised; some conflicts end up in violence. This is currently a particular problem in Zimbabwe, where most urban settlements are considered the domain of the major opposition party and are thus deprived from resources, or clamped down on.
- *Trust and conflict* – Trust between members is vital for social networks to function. If trust breaks down, networks can fall apart completely, or split into conflicting factions. Within families, ties can break down in disputes over, e.g., an inheritance. Within a community, the same can happen over the benefits of a development project. The risk exists that, unless participative project planning is undertaken carefully and sensitively, the most powerful rather than the poorest and most vulnerable gain most from it.
- *Gatekeeping* – Networks can keep information to themselves and exclude others from accessing it. Sometimes, networks are formed to deliberately block action by others.

On the other hand, it is also possible to strengthen social networks, e.g. by deliberately stimulating people to undertake a joint activity or action related to particular local needs. This

could include the participatory mapping of a settlement, an enumeration activity, the production of a community video, or the joint construction of a community facility. The case studies analysed in this research provide more detailed examples.

5. KEY INFORMANTS: THE NEXT RESORT

When the urban poor are unable to access the information they need within their social networks, they often approach key informants. These are people who either have a good level of knowledge in a particular aspect of community life and development, or have a range of links to people outside the community, or are particularly knowledgeable about community affairs and are willing to share the news and information they have. They may do so for different reasons, e.g., because it is part of their job, to get something in return – including payment at times -, to gain status or just to do good. There may be different key informants for different livelihoods issues, and they are found both within and outside the community. Well informed residents will have access to several key informants (Ruskulis, 2001b).

In Sri Lanka, researchers identified key informants through organisations working in the neighbourhoods, and via residents. In Suduwelle, key informants included a public health inspector, a midwife, a doctor in a public hospital as well as a private practitioner, several other public officers e.g. in the *gramaseveka*, and leaders of women's societies. There were also a number of individuals playing that role, who tended to be more often women than men. This happened particularly when women headed families on their own, or when their husbands were unemployed or addicts, and the women therefore had to look after the family and take the initiative in seeking information. This gradually led some of them to become informants of the wider community. These women often struggled to get access to government institutions, and often did not know which ones to approach for which issue; some capacity building might help them to become more effective. In Dadelle, the project manager and community mobilisers of an NGO were found to be key informants, and some individuals which again were mainly women. This is due to the fact that many men are often away from the community as wage earners or fishermen, which left the women to fend for themselves. In Deiyanawelle, the main key informant was a peer educator in an NGO project; there were also some women and a man who had worked in the Middle East. Thus, the majority of key informants in the settlements surveyed in Sri Lanka were cast in that role either because it came with their job, or, in the case of the women, because they were forced to look for information themselves since most men were unable or unwilling to do so. (ITDG South Asia, 2001c). In doing so, they had to overcome some of the problems women face, listed in section 3.6.

In Zimbabwe, key informants were identified from informal discussions with groups of respondents at service centres, shops or institutions within the community and from the interviews with individual residents and local authority officials. This led to the identification of three types of key informants with traits identified as either constraining or beneficial to information flows (ITDG Southern Africa, 2001):

- *Key informants from organisations or institutions providing a service* – who may have different attitudes towards enquirers. As their work environment may be frustrating and demoralising, some employees may vent their anger on clients. Others, though, are very responsive and do the best they can in difficult circumstances.
- *Key informants identified by respondents* – who tend to be respected and sought out by enquirers and are responsive to their information needs. The unsolicited information they provide is also usually deemed useful and relevant.
- *Key informants who are political appointees* – who are found in most ongoing activities and usually act as the informers for the party they belong to. They are feared gatekeepers and hoard information. They occupy decision making positions in CBOs, churches and NGOs and attend meetings on behalf of those groups whilst remaining unaccountable.

The main key informants identified in Epworth included staff of the Local Board and the Polyclinic as well as community health workers. The latter in particular were cited as critical sources of information, not only on health issues, but also on other subject matters, such as gender and environmental issues. The midwife's exposure to several external agents means she is well informed. Her extensive knowledge of the people within the neighbourhood she serves means the information she provides is felt to be relevant and is generally appreciated

as being valuable in meeting people's information needs. Other key informants in the neighbourhood include fieldworkers of NGOs active in the area, leaders of CBOs or churches, and some businessmen. In Gadzema, which has virtually no services, the principal key informant is the local councillor: *"Ward Councillor Mr K Rambire deals with the supply of information on virtually all key livelihood issues and is the focal point of all information that comes in and goes out of the area"* (ITDG Southern Africa, 2001). A number of public officers were also identified and interviewed, but they appeared to be a lot less accessible and useful. And a traditional healer was also mentioned, again as a not so useful source.

In Peru, key informants were identified from the interviews with families, observations and discussions with local leaders. In José Carlos Mariategui, the survey also identified a number of employment based key informants, including the owner of a hardware store, a waste collector and recycler, the local priest and the operator of a loudspeaker system in the market. Others became key informants through previous experience and opportunity, as in the case of two female residents trained respectively as nurse and community health worker, and the leader of the more elevated part of the settlement (Xjimenez, 2001). On a few issues, the researchers in Peru could not identify key informants. This happened for instance in the case of water, where the community required a piped supply; this was considered an issue affecting everybody, taken up by the local board. It also happened in transport, because it was well catered for by the private sector. Key informants seem to be most used on the issues of health, education and basic services. In Peru, some key informants have formal education, but most rely on empirical knowledge. Quite often, they may use the same sources of information as the residents, but it is their skill to interpret that information and adapt it to the local context which distinguishes them. Although the information they provide is valued by residents, it is not always considered reliable, and residents therefore try to compare it with what they know and receive from other sources (ITDG Latin America, 2001).

Thus, key informants include individual residents, members and leaders of CBOs, churches or NGOs, government employees, local leaders or elected representatives, and people in the private sector. Effective key informants are characterised by:

- Their capacity to provide information in an accessible format;
- Their willingness to share information rather than hold on to it;
- Their ability to get hold of information and adapt it to a local context;
- Their experience, education, knowledge and reliability;
- Their accessibility, proximity and helpfulness;
- Their social sensitivity and capacity to involve residents;
- Their leadership qualities, influence and moral authority.

Trust is an important factor in the relationship between key informants and residents. From our research, it appears that residents have more trust in people in the medical profession, in religious leaders, and often in members of NGOs or CBOs. Public officers appear to be much less trusted, and this is particularly so with the police or security forces and political appointees. This is also confirmed by Stavrou's research in South Africa (2001:10-12) which found that the urban poor there generally considered staff of educational and medical institutions, churches, NGOs and CBOs as trustworthy, but not the police and local government staff and politicians, with one noteworthy exception: Nelson Mandela.

Key informants obtain their information and knowledge from a range of sources, including formal education, job experience, the mass media, some public institutions and NGOs. The information they provide to residents if often valued and deemed useful, but it is not always accurate. In Peru, residents tend to consult other sources at the same time, and compare the information. Elsewhere, there is occasional evidence of inaccurate information provided by corrupt, manipulative or exploitative key informants having a negative impact, where effective counter-check mechanisms were lacking. At times, the problem gets worse because the poor have a tendency to reject or ignore reliable information that comes from an unfamiliar source, in favour of less reliable information from known sources (Shadrach, 2001:13). Building the capacity of key informants thus becomes an important issue; this could focus on a range of topics, both professional and social. Since many key informants are also local leaders or potential leaders, the development of leadership and participatory skills can be crucial, particularly for women.

Key informants can provide important channels for disseminating information to poor urban communities, because they are often trusted sources, and there are a number of examples of key informants being brought into development projects in an information or leadership role (Ruskulis, 2001b, citing the Million Houses Programme of Sri Lanka). It is, however, important to understand what motivates them, and not to overload them or expect too much. In many cases, key informants are reactive only, that is they will answer enquiries directed to them, but not become pro-active disseminators of information. Thus, the information that reaches them risks to stay with them and the residents approaching them for it, whilst the ones who do not ask (e.g. because they do not know the key informants or cannot easily access them) will not have access to it (ITDG Latin America, 2001:20). Because urban settlements get ever bigger and more heterogeneous, it is becoming difficult for all residents of a settlement to know who these key informants are and who are the right ones for specific information needs (Castañeda and Xjimenez, 2001). Key informants may also change their profession or business, which causes them to get out of touch and their knowledge to gradually become less relevant. Worse still, since key informants are often amongst the most active and upwardly mobile members of a settlement, they may move out altogether and cause an important loss of human capital. Projects should consider this possibility and look for ways to encourage key informants to stay, or build the capacity of new key informants.

6. THE ROLE OF INFOMEDIARIES

6.1. Types of infomediaries

Some institutions have taken on a role of producers or providers of information, by duty or desire. These include institutions in the public, private and NGO sectors, which we have grouped under the heading of infomediaries. These institutions generally have access to a wider body of knowledge. They also increasingly make use of Information and Communication Technologies (ICTs) to access global knowledge. What concerns us in the context of this research is whether they are able and willing to transfer such information in an appropriate format to the poor in their target areas. There is not always a clear distinction between key informants and infomediaries; where most infomediaries would actively disseminate information they produced or accessed themselves, some may also provide information at the specific request of individuals or their organisations, and thus their staff become more comparable with key informants. Some of the key informants listed in the field research actually fall into this category (see chapter 5).

In Sri Lanka, infomediaries were identified through focus group discussions and interviews with key informants. Several government institutions and NGOs emerged as infomediaries; there was also a limited role for the private sector. On the government side, key agencies are the municipal councils, the National Housing Development Authority (NHDA) and the police; others included, for instance, the Foreign Employment Bureau and state schools. A range of NGOs run specific programmes in selected informal settlements, e.g., on waste or on health and sanitation, which usually have information components. A key private company involved in those settlements is the Real Estate Exchange Ltd (REEL) which manages part of the Sustainable Townships Programme.

Infomediaries listed by residents and researchers in Zimbabwe included the local authorities and clinics in the public sector, a couple of NGOs which specific programmes, e.g., on housing, health, water, sanitation, business development, religion and education, in Epworth but not in Gadzema. The private sector only has a limited presence, largely in trade, transport and some health care; it is not considered a major information source. Compared to the other two countries, infomediaries in Zimbabwe were relatively weak. The information they provided was considered to be supply-led and often not responding to residents' needs.

In Peru, there are infomediaries in the public sector on 7 of the 8 livelihood issues studied; the exception was transport which is entirely privatized. But these infomediaries exist at different levels, and thus at different distances from the users. There is also an impressive range of NGOs providing information on most of the issues; some of these have nationwide programmes, others target selected settlements. In the private sector, some of the utilities provide information, and there are also several cases of small businesses providing information, e.g., on rights and legal issues, on a commercial basis.

6.2. The public sector

In Sri Lanka, people generally stated that it is hard to get information on a particular issue out of a government department; they are made to go from office to office, are often harassed in the process, and may end up not getting the information required. This appears not only to apply to the urban poor, but to other citizens too. Residents of Suduwelle considered the NHDA as very unhelpful in informing them on the crucial issue of their resettlement, and at one stage went as far as staging a demonstration to obtain the information required. They were also frustrated with officials of Colombo Municipal Council (CMC) on the issue of water, which they were denied due to their illegal status, but had good relations with health officials of the same Council. The CMC does not have any information materials on specific services they provide to the urban poor; but in 1997 they produced a directory of services, in English and Sinhalese, listing contacts and complaints procedures. This was distributed to all rate-payers through the garbage collection system; but it may not have reached Suduwelle, where garbage is not collected. The CMC has weekly open days and an information desk, but these seem to be mainly used by middle and high income groups. The urban poor often use informal methods to complain, e.g., through a CMC worker living in their midst. Public health is the only sector in which the CMC goes out to provide information to informal settlements, for instance, on mosquito-borne or sexually transmitted diseases. Residents of Suduwelle avoid going to the police which they distrust; the reverse is also true: there is a certain amount of prostitution and drugs-related crime in the area, which sometimes forces the police to take action against residents. Residents of Dadelle had a somewhat better relationship with the relevant municipal council, of Galle, which had extended services such as garbage collection, piped water and public health visists to the settlement; the partnership established (largely around waste issues) between an NGO, the council and the community has helped to improve information flows. But residents of Deiyanawalle, Kandy, also complained about government officials, with the exception of medical staff such as public health inspectors and midwives, not responding quickly to enquiries or sending them from desk to desk. Following an NGO project, the police now have a less hostile attitude to the settlement.

In Zimbabwe, the Local Board in Epworth claims that in the formal part of the settlement ward committees exist which are a channel to inform the residents. The latter, when interviewed, do not seem to be aware of these committees and claim not to have received information through them. And the Board simply refuses to provide information to the informal settlers which it considers illegal. They want these to relocate to e.g. Harare or Chitungwiza, and register for plots with councils there. The situation is worse for women, who are often not considered as applicants. Residents tend to waste a lot of time when seeking information from the Board or other councils. In its favour, it must be said that Epworth Local Board is severely under-resourced. Epworth is a settlement with an estimated population of 200,000, which is growing rapidly; yet it is governed by a Board which is a low level of local authority in the Zimbabwe context; it only has 72 staff, of which 39 are in the health sector. This explains why Epworth Polyclinic, and particularly its community health workers, have a better reputation as providers of useful information. In Gadzema, the public sector hardly exists as infomediary. During the research in Zimbabwe, the political situation has dominated the scene, to the extent that the public sector, and particularly the ruling party, was crowding out other information suppliers, preventing a free and equitable flow of information, and sometimes disseminating information that was not based in facts. In this process, political networks have tended to become more important than social networks.

In Peru, there is quite a difference between the secondary town of Tarapoto and a large city like Lima, when it comes to accessing the authorities. In Tarapoto, residents are generally able to access several institutions in each of the 8 livelihoods areas studied, with the exception perhaps of transport which is entirely privatized (Agreda and Contreras, 2001, and Table 3). In José Carlos Mariategui, the municipal authorities are at a much greater distance and only meet a few basic needs in the settlement, principally health and education. For other issues, the settlement board has to establish contacts at the provincial level (Castañeda and Xjimenez, 2001). Similarly, participatory planning of Villa El Salvador, Lima, was hampered because its residents and leaders could not always easily get access to the required information (M. Llona at the 4th International Forum on Urban Poverty, Marrakech, 2001). Beyond the more obvious municipal and provincial levels of service and information provision, there are also some institutions with a more specialized role, often operating nation-wide. These can be in the form of parastatals, such as PROMPYME, an agency promoting micro-

and small enterprises. It provides information and training on different aspects of enterprise development, and operates a voucher scheme, e.g., to provide access to the internet via telecentres. Another example is the Peruvian Social Security Institute (now ESSALUD) which has run public health campaigns on radio and television, and also uses loudspeakers in, for instance, market places for such campaigns. There are also specialized national agencies in the area of housing, such as the ENACE which funds real estate development, COFOPRI which legalizes land tenure, and the Banco de Materiales which funds building materials loans. They are generally accessible through local offices, but also have information and training programmes. In the run-up to the elections of 2000, COFOPRI organized a massive campaign on securing land titles in informal settlements. From our surveys, it appears that the information provided by these agencies is sometimes at odds with each other; the procedures and conditions involved in land registration, obtaining loans, getting building permits etc. are also sometimes considered a constraint.

6.3. Non-governmental organisations.

In informal settlements of Sri Lanka the most prominent NGOs are specialist agencies who are there to address a specific problem, such as waste, sanitation or health. They tend not to have nation-wide programmes, but focus on selected settlements with specific inputs which often include information and capacity building components. Residents of Suduwelle received useful information from one NGO, running a health and sanitation programme. There was also a strong NGO presence in Dadelle (with the Arthacharya Foundation) and Deiyanawalle (with APNET) which were equally appreciated; staff of those NGOs were amongst the most important key informants listed by residents. The Arthacharya Foundation provides specialist information and training on solid waste management, recycling and related income generation particularly to women in Dadelle; it does so in collaboration with 8 CBOs and the council. Some of the information used by the NGO comes from good practice in other countries. It also raises awareness on environmental issues and how to take action against polluters, and provides additional information on water, health, housing and legal issues. APNET is targeting young people in Deiyanawalle with information on public health and sexual risks, based on an initial survey which had shown that knowledge levels were low and risks therefore high. Because of the sensitive nature of the information, the NGO trained peer educators, who went on to inform contacts in their networks.

In Zimbabwe, a number of specialist NGOs were present in Epworth, but none were identified in Gadzema. As in Sri Lanka, they tend to focus on specific areas, such as housing or health. Plan International, for instance, is supporting income generating activities and has in the past built health and educational facilities and water supplies; not all of these activities contain an information component. It has collaborated with others, including CARE (on enterprise development), ITDG (on housing) and Mashambanzou (on HIV/AIDS). Housing People of Zimbabwe is supporting a brick making project by women, and helps others to establish housing co-operatives. Others which focus on urban poverty are Zvitambo and UZ/San Francisco. Epworth is a large settlement, with over 200,000 inhabitants, and these NGOs do not reach many of them. They do not co-ordinate their activities very well, and seem to concentrate on the same organized groups, such as housing co-operatives or women groups. Thus, the vast majority of residents who are not part of these privileged groups, have no access to their information. At times, these NGOs have also been reluctant to share information, or have done so in inappropriate formats. Religious groups constitute an important segment of the NGOs present, and they are often a refuge to the poor in times of trouble. The Apostolic Faith sect in Epworth is quite dominant amongst those, and attracts followers from all over the country. But they hold very particular beliefs, e.g., that it is a sin to consult modern or traditional medicine, or that educating girls is not a priority, which are at odds with the general thinking and messages received from elsewhere on poverty alleviation.

A range of NGOs is working as infomediaries in Peru, some of which operate at the national level. The performance of six of these, working in the areas of health, education and human rights, was analyzed in more detail in this research; the following table summarizes the findings for three of those (Staeheli, 2001b and Lowe, 2001):

Table 6. Summarised comparison of the information strategies of 3 NGOs in Peru

	ALTERNATIVA	CEPIS	EDUCA
Stakeholders	Grassroots leaders Women involved in community based initiatives Young people Small entrepreneurs	Poor men and women	Marginalised urban residents
Geographic Area	North side of Lima: Los Olivos & San Martin de Porras; currently expanding to cover Rimac	Peri-urban and rural	San Juan de Lurigancho (SJL)
Selection Criteria, Definition	Institutional goal of developing leadership capacity among younger generations: Local leaders under the age of 50.	They take advantage of the networks set up with the Ministry of Health	The need to focus limited resources. Extreme poverty in SJL and lack of service provision by any other NGOs
Contents, type and means of dissemination	Primary stakeholders are taught about leadership, social management and participation. Health education. Participatory assessment of settlement and planning of *Independencia* district. Awareness raising and dissemination of plan.	Health techniques.	Education.
Criteria for the definition of content	Interests of the population in context of NGO's interests. Ongoing interaction with students informs methods & content.	Interests of the population in context of NGO's interests.	Based on planning informed by institutional policies and current pedagogic practice.
Media of dissemination	Training. Web site *Independencia* and networks. Dissemination material: ex-students continue to visit the offices and use IT facilities to access e-mail and web based information.	Participatory workshops. Web site (indigenous people) Dissemination material.	Educational information networks
Feedback on Information Use	It is not systematic; it depends on the beneficiaries' request	Participatory methodology in the elaboration of materials	
Inter-institutional relationships	Particular experience with the municipalities of Independencia & Comas. Mediation between the local residents and local government bodies is significant.	Ministry of Health	Operates through smaller NGOs & local networks of government and popular organisations. Recent focus on penal procedure faced by the mayor displaced the residents' issues and stifled collaboration.

Table 6 highlights that institutions sometimes tend to develop areas of specialisation depending on organisations' interests and priorities rather than local demand. Consultation of target groups is the exception rather than the rule. The institutional policies will often be derived from implicit or explicit views of development; they also often define work methods. The predominant means of providing information and building the capacity of target groups is through training and the use of printed resource materials. Oral means of communication, such as the radio, are also used. Computers and the internet are slowly being introduced too, particularly to train young people.

Besides the larger NGOs working at the national or regional level, there are also many NGOs focusing on selected locations. They vary in size, with some having only a few people working in a single place, whilst others have 100 or more staff and work in many locations, perhaps in a range of sectors. Some NGOs are related to a church and provide religious or moral information and training, and sometimes information on employment; churches often organise youth clubs focusing on such issues. Many NGOs have no religious ties, and may specialise in providing information and/or services in certain sectors, such as health, education, nutrition, disablement, water, sanitation, income generation etc. One particular NGO, CEPRODEP, is helping CBOs and the council of San Juan de Lurigancho to develop a strategic plan, using participatory methods. NGOs approach low-income communities through campaigns and talks or may have wider projects that include an information component. Many have close links with CBOs such as mothers clubs, parents associations, nurseries, communal kitchens, milk distribution groups, business associations, etc. Such NGOs use a range of media to disseminate information, to a varying degree of success. Because they tend to focus more on limited locations, their messages are often better targeted at local needs than those of the nation-wide NGOs discussed before.

6.4. The private sector

In Sri Lanka, researchers found infomediaries in the private sector not to have a significant role in informing the urban poor, with the exception perhaps of the housing sector, where REEL, along with the NHDA, is responsible for resettlement, whilst others offer housing finance for lower income groups. REEL uses a variety of methods to inform communities in the first phase of the Sustainable Townships Programme. This has not happened in Suduwelle yet, perhaps because it is not part of the first phase. REEL uses a social marketing team to visit households; it explains the concepts and provides them with various leaflets on resettlement. Once the legal agreements have been signed, a more significant campaign is started which includes workshops on various issues (including new employment opportunities), visits to resettlement sites and the training of peer educators drawn from the community. REEL also has had a few media campaigns on its resettlement programme; this did not involve the papers which are not a popular medium, but radio programmes including discussions on the air. Since there are some television sets in low-income settlements, REEL was also involved in the production of two teledramas focusing on resettlement. The loan companies, such as Ceylinco Housing and Real Estate, and Ceyhomes Credit & Finance, generally target people active in the formal economy, do require collateral, and therefore are often out of reach for the urban poor we surveyed. Most utilities are still state owned, although some of the electricity supply is now partly privatised. In other sectors, such as health, education and transport, the urban poor equally use services offered by the public and the private sector. But where health services in public hospitals are free, people have to pay in the private sector; whilst this is an important barrier to the poor, some still use them to avoid time wasting and to get better attention. In transport, the private sector enjoys about two-thirds of the market; the remainder is covered by former public companies now co-owned by employees. Government puts a ceiling on transport costs which its announces through various media; this requires a careful compromise between what transport users (who are also voters) can afford, and what companies require to remain profitable. This explains why transport is not a major issue to the urban poor. On the whole, information provided by service providers in the private sector was not particularly targeted at the poor. This is somewhat different in commerce, where there is some diversification of messages and media used when companies target different income groups, with the radio being the preferred medium to reach the poor.

In Zimbabwe, the private sector has a very limited presence in the low-income settlements surveyed, and that may well be because there is not enough paid demand for their services. The exception is transport, although there are affordability problems there too, and some small-scale commerce. There is only a single private clinic in Epworth, largely aiming at the better-off, and there are no private sector educational facilities. Although a number of business development organisations exist in the private sector, including the Small Enterprise Development Corporation (SEDCO) and the Indigenous Business Development Corporation (IBDC), these do not have programmes operating in informal settlements. A couple of individual advisers who had worked for such organisations or development agencies before do offer business services in Epworth, but the fees they charge are unaffordable to the poor. Knowledge obtained in private sector employment is used by security guards living in Epworth to help establish neighbourhood watch groups.

In Peru, the research team identified a couple of cases of infomediaries operating in the private sector, on a commercial basis. One of those, *Informando*, run by Wilber Castillo Salas in Lima since at least 10 years, was analysed as a case study (Staeheli, 2001a). It started off providing free information on educational and cultural matters, through street posters. But as the demand for information became more varied and increased, it could no longer be provided for free. *Informando* now provides a substantial amount of information on legal issues, and on topics requested by users, for a fee. This is used to cross-subsidise the provision of cultural information. The service appears to be not entirely profitable, to some extent because the poor are not always willing to pay for information, but also because *Informando* finds it hard to access the information required from some institutions. *Informando* was run from an office and three information kiosks, but Lima's council has now cancelled the licenses for the latter, which has severely curtailed the service. One of the recently privatised energy utilities in Peru has mounted an information campaign on issues such as energy saving and safety; this information does not specifically target the poor, as it is sent with the bills, but will reach them since most are connected. The same company operates a 24 hour telephone information service. The water sector is now privatised too; at one stage it also produced leaflets, on saving water, which were circulated with the bills; it also operates a telephone information service. The messages put out by water companies are sometimes at odds with messages produced by the health sector. Where water companies argue for saving water, the health sector says that people have to use plenty of water and wash well, to avoid diseases such as cholera. And where the water companies say that their water is safe, the health sector advises to add chlorine. There are also examples of private companies supplying information outside their line of work; the Backus beer company, for instance, has established a foundation focusing on environmental protection, which has produced and disseminated radio and video programmes. Most of such services are supply-led; feedback is fairly limited, and it is therefore not sure whether they always meet a need. Commerce uses different marketing strategies for different income groups: the packaging or presentation, messages and media used will vary; the poor are typically targeted via the radio and soap operas on television. But this does not happen everywhere: the cost of formal drugs, for instance, is prohibitive to many poor people, who therefore resort to alternative forms of medication; campaigns to sell drugs therefore do not target the poor. The transport sector, on the other hand, which is entirely in private hands, has over time developed different levels of quality of transport, with corresponding price tags, aimed at different income groups. In the housing sector, local hardware shops are an important source of information to the urban poor, making up for gaps in the public sector. Markets in informal settlements are important centres of information, not only because they bring people together, but also because they are now increasingly being used to advertise or campaign, via, for instance, loudspeaker systems, posters and notice boards.

6.5. Reflections on infomediaries

The public sector and NGOs are the two dominant infomediaries in all locations surveyed, whilst the private sector plays a much less important role. This is in line with what the World Bank found in listening to the voices of the poor (Narayan et al., 2000:199): 47% of the institutions considered important by the urban poor in their lives were state institutions, 45% belonged to civil society (which included NGOs) and 8% were private enterprises.

Very often, the development of informal settlements and of the livelihoods of the urban poor who reside there appears to be constrained by inadequate links between communities and institutions such as NGOs, local authorities, government departments and private sector companies. Whilst in most cases there are a range of institutions providing information to the urban poor, they often appear not to be easily accessible or to provide inappropriate information products. Stavrou (2001:9), in his research on South Africa also found: "*There are numerous institutions that transmit information to the urban poor, but not articulate it in a manner that the urban poor can use it. Furthermore, not all sources and mediums of information are trusted by the urban poor*" . In our research, the provision of information by the public sector is criticised in particular, with NGOs and the private sector performing better, though occasionally being criticised too. Again, this is in line with World Bank findings (Narayan et al., 2000:199) that the poor found 33% of the effective institutions to belong to the state, 60% to civil society and 7% to the private sector; but of the ineffective institutions 83% belonged to the state, and only 15% to civil society. The same source recognises that a number of factors determine the quality of an institution to the poor; key amongst those are trust, respect, understanding, participation, effectiveness and accessibility. On most of those, state institutions score badly (ibid.:179).

With the occasional exception of the health or education sectors, and of authorities in the smaller settlements which appear to be more accessible, the public sector in the locations surveyed is severely criticised for making access to information difficult, for harassing the urban poor or even excluding them entirely. Participants in the electronic conference confirmed these findings, in stating that the majority of the poor are not able to lay their hands on valuable information due to corrupt practices and bureaucracy in developing countries. Linkages with information sources are often one-way, especially when dealing with government agencies; poor people are often intimidated and powerless in such situations (Shadrach, 2001:11). And Ruskulis, in his review of the literature (2001b), concludes that, even when institutions are collaborating in a development project in an informal settlement, many consider that they are undertaking the project for rather than with communities. There is often little consultation with people in the settlement about the project and information about it is produced too often as written documents, largely inaccessible to people in the settlement. Nevertheless, organisations which have introduced participative techniques have extended the impact of projects. Elsewhere, the World Bank found that the poor's interaction with state institutions were marred by rudeness, humiliation and harassment (Narayan et al., 1999:8); this leaves the poor feeling powerless, unheard and silenced (ibid.:65). The same institutions are also deemed to be inefficient, corrupt as well as colluding with the elite, and have access barriers in place that are hard to overcome by the poor (ibid.:65).

NGOs do often step in when government systems fail, and they often do make a difference in urban communities where they are present. But scaling up this effort presents problems. The participants in the electronic conference saw an important role for NGOs in strengthening community-owned information systems, though some doubts were raised as to the NGOs' capacities to do so (Shadrach, 2001:16). The experience with NGOs in the countries surveyed has been mixed. Whilst many were good at listening to the urban poor, producing appropriate information products, and answering real needs, some were criticised for supplying information in line with their own policies rather than listening to the poor's needs, and others for acting almost as gatekeepers rather than freely sharing or transferring the information they had compiled. Thus, ownership of information is not only an issue at the level of some key informants or CBOs, but also amongst some infomediaries. Some NGOs active at community level had managed to help establish partnerships between CBOs, NGOs and the local authorities, often around a single priority issue; this tended to improve relationships and information flows on other issues too. NGOs and particularly religious organisations tend to be more trusted by the poor than the state. The latter are often particularly valued in times of stress, but occasionally cause conflict too.

In most cases, the private sector does not seem to target the urban poor specifically, nor does it always fill a particular information gap. But there are exceptions: the few cases of commercial information services recorded did fill a specific need, and some businesses do produce useful advice or have diversified their product or service range to accommodate the poor. Where programmes grow in size, though, as in the case of REEL or some of the utilities, information tends to become more supply led and less reactive to the needs of the poor.

7. THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

Whilst social networks, key informants and infomediaries, in that order, are important sources of information to the urban poor, they are not the only ones. There are other information media, amongst which the radio ranks highest, followed by newspapers and television. Radio and television were listed amongst information sources in Suduwelle, for instance, but not ranked as important (ITDG South Asia, 2001c). In Zimbabwe, the radio is ranked second, after word of mouth, but only a few people in Epworth have access to television. These media provide mainly entertainment, but no practical solutions to the problems residents face. Some people consult newspapers too, but their cost is a constraint for many; at times, they manage to get old papers from friends or relatives (ITDG Southern Africa, 2001). In Peru, the radio is a regular companion for many poor people, and as such much more important than the television, but the information provided by these media has little local relevance; there is demand for community radio or television (ITDG Latin America, 2001). People consult newspapers particularly to look for job advertisements (Castañeda and Xjimenez, 2001). Again, these findings are very close to those by Stavrou (2001:9) in South Africa, who also mentions the importance of newspapers for information on employment opportunities, and finds that radio and television do provide news and a view of the rest of the world. But "*the media, however, rarely provided the type of information that the urban poor need, such as information on work, skilling, health and service delivery".* Participants in the electronic conference also ranked radio and television as the most important source after oral communication, "*however these channels have in most cases failed to transmit programmes concerning poor people's day-to-day needs"* (Shadrach, 2001:11). All along, there is concern about the growing commercialisation of the media leading to a reduction of their public service role. And their globalisation is leading to a loss of local voices and local relevance. This particularly affects the poor and women more than men.

Few of the urban poor in our research have direct access to ICTs such as the Internet, email, video or telephones, but their numbers are slowly increasing, particularly in the case of the latter. There are a number of examples of cellular phone networks benefiting the poor, the best known being probably the Grameen network in Bangladesh (O'Farrell et al., 2000). On the other hand, the Third World accounted for only 3% of all Internet hosts in 1997; access to a computer, modem, telephone and electricity is not only difficult and expensive, but often also unreliable (Ottolini, 2000). And even if those problems can be overcome, the Internet does not provide a lot of information that is of relevance to the urban poor in the Third World; and over 80% of that information is in English, whilst less than 10% can read this language. But not all news is negative and there are examples where computers, email and the Internet have been used to the advantage of the urban poor. The eviction of railway embankment dwellers in Mumbai, for instance, was halted thanks in part to a flood of international protest called up by email. And in Thiès, Senegal, an NGO has supported the development of a computer-based tool for community data collection, analysis and planning (Gaye and Prelaz-Roux, 2001). There are also several useful examples of the establishment of telecentres, with access to the Internet and email (Ruskulis, 2001a).

Opinions are divided as to whether ICTs could play a bigger role. Some participants in the electronic conference believe that ICTs can play a crucial role in enhancing livelihood opportunities, whilst others dwell on the side of caution, as do Ottolini (2000) and Skuse (2000). And participants in the 4th International Forum on Urban Poverty (Tuts, 2001) concluded: "*In absolute terms, new information and communication technologies are not yet playing a major role in the strategies for fighting urban poverty. In cases where they have been used, it has often been in the framework of subsidized interventions which endangers their sustainability".* The electronic conference recommended that ICT experiments that appear successful should be analysed more closely, and if possible replicated (Shadrach, 2001:4-5). Some participants suggested that technology development would help to overcome some of the constraints cited by Ottolini, for instance by substituting solar power for electricity, a suggestion also made by Skuse (2000). One of the advantages of ICTs is that information could be presented and handled in a way that does not require literacy, thus enabling larger access; the "hole in the wall" project in the slums of Delhi is clear proof of that (National Institute of Information Technology, 2001). The Indian Government is now supporting the development of computer software aimed at illiterates, which should be a big

step forward. All the NGO infomediaries studied in Peru have web sites to disseminate their work. They are conscious, however, that the Internet cannot yet replace their more conventional communication methods. Yet, they do know that it is reaching ever increasing numbers of people and are therefore starting to incorporate it in their methods, particularly when targeting the young. Thus, *Alternativa* is training young people in leadership, and this programme includes computer classes. Former students keep visiting the institution to check their email and access information on the Internet. In another initiative, three of the NGOs are jointly establishing a computer based database of the educational assets of San Juan de Lurigancho (Staeheli, 2001b). The cost of access to ICTs was also realised as a constraint by participants in the 4th Urban Forum on Urban Poverty (You, 2001); they recommended community-based access as one of the ways forward. The same Forum realised the importance of training in ICTs as a means of empowerment and capacity-building of the urban poor, and the need to ensure relevance of content and the promotion of local values. As to the latter, Stavrou (2001:2) found that many ICT projects have failed to do a proper information needs analysis, and thus are not providing useful information; he also suggests that ICTs should build on existing patterns of communication.

8. MODELLING THE INFORMATION SYSTEMS OF THE URBAN POOR.

8.1. Preliminary model development

The results of the pilot phase suggested that the information systems of the urban poor were complex and included a lot of different actors: the poor themselves, a range of key informants, government institutions, local organisations, NGOs, commercial companies, etc. Between those actors, information flows were taking place in various directions (top-down, bottom-up and horizontally). It is because of this complexity that we are talking about information systems rather than single information flows. At the start of phase 2, the research team assumed that the development of models would help researchers to simplify this complexity, analyse systems, and discover ways of strengthening them (Norrish, 2001). Based on the earlier findings, a decision was taken to focus in phase 2 on the users of information, the key informants and the infomediaries. Researchers realised that they might have to develop both supply driven (push) and demand led (pull) models, but hoped they would be able to merge these into this single model. One approach would be to draw up rich pictures for both the push and pull situation in each location, and then to develop models from these (Ruskulis, 2000).

A subsequent model, the ‘windmill’, combined the simple push and pull model with the 8 livelihoods issues the researchers wanted to focus on in phase 2, as described in section 3.2. This model places the community at the centre, whilst the 8 vanes of the windmill represent the various assets or services required to sustain livelihoods. This model was intended as a template which, once filled in, would present a general model of poor people’s KIS.

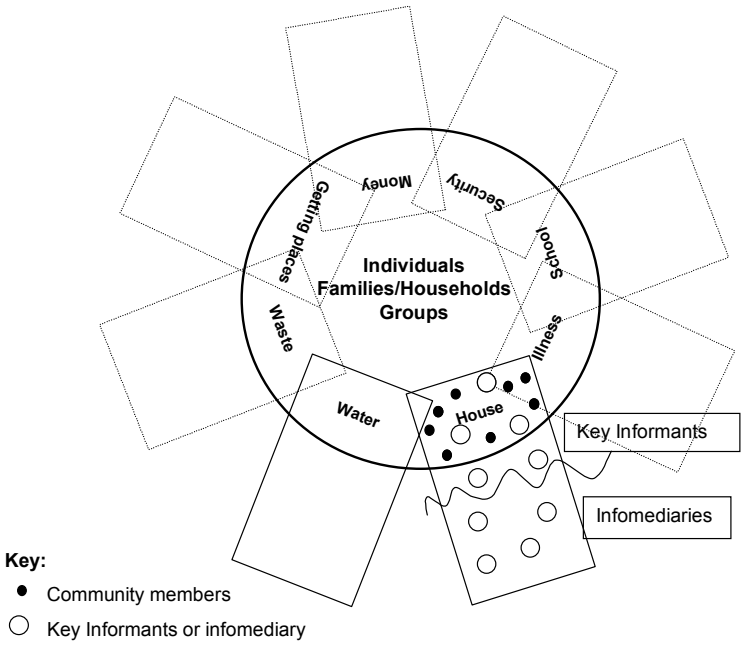

Figure 1 The 'Windmill' model

The reports from the three countries show that the processes by which local researchers subsequently developed models were somewhat different, and that they all encountered some difficulties. But, on the whole, the development of verbal or diagrammatic models has been productive for the project. Zimbabwe contributed a comparative model of the main information flows within an informal and a formal settlement, whilst Peru and Sri Lanka developed models around the 8 livelihood issues. In all cases, the models are supported by explanatory text which gives the necessary context for fuller understanding (Norrish, 2001).

8.2. Modelling in Sri Lanka

To depict information flows in Suduwelle, the research team in Sri Lanka used the windmill model initially to map frequencies and informants on each of the vanes. But they faced difficulties in dealing with areas of overlap, and felt this reduced the usefulness of the model. As a next step, they therefore elaborated each vane separately, as relatively simple single models. In doing so, they observed that on each of the 8 issues information flow was two-way, with individuals both demanding information (often without response), as well as receiving unsolicited information (ITDG South Asia, 2001c). Whilst these models look deceptively simple, that should not distract us from the complexities described by the text. The supply of and demand for information can raise complex political and power issues (e.g. people demonstrate to get the government to meet their demand for information) often ignored in investigations of information flows and systems (Norrish, 2001), and not easy to capture in abstract models.

8.3. Modelling in Zimbabwe

In Zimbabwe, local researchers found it relatively easy to develop models for the formal settlement of Epworth, because there is communication between residents and, e.g., institutions. Doing so for the informal settlements, on the other hand, was, in their words, a 'nightmare', because of communication breakdown. They did produce a comparative model

for the settlements of Gadzema and Epworth. The team used the model to analyse the situation and to recommend improvements to the system, which they incorporated into it. The model could also be used to start a discussion with a range of stakeholders about the current situation and how it can be improved (Norrish, 2001). Thus, the model became useful as an information planning tool.

8.4. Modelling in Peru

Researchers in Peru initially encountered problems when trying to capture the complex information flows in poor urban areas in the windmill model. One problem, for instance, was that roles could be reversed: somebody could be a key informant to some, an infomediary to others, whilst at the same time receiving information from another key informant. But then, in Lima they started to adapt visualisation tools used in another project. This information mapping methodology was then applied to the 8 livelihoods issues in interviews with individual residents, and also in focus group discussions. By involving the respondents, these maps are richer than those which could have been constructed by researchers using their notes (ITDG Latin America, 2001). From a range of such maps, information models were then derived on each of the 8 livelihood issues in the settlement of José Carlos Mariategui; the one for health is given below.

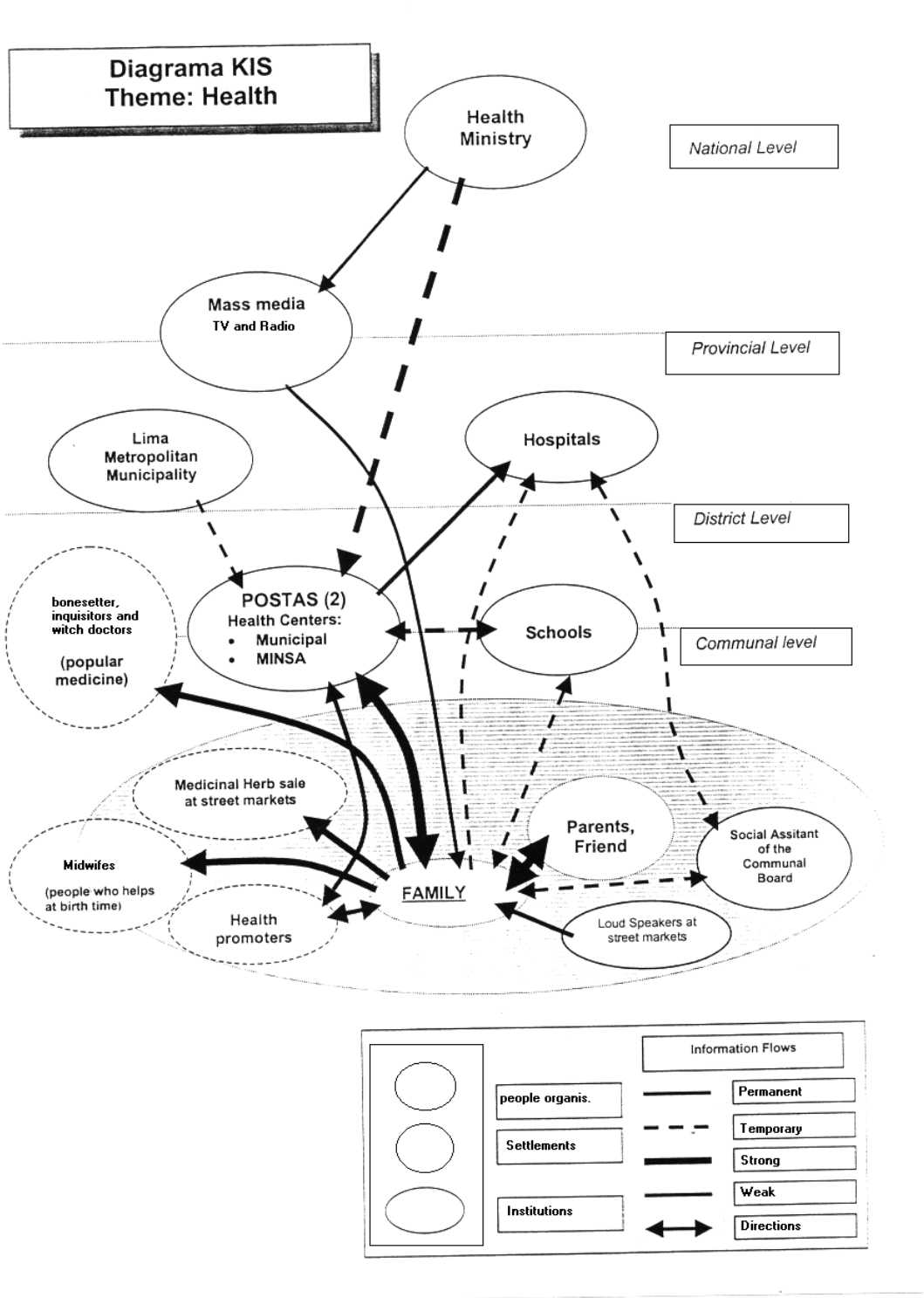

Figure 2 Model of Health information in José Carlos Mariategui

These models provide an excellent picture of the variety of actors involved, and the strength and the direction of the information flows, e.g. confirming the importance of social networks. It is also evident that some of the information is supply-led only. What these models do not provide, though, is an indication about which sources are used for what type of information, of which details are provided in tables 3-5.

8.5. Reflections on modelling

It has been possible to develop rich picture based models from the findings in the field surveys. This was done most comprehensively in Peru, for each of the 8 livelihood issues. These models have helped to identify the various actors involved in information provision, as well as weak links or bottlenecks. In the case of Zimbabwe, researchers have started to add potential solutions to the model, and the model thus became a planning tool (Ruskulis, 2001c).

The modelling exercise has confirmed that the situations on the ground are quite complex, and thus it proved to be difficult to develop more generic models related to information demands, resources and linkages. Such models were also not so helpful in identifying points of leverage, that is areas where action needs to be taken. The more specific rich picture models on the livelihood issues would be much better for this, and this is perhaps the way in which modelling should be taken forward.

The exercise also brought to light a number of issues which could not easily be represented in models. These included for instance the political dimensions of information exchange and the lack of knowledge or response by infomediaries, particularly the authorities. There were also some issues cutting across the 8 livelihood areas which were hard to model. And models generally did not explain what sources of information were used for which need.

According to Norrish (2001), modelling has helped to bring into focus some of the shortcomings of current knowledge and information systems, in particular that many information flows are supply led, that many infomediaries seem to be unaware of the information needs of the urban poor, and that their 'front line' staff fail to deliver what is required in a helpful way. Improving the capacity, reach and effectiveness of government, NGOs and CBOs to generate and deliver information and to develop strong two way links with communities is one way to go about strengthening the KIS of the urban poor. The models themselves can be a tool for analysis, dialogue, and elaboration of more effective communication methods, but other tools may achieve the same.

9. STRENGTHENING THE KNOWLEDGE AND INFORMATION SYSTEMS OF THE URBAN POOR

9.1. Involving the poor

When asked how the KIS of the urban poor could be strengthened, participants in the electronic conference were of the opinion that it would be of utmost importance to involve the poor themselves. Even though at times they might be illiterate, the poor possess a substantial amount of knowledge which is of great importance to any initiative. They also thought that NGOs could play a key role in rediscovering this indigenous knowledge, and in helping to strengthen it (Shadrach, 2001:16).

Ruskulis, in his review of the literature (2001b: 27-28), confirms the importance of using local knowledge in development, but adds that institutions working with poor people often fail to recognise this. At the same time, there are likely to be gaps in knowledge which capacity building could address, e.g. in the areas of leadership, group organisation, literacy and media skills. It may also be necessary to repackage some of the institutional information that exists in order to make it more easily understandable. Institutions should particularly aim to train people with close links to the communities, the key informants. Again, he finds that NGOs can be particularly important to help build this capacity and to create the linkages between communities and other organisations.

The electronic conference, literature review and networking by the international research team also helped to identify a number of ways to strengthen the KIS of the urban poor. 11 cases, covering quite a broad range of approaches, were analysed in more detail: two each in Peru, Sri Lanka and Zimbabwe, and five from elsewhere. Some of these made use of ICTs, others relied on more traditional communication methods. There were a number of reasons to produce these case studies; these included (Ruskulis, 2001a:1):

- To seek validation of the approaches taken in the research project, especially in a wider context;
- To identify components of strengthening poor urban communities which could be used for lesson learning and dissemination;
- To better understand the processes of strengthening in different contexts;
- To assist and validate the development of models of KIS.

The 11 case studies elaborated in more detail were:
- *"Informando"*, a commercial public information system in Lima, Peru.
- *"Yancana Huasi"*, a training centre for young disabled people in Lima, Peru.
- Solid waste management, supported by the Arthacharya Foundation in Galle, Sri Lanka.
- Community Health Education by APNET in Kandy, Sri Lanka.
- Dialogue on Shelter in Beitbridge, Zimbabwe.
- Theatre for Development in Zimbabwe.
- Groundwork: Action for the Environment in the UK.
- SIDAREC, the Slums Information Development & Resource Centre, in Nairobi, Kenya.
- Community exchange visits promoted by SPARC, India.
- ARTPAD Theatre project in Recife, Brasil.
- *'Niños de la Calle"* telecentre in Ecuador.

Other cases emerged in the literature and the electronic conference and were taken into consideration. These included, for instance, the "Hole in the wall" project of the National Institute of Information Technology, Delhi (2001), which allowed Internet access to slum children, with some remarkable results (Shadrach, 2001:20).

9.2. Effective approaches

Schilderman lists the following approaches that have worked in practice and could perhaps be replicated (2001:9-11):

Community empowerment

There are various ways to achieve this. As early as the 1960s, Paolo Freire(1970) developed adult literacy models in Brasil which introduced numeracy and literacy through the discussion of local issues and concerns. Freire's methods have since been adopted and further elaborated, for instance in the REFLECT technique, developed largely through the work of Action Aid (Archer and Cottingham, 1996). Taking stock of community assets, through for instance mapping or enumeration, is another way for communities to develop and increase their own knowledge and use that to their benefit. This method has for instance been used by People's Dialogue in South Africa and SPARC in India, in collaboration with associations of slum dwellers, to count shacks and develop maps of urban slums, which are subsequently used to develop activities or negotiate with authorities (Bolnick and Patel, undated). And in Victoria Falls, Zimbabwe, the enumeration exercise resulted in community mobilisation, their increased involvement in decision making, increased confidence and negotiating power, and ultimately the allocation of 500 plots (Homeless International, undated). Another useful tool is participatory video. In ITDG's recent Women and ICTs project, women in the slums of Nairobi, Harare and Lima were taught to use video to make a record of their livelihoods. The resulting tapes were used as a communication tool in discussions with other communities, agencies and authorities. It is too early yet to gauge what the impact of this project will be, but the videos certainly proved to be very powerful means of communication which have opened the eyes of many to the problems of slum dwellers. Another NGO which has used participatory video as a means of communication and empowerment is SPARC in India.

Exchange visits

In a world where word of mouth is the prime method to communicate information, exchange visits are a particularly useful way for communities or individuals to share information. Such visits are now being extensively used by a wide range of organisations, including Slum/Shack Dwellers International (SDI), which counts, e.g., People's Dialogue, SPARC, the Asian Coalition for Housing Rights and the Indian Slum Dwellers Federation amongst its members. Others that have promoted such visits are the Shelter Forum in Kenya and East Africa, and an Association of Domestic Servants analysed in detail in the pilot phase in Peru. Dialogue on

Shelter in Beitbridge, Zimbabwe, is also a member of the SDI, and provided one of the case studies in this phase. Its core principles are that the poor have to be at the centre of strategies addressing poverty, of which their own resources are key components, and that what works for the poorest works for others. A lot of the learning revolves around housing and the establishment of savings and credit schemes for that purpose. The outreach of the exchanges have been rapid. There is now a Zimbabwe Homeless People's Federation with a membership of 18,500 and 143 ongoing savings schemes across many towns.

Leadership training

Training local leaders, of CBOs etc., is important, because they often also are key informants. The NGO *Alternativa* in Peru is organising leadership courses particularly targeted at young people; they also target leaders of existing CBOs. In the 1 million houses programme in Sri Lanka, local leaders were trained from amongst community groups building their own houses, to liase between their peers and the implementing agencies. The same country also has a capacity building programme for change agents, and REEL is training peer educators in its resettlement programme.

Community based drama, theatre, music or dance

Quite a number of initiatives are building on the traditional communication skills and methods of the urban poor. In some cases, plays are being developed from previous discussions with target audiences, but sometimes the play itself evolves more as a discussion between players and audience. Such plays do help raise issues of local concerns, though the discussion may not always develop to a point where they are resolved (Anon., 1997). A variation on drama is Boal's Theatre of the Oppressed (Santos, 2000), which aims to develop actions arising from problems identified during the theatre workshops. Trained observers would write down problems identified by the performers and the audience, then bring these to the attention of relevant people in positions of authority. Theatre for Development in Zimbabwe is an association of 26 theatre groups particularly focussing on AIDS awareness. They research the issue with communities, develop a script, and test that. Performances are staged at a range of events and locations. Whilst these are well attended and raise a lot of interest, most groups suffer from a shortage of reliable funding. Another example is the ARTPAD project, working with NGOs in Peru and Brasil (McCarthy, 2001). In Recife, the project worked with the NGO *O Papai*, focusing on a group of 17-21 years old men in a state school, to discuss gender and sexual health. When it emerged that regular workshops or focus groups did not stimulate the young men to bring out the issues, the facilitator introduced theatre based techniques. This generated a lot more participation, expression and depth on issues such as drugs, violence and abuse by fathers. But, whilst the theatre techniques allowed the young men to express themselves, they never quite accepted doing theatre, because it was *"not a thing for a man to do".*

Community based radio or television

Where many commercial radio and television stations carry little useful information for the urban poor, this can be changed by getting communities involved in designing or producing programmes. Bo Johansson (2000) describes one such experience in a Brazilian slum, where half the households are linked to cable television. TV Favela is largely operated by several youth groups, and produces local reports and news, documentaries and educational programmes. It has also supported local campaigns, e.g. of garbage collection. Ruskulis (2001b:16) found that a range of local and community radio stations have developed in various countries which are more likely to cover issues of local concern. However, the smaller and more local a station is, the more difficult it becomes to get sufficient income to maintain it.

Community information or resource centres

These come in various shapes. It has been argued before in this paper that it is important for the urban poor to have places where they can meet and discuss. Disseminating information at such places can be a next step. The more communities get involved themselves in producing and compiling the information, the more useful such centres or meeting places becomes (see also the above point on Community Empowerment). The concept is further elaborated in the Community Learning and Information Centres (CLICs) supported by DFID (CHEC et al., 1998), and a proposal has also been submitted to the IUDD/KAR to develop a website on Area Resource Centres, listing success stories from all over the world, as well as principles. The Slums Information Development and Resource Centre (SIDAREC) in Pumwani, Nairobi, is another example. It was created by 50 youth in 1996, in an attempt to realise their potential

as agents of change; they considered lack of information to be a serious constraint. SIDAREC produces a newsletter, *Slum News,* in English and Kiswahili, covering slum and city issues. It is also involved in community drama and produces audio cassettes which are played at meetings and on a local radio station. It has also just started an Internet café where some training in information technology skills is now taking place too. Furthermore, there are a number of youth networks, linking them to groups elsewhere.

Telecentres

There are a number of examples where the Internet and email have been brought closer to the slums, often by NGOs, and usually involving subsidies. The "hole in the wall" project in Delhi, the SIDAREC Internet café in Nairobi, and the leadership training offered by *Alternativa* in Lima, all included this element. Another example is the *Niños de la Calle* project in Esmeraldas, Ecuador which encourages street children to develop and use Internet skills. Its courses provide 20 hours of training plus 26 hours of Internet use to each trainee. More than 1,000 children in the 8-16 years age range have already received training. Their lack of formal education does not seem to pose a major problem. The training has increased their self-esteem and confidence. The project is relatively young and has not been evaluated yet. As with most such initiatives, financial sustainability may be an issue. And although some of the trainees are now involved in running telecentres and others have gained marketable word processing and other computer skills, there must be limits as to how many street children can actually generate income from the skills acquired.

9.3. Important characteristics

In many of the above cases, information and communication were the main focus of activity, but in others development issues such as health or the environment were the principal focus, whilst information and communication remained important components. Between them, the cases covered all 8 livelihood issues this research focused on, though not in the same depth. Most projects would not focus on a single issue, but take a more holistic view of a community's needs. A few took a single priority issue as an entry point. All the case studies analysed in more detail had achieved a significant strengthening of communities' capacities and considerably increased access to information resources. Most had a wide impact and showed innovative approaches. Ruskulis (2001a:63-64) lists the following characteristics as contributing factors to the success of the projects analysed:

- The communities own skills and resources to solve problems were recognised and poor communities were regarded as equal partners in the projects;
- Poor peoples' active participation was important at all stages of a project and their views were taken seriously;
- Project staff were awaren of social exclusion issues, that some groups might get excluded from some of the processes and therefore might need separate consideration;
- Sometimes, but not always, the projects worked with particular groups within communities, e.g. women or youth;
- There was usually a single or small number of problems of particular concern to the communities;
- Although the projects might be based on a single issue many also had wider and more holistic development objectives related to aspects such as poverty reduction, reducing gender inequality, human rights and community empowerment;
- Strengthening community groups and organisation was an important component of most of the projects. This would be done by encouraging dialogue and discussion within communities and identification and training of key individuals within communities;
- It would be important to have a range of partner organisations, with various roles, especially from the government, private sector, and donors, if significant scaling up of small activities is to be achieved;
- Activities involving the whole or much of a community, such as the mapping of a communities' resources can initiate a project, did help people to get to know each other and lead to more discussions and actions;
- Projects aimed to combine several dissemination activities using a range of media to be more effective than when using just a single medium. If a proportion of the population were not literate, they found it important to base dissemination activities around face to face media such as exchange visits or theatre;

- Physical information resources such as library or advice centres could be important where information resources are generally limited or absent. There might also be a private sector role in the provision of such services;
- Aiming information resources only at the poorest could be less effective than targeting a population with some people who are less disadvantaged. The information seeking behaviour of people such as college students and entrepreneurs could be a stimulus for the provision and development of information resources;
- Information and communications activities were more effective if there is a long term commitment; but funding these did pose problems for organisations;
- It would be important to evaluate dissemination projects, with the participation of community members, learn lessons and seek to achieve a widespread impact, as many urban informal settlements are large and particular problems might affect many people in them;
- Involving community groups in action-based networks and coalitions could be an effective way to increase access to information and to include large numbers of people simultaneously;
- Many project activities contained consideration of income generation activities and stimulating entrepreneurship. There was an apparent link between availability of information and knowledge and the level of entrepreneurship and income generating activity;
- Information and dissemination projects often produced resource materials for dissemination and training. It would be important to collaborate more with other organisations on the production of these materials as they are expensive to produce and field-test.

10. ASSESSING THE IMPACT OF INFORMATION DISSEMINATION

A perceived lack of uptake and impact of urban development knowledge at the grassroots was one of the reasons for this research. It is therefore important, at the end of this report, to return to the issue of impact assessment and what we have learned from the KIS research in that respect. In doing so, this report draws extensively on Lowe (2001:17-20). She finds that impact assessment remains an elusive aspect of information dissemination. Many people measure the success of their activities based largely on anecdotal evidence or indicators of outputs. Information chains tend to be long, with some actors doubling as users and providers. At each stage of the chain, information may become distorted or misinterpreted. Researchers in Peru, for instance, found that the urban poor often merely accept the information as it is presented, depending on the credibility of the source; thus, people trusted often rather mediocre television programmes, with which they could identify, whilst they might reject good information from lesser known sources (ITDG Latin America, 2001). On the other hand, value may be added to the content or packaging at various stages too. Ruskulis (1998) is of the opinion that an accurate assessment of the validity and usefulness of information could only be made if the assessor has a good understanding of the use to which the information is to be put and the capabilities and needs of the users of the information.

According to Lowe (2001:17), few examples exist of formalised impact assessments. The complexity of the processes and the length of the information chain appear to be major barriers to effective monitoring and evaluation. It is often difficult and expensive to trace what happens with information beyond the first recipient. Also, assessors will have to take into account that recipients will possess their own knowledge and may have received further information from a number of other sources. All these factors make it hard to define the exact impact of information disseminated by way of e.g. books or journals, enquiries or the Internet, where senders and end users are at considerable distance from each other. However, donors and development agencies are required to be accountable and to put limited resources to best effect, and it is therefore important to get better at impact assessment.

One example of effective impact assessment of information on food processing provided to individuals and small-scale entrepreneurs emerged from ITDG's evaluation of its journal Food Chain. Earlier evaluations, in 1993 and 1996, were done through postal surveys of readers. Whilst this did help to improve the journal, it did not provide any in-depth information about

impact. A new approach, whereby the evaluator gathered evidence from interviews in Peru and Sri Lanka, whilst following an information trail, did show impact much more clearly, e.g. in terms of income generated or improved nutrition (Judge, 2001). Though much more precise, it is also a more expensive way of measuring impact than the one used previously.

Face-to-face discussions can provide excellent qualitative information about the usefulness of information provided and its livelihood impact. It can also help to identify the weaknesses in the systems and explore how these could be strengthened. The councillor of Gadzema, for instance, clearly felt that access to a telephone would greatly increase his capacity as key informant (ITDG Southern Africa, 2001).

The KIS research in Zimbabwe provided another example of impact monitoring, by Epworth Polyclinic. It uses data forms to systematically gather and consolidate information and generate statistics to monitor whether information has reached beneficiaries. An analysis over time of, e.g., the number of malaria cases gives an indication of the outreach achieved. A decrease in the number of cases is used as a proxy to show that target beneficiaries have accessed and applied the information supplied. This method may be simplistic, and not take external factors into account, but it is at least affordable. Others use proxy indicators in different ways. Commercial information providers, such as the *Informando* booths in Lima (Staeheli 2001a), and ITDG Publishing, have a clear indicator in the monetary value of the information sold. The commercial viability of an information service like *Informando* is a good indication of whether it is meeting a local demand. Whether this demand includes the urban poor is another question which may require a more detailed assessment. Another proxy indicator used within ITDG is that of the “repeat enquiry”: if somebody one has provided information to in the past comes back for additional information, that is usually an indicator of the earlier information having been useful.

Many of the NGOs involved in information provision in Peru felt that the adoption of a participatory approach in the design and production of information resources ensured that it was pertinent to their target audiences (Staeheli, 2001b and Table 7). Impact assessment therefore should look into the processes of information production. Whilst development agencies such as DFID attach growing importance to the involvement of the urban poor in formulating and monitoring development projects, there is also evidence that, when it comes to information projects, this may happen less. Stavrou (2001:2), for instance finds that: *Many of the ICT projects in the developing world have failed to conduct relevant information needs analysis, and so have frequently failed to provide useful information for the users of ICT projects.* And Michiels (2000) also concluded that external agents rarely undertake participatory needs assessments and priorities for the adoption of ICTs, which are often driven by outside agendas. The number of community-driven ICT initiatives remains limited and content creation more often than not lacks local ownership.

Participatory communication not only helps to empower communities, it also does allow them to influence development. Impact assessment should therefore also consider whether two-way communication has been established, and whether local knowledge and demands have been taken into account, for instance, in policies and programmes targeted at the urban poor.

11. CONCLUSIONS AND RECOMMENDATIONS

Poor men and women in urban areas are deprived by a lack of information and knowledge. Not knowing about their rights, services they could access, or plans for their areas puts them at a disadvantage and increases their vulnerability. Not being able to access information also disempowers and demotivates them. State institutions often discriminate against the urban poor when they seek access to information, or are simply inefficient. They thus turn for help to non-governmental and private institutions, who are more trusted and efficient, but also cannot cope with the scale of the demand, and only occasionally have managed to empower the poor to stand up for their needs and rights. Faced with that situation, the urban poor largely have to rely on their own social networks and key informants within their communities, or sometimes outside, for support in developing their livelihoods and coping with crisis.

Development agencies can undertake a number of activities that would help in making the knowledge and information they already hold more suitable and accessible to the urban poor, and to develop more appropriate knowledge in the future. These do not always have to be designed as stand-alone activities: some can be incorporated in existing or future urban development projects. It would also be beneficial for several agencies to collaborate, e.g., on some of the bigger tasks at hand, such as the establishment of sustainable ICTs which do not exclude the poor, or on pooling the information they hold to better address the range of needs. Above all, it is important to secure long term commitment in order to achieve some real impact.

11.1. Revision of dissemination strategies

The knowledge and information held and disseminated by development agencies does not contribute sufficiently to the improvement of the livelihoods of poor urban men and women. This is partly because the needs of the urban poor have been insufficiently taken into account, leading to the development of inappropriate knowledge and information, and partly because dissemination has not been very efficient as it relies too much on one-way communication often via inefficient infomediaries and does not specifically target the poor.

A principle for any dissemination strategy ought to be that the urban poor are equally entitled to knowledge and information as those in different classes, localities or income groups. At the moment, the vast majority of the urban poor is denied such equal access. The rights of residents of informal settlements in particular are often not recognised. The current campaigns and programmes focusing on good governance could incorporate this issue.

Furthermore, agencies should see the urban poor as equal partners. They are an important source of indigenous knowledge which they share through their networks and which is essential to achieve urban development. But it remains a source that is not optimally exploited by external agencies who are often too inclined to introduce exogenous knowledge.

Following on from there, dissemination and communication should not just be seen as a one-way flow from external agencies to low-income communities, but as a two-way process. Agencies do need to seek the active participation of poor urban men and women, take their views seriously, and act on their priority needs for information. What agencies disseminate at the moment too often is what they think the poor need, but it is not based on any participatory needs assessment. There is still much that development workers can learn about participatory methodologies; but there are several that have worked well in practice which would be worthwhile to share. And more work is still needed to develop others, as well as capacity building materials such as toolkits.

Once efficient two-way communication channels have been established, it becomes possible for agencies to use the feedback from low-income communities to reflect on their knowledge and research strategies, and perhaps tailor these more to the specific needs of poor urban men and women.

Because urban poverty is complex, and the urban poor have many information needs which vary over time, with location, circumstances, etc., single sector approaches may not be the most effective. Whilst certain information campaigns, e.g., in the area of public health, may have had some positive impacts, they have rarely addressed all the questions the poor have on the problem at hand, let alone on the plethora of other problems they face. It is also difficult for poor people to seek different bits of information from a whole range of sources specialised by sector. What they would perhaps prefer is access to a more comprehensive information resource in a single nearby location, which could draw on a range of more specialised sources. This could be provided through intermediaries, such as key informants, CBOs or NGOs, or even via private sector information kiosks, after the example of *Informando.*

11.2. Reduction of social exclusion

Poor urban men and women are excluded in many ways; this affects their access to many livelihoods assets, including land, credit and services, as well as information. There are a number of internal and external factors which contribute to exclusion. Amongst the former are the rules, such as reciprocity, which allow social networks to function. And the latter include illegality, discrimination and urban violence.

It remains important for agencies to further explore the existence of social exclusion. Amongst others, this may require developing a more in-depth knowledge of social networks and how they function, and looking at exclusion in that context. Too often, agencies solely communicate with the more active members in a community, leaving others behind who may remain poorly informed, thus perhaps increasing their exclusion. Agencies should avoid that and may also have to specifically target groups that have difficulties accessing information or have particular information needs, such as female heads of households, the young, the disabled or ill, or the homeless.

Agencies should also aim to investigate and tackle the external factors which contribute to exclusion. In our research, violence, politics and illegality emerged as important factors, but there could be additional ones in different locations.

It will be important to aim for the regularisation of informal settlements in countries such as Zimbabwe, where informality is seen as illegality by the authorities, and residents are consequently refused access to information or services.

The current increase in urban violence is perhaps an even bigger threat. Violence generates mistrust and prevents social and knowledge capital building. The security forces in place are often more of a threat to the urban poor than a source of security. Agencies may have to address a reduction in urban violence in different projects, but this could generate the conditions for better information systems.

Local politics can contribute to violence, but also to the disruption of information systems, to exclusion and to misinformation. Over the research period, this was particularly evident in Zimbabwe. But the internal struggles in Sri Lanka and in the past in Peru have also caused disruption and mistrust and generally affected information resources and systems. Key informants are often particularly at risk in such situations. This remains a more difficult issue for external agencies to address, but it cannot be neglected.

11.3. Support to urban communities for building their knowledge and information capital

It has been argued above that urban communities do have their own knowledge and information assets. Since it is so difficult for them to access external sources, these are often the only ones they can really rely upon. Agencies should value these assets, take stock of them, explore gaps and ways to strengthen them; NGOs could play a key role in that. Communities can also be supported to develop their own knowledge capital, e.g. through enumeration or mapping, as SPARC has shown in India. Agencies should avoid establishing parallel information systems, but instead explore ways and methods whereby indigenous knowledge is combined with exogenous knowledge to improve livelihoods.

The key informants communities have can play an important role in urban development. They ought to be identified early on and where necessary receive further capacity building and perhaps other support, such as access to ICTs, to enhance their roles.

It is equally important to empower communities and their organisations, e.g., through promoting dialogue, training of key individuals, improving literacy and communication skills, for instance, using ICTs such as video equipment. Activities which involve a large number of community members, such as enumeration, do help people to get to know each other better, to build trust, and plan further activities. The results of those can be used in communicating with other communities, but also to request change. Including CBOs in action-oriented

networks and coalitions can be an effective means to both increase their access to information and their voice.

Where possible, urban projects should include the upgrading or establishment of community meeting places, where residents can chat and share information. These could eventually become community resource centres, libraries, training centres, etc.

In urban informal settlements where word of mouth is the prime method to communicate information, exchange visits such as those organised by Slum/Shack Dwellers International or the Shelter Forum have proven to be a particularly effective method to share lessons and replicate successes; these therefore deserve support.

11.4. Improvement of the attitude and impact of infomediaries

The knowledge and information held by development agencies tends to end up principally with a range of infomediaries; some agencies play an infomediary role themselves. Many infomediaries are not well connected to the urban poor, hand out information selectively, or simply lack capacity; in the case of the public sector, poor information seekers are often treated badly. This is a key factor in knowledge resulting from research and development programmes having less impact than expected at the grassroots.

Development agencies should sensitise state institutions towards more courteous and efficient information provision and, where resources are a real constraint, aim to provide additional resources and capacity building. Where this research has shown that smaller authorities are often better at communicating with their target population, this could be an argument in seeking wider decentralisation.

Agencies can greatly help infomediaries through the production of appropriate information resources which they could either use directly, or modify with little extra effort to suit local circumstances. In Zimbabwe, ITDG produced a simple handbook explaining building regulations and procedures to low-income residents; this was provided to local authorities for use as a handout, and generally well received (Mugova and Musandu-Nyamayaro, 1998). This also could include internet based resources, referred to in more detail under 11.6. Some infomediaries also will need support or capacity building to repackage existing information resources into formats that are easier to understand by the urban poor.

There is furthermore a need to recognise, document and share good practice in communicating with the urban poor. Whereas many infomediaries are obviously not functioning optimally, some do exist that do well or have some exemplary projects or services, but often these are not widely known. It would be useful to establish a database and disseminate examples of good practice, or perhaps make this a specific section of an existing database, such as the one on Best Practices at UN-Habitat.

Successful examples of strengthening the KIS of the urban poor are rarely based on the use of a single method of communication. Agencies should aim to combine a range of media, including visual and oral ones, to be more effective in reaching the poor.

They should also consider the use of traditional media alongside modern ones. This does help to stimulate two-way communication and overcome bottlenecks such as illiteracy, or a lack of other skills. Methods such as theatre, music and dance, for instance, have proven to be effective in disseminating information and generating dialogue.

11.5. Development of sustainable ICTs aimed at the urban poor

So far, the urban poor have little access to ICTs they can afford, which perhaps increases their exclusion. There have been a range of pilot projects that have shown potential, but their sustainability and reach are still major bottlenecks.

Agencies should invest in research and development into more sustainable ICTs which the poor can actually access and afford. This would include looking at the issue of exclusion, e.g., due to the commercialisation and privatisation of ICTs, and perhaps further marginalisation of

the poor as a result of that. It would also be useful to investigate how key informants and infomediaries could become more effective by getting access to ICTs or using them differently. And in the light of 11.4, above, it would be worthwhile to investigate how ICTs could add value to traditional media; experience with the use of video, radio and television involving community groups has often been positive.

Urban development projects should generally provide for ICT equipment and training, as one means of expanding these media. Some projects could also focus on how ICTs could generate additional employment, particularly for young people in informal settlements.

There is a huge challenge in turning some of the many existing information resources into appropriate materials for use via ICTs such as the internet. At the moment, the poor and their organisations often complain that the internet has little to offer and is hard to use. Agencies can do something about this, but given the scale of the challenge, will have to pool their resources.

11.6. Investigation of the impact of information dissemination on the urban poor

Assessing the impact of information dissemination too often remains elusive; many agencies at the moment base it on anecdotal evidence. To better measure impact can be difficult and expensive; this is so because information chains tend to be long, and it is often not easy to attribute impact to a single intervention. There is a need to further develop and test appropriate impact assessment methods, for instance, the use of proxy indicators or indicators developed with the urban poor and verified by them. And where we have argued that two-way communication methods are important, the impact of the urban poor on policy and practice should now also become part of the assessment.

It would also be useful to develop a greater knowledge of the cost–efficiency of alternative communication methods: which ones work best, reach more people, have greater impact, and at what cost? The case studies undertaken in this research have been unable to provide sufficient insight in this; thus, it becomes harder to make decisions on future investments in this line of work.

The lessons learned in evaluating urban development work, and particularly its dissemination component, should be documented better and shared more widely.

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