REVENUE GENERATION FOR WATER SUPPLY TO LOW-INCOME URBAN AREAS : A NEED FOR INNOVATION

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SYNOPSIS

It is widely acknowledged that both the water supply and sanitation and the economic conditions of the low-income poor of urban areas in Africa and Asia vary significantly from city to city and district to district. It is difficult therefore to make generalisations. One factor that is common to most cities however is a growing fear that serving the burgeoning urban poor with water and sanitation in coming years will impose an impossible financial burden on municipalities and city authorities[1] (1).

Against this background the paper will suggest that, providing parallel issues such as early and continuing user-participation, appropriate choice of service levels and maintenance provisions are attended to, the financial burden can be sizeably reduced by thoughtful introduction of appropriate revenue generation methods. Secondly it will propose that the adoption of an innovative and flexible approach in selecting, designing and adapting revenue systems to meet the needs and potential of diverse user groups is likely to be the most important ingredient of success.

INTRODUCTION

The reality of explosive urban growth in the developing world is hard to encompass. By the year 2,000, 44% of the population in developing regions will be in urban agglomerations and of these, half, or over 450 million people, will be struggling for survival in slums and shanty towns[2] Providing these vast new urban populations with basic services, including water supply and access to medical and educational facilities seems an insurmountable problem. Nor is it sufficient to argue that providing services to low-income urban areas merely exacerbates the problem by encouraging further migration from rural areas; it is estimated that natural increase in existing urban populations will in any case account for over 60% of the anticipated growth[2]

So how, as far as water and sanitation is concerned, can the challenge be met? Assuming in the first place that the political will exists to provide services to low-income, often illegal and temporary dwellers, the fundamental obstacle is usually one of money. Whilst large scale external investment funds are sometimes available to meet pressing low-income urban needs, most donors will increasingly want to be reassured about recovery of a significant part of the recurrent costs, including money for operation and maintenance. Programmes for low-income areas will not escape the discipline now being increasingly imposed on rural schemes. And yet, whilst appropriate technologies often exist and there is growing experience of working in partnership with the users, the problem of revenue generation continues to be put aside, in low-income urban as well as rural supplies.

Nevertheless promising experiences

now coming in from several regions of the world indicate low-income urban areas can be successfully served and financed, and without inevitably placing a financial burden on other consumers, or diverting funds from other, equally needy, development sectors. But the message seems to be, as in the rural sector, that there is no one answer to revenue generation. Innovation in finding and adapting appropriate financial solutions and flexibility in changing and improving them with time seem to be the ways to success. The rest of the paper will emphasise this, showing the degree to which low-income urban groups may vary, why conventional revenue policies do not meet the needs, and finally selectively illustrating the wide range of revenue-yielding solutions that could be considered. Three examples will be given of how success has been achieved in practice, sometimes under most difficult circumstances, through innovation.

SOME VARYING CHARACTERISTICS OF LOW-INCOME URBAN POPULATIONS

Low-income urban peoples are no more uniform than many of their rural cousins. The varying characteristics of each group to be served will therefore greatly affect the type of revenue generation system that is likely to prove successful. These characteristics need careful assessment in conjunction with users, to determine what is or is not feasible in a particular case.

But though necessary, assessment is not always straightforward. As an example, suppose that a revenue system is being planned that requires a significant degree of organisational input and responsibilities from the user-group as a whole. Is the community sufficiently unified to sustain such a system?

There is at first sight an obvious difference between the cohesiveness to be expected from large new squatter areas, impersonal and insecure, compared with older and smaller slum areas (barrios or wards), with an established and strong local identity and tradition. And yet the squatter-area dwellers may in fact be better unified through sharing the insecurity of having no legal rights to the land, and through having arrived in the city together. On the other hand the slum dwellers, through being more secure, may be more individually independent and may have arrived from different rural areas over a longer period of time or be long established urban dwellers.[3,4]

The example shows then how carefully the different factors need to be balanced, before deciding what might be the most appropriate revenue systems for further discussion with the users. Characteristics*, some knowledge of which might help agencies and users design appropriate revenue generating systems, include:

- degree of homogeneity within the community in terms of income, water use, shared interest, origin, age distribution, initiative and potential for working together;
- whether the population is transient (and average length of stay), settled, or a mixture of both;
- size, (generally within groups less than about 500 persons or so, most members are known to each other on a face-to-face basis);
- local identity and scale, (e.g. smaller groups of poorer house-

* after ref. (3)

holds established as enclaves within other areas may be more unified);

- relative awareness of social rights and needs and ways to achieve these, together with level of awareness of the potential health benefits, as well as the more obvious convenience benefits, that improved services and environment can bring;

- extent, strength and integrity of leadership (how active, whether better educated, whether representative of all users or only the better-off);

- degree of existing community relationships and organisation (often stronger in distinct districts, isolated areas, or where a common threat or insecurity is shared);

- nature and degree of security of housing tenure (squatters? tenants? owners?) and income (e.g. seasonable employment?);

- evidence of other community or individual enterprise, particularly those requiring continuing recurrent cash contributions;

- degree of existing commercial awareness and experience, (whether there is commercial exchange outside the immediate community);

- opportunity to use or potential for training communal or voluntary skills (fund raising, collecting, book-keeping).

As a general starting point, interest in water and environmental sanitation will usually be high amongst low-income urban dwellers. This can be a strong factor in helping people appreciate that improving such services is worth a reasonable personal outlay in terms of money and other commitments. Reasons for this interest include the obvious immediate impact of water shortages, flooding and insanitary conditions, but may also include factors such as time-saving potential, privacy and safety of women and the possible secondary economic interest in water for beer-making or commercial clothes - washing for example.[4]

Whether this interest is an individual interest or a shared, community interest depends on the history and demography of the people in the area. A shared status or ethnic origin may bond a particular community but will also mean communities can be expected to vary from area to area within the city, demanding possibly different and locally appropriate solutions.[4]

Urban life often means more impersonal behaviour, with weakened community bonds. Nonetheless in a low-income urban environment common problems may become more visible due to close proximity, and generate new feelings of community spirit and self-reliance[4] A common problem in involving users in revenue generation remains however a general lack of confidence, both within an urban community in dealing with financial matters and of the agency in allowing them to. In part this is due to suspicion amongst relative strangers in newly-formed community groups, and to there being few sanctions to apply against defaulters anyway[3] Often there is equal mistrust on the part of the users for agency capability and fairness in handling water revenues.

As far as new arrivals from the countryside are concerned there is a useful potentially positive factor to build on when exploring options

for water service and accompanying revenue generation. This is the reservoir of practical initiative, clearly evidenced by their migration to the city in the first place. This still holds true in part even if migration was forced on the people by rural poverty or encouraged by an idealised vision of city life. The initiative and willingness to adapt, already displayed by the new arrivals, could well be positive factors in generating input and responsibilities towards water supply at user level.

And there are many other such factors and characteristics, many unique to particular cities and districts. Such factors will each have a direct or indirect bearing on the relative sense of identity and solidarity of the community, its ability to manage and sustain a particular revenue generating system, and conversely the level of agency responsibility and support required to balance this.

THE FAILURE OF THE CONVENTIONAL APPROACH

In the past, where the decision has been taken to offer some form of water supply to low-income urban users, it has too often been on the basis of :

- lowest and cheapest possible service levels (often shared public taps, widely spaced along main access roads). The choice between a free standpost, inconveniently sited and which people do not want, and an expensive house-connection, which they cannot afford, is, in reality, no choice at all;

- acceptance of a policy of free water, subsidised by other consumers, or a short-lived attempt at the introduction of an inappropriate revenue generation system;

- concentration on physical coverage rather than use, impact and financial and operational viability throughout the working life of the system;

- little if any discussion with users on their preferences, needs and ability to contribute (financially and in terms of assisting operation and maintenance);

- half-hearted commitment to providing a service from the outset, leading to a ready acceptance of 'insoluble' difficulties and a low priority for repair/problem solving.

The negative experiences that have come from such approaches has meant a general pessimism that solutions to serving low-income areas, particularly financial solutions, can ever be found. Nonetheless, there is increasing evidence that providing the characteristics of the users are carefully assessed and appropriate systems designed and introduced, revenue generation can be successfully achieved in sustaining services to low-income areas.

But this demands pragmatism as well as innovation. It is no good promoting a financial management system based on community participation for ideological or other reasons in an area whose residents have no sense of, or potential for developing, community cohesion. Similarly, where such cohesion does exist and there is an opportunity to work together, not to use it to help internally manage and control revenue generation would be to waste a valuable asset.

In the following section, three examples are given to illustrate the range of possible revenue generation and management solutions, each solution involving a greater or lesser

degree of user participation. Each has proved successful in practice because it was appropriate to the particular user characteristics, needs and capabilities at the time.

AN ALTERNATIVE FRAMEWORK FOR PLANNING REVENUE GENERATION

Assessing Characteristics and Selecting Options

It has already been suggested how important it is to assess and recognise the characteristics of a user group, so that innovative and appropriate revenue-generating systems can be formulated and discussed with the users. This growing knowledge about the user group and its needs and capabilities should be kept in mind :

- when choosing or designing one or two potential revenue systems which might work in a particular area for onward discussion;
- in planning how to present, discuss, amend and agree a suitable system with the users;
- in introducing, supporting and managing a particular system and adapting and improving it in service in greater or lesser partnership with the users.

But how can this assessment and updating of user characteristics be done? Opportunities for learning may arise in a number of ways, including :

- carrying out limited and appropriate base line studies;
- sounding out local knowledge and experience from ordinary people as well as leaders;
- learning about the experiences of other projects and interventions in the area.

However it is built up, once sufficient information is available one or two possible ways of generating revenue can be formulated, for onward discussion and development with the users. There is naturally a wide range of solutions but three examples, each requiring different degrees of user participation and responsibility, are now put forward for illustration.

Providing Services to the Users (no direct community participation, limited responsibility)

Providing direct services at cost to the users may well be most appropriate solution in many cases where the users are known to be temporary dwellers. An example would be an area housing migrant or seasonal workers. Such users have some money and an immediate need for services. On the other hand, trying to introduce longer-term community-based approaches here, in a user group that is essentially in transit and with little community spirit, could be counter-productive. Instead a solution based on water kiosks or centralised sanitation, water, laundry and bathing facilities, where specific services are provided at a uniform charge, may be the most appropriate solution.

An example is the Sulabh Shouchalaya Sansthan experience in Patna, India[5]

Here a non-governmental orgnisation has constructed and maintains a large number of attended sanitary facilities near public places and low-income slum areas. For a fixed fee (free for children and destitutes), anyone can use the latrines, bathing and laundry facilities or collect water.

The service is cost-covering and serves the real needs of a floating population, such as rickshaw pullers and others. Although poor, such people have small sums of money available for sanitary and water facilities, but no normal access to them.

Providing Services with the Users (partial community participation, and shared responsibility)

This would be an appropriate basis for a revenue generation system where a significant degree of community cohesion and potential had been identified but where external stimulation and support was needed. A partnership would be set-up between the user group and the agency*, whereby each had its specific responsibilities and obligations. One of the obligations of the users would be to contribute to or cover recurrent costs via an agreed revenue generation system, and perhaps to directly contribute towards maintenance as well.

A good example of this balanced responsibility comes from Malawi. Here, within the Urban Communal Water Point programme, low-income user groups in satellite communities around urban district centres are brought into the water supply system via neighbourhood standposts. Water to each standpost is metered. User groups are responsible for monitoring individual use and agreeing and collecting monies to cover the monthly billing. Whilst communities take a high level of responsibility for operation and revenue generation, maintenance responsibility remains in the hands of the agency operator, whose costs are covered by the rates charged for the water[6]

Providing Services by and through the Users (full community participation and responsibility)

The provision and management of the water service by the users themselves under the aegis of the agency is in many senses the ideal. The agency authorises and monitors the water source, or sells water in bulk to the user area. There are thus few financial risks for the agency and responsibility for distribution, equitable charging and collection of revenue remains with the community. Whilst low-income urban communities that are both able to take on and are given such organisational responsibilities are not common, where communities have been able to take up the initiative they have often been extremely successful.

An example is the shanty-town 'favela' Vila 31 de Macro in Brazil[7] Here earlier conflict with the authorities about the establishment of the favela had led to a feeling of community solidarity and the establishment of a legally constituted co-operative.

This rapidly initiated a number of self-help activities, beginning with a school and a pharmacy and quickly progressed, with the agreement of the authorities, to the establishment of the community's own, internally financed and operated, piped water supply.

INNOVATION, FEASIBILITY, PROGRESSIVE DEVELOPMENT

In putting forward these three levels of community participation and responsibility the intention is not to

* 'agency' could here be governmental agencies at state or local level, non-governmental agencies or private promoters with an official mandate.

over-simplify. Rather it is to give three examples of how different approaches to providing services, and recovering revenue for them, must be chosen depending on the specific characteristics of the low-income urban group being served. There are naturally many stages in between these three solutions, ranging from full agency responsibility for water supplies and point-sale at cost at one extreme, to full 'sub-contracting' of services and cost recovery to the users themselves at the other. Each will have its particular merits and de-merits in particular circumstances.

And should different solutions be applied in different areas of the same city? The answer is probably yes, provided there is broad equity and an equal opportunity for user groups to progress to more independent systems when ready to do so.

So to innovation in selecting options and flexibility in refining them in discussion with the users we should perhaps add the need for progressive development with time. Water supply in urban areas never stands still for long but in low-income areas, with rapidly changing numbers, composition and income capacity, the need to keep the basis of supply, and the revenue system that goes with it, under constant review and development is even more important.

Revenue generation in low-income urban areas can be made to work then, but it needs innovation, flexibility and a commitment to progressive development. Inherent in this is an acknowledgement that if people get what they need, they will usually pay a fair price for it; that they are more likely to pay if they are involved from the beginning in the planning, design, implementation and management of the revenue generating system, (as in other linked aspects of water supply such as maintenance); and that the responsibility on the agency to perform by providing a fair service in return is just as crucial as that of the users in keeping their side of the agreed partnership.

A recent IRC Occasional Paper "What Price Water"[8] looks in more detail at revenue generation options, the social and organisation frameworks within which they could be applied, and the vital links with other aspects of project activity. A companion literature review on revenue generation will also be available soon[9].

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