People’s everyday knowledge in research: Practices from PRIA’s experiences
Keywords

Participatory Research, PRIA, awareness, people’s knowledge, knowledge for change, knowledge from below

Abstract

This paper describes six participatory research studies conducted by Participatory Research in Asia (PRIA) in the 1980s and 1990s. The research was carried out with pavement dwellers in Bombay (Maharashtra), forest dwellers in Himachal Pradesh, workers in refractory factories in Orissa, with construction workers in New Bombay, beedi workers in Gwalior (Madhya Pradesh) and municipal hospital workers in Bombay (Maharashtra).

These studies were pioneering efforts in promoting the practice of Participatory Research in the Global South, and the use of people’s knowledge for mobilisation and action. They showcase how people’s involvement in the process of research can be supported. Respect for people’s capability to analyse their own lived experiences, and to produce knowledge based on which they can take action is a central purpose of these participatory studies. The paper concludes with analyzing the knowledge outcomes that resulted from these participatory studies.
Introduction: People’s Knowledge and Participatory Research

Everyone in society participates in “knowledge” – its production and utilisation – in one way or another. Only a very few in society are involved in theoretical and philosophical formulations of reality, or the construction of “ideas”. For the vast majority, knowledge is what constitutes the practices, beliefs and experiences that give meanings to their lives and work (Tandon, 2002). To this extent, when an attempt [is made] to restore the processes of knowledge-generation and knowledge utilisation to the level of problems being experienced daily, it constitutes the practice of Participatory Research (Tandon, 1979).

In practising Participatory Research, the actors in a situation are not merely objects of someone else’s study, but actively influence the process of knowledge generation and utilisation. The actors in a situation are not only sources of knowledge but also its legitimate owners.

PRIA’s practice of participatory research to generate and utilise knowledge based on people’s knowledge focuses on:

- Research as a process of actively challenging stereotypes and myths about those being “researched”, by holding the research participants as the central driving force of the knowledge generation process.
- Using the participatory research methodology to change power relations by facilitating the self-awareness of the research participants which builds on their existing knowledge.
- Using the process of researching their own realities as a process of transformative learning, where participants in the study produce new knowledge that has the potential to transform their condition.

The following examples from PRIA’s practice of participatory research illustrate how participatory research can be a vehicle to give visibility and voice to those who often remain ‘invisible’ to others – pavement dwellers, forest dwellers, factory workers, construction and beedi workers, and home-based women workers. The studies conducted with these diverse communities systematised their practical, experiential knowledge, enabling them with knowledge and tools to impact their everyday lives. As part of the research, the accumulated, everyday knowledge of poor and marginalised agriculturists, of migrant informal workers, of those working in large factories, and health care workers in large hospitals was synthesised with ‘expert’ knowledge from others’ (secondary) research to create new knowledge. The new knowledge was then used to advocate with hospital administrations, forest officials, municipal authorities and factory managements to advocate for change in the living and working conditions of these communities. Such use of participatory research acknowledges the historical use of knowledge for control by dominant classes and pedagogies, which very often includes academics and researchers trained in the conventional methods of social science research, who inadvertently perpetuate the status quo, without questioning or altering the relations of power.

Deconstructing Myths Surrounding Pavement Dwellers In Bombay

Collective action based on community knowledge can be a powerful tool to limit the marginalising impact of policies by institutions of governance. This is precisely what happened after the Supreme Court judgement of July 11, 1985, that changed the destiny of pavement dwellers in Bombay (now Mumbai) forever. (Supreme Court of India 1985). Despite acknowledging that the right to life of pavement dwellers
includes the right to livelihood, it made permissible and legal the eviction of pavement dwellers as long as prior notice was given and demolitions were carried out in a “human(e)” manner. The judgement furthered the precarity of pavement dwellers and created greater uncertainty about their future in the city. The Court had restrained municipal authorities from taking any action up to October 31, 1985, giving SPARC, a civil society organisation, and the National Slum Dwellers Federation (NSDF), a community based organisation of pavement dwellers with linkages to women pavement dwellers, a few months to challenge the judgement.

This urgency prompted SPARC and its partners to conduct a “people’s census”, a count “by the people, of the people”, and use it to influence policy makers’ decision in favour of pavement dwellers. They approached PRIA to help them undertake a participatory survey to cover a significantly larger sample than previous studies had covered. The proposed census was a pathway, a means of making the pavement dwellers aware of the judgement, helping them organise themselves, mobilising them to take action on the basis of a quantified understanding of several dimensions of their problems, as well as communicating the results of the survey to demystify the myths surrounding pavement dwellers in the city. Due to limited resources, the decision was taken to conduct the survey in one Ward (E-Ward, that roughly corresponded to Byculla and Mazgaon areas of Central Bombay).

The census itself had three main objectives: first, to gather the demographic profile and determine the cause and pattern of migration of each family; second, to study the present occupation and income levels of all individuals; third, understanding the factors leading to pavement dwelling and choice of the particular location. A simple, single questionnaire sheet was used to collect individual data on the front page and family-based data on the back of the sheet. The rationale behind the single questionnaire sheet was to make it intelligible to respondents and enhance efficiency for executing data collection, since it had to be completed before the Supreme Court deadline.

To collect data on pavement dwellers, they first had to be located, for which a mapping exercise was initiated. Using a Ward map acquired from the Bombay Municipal Corporation (BMC), the researchers started from the outer boundary of the Ward and walked street by street in a concentric circle, marking pavement slums until they reached the centre. This process allowed them to not only locate every pavement slum (cluster) in the Ward, but also to establish contact with women in each cluster, for hosting discussions with them thereafter. The arterial roads in the Ward were mapped with the help of volunteers, who spent two Sundays traversing the roads, making clusters on the map and counting huts as they walked along. The mapping exercise resulted in identifying the exact universe for the census: 6000 pavement households existed in E-Ward and the arterial roads.

The researchers had to move fast. By August 28, just 6 weeks after the judgement, the mapping exercise had been completed, the questionnaires prepared, and the researchers were ready for data collection. Balancing professionalism for conducting the study with limited time frame was a hard task, but was achieved seamlessly through recruitment of 12 investigators from the community, trained and sent into the field by August 30. The authenticity and accuracy of the data collected was maintained through recruitment of an on-spot supervisor, who cross-checked one in every ten questionnaires. On September 28, data collection was completed and the coding process began with the help of four, and later eight, coders recruited for the task. However, given that sensitivity and knowledge of working with pavement dwellers through practical experience is required for coding such data, the SPARC team coded certain data points, especially those concerning reasons for migration and current occupation of pavement dwellers. Ultimately over 6000 households with nearly 27000 individuals were covered in the census. Data processing and generation of tables was entirely computerised.
Participation of the pavement dwellers was one of the core elements of their census; this set it apart from previous studies conducted with pavement dwellers. Meetings held with pavement dwellers in the designated area provided them with ownership of decisions regarding the census. They discussed issues regarding the need to do a census, advantages of the undertaking, why they were invisible, how the information should be used, to whom it should be addressed. The researchers received mostly supportive feedback from the community, but did observe bitterness from some pavement dwellers about previous surveys that had not given them any feedback after collecting data from them. However, even the cynics felt it would do no harm.

The researchers ensured that people were informed about the progress of the census at every stage. Meetings were held with each cluster a day before investigators were due to arrive there; questionnaires were shown to the people and the role and import of each item of information was explained, thereby clearing all doubts and suspicions. This process was carried out in the arterial roads where SPARC had never worked before. Despite that, no household refused to answer the questionnaire, which in fact surprised the investigators as well. Two aspects about the study excited the pavement dweller community: first, that each cluster would receive copies of their own data and second, that the popular version of their report would also be given to them in their own language. This enthusiasm created during the exercise, was itself an important achievement of the census.

The results of the census were divided into three broad categories: demographic profile, economic profile and migration history. The demographic profile provided gender and age segregated data, average household size and religious affiliation of each household. The economic profile highlighted work participation rate, minimum wage earnings, and gender wage gap. The migration history was eye opening for the pavement dwellers. In nearly 15% of the households, the head of the household had been born in Bombay – which meant they had not migrated. Among the migrant households, almost 60% had migrated to Bombay over a decade ago, and of these, 17% had been in the city for nearly three decades. The predominant reasons for migration were related to acute poverty, landlessness and lack of employment in the native place.

What became clear from the census findings was that a staggering 6000 families would likely be affected by large-scale evictions if the Supreme Court judgement were implemented. Half of the pavement
dwellers were gainfully employed; virtually none of them were beggars. These people were supporting the city with a vast pool of cheap labour that organised labour wouldn’t like to do, but were hugely under-valued and were considered to be a burden on the city’s economy. They were able to survive, only because they were living on the pavements and incurred no costs for shelter or transportation.

By questioning the “middle class utopia” that wanted clean, beautiful cities but also its milkmen and maid servants, the study findings were an acknowledgement that a long term, sustainable solution to the problem of urban congestion and growth of pavement dwellings was the rapid and equitable development of rural areas and small towns. Therefore, evicting squatters would not solve the root of the problem.

The information generated by the pavement dwellers contributed in a big way towards ensuring that mass demolitions did not take place. There were sporadic demolitions in E-Ward and arterial roads, but the pavement dweller community was resilient and evolved alternatives which reflected their own aspirations and needs. The most important among these steps was the initiative taken by over 600 families in E-Ward, spearheaded by women, to plan and design an entire settlement for themselves and demand land in a suitable location to make their dream a reality.

The study report, titled “We, the invisible: A census of pavement dwellers”, with several recommendations to urban planners and municipal authorities, was released to the press. Media visibility in English and local language highlighted the need for city planning to take cognizance of further in-migration, and develop housing policies and schemes that actually benefit those for whom they are made. Sharing of this knowledge helped advocate that no solution to such a complex problem could be found without taking into account the needs and aspirations of all those affected. The report was also translated into the local language, Marathi, and given to the pavement dwellers.

For the first time, a valid universe within which fresh surveys could be conducted with precision in sampling design was available. As a first step, the municipal corporation could use the study methodology to undertake a comprehensive and detailed census of all pavement dwellers in Greater Bombay to evolve a permanent solution to this problem. The high level of community participation proved the feasibility of conducting a high-quality census of pavement dwellers in a short period of time with limited human and material resources.

Conducting a census of pavement dwellers with their active participation busted myths and prejudices about pavement dwellers and substituted it with facts and figures born out of the knowledge of the affected communities themselves. Their knowledge had made them visible.

**Forest Dwellers’ Perspectives to Understand Deforestation in Himachal Pradesh**

The impact of large scale deforestation and degradation of forests in India has continued for a long time. The least understood impact of such deforestation is on the lives of forest dwellers and forest-based livelihoods and local economies. Still less understood are the real causes of deforestation.

In 1980, India passed the Forest Conservation Act, which had potentially disastrous consequences on the lives of forest dwellers. Restrictions imposed comprised, amongst others, increasing the list of offences,
including gathering forest produce, as well as enhancing the powers of arrest by forest department officials and police officers.

It was in this background PRIA conducted a study in 1984 on the impact of the 1980 Forest Act on the lives of forest dwellers in Himachal Pradesh, a state in north India with one of the highest per capita forest areas. Based on the lived experiences of forest dwellers, the study investigated the causes of deforestation, the relationship between forest guards and forest dwellers, and between forest dwellers and contractors. It also aimed to understand the level of awareness regarding India’s forest policies among communities relying on forests for their livelihood. This was the first large scale study of deforestation where participatory research methodology was applied.

The research process began with identifying community-based groups in Himachal Pradesh as potential partners for undertaking the study. A workshop held in December 1982 shared the scope, contents and methods of research with these groups. The role of partner groups in the state and PRIA’s own team at different stages of the research process was identified and a questionnaire for primary data collection with forest dwellers was outlined. PRIA’s team was given the responsibility of collecting data from secondary sources, while the primary data collection from forest dwellers was the responsibility of local partner groups.

The primary data collection was going to be an intensive exercise. To meet the objective of generating authentic, community-based data, while using the data collection process as a way to raise awareness among forest dwellers about the Forest Act, the partners decided to limit the collection of data to a few selected areas in Chamba, Kangra, Kulu, Lahaul and Spiti, Mandi, Simla and Sirmour. It was tentatively decided that about 25 forest dwellers from each of the 10 villages in the selected areas should be interviewed. The discussion also elaborated how the partner groups could use the research findings to further their work with the communities they were working with.

Geographic and climatic conditions needed to be considered when planning the research schedule. Travel in the field by the local researchers for primary data collection would be restricted through mid June to mid August (monsoons) and December to March (winter). The identification, consultation, and training of partner groups took considerably more time than any other activity in the research process.

Once collaborations were finalised with partner organisations, field investigators needed to be trained in data collection and analysis. The investigators who were trained were primarily women, many of whom were high school and university students, and lived in the local area. Data collection was jointly supervised by PRIA and the partner organisations.

Through consultations with the partners it was decided to collect the following data from forest dwellers – the period and extent of deforestation; the causes of deforestation; the reactions of forest dwellers towards the forest department; the nature of forest contracting system; the knowledge and awareness of forest dwellers about forest policy and rules; the past, the present and system needed in the future for protecting forests. The investigators became aware of these problems during the training, learning to observe and use participatory methods of collecting data from their own communities.

Several participatory methods of data collection were evolved in the training workshops. These included a simple four-page questionnaire in Hindi seen as a base for collecting the socio-economic background and forest data; individual interviews with forest dwellers before, during and after filling up the questionnaire for obtaining their perceptions; group discussions with forest dwellers for self-correction and for raising awareness amongst forest dwellers; physical verification of remaining forest cover; cultural methods like
role-plays and poster-making; and maintaining a diary by each local investigator for noting additional information and submitting a report on the study as well. Interviews with nearly a dozen government officials of the forest department and Himachal Pradesh State Forest Corporation were also conducted. Additionally, secondary data from several government reports and gazette records were collected.

Primary data was collected from 710 forest dwellers from Chopal-Simla district, Chamba and Sundernagar-Mandi districts. Bulk of the respondents were poor forest dwellers, engaged in subsistence agriculture on minimal agricultural land which they owned. They were largely young (20-50 years) and illiterate.

The qualitative and quantitative data collected was analysed and presented to the local villagers. The knowledge of the people who resided in and used the forests revealed that forest cover 10 years ago was three times thicker in comparison to the year when the study was conducted. The average of 8.59 trees per bigha (0.2 acres) in all three study locations was markedly less than what existed 5-10 years ago. Deforestation was going on for a longer time in Chamba and Sundernagar, and more recently in Chopal. Despite this historical trend, the average number of trees per bigha (0.2 acres) of land per family was lowest in Chopal, medium in Chamba and highest in Sundernagar, showing that rate of deforestation was rapid in Chopal. Random physical verification of actual tree cover found that average distance between two standing trees was about 60 ft in all the three study areas.

The diaries of the research investigators indicated that older respondents used to avoid going deep into the forest 10-15 years ago and would often lose their way. Now, these experiences seemed like fairy tales to the younger generation given the destruction in tree cover. The respondents were aware of the detrimental effects of deforestation such as soil erosion, landslides, etc. and the impact this had on their lives found mention in all individual and group interviews.

The government officials and forest dwellers gave different causes for the deforestation. The former primarily attributed deforestation to grazing of cattle, firewood collection and timber distribution (TD) rights that were granted to forest dwellers. They claimed that forest dwellers abused their TD rights indiscriminately (because timber was given to them at throw away prices), leading to illegal felling of trees.
However, in contrast, forest dwellers felt that corruption in the forest department was rampant, which was the major reason for deforestation caused by illegal felling of trees. Four-fifths of the deforestation was caused by felling primarily for commercial use, which was not done by the forest dwellers. It was their experience that forest officials asked for at least two additional trees to be cut, when they requested sanction to cut one tree based on their TD rights. Even though forest dwellers were aware of the environmental damage due to deforestation, many argued that if they did cut a fourth tree for themselves, it was because they were learning the commercial benefits of illegal felling from corrupt forest officials. In the opinion of one resident of Chamba, the number of trees being cut was 4 to 5 times what local communities required; in any case local villagers could not cut a tree without permission from the forest department.

The forest dwellers had a negative opinion of forest contractors, based on prior negative experiences and the harassment they faced. Contractors, who mainly hailed from neighbouring states and had political connections, were largely responsible for the illegal felling of trees. Some respondents directly alleged that the government was involved with the contractors in illegal felling. The contract labour brought by the contractors was also from outside the state. Thus, there was a system of forest contracting in these areas which was primarily controlled by an outsider contractor using outsider contract labour, with very little involvement of the local forest dwellers.

In terms of their reactions towards the forest department, an overwhelming majority (94%) of respondents believed that the primary role of the forest department was protection of forests. While some felt the behaviour of forest officials was good towards them, 65% felt the forest officials did not treat the local forest dwellers with respect, which was substantiated by stories, examples and experiences. In the in-depth interviews, there was greater criticism of the forest officials. The local forest dwellers were largely unaware of existing forest policies and rules.

For future protection of trees and forests, most respondents wanted a more effective government system of protection. They believed that in the current system, protection of forests was a government responsibility; people’s role in protection of trees was seen as negligible. However, several wanted a more active role for local forest dwellers in protecting forests. They welcomed the system that existed in the past which gave a clear role to local people and were showed willingness to participate and share the responsibility with the officials in protecting the forests, but would like to see duty-conscious, honest officials to check illegal felling of trees.

This study highlighted that the government officials pointed fingers at the forest dwellers who were given TD rights, while the forest dwellers knew that two-thirds of the deforestation (on a conservative estimate) was due to felling for commercial industrial interests through a system of contractors. The deforestation caused by forest dwellers was traced to two reasons – change in land ownership patterns leading to land alienation and marginalisation of small land holding forest dwellers, and, second, the nexus of contractor-official-politician making profits from illegal, indiscriminate tree felling that had a corrupting influence on the local forest dwellers. Worse still, was the lack of knowledge among forest dwellers of existing forest policy and rules, and a strong dependency on the state machinery for protection, devaluing the role of communities and people’s knowledge in protecting forests.

Communication of the research findings had to be done keeping in mind the two goals of the study, being building awareness and influencing national policy. For this, one study report was prepared in English with tables and appendixes reflecting the data, while there was another, more illustrated document in Hindi for the forest dwellers and local investigators.
A difficulty faced by the researchers was balancing the aforesaid twin-objectives, since the two required different tools and approaches of data collection and analysis. This tension continued throughout the study. One of the major consequences of this tension was the inability to maintain originally planned time schedules. The time schedules also had to be matched with the needs of the local partners and forest dwellers, making the use of participatory methodology more time consuming and expensive.

The quality of data gathered was authentic and reliable. Where the relationship of the partner with the local community was strong, data was of high quality. But where the existing relationship was weak, the study did contribute to the enhancement of that relationship.

The study made important contributions to the capacities of the local partner organisations as it made field workers a little more active in analysis and reflection. The partner organisations and groups became more perceptive about forest issues after being involved in the study. They were conscientised about the problem of deforestation, based on knowledge from the people, and some even mobilised for action. Initially they did not believe that the PRIA team was serious about actively involving them in the entire research process. When they were asked to analyse and prepare brief reports from their villages, they resisted. This also showed the inadequate capacities among fieldworkers in smaller organisations to engage in serious self-reflection and critical analysis by themselves and the comfort they felt in abdicating that function to others, mainly “experts” from outside.

The participatory research process with forest dwellers and local partner organisations was able to build new knowledge based on the experiences and lived realities of the people, while sensitising and igniting the agency of forest dwellers and local organisations towards the issue of deforestation in Himachal Pradesh.

**Worker’s Perspectives of Health Hazards in Refractories in Rajgangpur**

Refractory bricks for lining furnaces are made of silica sand, and the lining needs to be renewed at regular intervals by digging out the old bricks. The regular handling and inhalation of silica dust by refractory workers causes silicosis, a respiratory illness which proves fatal if not diagnosed early and treated correctly. The level of risk depends on concentration of dust in the atmosphere, percentage of free silica in the dust and the duration of the exposure. Silicosis is often misdiagnosed as tuberculosis. While tuberculosis is frequently combined with advanced forms of silicosis, pure silicosis can proceed to the most severe forms without any tuberculosis.

In the early 1980s, PRIA had begun efforts towards mobilising and building awareness of workers and unions on various issues of workplace health and safety, including their right to diagnosis and treatment of silicosis based on the laws and legislation that had been implemented by the Government for their benefit. As the cases of workers suffering from silicosis rose, so did the issue of misdiagnosis and the lack of awareness and knowledge amongst workers. A participatory survey among workers in Orissa Cement and Refractory Limited in Rajgangpur, an industrial town situated in the Sundargarh District of Odisha, was carried out to raise the visibility of the occupational health hazards faced by silica workers.

In terms of methodology, the survey was carried out in a three-day camp at the union office. Information was spread among the workers across several mills that occupational history would be recorded and tests would be conducted on these days. In this effort, members of the Sundergarh Industrial Mazdoor Union participated. The union took the responsibility of not only mobilising the workers but also for following
up with officials of the Employees State Insurance Scheme (ESIS) and the state government for filing compensation claims based on the medical test reports of affected workers. Announcements were made in the Orissa Cement and Refractory Limited mill and the quarters where the workers resided that examination of the workers specifically from the refractory section was planned.

No special technique was used in selecting the workers for this study. From the total workforce of 2000 across factories, 170 workers, majority in the age group of 30-41 years, mostly males, from various departments came forward to be examined. The departments where workers were more prone to silicosis were given importance, with the largest section being taken from the silica mill house. A total of 72.9% of workers had worked more than 11 years in this department while a mere 7.1% were in service for less than 5 years. Within the total sample, 94.1% were non-smokers.

PRIA’s research team had contacted the National Institute of Occupational Health (NIOH) in Ahmedabad for a questionnaire that could be used. The original NIOH questionnaire was suitably modified for this research study. The questionnaire included questions about the worker’s occupational history, cough, chest complaints, breathlessness and sputum.

The ESIS medical board had earlier rejected workers’ claims for compensation as there were no Lung Function Test (LFT) reports. The union had no access to the LFT – the test was not available in the local ESI hospital, and the union could not pay the cost for the test in the public hospital. PRIA’s support as part of the study was to provide access to the LFT in the camp.

The LFT was conducted and the results were given in digital readings. Every worker was first explained the way the equipment functioned, followed by a demonstration and then readings for each worker was taken three times with the highest reading being recorded. Any worker recording FEV1/FVC% more than 80% was considered normal, if his or her occupational history and reported symptoms also matched the reading, while FEV1/FVC% of 80% or lower was classified as a worker suffering from lung disease.

The LFT reading was correlated with the worker’s experiences of chest complaints. Most took leave when the pain became severe, but 70% said they suffered from chest complaints on all working days. On average, over half the workers coughed when they got up, and threw sputum immediately after getting up in the morning; only 35% workers had normal flow of breath.

A very high percentage of workers (79.4%) stated that their workplace was too dusty and nearly two-thirds (64.1%) stated that even when the machines in their department were not being operated the dust remained in the air as it came from other departments. Since the last 18 months, the management had
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started providing cloth masks to some workers; in the absence of these, the workers would use their own face cloths (often wetting them) to cover their nose. Over three-fourths admitted that no facility for dust suppression existed and nearly one-fourth of the workers felt that even if the management did install mechanisms it would be ineffective.

A major revelation from the data collected from the workers was that as the service span of the worker increased, the breathlessness grade also increased. Second, as the age of the worker increased, the lung function decreased. Most importantly, those working in the silica mill house were the most affected; it was the most dusty department in the whole plant.

The findings of this survey highlighted that as the dust levels at the plant were higher than permissible limits, cases of silico tuberculosis could not be ruled out. Workers had higher prevalence of chronic bronchitis, tuberculosis, and emphysema. X-rays, available for some workers who has been diagnosed as tuberculosis patients or their claims rejected by ESIS, showed nodular formations on their lungs, indicating the presence of silicosis and silico-tuberculosis. In fact, in almost all departments, workers suffered from chronic obstructive lung disease.

The ESIS medical board had rejected many claims for compensation on the grounds that LFT readings were not positive proof of silicosis. Using secondary research to corroborate, the research highlighted that LFT readings cannot be considered to be specific and can alter in a variety of conditions. In this study, since most workers were being tested for the first time, and those who had been working in the mill for several years were already suffering respiratory disorders, they were not able to blow into the meter at full capacity. The recommendations as part of the study suggested that ESIS as well as the state government of Orissa should conduct thorough medical check-ups of workers in the plant.

The findings of the study were based on physical and experiential data collected from the workers. PRIA’s knowledge role in synthesising a worker’s own lived experience with secondary knowledge from other sources played a pivotal role in exposing the health hazards and poor working conditions that the refractory workers in Rajgangpur were experiencing. The study findings contradicted the study of Vestbo (Vestbo and Rasmussen 1990) in which he concluded that long term exposure to cement dust did not lead to higher morbidity of severe respiratory disease than any other kind of blue collar jobs. PRIA’s study found that majority of workers who went to the ESI hospital or in any local hospital for treatment were linked directly or indirectly to cement production. The use of authentic, comprehensive data in this study based on workers’ knowledge highlighted conditions that needed to change for workers’ health and safety. The study became foundational for future studies conducted by PRIA with workers in cotton mills, construction industry, slate mining, small scale foundries, beedi workers, etc.

Building Sorrows: Assessing Workers’ Health and Safety in the Construction Industry in Bombay

The construction industry in India comprises the second largest economic activity next to agriculture. It absorbs the largest number of unorganised labour force as informal workers. Lack of implementation of
labour laws, inefficiency of the implementing authorities, lack of awareness among the workers, unorganised nature of employment and lack of attention on the part of the trade unions and politicians makes the informal worker more vulnerable.

In 1997, PRIA and NIRMAN collaborated in carrying out research to assess the health problems of construction workers based on workers’ perceptions. The study also focused on the accidents and safety at construction work sites – not much data was available on this aspect.

At the time the study was undertaken, New Bombay (Navi Mumbai) was being developed as a satellite city under the authority of CIDCO. Six major sites from Vashi to Belapur in New Bombay were chosen for data collection, namely, Vashi Railway Station, Belapur Railway Station, Mass Housing-Nerul, Mass Housing-Juinagar, NRI Site-Nerul, and Nodal Development-Sanpada.

There were approximately 5000 workers working in four major areas in New Bombay on CIDCO sites. The study decided on a 10 percent sample of this workforce (i.e., 500 workers). All types of workers were to be surveyed – male, female, skilled, semiskilled, unskilled. Preliminary information regarding the number of sub-contractors working for each company was also collected. The sample of 500 workers was divided among 100 contractors across different construction sites.

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<tr>
<th>Source of Income</th>
<th>Workers</th>
<th>Percent</th>
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<tbody>
<tr>
<td>First job in Construction</td>
<td>14</td>
<td>2.8</td>
</tr>
<tr>
<td>Construction &amp; Agriculture</td>
<td>258</td>
<td>51.6</td>
</tr>
<tr>
<td>Construction &amp; Other</td>
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<tr>
<td>Only Construction</td>
<td>208</td>
<td>41.6</td>
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<tr>
<td>Total</td>
<td>500</td>
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Data was collected through individual interviews, focused group interviews and observation techniques. Since the data collection was done on the construction sites, data was collected during the working hours with the employers’ permission. This was a major limitation of the study since the research team did not get sufficient time to interact with the workers to brief them about the interview.

Majority of the workers interviewed were young (below 40 years), migrant male workers, who had not brought their families with them to the city. Unfortunately, only 47 (9.4%) women workers could be included in the survey, as it was extremely difficult to locate women and they were reluctant to be interviewed due to cultural barriers.

The workers had no fixed hours of working, with limited rest (most got only an hour’s break for lunch). They had no written documentation or work contracts, relying on the daily attendance recorded by the mukadam (site engineer) as proof of having worked on the site on a particular day. Majority never signed a muster roll or the attendance register, meaning there was no legal proof of their work.

Safety equipment was not given to all workers; it was primarily provided to those who were considered more “unskilled”, or when a worker specifically asked for it. A worker asking for safety equipment they were entitled to depended on the level of awareness of the individual worker.
Workers were reluctant to share information regarding accidents on site. Even though interviewers tried their best to develop a rapport prior to the interviews, the workers felt uneasy answering questions related to accidents and deaths. It was observed that workers were not encouraged and were in fact pressurised into not sharing information on accidents as it was related to legal issues. Some workers who did feel comfortable, revealed that money given by the company at the time of an accident to meet medical expenses, was later deducted from the worker’s salary.

Workers tended to ignore health problems, until it became an emergency. Several suffered from respiratory problems; others had recurring bouts of malaria. Majority of them said that the problem of chest pain was acute when they had to walk up to higher floors in a building under construction or when they were involved in heavy work. Skin ailments, eye problems due to working in the sun without protective shades, and joint and body ache were common, as reported by the workers. The women workers interviewed shared information about problems with irregular menstruation, frequent abortions, and other gynecological problems. During pregnancy they did not get any maternity leave. They were either sent back to their villages or they delivered the baby at the site itself.

The study on Occupational Health Problems of Construction Workers in New Bombay was a unique experience for the research team as well as for the workers. Since construction workers are mobile in nature with no continuous employer-employee relationship and with hardly any records, it was not easy task to follow up with the workers to improve their working conditions.

**Beedi Workers in Gwalior Make Public Their Working Conditions**

Beedi making is a manual process but requires skill for neat and even turn out. The rolling of the beedi is the first step in beedi making. The beedi worker obtains tendu leaves and tobacco powder from the owner or contractor, rolls it, and is paid on a piece-rate basis. It is a home-based industry, in which over 75% of the workforce are women.

The poor status of beedi workers was revealed from the statistics released and issues raised by the All India Beedi, Cigar and Tobacco Workers’ Federation during its eighth national convention in January 2001 at Mangalore. There were over 75 lakh (7.5 million) workers directly employed by the beedi industry while another three crore (30 million) were indirectly dependent on it. The industry was widely spread in Bihar, Uttar Pradesh, Madhya Pradesh, Orissa, Maharashtra, Andhra Pradesh, Tamil Nadu, Kerala, West Bengal, Rajasthan and Karnataka.
The problems facing the industry included the need for a uniform national minimum wage policy, and anomalies in the tax policy wherein concessions were doled out to small beedi manufacturers. The workers were demanding from the government that a committee be set up to look into their living and working conditions.

PRIA with the help of Centre for Integrated Development (CID), Gwalior undertook a survey among beedi workers in Gwalior to highlight the living conditions of beedi workers, to review existing intervention strategies, and work out a long-term sustainable intervention to improve working conditions.

A preliminary interaction was initiated with beedi workers and management of a beedi factory in Gwalior over one month. On the basis of the preliminary interaction, a questionnaire was prepared for carrying out a door to door survey (between October and December 2000) in different locations all over the city. The 200 female beedi workers surveyed were primarily young, married, uneducated, and belonged to lower castes. On average, they had been working in this industry for nearly 15 years. Majority suffered from some occupation health-related problem — tuberculosis, asthma, chest pains were common. PRIA’s survey did not cover the aspect of reproductive health and gynaecological problems, though others’ findings from secondary sources were included in the final report.

It was evident from this study that due to the socio-economic conditions of these women workers, they were being exploited. They were not being given facilities as per the Beedi Workers Welfare Fund (BWWF) Act, 1976, a legal constitutional measure to ameliorate the living and working conditions of beedi workers. Awareness among the workers of their rights as laid out in the Act was minimal.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Disease</th>
<th>Lashkar</th>
<th>Morar</th>
<th>Rasulabad</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Respiratory Problems</td>
<td>9</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>2.</td>
<td>Pain in joints and backache</td>
<td>10</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>3.</td>
<td>Pain and numbness in fingers</td>
<td>8</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>4.</td>
<td>Dizziness and numbness</td>
<td>9</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>5.</td>
<td>Cuts on fingers</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Diminished eyesight</td>
<td>18</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>7.</td>
<td>Dermatological problems</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The study findings were shared in a multi-stakeholder workshop on “Problems of Beedi Industry and Intervention Strategy for Solutions” (held in June 2001). The workshop was attended by non-governmental organisations, beedi manufacturers, and trade unions active with beedi workers. It was chaired by the Assistant Labour Commissioner, Gwalior.

An outcome of the workshop was the recommendations for an intervention strategy that would deliver the benefits proposed under the BWWF Act. The action plan proposed awareness raising among beedi workers on the provisions and rights of workers as laid out in the Act; mobilising the workers to interact with various regulatory bodies, industry management committees, and trade unions to access benefits under the BWWF; orientation and training on the occupational diseases related to the beedi industry for doctors in the public dispensaries and private doctors in and around the beedi making clusters; and developing a strategy to promote sanitation and hygiene.

The study findings used to develop an action plan for delivery of the benefits under BWWF was a visible path towards a solution of the problems beedi workers faced. Involvement of workers in sharing the study findings was instrumental in making them aware of their rights and entitlements as workers, and involving them in collectivising efforts.
Protection from AIDS: Assessing Occupational Health And Safety Standards In Large Hospitals in Bombay

AIDS (Acquired Immune Deficiency Syndrome) was first identified in 1981. By the 1990s, the rise in the incidence of AIDS was alarming in India. In Maharashtra, especially Mumbai, the percentage of HIV+ persons was higher than the all-India average. Some sample studies reported the percentage in Mumbai to be 7 times higher than other states.

In 1999, PRIA conducted a participatory study on ‘AIDS and Health Care Workers’ in collaboration with American Centre for International Labour Solidarity (ACILS), the Municipal Mazdoor Union (MMU) and the Nursing and Paramedical Staff Union (NPSU). Three large hospitals of the Bombay Municipal Corporation were selected – KEM hospital at Parel, the TB Hospital at Sewri, and Nair Hospital in Central Mumbai. These hospitals annually catered to 66,000 in-door patients and 790,000 out-patients at the time of the study.

The purpose of the study was to understand directly from health care workers in these hospitals (initially with doctors and nurses; later with employees at different work-stations such as dispensaries and laboratory technicians) the practices they followed to avoid getting infected and what risks they faced when they came in contact with body fluids of patients diagnosed with HIV/AIDS; and the work culture that had direct bearing on their occupational health and safety. Based on their knowledge of working daily with HIV infected and AIDS patients, a broad set of recommendations would be outlined to enhance the health workers’ coping strategies and strengthen technical and managerial processes in the hospitals.

The study began with a broad literature survey from secondary sources and preliminary discussions with the office bearers and activists of MMU and NPSU. A questionnaire was piloted and finalised with the help of select employees in all the three hospitals.

One hundred questionnaires (41 female and 59 male) were administered. Nurses formed the dominant part of the respondents (as they are directly involved in the treatment and care of the patients) followed by laboratory technicians as they also came in close contact with infected body fluids as part of the patient’s examination. Majority (84%) of the respondents were married.

Data collection methods included observation of work procedures and personal interviews to further explore relevant details emerging from initial analysis of the questionnaires.

There were many jobs in these hospitals, apart from doctors, nurses and lab technicians, where contact with blood, urine, saliva, liver extracts, and other body fluids was a reality. The dressers who cleaned and dressed wounds came in contact with puss and blood. In the labour room, nurses came in close contact with fluids in the uterus. These were real hazards hospital health care workers were facing every day. In the treatment of a patient, contact with blood was most common. A very high percentage came in contact with other body fluids many times a week.

Injuries from sharp edged instruments or broken glassware was an everyday occurrence for several nurses and laboratory technicians. Commonly, minor as well as severe cuts occurred when the ICD (Internal Coastal Drainage) bottles, test tubes and slides broke when they were being washed. Minor cuts were considered routine, and neglected. Barbers, who were responsible to shave patients before an operation, also reported getting cut many times.
Personal protective equipment is an integral part of the health care profession. Protective equipment includes items like gloves, foot covers, goggles, masks, etc. A majority of the respondents reported contact with bodily fluids on a regular basis without the use of any personal protective equipment. Gloves were the most common protective equipment available, but over two-thirds of the respondents reported that the size made available did not fit them properly – the size was too large for their hands, allowing fluids to enter the gloves from the sides and touch their skin. The quality of the gloves was below standard. Sometimes the gloves were torn, which the health care worker realised only when fluids touched their palms. Sweepers required sturdy, industrial gloves to handle their work but they were issued thin, bad quality, disposable gloves.

Quality of footwear and masks was poor, and googles were not available. The cotton masks that were provided had to be reused after washing. They did not get disinfected properly.

Other general protection measures such as providing antiseptic soaps and provision of lead aprons were neglected. Lead aprons were not provided to everyone who was exposed to X-rays or nuclear radiation. Radiation badges necessary when portable X-ray machines were in use were not provided.

No special training and necessary precautions that needed to be taken regarding cadavers of ADIS infected patients was provided to the employees. Everyone learnt how to protect themselves on the job.

Medical check-ups and inoculations for employees, especially for those who were treating HIV-infected and AIDS patients, were not regularly done. Testing for HIV/AIDS, hepatitis and tuberculosis was limited. Hospital workers who had tested HIV+ were asked informally to stop coming to work by the hospital administration. This official apathy resulted in most employees not wanting to undergo an HIV test.

An important finding of the study was the stigma attached to HIV/AIDS even among hospital staff. Several of them believed, “HIV infection is associated with people with immoral behaviour.”

The systematisation and analysis of the lived experiences of health care workers attending to HIV/AIDS patients in three municipal hospitals in Bombay was instrumental in suggesting changes in hospital procedures and processes. Staff were keen to set up Health and Safety Committees, comprising of both employees and supervisors. Such a committee could play an important role in ensuring compulsory training for all levels of staff, review the practices regarding waste disposal mechanisms, and support regular health and safety audits. Frequent medical check-ups and inoculations were also recommended as essential.

Considering the increasing number of AIDS cases, a participatory Infection Control Committee was suggested, and proper protective equipment to all employees who face the real risk of exposure be made mandatory, recommending funds for this could be tapped from under various government AIDS control programmes.

### Conclusion: Valuing People’s Knowledge For Change

There is a very close link between knowledge and mobilisation to act to solve a problem. Participatory research to mobilise people’s knowledge for change essentially involves:
People’s involvement in the process of research

Respect for people’s own capability and potential to produce knowledge and analyse it

Linking production of knowledge and their engagement in the research process to raising awareness among the participants, enabling them to come together to understand a problem

Shared data collection and analysis, leading to plans to take action

The knowledge outcomes of Participatory Research include:

- Systematising local, experiential knowledge
- Sharing the findings brings people’s knowledge to the attention of multiple stakeholders, making implementation of government policies, laws and rules more people-centred
- Building new knowledge by synthesising people’s existing knowledge and expert (scientific) knowledge
- Knowledge is used to motivate people to create solutions together, to solve some concrete problems in their daily lives – as a community, and as a society through increased awareness

The studies described in this paper illustrate these knowledge outcomes in several ways.

**Systematising local, experiential knowledge**

- The census of pavement dwellers in Bombay was a “people’s census”, a count “by the people, of the people”, which systematised data related to the reasons for migration to the city, their length of stay in the city, the reasons why they live on footpaths, their contribution to the city’s economy, and what they wanted as a solution. What became clear from the census findings was that a staggering 6000 families would likely be affected by large-scale evictions if the Supreme Court judgement was implemented. This findings helped make them visible not only to the courts and municipal authorities, but to the middle class residents as well.
- The study in Himachal Pradesh was the first large scale study of deforestation where participatory research methodology was applied. The experiential knowledge of those who lived in and off the forests revealed the vast scale of the problem of deforestation, the pace of deforestation, detrimental effects of deforestation such as soil erosion, landslides, etc., and the impact this had on their lives. The knowledge of forest dwellers highlighted that two-thirds of the deforestation (on a conservative estimate) was due to felling for commercial industrial interests through a system of contractors, challenging the official narrative that the cause of deforestation was due to the TD rights given to the forest dwellers.
- The participatory survey in Orissa Cement and Refractory Limited in Raigangpur raised the visibility of the occupational health hazards faced by silica workers, drawing on the workers’ first-person testimonials of the high level of dust in the factory (which they were inhaling constantly), their difficulties when they woke up each morning (coughing, sputum), and the lack of protective equipment provided to them.
- Narratives of construction workers highlighted the precarious working conditions under which they work, the vulnerability of informal workers in the construction industry in particular, and those of migrant workers in general. The workers also shared their experience of accidents and safety at construction work sites – not much information was available on this aspect in the public domain (at the time).
- The report of the AIDS study brought together the experiences of doctors, nurses, laboratory technicians, sweepers, barbers, and several other employees working in municipal hospitals in Bombay. It revealed that there were many jobs in these hospitals, apart from doctors, nurses and lab technicians, where contact with blood, urine, saliva, liver extracts, and other body fluids was a reality.
In the absence of structured trainings and protective equipment, the AIDS study discovered how health care workers who were at risk learnt to protect themselves through everyday practices to avoid getting infected and what they did when they came in contact with body fluids of patients diagnosed with HIV/AIDS.

The study on the “Problems of Beedi Industry and Intervention Strategy for Solutions” presented the lived experiences of women beedi workers, highlighting their precarious working conditions. This community data supported the statistics released by the All India Beedi, Cigar and Tobacco Workers' Federation.

**Synthesising new knowledge**

- The pavement dwellers census, for the first time, gave a valid universe within which fresh surveys could be conducted with precision in sampling design.
- The census of pavement dwellers revealed for the first time that these people were supporting the city with a vast pool of cheap labour that organised labour wouldn’t like to do, but were hugely under-valued and were considered to be a burden to the city’s economy.
- The ESIS medical board had rejected many claims for compensation of silica workers on the grounds that LFT readings were not positive proof of silicosis. The findings of PRIA’s study relied on secondary published scientific research to prove that LFT readings cannot be considered to be specific and can alter in a variety of conditions. This methodology of synthesising lived experience with scientific knowledge played a pivotal role in exposing the

**Bringing people’s knowledge to the attention of multiple stakeholders**

- “We, the Invisible: Census of Pavement Dwellers” was used to influence policy makers’ decision in favour of pavement dwellers, highlighting the need for city planning to take cognizance of further in-migration, and develop housing policies and schemes that actually benefit those for whom they are made.
- The research finding of the deforestation study in Himachal Pradesh were presented in two reports – one in English with tables and appendixes reflecting the data, used to advocate with national level policy makers; the other in the local language (Hindi) with several illustration for the forest dwellers and local investigators.
- The findings of the beedi workers study were shared in a multi-stakeholder workshop chaired by the Assistant Labour Commissioner, Gwalior. The workshop was attended by non-governmental organisations, beedi manufacturers, and trade unions active with beedi workers. An outcome of the workshop was the recommendations for an intervention strategy that would deliver the benefits proposed under the BWWF Act.
- Members of the Sundergarh Industrial Mazdoor Union participated in the survey of silica workers. The union took the responsibility of mobilising the workers and following up with officials of the Employees State Insurance Scheme (ESIS) and the state government for filing compensation claims based on the medical test reports of affected workers.
- Based on the knowledge of health workers working daily with HIV infected and AIDS patients, recommendations were made to change the work culture that had a direct bearing on the occupational health and safety of hospital workers. A broad set of recommendations outlined how to improve the health workers’ coping strategies and strengthen technical and managerial processes in large hospitals.
- Meetings held with pavement dwellers provided them with ownership of decisions regarding the census. They discussed issues regarding the need to do a census, advantages of the undertaking, why they were invisible, how the information should be used, to whom it should be addressed.

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health hazards and poor working conditions of the refractory workers. Such methodology became foundational for future studies with workers on occupational health and safety issues conducted by PRIA.

- PRIA’s support as part of the study with silica workers provided the unions with access to the Lung Function Test. The union had no access to the LFT as it was not available in the local ESI hospital, and the union could not pay the cost for the test in the public hospital.
- The questionnaire used by the National Institute of Occupational Health (NIOH) in Ahmedabad was suitably modified for the research study with silica workers.
- An important finding of the study in Bombay’s hospitals was the stigma attached to HIV/AIDS even among hospital staff.

Use of knowledge to motivate people to create solutions

- The information generated by the pavement dwellers contributed in a big way towards ensuring that mass demolitions did not take place. Over 600 families in E-Ward, spearheaded by women, took the initiative to plan and design an entire settlement for themselves and demand land in a suitable location to make their dream a reality.
- In Himachal Pradesh, the field investigators and partner organisations became aware of the problems and causes of deforestation during the survey training, learning to observe and use participatory methods of collecting data. Participating in the study made important contributions to the capacities of the local partner organisations as it made field workers a little more active in analysis and reflection. The partner organisations and groups became more perceptive about forest issues after being involved in the study.
- The local forest dwellers who were largely unaware of existing forest policies and rules became aware of them during the data collection and from the survey findings that were shared with them. They were motivated to participate in setting up a more effective system for future protection of trees and forests. Several of them wanted a more active role for local forest dwellers in the system, like the one that existed in the past which gave a clear role to local people, and were willing to share the responsibility with the forest officials.
- Involvement of workers in sharing the study findings in a multi-stakeholder dialogue was instrumental in making beedi workers aware of their rights and entitlements as workers, and in collectivising efforts by unions.
- The systematisation and analysis of the lived experiences of health care workers attending to HIV/AIDS patients in municipal hospitals in Bombay was instrumental in suggesting changes in hospital procedures and processes. Staff were keen to set up Health and Safety Committees, comprising of both employees and supervisors, to ensure compulsory training for all levels of staff, review the practices regarding waste disposal mechanisms, and support regular health and safety audits. Frequent medical check-ups and inoculations were also recommended as essential.

Bibliography


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