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**ELECTRICITY TO PAVEMENT
DWELLERS IN MUMBAI**

Sundar Burra & Liz Riley

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ELECTRICITY TO PAVEMENT DWELLERS IN MUMBAI

1. BACKGROUND INFORMATION

1.1 The Actors

There are six stakeholder groups involved in this case study: pavement dwellers; the Bombay Electric Supply and Transport Undertaking (BEST); the Society for the Promotion of Area Resource Centres (SPARC); the National Federation of Slum Dwellers (NSDF); Mahila Milan; and Sadak Chaap.

The Pavement Dwellers

Pavement dwellers, as the term suggests, are people who have erected their homes along pavements. Pavement slums "... are a phenomenon peculiar to the largest Indian metropolises (especially Calcutta and Bombay). They are radically different from what people generally understand slums to be. They are not the *jhuggi-jhopadis*¹ or *bastis*² which spring up on vacant lots or stretches of land, but hutments actually built on the footpaths/pavements of city streets, utilising the walls or fences which separate building compounds from the pavement and street outside" (SPARC, 1985, p. 4). In addition to using existing fences and walls as one side of their homes, pavement dwellers frequently construct the rest of their dwellings from materials such as cloth, corrugated iron, cardboard, wood, plastic, and also bricks or cement. Recycled waste products thus make up the majority of building materials for pavement shacks, affording their occupants little privacy, or protection from the weather or the dangers of passing traffic.

Predictably, pavement dwellers are amongst the very poorest income groups in urban India. In 1985, for example, it was found that in the island city of Mumbai over 74 per cent of wage earning pavement dwellers received less than Rs. 18 (approximately US\$ 0.42)³ per day (*ibid.*), well below the official minimum wage. Over one third of wage-earning pavement dwellers were unskilled labourers, for example, working as construction workers, dock workers, or head-loaders, while an additional 21.5 per cent were food vendors or traders, and 14 per cent were self-employed as handcart-pullers, barbers and tailors (*ibid.*). While it was found that just 13.5 per cent of heads of households living on the pavements of Mumbai were born in the city, with most migrating from the poorest areas of India, 60 per cent of households were found to have been in Mumbai for over a

decade (*ibid.*), contrasting with the popularly held belief that pavement dwellers are just temporary city residents. Thus the shacks of pavement dwellers did not represent a temporary stopping place, but instead the only shelter that could be afforded and that was also conveniently located for their work.

By 1998, there were more than 20 thousand households living on the pavements in Greater Mumbai, and research undertaken in that year (SPARC, forthcoming) found that over one third of pavement dwelling households have four or five members, and the same proportion have been living in Mumbai for over 15 years. While it was found that over one third of pavement dwellers live in under five square meters of space, nearly half live in areas of just five to ten square meters (*ibid.*) In addition, nearly a quarter of all households have a monthly income less than the official poverty line, and nearly three-quarters of all wage earners are either self-employed or casual labourers (*ibid.*). The recycling industry, for example, is an important occupation for pavement dwellers, for example, with Crawford Market in South Mumbai being a centre where the remains of fruit, vegetables, paper, rope and packing straw are collected at night for recycling. For women pavement dwellers, employment as domestic helpers in the homes of lower middle-class and middle-class families is their most common wage-earning occupation, with it being usual for women to work two or three shifts in different homes. With their workplaces frequently being close to their pavement shacks, the women are also able to perform their own child-rearing and domestic tasks, as well as earning a vital income. Indeed, overall there is an important link between the employment and place of residence of pavement dwellers, with the avoidance of time and money spent in commuting to work being essential to this group. Thus the importance of proximity to work opportunities is great for pavement dwellers, and has implications for urban planning and relocation programmes that often fail to take into account the social and economic determinants of the behaviour of poor people.

The Bombay Electric Supply and Transport Undertaking

The supply of electricity to Greater Mumbai is split between three companies, each responsible for a different area of the city. In the extended or outer suburbs, the public sector Maharashtra State Electricity Board (MSEB) operates, while in the inner suburbs, electricity is supplied by the private Bombay Suburban and Electricity Supply Company (BSES), and finally, the island city of Mumbai is supplied by the Bombay Electric Supply and Transport Undertaking (BEST). BEST has been a

¹ *Juggi-jhopadis* refers to the shacks found in irregular settlements.

² *Bastis* translates as irregular settlements.

³ At the time of writing, there were approximately Rs. 42 to US\$ 1.

municipal enterprise for a little over 50 years, and not only provides electricity, but also operates public transport (buses) in the city. Controlled by a statutory committee with 17 members (Municipal Councillors) of the Municipal Corporation of Greater Mumbai, BEST is divided into two wings, one concerning transport and the other electricity, with each headed by a Deputy General Manager reporting to the General Manager of BEST as whole. While the General Manager is generally an officer drawn from the Indian Administrative Service (IAS) and posted to BEST by the Government of Maharashtra, other officials working in the electricity division are mainly engineers. Of these there are three Chief Engineers reporting to the Deputy General Manager, plus a total of about 5,600 additional members of staff in the electricity division alone. Responsible for a total area of 60 square kilometres, in 1996-97 BEST supplied nearly 800 thousand consumers and over 33 thousand street lamps, while the assets of the company were worth Rs. 39,563 lakhs⁴ (US\$ 94.2 million). In 1997-98, BEST spent Rs. 780 crores⁵ (US\$ 186 million) on purchasing electricity and in turn, it earned Rs. 911 crores (US\$ 217 million) from its sale.

BEST enjoys a high reputation all over India, both in the areas of electricity and transport, but nevertheless, the procedures in place through which to obtain a supply of electricity from BEST are bureaucratic and corrupt. Members of the public applying for a supply must fill out application forms that are complicated and require knowledge of electricity supply and measurement, thereby necessitating the help of a licensed electrician. In addition, a licensed electrical contractor must also countersign the form. Application forms themselves should be free, but are instead usually sold to members of the public for Rs. 10 (US\$ 0.24), while Rs. 100 (US\$ 2.4) is charged for the signature of the licensed contractor. Thus the complicated bureaucracy of the system has proved a breeding ground for corrupt practices that make getting an electricity connection from BEST a long, drawn out, and expensive procedure for those eligible to apply for BEST services.

The Society for the Promotion of Area Resource Centres

The Society for the Promotion of Area Resource Centres (SPARC) is an NGO established in 1984 by a group of professionals who had previously worked with more traditional and welfare-oriented NGOs in the neighbourhood of Byculla in central Mumbai. Previous to forming SPARC, much of the work of the founder group was with the pavement dwellers of the Byculla area, and once established,

the women pavement dwellers became SPARC's main constituency. These women had repeatedly borne the brunt of demolitions of their homes and loss of their meagre belongings, and observing the failure of welfare-oriented NGOs to deal with the demolitions, SPARC instead began to work with the women pavement dwellers to better understand the effects of the demolitions and how they could be countered. Training programmes were then established so that the women could learn how to survey their own settlements and start to use the data generated to campaign for land. From this work, the CBO Mahila Milan was formed and its alliance with SPARC was expanded through the addition of the National Federation of Slum Dwellers. Within this alliance, the role of SPARC is to design and develop strategies to enable its partners to meet with and make demands of government agencies. In addition, it also performs administrative tasks and raises funds needed for its work. Currently operating in over 20 cities throughout India, the SPARC, NSDF and Mahila Milan Alliance now works with similar NGOs and CBOs in Asia and Africa, helping to build up effective networks in Cambodia, Thailand, the Philippines, South Africa, Namibia, Kenya, Nepal, and Indonesia.

The National Slum Dwellers Federation

The National Slum Dwellers Federation (NSDF) is a CBO whose membership is largely made up of male slum dwellers. Established in 1974, NSDF has a history of organising the poor against demolitions, as well as attempting to secure the basic amenities of water, sanitation and such like for the urban poor. While the Federation was initially a male slum dwellers organisation, in 1987 it began working in partnership with Mahila Milan and SPARC, and since then the number of women members has grown, with around half of NSDF's community leaders now being women. Within its alliance with SPARC and Mahila Milan, NSDF is mainly responsible for the organisation, mobilisation and motivation of slum dwellers, as well as working abroad to strengthen similar federations of slum dwellers and homeless families in Africa and Asia. Membership of NSDF remains restricted to slum dwellers, and currently the Federation spans 21 cities in 5 states in India.

Mahila Milan

The third partner of SPARC/NSDF alliance is Mahila Milan (Women Together), a CBO made up of collectives of women pavement and slum dwellers whose central activity is the operation of savings and credit activities. Set up in 1986, as a result of SPARC's work with the Muslim pavement dwelling women of the Byculla area of Mumbai, the rationale behind the formation of Mahila Milan lay in the recognition of the central role of women in the family as well as the enormous potential that

⁴ One lakh corresponds to Rs. 100 thousand.

⁵ One crore corresponds to Rs. 10 million or 100 lakhs.

women's groups had in transforming relations within society and in improving the lives of poor families. Mahila Milan now conducts informal training and support activities, as well as saving and credit groups, and aims to empower women to play a greater role in community management and to work with NSDF on broader policy issues at state and city levels. Mahila Milan thus represents both an opportunity to satisfy the credit needs of poor women and a strategy to mobilise them towards taking a more pro-active role in relation to their own poverty. The stress of the organisation lies not so much on concrete achievements and outputs, but instead on the learning process and the building of confidence among poor women. In the Byculla area, approximately 600 women are members of Mahila Milan, but together with NSDF, Mahila Milan now has a total of over 300 thousand households as members across the country.

Sadak Chaap

The alliance of SPARC, NSDF and Mahila Milan has a fourth and younger partner known as Sadak Chaap which in Hindi means 'the stamp of the street'. This is a federation of street children who live in Mumbai. The federation began as a result of the work of SPARC, Mahila Milan and NSDF in setting up night shelters. Starting this initiative in 1989, night shelter currently provide places for about 300 children, and through their health and vocational training programme, support is now provided for the networking of around two thousand street children.

1.2 Background to the Problem

In addition to the pavement dwelling population of Mumbai, it also estimated that more than half of Greater Mumbai's population lives in slums where land is illegally settled and where the level of access to, and provision of, civic services is low. Over a period of time, however, the policy of the Maharashtra state government has evolved away from slum clearance to slum improvement (where grants pay for the provision of basic services), and to slum upgrading (where land tenure as well as services are given with provisions made for cost recovery). With the realisation that the complete eradication of the city's slums would be impossible, the Government of Maharashtra has been periodically revising the criterion of eligibility for the protection of slum dwellers. Earlier, only

those who were covered by a Government Survey in 1976 were protected, but later registration on India's electoral roll became the main criterion, despite the fact that an estimated ten percent slum dwellers are usually absent from the roll. Currently, all those whose name features in the electoral rolls of 1 January 1995 are eligible for protection and basic amenities, and those on land needed for public use are entitled to resettlement on an alternative site.

In contrast, the protection given to pavement dwellers is far more recent, and it was only in 1995 that the pavement dwellers of Mumbai were granted some basic rights. Prior to that date, the city authorities viewed the pavement dwellings as:

“... illegal ‘encroachments’ on public land. This attitude manifested itself in periodic demolitions on one street or another, whenever the dwellings created sufficient nuisance to come to the notice of the authorities. Over the decades, pavement-dwellers came to cope with this official response by simply scattering for a few days and returning to the original location or moving to another area which was reputed to be relatively ‘safe’ from demolitions ... Pavement communities, it would seem were left alone until they caused inconvenience to someone. Meanwhile, the unending debates on ‘low-income housing’ and ‘slum development’ rarely, if ever, addressed the question of pavement-dwellers” (SPARC, 1985, p.6).

One early attempt to improve the standing of pavement dwellers consisted of public interest litigation arguing that pavement dwellers should have the right to live on the pavement. Although this was rejected by the Supreme Court in 1985, an alternative ruling instead declared that pavement dwellers be given adequate notice of forthcoming demolitions. Ten years later, the issue of pavement dwellers arose again when with the recommendations of the Afzalpurkar Committee were accepted by the Maharashtra government in 1995. These led to the amendment of the Slum Act to allow for the setting up of a Slum Rehabilitation Authority to formulate a scheme to rehabilitate slum dwellers, but in addition to considering the rights of slum dwellers, the Authority also ruled that pavement dwellers were also entitled to rehabilitation. Slum dwellers were subsequently granted the right to rehabilitation in free housing in the same location (subject to the land not being needed for public use), while the Authority ruled that the rehabilitation of pavement dwellers must be through their resettlement on other sites (mostly in the north of the city where

vacant land is less scarce). Thus, for the first time in the city's history, some protection was given to the poorest section of its population in 1995, and to date no other state in India has such a progressive policy toward pavement dwellers.

Despite this progress, however, those people who continue to live on the pavements of Mumbai do not enjoy the same levels of access to civic services and amenities as their slum counterparts. Not only do most slum dwellers have *de facto* security of tenure, but under the Slum Act, the Municipal Corporation also provides water, sanitation and other amenities to many slums. In contrast, pavement dwellers have no rights to municipal services and most instead have to obtain them illegally or do without. In addition, the cost paid by pavement dwellers for their services is high, often as a result of the common practice of ‘rent’ seeking by those who supply illegal services.

Water has to be purchased from markets or collected and brought to the home, and thus pavement dwellers tend to spend more money and time getting water than either slum residents or their wealthier neighbours who are supplied by the municipal authorities. The situation with respect to sanitation is similar, with pavement dwellers only having access to pay-and-use toilets, if any at all.

With regard to electricity, this situation was also true until recently, with pavement dwellers unable to obtain electricity from BEST. Instead those that did have electricity were dependent upon illegal supplies, often obtained through middlemen at great expense, though an estimated 80 per cent of pavement dwellers had no electricity at all. The BEST policy with respect to pavement dwellers was thus to fine them for the illegal theft of electricity and to cut their connections. Despite recognising that such a policy could never stop the illegal theft of electricity by pavement dwellers, BEST failed to change its approach. In contrast, the company began in the 1970s to allow the slum settlements of Mumbai to receive legal BEST supplies for the first time. It was in this context of need for legal, reliable and cheap electricity, coupled with the changing government stance toward pavement dwellers in Mumbai, that in 1995 the Mahila Milan, NSDF and SPARC alliance started their initiative to obtain electricity for the pavement dwellers of Byculla in central Mumbai.

2. THE PROJECT

2.1 Projects Objectives

1. To secure an official, reliable, cheap and safe supply of electricity from BEST to the homes of pavement dwellers in the Byculla area of

central Mumbai.

2. To set a precedent in order that pavement dwellers throughout the city could approach BEST for electricity, and lobby other service providers for civic amenities.

2.2 Historical Development⁶

In 1995, upon the demolition of several pavement dwellings in the Byculla area, the women of Mahila Milan held a number of meetings where the issues of electricity supply and costs were raised for the first time. Initially the women exchanged stories of how they obtained electricity and at what price. One method of supply was the purchase of 12-volt batteries that would last just a few days before needing to be recharged. Alternatively, electricity for lighting and domestic appliances could be bought illegally from the residents of *chawls*⁷ in Byculla. Such supplies would cost up to Rs. 300 (US\$ 7) per month and were sufficient to run a television, one tube light and a fan. Alternatively, residents would buy wire to steal electricity direct from streetlights, thus giving them a power supply only at night. Even this proved impossible in some streets where middlemen would intervene and charge up to Rs. 350 (US\$ 8.3) per month for the illegal night-time supply. Some residents would be asked to pay deposits to receive their illegal connection, while the occasional provision of extra wires to run an additional light or fan could cost up to Rs. 100 (US\$ 2.4) per day. Electricity touts also had the practice of cutting their illegal connections to the streetlights every month and, claiming the wires had failed, they would charge residents yet more for their replacement. Thus, the money spent by pavement dwellers every month for electricity would range between Rs. 250 (US\$ 6) and Rs. 350 (US\$ 8.3), and should payments be late, electricity supplies would simply be cut off. Such expenditure on electricity, in the context of monthly household incomes of under Rs. 1,625⁸ (US\$ 38.7) for two-fifths of pavement households, thus constituted a very expensive, as well as unreliable and illegal service.

Through their meetings, the women of Mahila Milan began to realise the extent to which they were being exploited, and to discuss ways in which the situation could be resolved. Faced with the conclusion that only BEST could provide them with

the legal electricity supply they wanted, the women had little hope that their request would be granted and it took them over two months and a number of meetings to agreed to try to obtain BEST connections. Firstly, in mid-1995 a number of the women attempted to follow standard procedures by formally applying for electricity from BEST, but soon they were rejected on the grounds of their place and type of residence. Instead Mahila Milan sought the help of NSDF and SPARC in arranging meetings with senior officials in BEST, to whom they could apply directly. Such officials were already known to SPARC and the President of the NSDF through their attempts to get electricity to supply one of SPARC's night shelters for street children. According to NSDF President, Mr A. Jockin, "When we wanted the night shelter to be electrified, the [BEST] contractor took us for a ride and made completely unreasonable demands – so it took us a year and a half to get a meter for the night shelter. We decided not to pay any bribes and studied the system of working of BEST". It was on the basis of this knowledge of the procedures of BEST, plus the contacts NSDF and SPARC had made with officials in the municipal company, that the initiative to obtain electricity for the pavement dwellers could then progress.

The first meeting was arranged with the General Manager of BEST, with representatives of SPARC and the President of the NSDF explaining the position of Mumbai's the pavement dwellers with regard to the 1995 Slum Act, and requesting that the pavement dwellers of Byculla be granted access to electricity. The initial reaction was one of sympathy, but also of scepticism as to the feasibility of their request. Referred on to the Deputy General Manager, Mr Miller, again NSDF and SPARC members found a sympathetic response mixed with various reservations concerning both the legal situation of the pavement dwellers and the ability of BEST procedures and regulations to accommodate their wishes. Despite these reservations, Mr Miller agreed to explore the request and gave clearance for further meetings with lower ranking BEST officials. At this stage, the involvement of SPARC and of the President of the NSDF in the direct negotiations ceased, and instead it was the women of Mahila Milan, together with NSDF member and pavement dweller, Abdul Shakoor, who began to meet and attempt to break down the reservations of BEST officials. These officials revealed their belief that the pavement dwellers were temporary migrants, a belief countered by the stories of the women, one of whom had been born on the pavements of Byculla, and now had two children of her own. In addition, the officials were sceptical of the women's accounts of the high sums of money they had to pay for illegal supplies, so once again, Mr Miller was approached and finally it was agreed that BEST officials would visit the pavement communities of Byculla to see for themselves the

⁶ Unless otherwise stated, this section draws on interviews with stakeholders in the project.

⁷ *Chawls* refer to the walk-up apartment blocks built in Mumbai during the industrial development of the city to house male migrant workers. Several rooms lead off from corridors, and bathrooms are communal. They are now used as family residences.

⁸ Rs. 1,625 was estimated by the Mumbai Regional Development Authority as the poverty line for a family of five in the mid-1990s.

circumstances in which they lived.

After a wait of four months, the officials from BEST finally arrived at Byculla. There they were faced by a 15-member committee made up of the core members of Mahila Milan, with its sole purpose being to deal with the issues related to the electricity initiative. Maps and drawings of the pavement communities, previously made during a community survey of the area, were also shown to the officials to enable them to understand the layout of the settlements. Also the illegal electricity connections were shown, but the visiting officials immediately declared that the houses could not be provided with electricity owing to the flammability of some of the materials making up the walls and ceilings of the pavement shacks. Instead, they offered just a direct current (DC) electricity supply of 110 volts, enough to power only one light. According to Abdul Shakoor, "We told them that it was too hot to sit inside our huts in Mumbai's weather and we definitely needed power for fans. But they did not agree. Then we went to meet Mr Miller along with Mahila Milan members. He was more sympathetic ... [but] It then took close to two years for some of us to get power".

Over that time, much energy went into negotiations, with BEST, the pavement dwellers and their representatives all introducing skills, information and knowledge to the process. In BEST, concerns that the pavement dwellings could be demolished and the BEST cables would be lost were allayed by a government letter declaring that the pavement dwellings of Byculla would not be demolished for at least one and half years owing to provisions made under the 1995 changes in legislation. In addition, BEST usually requires that a No Objection Certificate (NOC) be given by the owner of the area where electricity is to be given. In this case, SPARC wrote to the

Municipal Corporation asking for an NOC but no reply was received. For the Corporation this issue was sensitive for any supply of electricity to pavement families could be used as a precedent, leading to demands by pavement dwellers for water and sanitation. Instead, Mr Miller proposed that SPARC give an undertaking that BEST would be absolved of responsibility in case of any dispute with the Municipal Corporation. The undertaking also stipulated that the supply would be given only for as long as no demolition was planned, and also that SPARC would obtain the necessary permission. Finally, SPARC also gave an indemnity bond declaring that it had no objection to disconnecting the supply and removing the meters if the Corporation raised any objections, even if there were no violation of the Electricity Act and Rules. In this way BEST became satisfied that its supply of electricity to the pavement dwellers would neither place the company in breach of its

own rules, nor be seen to symbolise *de facto* security of land tenure for the pavement dwellers.

Finally the work of installing the electricity connections began, though firstly BEST agreed to provide electricity to just one area provided that certain key conditions be met. This pilot area involved the pavement shacks in the immediate vicinity of SPARC's Byculla Area Resource Centre, and Mahila Milan called its residents to a meeting where the pavement families were told what would happen and how much it would cost them. A key BEST condition was that all flammable plastic be removed from the house structures and replaced with either tin, wood or concrete. For the Deputy Engineer of BEST, Mr. Ubale, the person chiefly responsible for implementation of the project, safety was also the primary concern, and this resulted in the installation of earth leakage circuit breakers to prevent electric shocks or fires. Cabinets also had to be built by the residents and approved of by BEST as suitable for the installation of meters and mains wiring. In addition, the idea of communal electricity meters (with one meter per 15 households) was proposed by Mr Miller, breaking with the convention of each household having an individual meter. Also an issue of concern was the name in which the meters (and therefore the bills) would be registered. BEST officials felt that since Mahila Milan was not a registered organisation, SPARC's name should be used and it was resolved that all bills would be sent to SPARC, though they would be paid by the pavement dwellers.

As the work progressed, and the electrification widened from the initial pilot area to encompass a total of three streets in the Byculla area, the resistance of the BEST field workers slowly broke down. Contributing to this was the work undertaken by a number of young members of Sadak Chaap who had been living at SPARC's Byculla Area Resource Centre since they were street children. These youths became involved in the project when the licensed electrician undertaking much of the external wiring required additional help. Having already proved themselves capable of fixing and changing wiring at the Resource Centre, and it was resolved that the licensed electrician should provide them with training in order that they could install the internal wiring in the pavement shacks to a sufficiently high standard to be approved of by BEST. As such, the cost of providing the internal electricity connections was estimated to have been 40 per cent cheaper than if licensed electricians had undertaken the work, and the very act of wiring the pavement shacks provided the training experience needed by the young men. Indeed, since their work in the Byculla area, these men have gone on to work as electricians on other SPARC projects in Mumbai and other cities in

India.

2.3 Current Project Status and Future Prospects

With the first houses receiving BEST electricity in mid-1997, currently around 125 shacks in the Byculla area are connected, and this number continues to increase. Although the process of obtaining the electricity proved to be long and complex, the establishment of precedent and a procedure through which pavement dwellers can now apply for electricity should ensure that future connections can be obtained more quickly. Indeed, the Mahila Milan electricity committee is regularly approached by other pavement communities who ask advice on how to approach BEST. According to Mahila Milan member, Lakshmi, "Other pavement settlements have come to know that they can get electricity and approach us all the time to help them. Now that BEST has done this once, it won't be difficult to do it again and it shouldn't take so much time". BEST policy has changed as a result of the initiative, recognising the entitlement of pavement dwellers to electricity and thereby ensuring that other pavement communities will not have to enter into a drawn out process of negotiations. However, in order to receive electricity, pavement dwellers not only have to reduce the flammability of their houses, but also approach BEST as an organised group, rather than on an individual basis. In addition, one possible barrier to the replication of the initiative may be BEST's insistence that electricity meters and bills be registered in the name of SPARC, thereby undermining the ability of communities without links to SPARC to obtain electricity. In addition, the presence of two other electricity companies supplying consumers in the suburbs and extended suburbs of Mumbai also requires that similar lobbying must be gone through again, though the precedent set by BEST may act to facilitate those processes.

2.4 Project Finances

Under the electricity initiative, much of the expense of installing connections was born by the pavement dwellers themselves. For building of shared meter cabinets, purchasing of cable and safe building materials, each family was asked to pay Rs. 1,000 (US\$ 24), and for the internal wiring in the house another Rs. 500 (US\$ 12) was requested by the Mahila Milan committee. Indeed, for the internal wiring, cheaper cable could have been purchased but it was decided that for reasons of safety, the more expensive option should be bought. To pay these costs the savings and credit scheme of Mahila Milan was employed. This scheme was already well established in the area, with pavement

households saving some amount of money, be it Rs 10 (US\$ 0.24) to Rs 100 (US\$ 2.4) per day, and with loans also available to cover emergency expenses or to finance income generation initiatives. Thus, with the prospect of receiving BEST supplies, the Mahila Milan committee set about using its existing disciplined saving regime to put by extra money for the forthcoming connections. In addition, Mahila Milan also began to register the electrical goods possessed by each pavement household and, depending on the estimated amount of electricity that each would consume, Rs. 100 (US\$ 2.4) to Rs. 150 (US\$ 3.6) was collected per month from each household. At the time of writing, the first electricity bill had not yet arrived, but it is expected that the cost will be considerably lower than the sum previously paid for illegal connections, and also lower than the sum currently put by each month by Mahila Milan.

3. INFORMATION, COMMUNICATION AND LEARNING PROCESS

3.1 Knowledge and Information

The types of information, knowledge and skills that were exchanged during the electricity initiative were of various technical and non-technical types and flowed not just from the community upwards to BEST, but from BEST to the pavement dwellers and SPARC, and also horizontally at the community level.

In general, the information disseminated to BEST by SPARC, NSDF and Mahila Milan was descriptive information presented verbally and concerning the circumstances and needs of the pavement dwellers regarding access to electricity and other services. Information on the illegal supply of electricity to pavement dwellers was used to both demonstrate the exploitation of the pavement dwellers and the financial loss that BEST was incurring as a result of the theft. In addition, meetings with senior officials were also used to inform them that new customers applying for electricity were often the victims of corruption. Such information was used to further demonstrate the difficulties and expense of attaining a legal supply from the company, while at the same time also aiming to emphasise the need for BEST to change its internal practices and procedures. More general information concerning the circumstances and characteristics of pavement dwellers was also presented and used to counter the popular impression held by lower ranking officials of pavement dwellers as transitory and unproductive, thereby seeking to demonstrate the pavement dwellers as worthy customers of BEST.

The information and knowledge that was used during the lobbying of BEST to change the opinions and practices of its staff was, to a great

extent, previously held by Mahila Milan, SPARC and NSDF. By virtue of being pavement dwellers, the women of Mahila Milan obviously knew of their own circumstances, but the pre-existence of Mahila Milan and its links to SPARC and NSDF also ensured that the women had access to a wider pool of knowledge regarding the situation of pavement dwellers in Mumbai in general. The SPARC survey of pavement communities undertaken in 1985, for example, provided a pool

of information from which NSDF, Mahila Milan and SPARC could draw in order to prove to the officials of BEST that pavement dwellers were not temporary migrants, that they made a significant contribution to the economy of Mumbai, and that they had to pay extremely high costs to access few and poor quality services. Maps and plans of the pavement communities of Byculla constituted one of the few sources of 'hard' written information used by the pavement dwellers. Stemming from previous survey work, these maps and plans provided a valuable tool that Mahila Milan could use to show BEST not just the location and layout of the settlements, but also that Mahila Milan was a highly organised and credible CBO. In addition, the knowledge of the systems and procedures of BEST acquired by SPARC and the NSDF president during the electrification of SPARC's night shelter proved invaluable. Such information not only acted as a starting point from which a strategy for approaching BEST could be built, but it was also used in meetings with BEST to demonstrate that these procedures could not cater for the poor, as well as reinforcing the image of the SPARC, NSDF and Mahila Milan alliance as well-informed and serious.

From the other side, information concerning the working practices, rules and regulations of BEST was delivered to Mahila Milan, NSDF and SPARC mostly verbally through face-to-face meetings. The intention of such information, especially as used by the lower ranking officials of BEST was initially to deny the pavement dwellers access to electricity. As the initiative progressed, however, and the officials' reservations were gradually eroded, such information was no longer used as a block, but as a means to make the pavement dwellers understand the constraints within which the engineers of BEST had to work, and as starting point from which innovative solutions and compromises could be proposed. BEST safety regulations, for example, were at first cited as the main reason for denying the request of the pavement dwellers, but eventually a compromise was reached whereby residents would replace flammable building materials, while BEST would install circuit breakers.

Additional technical information transferred during the electricity initiative concerned the training given

to members of the street children's federation, Sadak Chaap, with a number of teenagers taught the practical skills needed for the internal wiring of houses by a licensed electrician. Contrary to much technical training, little written information was used by the licensed electrician, who was himself a slum dweller from an NSDF affiliated slum near Mumbai. Instead, the Sadak Chaap youths were taught informally, receiving verbal instructions on how to wire houses during practical on-the-job activities.

Finally, in addition to Mahila Milan using information as a means to bring about change within BEST, the CBO also became a source of knowledge and information for use by other pavement dwellers. Initially, this process involved the 15-member committee of Mahila Milan informing the pavement dwellers of Byculla that BEST had agreed to supply them with electricity and what would be required of them in return. As a women's saving and credit organisation well-established in the Byculla area, Mahila Milan was already known to all the households of the area and therefore had no difficulty in persuading them of the merits of abandoning their illegal supplies of electricity in favour of those of BEST. In addition, since the success of the electricity initiative in the Byculla area, the women of Mahila Milan have now become a source of information and expertise for other groups of pavement dwellers to access. As such, Mahila Milan regularly provides information to groups from outside of Byculla on how to approach BEST for electricity, who to contact, how to gain the necessary permissions and approvals, fill out the relevant forms, on what problems may occur, on how much the supply may cost, and on how best to save for it.

In summary, it can therefore be seen that the information, knowledge and skills exchanged during the electricity to pavement dwellers initiative were of both a technical and non-technical nature, were mainly presented verbally with little use of written information, and were used by the stakeholders for a variety of objectives. Regarding technical information, the practical skills transferred to Sadak Chaap youths had the dual objective of enabling the internal wiring of pavement dwellers houses at a quick pace and reasonable cost, while at the same time providing a number of young men who had lived most of their lives on the street with skills that they could then use as a means to gain future employment. Additional technical information concerned the rules and regulations of BEST, which while initially used as means to rebuff the demands of the pavement dwellers, subsequently became the basis upon which BEST began to negotiate and innovate with the CBOs and NGO. On the non-technical side, much of the information transferred 'upwards' from SPARC, NSDF and Mahila Milan to BEST was of a descriptive nature,

designed to bring about a change in perception and understanding essential in order for BEST senior officials to adopt the initiative and for field officials to implement it. Finally the lessons and knowledge derived from the actual initiative itself now supplement the previous experience of Mahila Milan, NSDF and SPARC and are being used to encourage other groups of pavement dwellers to approach BEST for electricity.

3.2 Transfer and Dissemination

While the initial flows of information during the electricity initiative were at the community level, and then from the community 'upwards' to BEST, before long the initiative was characterised by two-way exchanges of facts, opinions, and knowledge as a process of negotiation developed between BEST officials, the pavement dwellers and SPARC. In addition, a vertical transfer of information can also be identified within BEST as pressure for change in attitudes and practices among lower ranking officials came not just from Mahila Milan, but also from above as senior BEST staff adopted and sought to implement the initiative.

During exchanges and transfers of information at the community level, the main forum used was community meetings held at the Byculla Area Resource Centre among members of Mahila Milan and NSDF, and sometimes also with SPARC representatives present. During these initial meetings, information on the difficulty and expense of accessing electricity was pooled and synthesised for the first time, and a strategy to approach BEST was devised. As such, the pre-existence of the CBO Mahila Milan and its practice of convening regular meetings were vital at the outset of the initiative, providing a forum through which the electricity issue could be raised and acting as a launching pad for the initiative itself. The previous work of Mahila Milan also ensured that the women had sufficient experience and confidence to want to tackle the electricity problem, despite their initial doubts that BEST would fulfil their demands. Here the use of the Byculla Area Resource Centre as a meeting place was also key. Acting as a centre for NSDF and SPARC activities, as well as those of Mahila Milan, it provides a location where the three organisations can interact and exchange ideas. In the case of the electricity initiative, the Area Resource Centre served as a venue where NSDF informed Mahila Milan of the workings of BEST, and where Mahila Milan enlisted the help of Mr Jockin and SPARC in making the initial approaches to BEST.

Face-to-face meetings also formed the channel for much of the subsequent information exchanges between the pavement dwellers and BEST. Initial

exchanges all took place at BEST offices, and during the first meetings between NSDF president Mr Jockin, SPARC representatives and senior BEST officials, acquaintances formed during work on the SPARC night shelter were renewed. Had Mahila Milan alone attempted to approach BEST at this stage, it can be conjectured that they would have had difficulty even securing a meeting with the General Manager and his Deputy. From NSDF, Mr Jockin proved to be key in the initial stages of the electricity initiative, using his previous contacts with BEST, and the respect for himself and for SPARC that these contacts had generated, as a means to create a space for the demands of the pavement dwellers. The involvement of Mr Jockin and SPARC representatives thus provided NSDF representative, Abdul Shakoor and the women of Mahila Milan with sufficient credibility with which they could take over the negotiations. When Mahila Milan members and Abdul Shakoor did take over the negotiation process, they also had to pay many visits to BEST premises before engineers finally came to Byculla. During these visits, meetings with more junior officials served to break down some of popularly held misconceptions of pavement dwellers. At this point Mr Shakoor acted as an acceptable figure with whom the field workers and lower ranking officials of BEST were prepared to negotiate, for these same officials showed a reluctance to deal with the women of Mahila Milan. According to one of the women, Lakshmi, "Though Abdul Shakoor was the main person representing us, some of us would always accompany him in order to learn the procedures. But the officer at Wadala [the BEST offices] told us that it was not necessary for women to come to his office". Such a reluctance can perhaps be explained by the limited professional experience the BEST officials had had in dealing with poor Muslim women, yet the involvement of Mahila Milan was not only necessary in order for the women to understand the systems and procedures of BEST, but also to educate the BEST officials on the circumstances of the pavement dwellers and to establish the credentials of Mahila Milan. Here it can also be conjectured that the previous experience of Mahila Milan and Mr Shakoor as community activists was central to their success in gaining the trust of the BEST officials. Having developed communication and negotiation skills through their work over many years in various parts of India and abroad with the SPARC, NSDF and Mahila Milan alliance, the pavement dwellers were well used to meeting government officials of all ranks and were able to successfully break down the prejudices of BEST officials and gain their respect.

Also important to the information, communication and learning process were the field visits eventually paid by BEST staff to the Byculla area. These served to bring alive to the field workers the

information given to them by Mahila Milan. Thus the field workers saw not just the extent of the illegal connections and the poverty of the pavement dwellers, but also the strength of Mahila Milan and NSDF as CBOs. On the latter point, again the Byculla Area Resource Centre acted as a place where BEST officials could meet with community members and see the infrastructure and work of Mahila Milan and NSDF. The field visits also acted to reverse the previous trend of always meeting at the BEST offices where officials were in their own familiar surroundings and could be secure in their opinions, instead giving the pavement dwellers the opportunity to take a greater degree of control of the negotiations. In addition, the field visits also gave BEST officials the opportunity to assess the links between Mahila Milan and the wider community of pavement dwellers in the Byculla area. These links were subsequently used to disseminate information on the forthcoming electrification programme from BEST through Mahila Milan and down to the household level, without BEST officials themselves having to directly address the community at large.

Regarding the training given to the youths of Sadak Chaap, given the lack of any formal education received when they were street children, the informal and practical nature of the training in electrical skills can be argued to have been well suited to these youths. Thus the training was provided during the actual wiring of the pavement houses, without the usual prerequisite of classroom lectures and mock practical exercises. In addition, it can also be conjectured that the identity of the licensed electrician who taught the youths was important for his success, for as a slum dweller himself, he could relate to the needs of the youths for a practical and non-academic approach.

For the ongoing spread or dissemination of the initiative, again the use of the Byculla Area Resource Centre has been essential, acting as a location where other groups of pavement dwellers can find members of the core Mahila Milan team on most days. In addition, the Centre provides an informal setting where impromptu meetings can be held among community groups to share information and problems regarding access to services such as electricity. Again, the use of the Centre by SPARC and NSDF ensures that additional advice and support is on hand when needed.

Finally, examining the vertical communication channels within BEST, these involved not just the use of formal command chains through which senior officials instruct their junior counterparts, but also more importantly, the personal adoption of the initiative by the Deputy General Manager, Mr Miller, who saw through the initiative from start to finish. Thus, Mr Miller proved to be key in

continually motivating lower ranking officials to support the electrification of the Byculla pavement dwellings. According to the President of the NSDF, Mr Jockin, "Even for the electrification of the night shelter, Mr Miller helped us a lot. We were told to pay BEST Rs. 89,000 but he brought this amount down to Rs. 23,000. With his help, the process went smoothly and without any middlemen or politicians. No bribes were paid. When Mr Miller came to inaugurate the provision of electricity to the first group of pavement families, the message went right down the line. Electricity is a necessity and not a luxury – this was possible because of Mr Miller". Thus not only was Mr Miller a key contact as the person to whom Mr Jockin and SPARC representatives could make their initial requests, but he also maintained his interest in the initiative long after it had become the responsibility of more junior officials. This ongoing interest proved vital for the solution of problems created by BEST rules and regulations. Creating space for manoeuvre within the bureaucratic procedures of BEST, Mr Miller effectively found a way to meet the needs of pavement dwellers, while at the same time preempting possible official objections such as the need for an NOC. As a key advocate for change within BEST, Mr Miller thus used his seniority to instruct subordinate officials to meet with the pavement dwellers, to motivate those officials to take up their cause, and also to create the institutional space needed by BEST staff to put aside official procedures and create new ways of working.

In sum, face-to-face communication dominated the electrification initiative, both during community meetings, meetings with BEST officials, site visits and on-the-job training for the youths of Sadak Chaap. Given the types of information being exchanged and the parties involved this seems entirely logical, with the purpose of most communications being negotiation rather than instruction. Indeed, very little use was made of written information during the initiative, with the exception being maps and plans, and letters sent between BEST and SPARC to make official any decisions taken. Given the importance of face-to-face discussions, the communication skills of the various actors were therefore vital in order to establish understanding and negotiate compromise solutions to the various problems that arose. Here the skills of Mr Miller, SPARC, NSDF and Mahila Milan appear to have been essential in persuading the BEST officials to accept the initiative and to embrace the culture of change and innovation that characterised it. In addition, the high standing of Mahila Milan among the Byculla pavement dweller community at large was also vital in ensuring the willingness of the pavement households to alter their houses and invest in electricity cables, wiring and cabins. Thus it can be concluded that key to the information delivery process were the

negotiation skills of the individuals and groups involved. These ensured the eventual establishment of trust and respect between stakeholders, acting as a basis upon which compromise and innovation could occur.

3.3 Learning

Just as information was generated and disseminated by all the stakeholders involved in the electricity initiative, so too was it characterised by learning on all sides as information and knowledge were assimilated and skills were

developed. During the initial stages of the electricity initiative, when SPARC and NSDF first approached BEST, the depth of knowledge and understanding of BEST officials with regard to the circumstances of pavement dwellers was not sufficient to allow the initiative to be approved without further exchanges of information and considerable learning. Prior contacts arising from the electrification of the SPARC night shelter had, however, left a legacy of trust and respect between SPARC, Mr Jockin and Mr Miller, and so sufficient space was given by BEST for the request of the pavement dwellers to be heard. On this basis, Mr Miller was the first BEST official to begin to appreciate the predicament of the pavement dwellers with regard to access to cheap and reliable electricity, building upon the understanding he had previously developed with regard to street children. More difficult to convince were the lower ranking BEST officials. Again, serving as a stimulant to learning among the junior officials of BEST was Mr Miller. He acted to initiate change within BEST, applying sufficient pressure on his staff until they became convinced of the merits of the initiative, with the process then developing its own momentum. When asked how difficult this was, Mr. Miller replied, "Difficult, yes but not impossible. That word is not in my dictionary ... Our officers were very hesitant ... Anything new is difficult and I had to convince one or two of my subordinates".

With sufficient pressure from above, the understanding of BEST officials could be developed from below through meetings with Mahila Milan and Abdul Shakoor and through field visits to Byculla. In time, these officials began to learn about the circumstances of the pavement dwellers and to understand the work of Mahila Milan, SPARC and NSDF. In turn, the pavement dwellers and their representatives developed a more comprehensive knowledge of the working procedures and constraints of BEST, thus, throughout the long process of obtaining electricity for Byculla's pavement dwellers, the relationship between BEST officials on the one hand, and Mahila Milan, NSDF and SPARC on the other,

underwent a gradual transformation. At first characterised by mistrust and misunderstanding, in time, this relationship shifted as the pavement dwellers proved themselves flexible and open to meeting the high safety standards demanded by BEST, and BEST officials in turn began to treat the pavement dwellers increasingly like customers of BEST. Indeed, as the field officials developed greater respect for the pavement dwellers (no BEST official attempted to exploit the situation as a means of demanding irregular payments) and the project became innovative, the lower levels of the BEST bureaucracy appeared to derive genuine satisfaction from the initiative.

While it appears that much of the learning in the electricity initiative occurred at the level of the lower ranking officials in BEST, within the community of pavement dwellers, the initiative also served to heighten understanding and skills in several ways. Within Mahila Milan it was realised that, in spite of their initial reservations, the women could bring about a substantial policy change in an organisation known to be both bureaucratic and corrupt. In doing so the women not only gained confidence, but also the knowledge of how to build and implement a strategy to obtain basic services, knowledge that is now being used to teach other pavement communities how to approach BEST. Also at the community level, the teenagers of Sadak Chaap learned the practical skills necessary for the electrical wiring of houses. The experiential method by which the youths learned is, as stated above, likely to have contributed significantly to their acceptance of the training and their absorption of the new skills. Had a more formal vehicle been used as a teaching method, it is likely that these uneducated teenagers would have rejected the whole experience as unsuited to their needs.

Finally, "examining the identity of those involved in the learning process, the importance of social status and hierarchy in Indian society can be seen in the relations between BEST officials and the pavement dwellers. The gulf between the socio-economic and cultural status of the BEST officials and the pavement dwellers, exacerbated by popularly held beliefs that the latter are poor because they are unproductive, could have proved insurmountable and acted to derail the initiative. Indeed, during initial meetings between the lower ranking officials of BEST and the pavement dwellers, the divide between the two was also widened by the unwillingness of BEST officials to deal with women. Thus not only were Mahila Milan subordinate to the officials owing to their economic status, but also due to their status as poor Muslim women from scheduled castes. In time, however, the barriers between the two groups began to break down, owing largely to the ability of Mahila Milan to prove themselves and the pavement

communities to be deserving of the right to BEST services. Less extreme, but no less important to the success of the initiative, was also the hierarchical structure within BEST. With a staff of over 5,600 working in the electricity division alone, BEST is characterised by multiple categories of workers, performing tightly defined roles, with these categories ranked in order of importance and seniority. As such, the status of Mr Miller as Deputy General Manager in charge of the electricity division of BEST was key in both forcing the initial adoption of the scheme, and in gradually breaking down the reservations of successive layers of his staff. Thus, by personally convincing the chief engineers of BEST of the merits of the initiative, and by making field visits to Byculla, Mr Miller displayed to the field workers and lower ranking administrative staff that he had accepted the right of the pavement dwellers to access BEST electricity and that they should do likewise.

3.4 Use and Impact

In addition to the wide array of information exchanged and the informal nature of the exchange and learning processes, the Byculla electricity initiative also revealed the different stakeholders to develop their ability to apply the information, knowledge and skills learned. While Mahila Milan, NSDF and SPARC already had considerable experience in giving, assimilating and applying information and knowledge, through their contacts with BEST the CBOs and NGO had to learn how to work closely with engineers and to accommodate their need for electricity within the safety and administrative norms of BEST. For the field workers and administrators of BEST there was no precedent of similar techniques and skills upon which they could build, but within the climate of change and innovation instigated by Mr Miller, these officials began to learn how to use the information given to them by the pavement dwellers to satisfy their own requirements as well as the demands of the pavement communities. Thus the success of the initiative did not just depend upon BEST and the pavement dwellers developing a knowledge of each others circumstances and constraints, but also on stakeholders knowing how to use this information to reach compromises and overcome the problems that arose.

In assessing the impact of the information, communication and learning process on the outcome of the electricity initiative, it can clearly be seen that the way in which the stakeholders interacted and developed mutual understanding and respect was key to the success of the scheme. In order for the idea of obtaining electricity from BEST to be turned into reality, a number of barriers had to be overcome and key to this was the skills

with which information and communication were managed by the stakeholders. SPARC and Mr Jockin, for example, had sufficient understanding of BEST to know that the success of the initiative would depend upon BEST negotiating directly with Mahila Milan and Abdul Shakoor, thereby ensuring that junior officials would develop the understanding and enthusiasm needed to overcome the problems that would inevitably arise. Similarly, Mr Miller used his familiarity with the internal culture of BEST to apply the necessary amount of pressure on his staff, while using his authority to create space within the bureaucracy for innovation. The communication skills of Mahila Milan also enabled the prejudices of BEST officials to be broken down, and ensured that the pavement community of Byculla was willing to invest time and money in setting up the electricity connections.

The impact of the information, communication and learning process should not, however, be assessed purely in terms of the successful supply of electricity to Byculla's pavement shacks. In addition, all the stakeholders involved gained personal satisfaction and confidence from the process. One of the members of Mahila Milan, for example, declared "Getting electricity has ... given us a lot of confidence. Maybe we will get water one day; there is bound to be some delay but now we are hopeful". Thus, even among the core of Mahila Milan who had considerable experience as community activists prior to the electricity scheme, the process of educating BEST officials and negotiating compromises with them acted to boost their skills and confidence. Similarly, the training of the youths from Sadak Chaap provided them with practical skills that they have since built careers around, and also acted to demonstrate to younger children within Sadak Chaap that becoming an electrician or learning a similar trade is possible for those without a formal education and privileged background. Finally, for BEST, the electricity initiative enabled its officials to step outside of their normal working procedures and innovate to address the needs of one of the poorest sections of Mumbai's population, thereby deriving personal satisfaction in the process. Indeed, the relationship between Mahila Milan members and BEST officials became so warm that in 1997 some of the women were invited to make a half-hour presentation at the celebration of the golden jubilee of BEST, where they spoke of the corruption rife in the electricity company.

3.5 Replication

The supply of BEST electricity to the pavement dwellers of Byculla in 1997 set a precedent in Mumbai, demonstrating that pavement dwellers could obtain legal electricity connections, and also generating the hope that they could progress to

gain access to other essential municipal services. The lessons acquired during this experience are now being disseminated by SPARC, NSDF, and Mahila Milan through their networks of contacts with other pavement communities, slums and NGOs, both in India and abroad. These networks are well established and are regarded by SPARC, Mahila Milan and NSDF as essential if pavement dwellers outside of the Byculla area are to obtain access to electricity and other basic services. However, the factors that led to the success of the initiative in Byculla cannot simply be replicated elsewhere. The skills of the core team of Mahila Milan women and of Abdul Shakoor, for example, ensured the success of negotiations with BEST, while the role played by SPARC and Mr Jockin was essential to winning the support of BEST and to resolving the technical and administrative problems that arose. Finally, within BEST, the role played by Mr Miller also proved critical in generating the will power to implement the initiative. The success of the electrification of the pavement dwellings of Byculla thus appears to have hinged on a combination of institutions, people and circumstances, particular to Mumbai at that time. Indeed, even within Mumbai, the presence of two other companies responsible for electricity provision to other areas of the city ensures that suburban pavement dwellers cannot obtain legal electricity supplies, and to do so they would have to replicate the BEST experience by lobbying the Bombay Suburban Electricity Supply (BSES) Company and the Maharashtra State Electricity Board (MSEB). Nevertheless, the Byculla experience can be used as an important precedent to show to other pavement communities and electricity suppliers how the Byculla pavement dwellers achieved their goal.

4. LESSONS

4.1 The importance of the policy environment

The Byculla electricity initiative demonstrates the importance that a shift in policy can have, opening the way for such changes to be used as basis to demand new rights and set precedents. In this case, the policy environment did not favour the provision of electricity to pavement dwellers until 1995 and hence pavement dwellers had no grounds upon which they could approach the municipal government for basic services. With the new rights awarded to the pavement dwellers in 1995, SPARC, NSDF and Mahila Milan had a powerful tool with which they could negotiate, and similarly Mr Miller used the policy shift as a means to create space within BEST in which he and his staff could innovate and work outside of standard procedures.

4.2 The importance of the institutional environment

The importance of the identity and characteristics of the stakeholders is highlighted by the Byculla electricity scheme. For example, the presence of SPARC and NSDF representatives during the first meetings with BEST helped establish a relationship of mutual respect that Mahila Milan could then build upon, but also vital was the strength of Mahila Milan as a CBO. Indeed, when examining the electricity initiative, the compatibility of SPARC, NSDF and Mahila Milan becomes apparent, with their alliance depending not only on shared objectives, but also on the sharing of skills and resources. Thus SPARC had no hesitation in assuming responsibility for the electricity meters and bills, trusting that Mahila Milan would organise the process of payment, while Mahila Milan could also be confident that any problems that arose would be resolved by all the partners in the alliance.

4.3 The importance of key personalities

The intervention of a senior and sympathetic official like Mr Miller proved to be crucial to the success of the electricity initiative. This suggests that even in institutions straight-jacketed by rules and regulations, individuals of sufficiently high rank can make room for creative interpretations of policies and procedures to overcome obstacles encountered in pursuit of a goal. In addition, however, key individuals can also have a more lasting impact if they manage to change institutional cultures by making new practices and attitudes routine.

4.4 The importance of flexibility and negotiation skills

The normal experience of the poor is that they are not given an opportunity to learn what has to be done in order to be included in the agendas of public utilities or service-providing institutions. In turn, these organisations formulate their standards without considering the impact they have upon the poor. The Byculla electricity initiative shows that given the opportunity to learn the procedures of public sector institutions or of the circumstances and needs of the poor, both the poor and bureaucrats have the potential to develop a level of understanding upon which solutions can be negotiated.

4.5 The importance of institutional networks for replication

The dissemination of knowledge, information and skills derived from the Byculla electricity initiative will depend in large measure on the strength of the networks of SPARC, NSDF and Mahila Milan. Indeed, one of the objectives of the electricity scheme was to set precedent and disseminate the knowledge and information generated by the initiative to other pavement communities. If the initiative is not to be confined to the Byculla area alone, these networks will be instrumental in not only informing other pavement communities of the precedent set, but also in teaching them how to go about replicating the Byculla experience and adapting it to other contexts and institutional environments.

4.6 The importance of place

Finally, the Byculla Area Resource Centre also revealed the important role community centres can play as forums for the dissemination of information and for negotiation. As the headquarters of Mahila Milan and NSDF, the Centre provides an informal space where community meetings can be held impromptu and where administrative work is done, and in addition, the Centre is also used by SPARC for its meetings with Mahila Milan and NSDF. As such the Byculla Area Resource Centre provided

an ideal location to bring BEST officials, enabling them to witness the resources and working practices of the pavement dwellers' representatives, while also allowing Mahila Milan and NSDF the opportunity to lead negotiations on their own territory. Finally, the Centre is also key to the further dissemination of the initiative as it provides a forum where other pavement dweller communities can meet with Mahila Milan, NSDF and SPARC in an informal environment.

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