

# **HOUSING AND WORK IN THE SAME SPACE: THE SPATIAL IMPLICATIONS OF HOME-BASED ENTERPRISES IN INDIA AND INDONESIA**

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## **Abstract**

This paper will examine the effects of HBEs (home-based enterprises) on the home and neighbourhood environment in two Asian countries to see whether they create the spatial crowding assumed by planning regulations. Through a DFID-sponsored research study involving case studies in India and Indonesia (in 1999), we explore how important HBEs are to household economies, and their spatial and quality implications in the dwellings in two contrasting circumstances – where space is very scarce and where it is less so. We find that, in very tight spaces, HBEs can have considerable effects on households' use of domestic space and on the neighbourhood, even though they use very small spaces. In less constrained circumstances, however, their effects can be relatively benign. Through this, we try to inform the debate about whether HBEs should be encouraged by policy instead of being classed as illegal, and consequently discouraged or controlled. The paper proposes spatial elements of a strategy to facilitate income generation in the home by poor households.

## Introduction

The environmental effects of HBEs are inevitably a many faceted topic including crowding, pollution, noise, and other matters. Though we have examined this broad spectrum in our study and report some of them elsewhere [e.g., (Tipple et al., 2002)], this paper concentrates on spatial issues within and immediately adjacent to the dwelling.

The work reported here focuses on case studies from three continents and four countries.<sup>1</sup> Surveys were carried out in neighbourhoods in Cochabamba, Bolivia; New Delhi, India; Surabaya, Indonesia; and Pretoria, South Africa. In each study, we interviewed about 150 households with HBEs and about 75 without HBEs living in the same study areas. In our Indian case study, we focused on a long established densely packed and labyrinthine, upgraded squatter settlement, Bhumeehen Camp, in the south of New Delhi. Very little servicing has been provided, only paved streets, drains and some water supply. Our Indonesian case study, Kampung Banyu Urip, is a squatter settlement to the south of central Surabaya. It was upgraded in the 1970s and is fully serviced. It is known throughout Java as a mask-making centre.

In the following, we examine the two Asian case studies to see how HBEs affect the living conditions in the dwellings. Occasionally we compare HBE operators' dwelling conditions with those of non-HBE operator households. This is especially effective in this context to see whether the effects of the HBE lead to worse conditions, particularly with reference to the space occupied.

There have been many previous studies of HBEs in Asia, including Berger and Buvinic (1996); Burra (1989); Ghafur (2001 and 2002); Lall (1994); Mahmud (2003); Mies (1982); Pineda-Ofrenco (1990); Raj and Mitra (1990); Singh and Kelles-Viitanen (1987) and Willems (1996). It is evident in them and in all our case studies that HBEs greatly increase the employment opportunities for low-income households

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<sup>1</sup> The study "Environmental Effects of Home Based Enterprises" was sponsored by the UK Department for International Development, DFID Research No. R7138, 1998-2001. Opinions expressed in this paper are those of the authors only.

especially for women.<sup>2</sup> In all our case studies, at least 50 per cent more women work in HBE operating households than in those without an HBE. There are also improvements in the work participation for men.

At the means (and medians), HBEs in our Asian case studies provide work for a proprietor and one other worker. They also show respectably more income for HBE households than their non-HBE operating neighbours, especially at the means. In India, HBE households are 27 per cent better off than their non-HBE counterparts at the mean; in Indonesia the corresponding figure is 36 per cent. Where they occur, HBEs are obviously very important contributors towards the household incomes. In the India and Indonesia samples, they provide almost 60 per cent of the households' income. 37 per cent in India and 33 per cent in Indonesia have no other income.

Thus, HBEs are important for the households' incomes and quality of life. Without them, many would be severely hampered and it would be beneficial if policy could take account of this when considering any harmful effects they may have. For example, it may be better for a household to endure poor spatial conditions than be plunged into dire poverty by having their livelihood removed. Such arguments and the trade-offs households make among their various assets coming to their own decisions, are at the heart of the current livelihoods discourses (e.g., Rakodi and Lloyd-Jones, 2002).

### **Space available in the home**

The two Asian samples in our study are very helpful in the study of the effect of HBEs on space. They differ quite markedly one from another, reflecting the housing conditions of low-income settlements there and giving very good indications of how HBEs affect housing space both where there is little domestic space and where it is more generously available.

In the Indian case study dwellings are very small, covering the whole of the tiny plots, abutting other dwellings at the rear and sides. They are single or two storey

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<sup>2</sup> Though there is an obvious debate as to how far women benefit or just have to take on more duties and responsibilities. This is especially so in outworking in which home-based workers carry out part of a larger production process for larger enterprises, generally through middle-men.

constructions accessed from the front off narrow pedestrian lanes. They have a mean of 10.8 square metres divided into few rooms; about one third have only one room. They accommodate a mean of 5.3 people and the HBE. When the paucity of open space and the narrowness of the streets are added to the picture, we can see how crowded they are. Indeed, the very small dwellings generate occupancy rates of 3.3 people per room at the mean and 2.5 at the median. They also demonstrate that, at least in India, lack of space is not an obstacle to operating an HBE. The non-HBE sample has smaller dwellings (by about 20 per cent or 2.2 square metres at the mean) but similar numbers of people per room.

Households in the Indonesia sample have a mean of almost 60 square metres with almost the entire plot covered with built space. Some are very large with 9 per cent having more than 100 square metres (maximum = 225 square metres). They have a mean of six rooms; 58 per cent have six or more rooms and only one per cent have only one room. There is very little difference between HBE and non-HBE households: non-HBE operators have about 10 per cent less space and one room fewer. Occupancy rates of about one person per room at the mean (only slightly worse for non-HBE households) are very low in comparison to India.

The seriousness of crowding comes out in the India case when we consider space per person. HBE households have a mean of only 2 square metres per person and only 1.7 square metres at the median; 82 per cent have less than three square metres per person. These are tiny amounts of space but not untypical of urban India. Non-HBE households have even less space but only marginally so. In contrast, our Indonesia sample has a generous 13 square metres per person at the mean.

## **Use of home for HBEs**

### **Number of rooms and space used for HBE**

Space is a fundamental resource in the operation of HBEs and is included in Lipman's (1980) list of fungible assets which make the home a valuable place in which to carry out economic activities. Space can be measured as discrete spaces (usually rooms) or as square metres available, each giving a different indication of conditions. The subdivision of a dwelling into rooms facilitates the separation of people and activities.

Different subdivision of the same amount of space in different ways can change the usefulness of the space available. A small, separate space for a shop or a workshop next to a living room provides a very different environment from the equivalent space as part of a larger, general purpose, room. There are issues of privacy for the household when customers or workers are around, or of noise, fumes, danger, etc., from the HBE being kept out of, or spilling over into, the living space. Thus, we take account of both rooms and square metres of space in our analysis.

The amount of space used by HBEs, and its proportion to the whole dwelling, are important environmental issues. It is assumed that using lots of space for the HBE is harmful to the living environment. In fact, where there is legislation allowing some enterprises in residential building, there is often a stipulation as to the maximum amount of space to be used.<sup>3</sup> In his Lima sample, Strassmann (1986) found that the average HBE household used 31 per cent of its 116 sq.m. floorspace, or 1.2 out of 3.6 rooms, for the business.

Lack of space does not seem to be a reason for not having an HBE. Nientied et al (1987) found many HBEs even on very small plots in India; some even had two. In Raj and Mitra's (1990) sample in Delhi, a large number of households had not allocated a separate room for the HBEs (renting, regular retailing and specialist services are exceptions). Indeed, 12.5 per cent used the public space in front of the plot for petty retailing and livestock rearing. In a recent paper on Bangladesh, Mahmud (2003) similarly shows that HBEs are operated in even the tiniest dwellings.

The HBEs in our India and Indonesia samples do indeed occur in even the smallest dwellings and occupy very limited space therein. The occupants regard some of the space used as exclusively for the HBE, other is joint HBE and domestic space.

The India sample devotes very small spaces indeed (mean of less than 2 square metres) exclusively to their HBEs while those in Indonesia tend to occupy a whole room exclusively for the HBE. However, in India, a smaller percentage of rooms and areas are used for HBEs than in the larger dwellings in Indonesia.

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<sup>3</sup> For example, in the regulations developed under the Delhi Master Plan (DDA, 1990), non-polluting, small scale "household industrial units" are allowed in residential areas only on ground floors to the extent of the 25 per cent of the floor space or 30 square metres, whichever is less.

The number of rooms and areas used as joint domestic and enterprise space is greater than the exclusively HBE space and follows a different pattern among the samples. Both samples have about two thirds of a room but the Indonesia sample has 8 square metres and the India sample has 3 square metres at the means. While it does not constitute much of the dwelling in Indonesia, it is undoubtedly extremely important to both domestic and entrepreneurial uses in the very constrained dwellings in India.

### **The effect of HBEs on domestic space: Net areas**

In order to assess the impact of HBEs on the space available, we created a variable of net HBE space by aggregating the space used exclusively for HBEs with half of that used jointly between HBE and domestic uses. We feel that this is reasonable for tallying the HBE space use as it reflects at least some of the reality of room use; that the HBE may “get in the way” of domestic life in those rooms that are shared with the enterprise but does not prevent at least partial domesticity. The balance of this is likely to vary between great inconvenience, where there is a fixed machine, and little, where the paraphernalia of business can be shelved. Both of these cases occurred in our pilot study in India (Tipple et al., 1996). We are less comfortable about whether space so occupied can be removed from the tally of domestic space available. It is quite likely that HBE space serves at least some domestic functions even when being fully turned over to the HBE use. For example, a tea-shop owner is likely to use some of his/her domestic space for serving drinks and may also do domestic tasks such as sewing and childcare while talking to her customers.

Table 1. Measures of space availability and use

	India		Indonesia	
	Mean	<i>Median</i>	Mean	<i>Median</i>
Size of dwelling HBE operators (square metres)	10.8	9.0	59.1	53.5
Non-HBE operators (square metres)	8.4	7.7	51.8	47.3
Net HBE space* (square metres) (percentage of dwelling space)	3.9 38.8	2.5 45.8	11.9 19.6	7.0 14.3
Net domestic space† (square metres) (Percentage of dwelling space)	6.7 61.2	4.5 54.2	46.8 81.4	42.5 85.7
Non-HBE operators' domestic space (square metres)	8.4	7.7	51.8	47.3

\* Exclusively HBE space plus half joint domestic and HBE space

† Exclusively domestic space plus half joint domestic and HBE space

There are two quite contrasting patterns of space use in table 1. In India, where total space is very small, only a mean of only 3.9 square metres are used as net HBE space. Indeed, 76 per cent of HBEs that use some space<sup>4</sup> use less than 10 square metres. Such spaces are smaller than any workshop that could be considered in any planned provision for small scale enterprises and demonstrates why the home is so useful for the development of micro-enterprises. The Indonesia sample occupies much more space for its enterprises; 12 square metres at the mean. However, as a percentage of all space, net HBE space is large in India (almost 40 per cent at the mean and more at the median) but small in Indonesia (only 20 per cent at the mean).

It is very informative to compare HBE operators' net domestic space with that of non-HBEs to see whether HBEs cause crowding or not, in the context that HBEs tend to have larger dwellings than non-HBEs in both the case studies. The net domestic space is that which is left from the HBE space and half the jointly used space.

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<sup>4</sup> HBEs purporting to use no space in the home occur in 2 per cent of cases in India and 7 per cent in Indonesia.

The space left over for domestic activities in our India sample is very small (only 6.7 square metres at the mean) while Indonesia sample still has considerable amounts of space in the context of that which is usually available to low-income households.

In both India and Indonesia, the HBEs reduce the space available to less than that for non-HBEs.<sup>5</sup>

Table 2. Measures of crowding

	India		Indonesia	
	Mean	<i>Median</i>	Mean	<i>Median</i>
Net domestic space† per person				
HBE operators (square metres)	1.3	<i>1.0</i>	10.5	<i>9.6</i>
Domestic space per person	2.0	<i>1.5</i>	11.6	<i>10.0</i>
Non-NBE operators (square metres)				
Net occupancy rate				
HBE operators (persons per room)	4.3	<i>4.0</i>	1.2	<i>1.0</i>
Occupancy rate				
Non-HBE operators (persons per room)	3.0	<i>2.7</i>	1.2	<i>1.0</i>

† Exclusively domestic space plus half joint domestic and HBE space

The net domestic space per person data (in table 2.) demonstrate how crowded the accommodation is when there is an HBE. The data are influenced by the larger households among HBE operators in India; HBE households are almost ten per cent (0.4 persons) larger at the mean. The space taken up by the HBE combined with the larger households result in a mean of only 1.3 square metres of net space per person for HBE operators - very crowded accommodation indeed. The Indonesia sample, on the other hand, shows in excess of 10 square metres per person.

Occupancy rates reflect the issues that arise through a number of people sharing a room. In Indonesia, the samples of HBE operators have lower (better) occupancy rates than non-HBE operators but all have low rates of crowding. However, in India, even

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<sup>5</sup> This is different from in our Bolivia and South Africa samples. There HBE operators still have more space than non-HBE operators.



without the HBEs, occupancy rates are very high (3 persons per room for non-HBE operators) but this is raised by the net space used for the HBE to 4.3 persons per room at the mean which gives cause for concern.

The general evidence from our international study is that HBE operators have more spacious dwellings than non-HBE operators but that the HBE tends to be accommodated in the extra space; and this is the case in Indonesia. Thus, having an HBE takes away the space advantage those households had. However, where the dwelling is small, as in India, having an HBE encroaches much more deeply into domestic space and is not confined to any extra space HBE operators may have. This has quite serious negative effects on space per person and number of people per room.

### **Configuration of Space**

In addition to the scale of space available in the home, the spatial configuration of dwellings and plots also has implications on how space can be used. The small dwellings in Bhumeheen Camp, India, are the least flexible. The high density of the settlement and the very small amounts of space per dwelling and per person severely limit the options available and lead to some of the least satisfactory juxtapositions of potentially incompatible activities.

Two-storey dwellings provide some increased flexibility as there is the opportunity for a vertical distinction between HBE and domestic activity. For example, a batik painter does most of his work on the ground floor; cooking, eating and sleeping take place upstairs. Similarly a flour miller works downstairs and the kitchen and living areas are located upstairs. In single storey dwellings, however, both domestic and productive activities take place in close proximity and the small dwelling areas restrict the opportunities for separation. High humidity and unreliable electricity supply mean that, to ensure reasonable ventilation and light, most HBE tasks are concentrated close to the entrance door and window. The back of the room and the spaces under stairs or beds may be used to store materials and products. In addition to the dwellings occupying the full plot, the extreme narrowness of the lanes in the India case study means there is little chance for HBE activities to spill out into open spaces although some do manage it. One example is a cobbler who sits immediately outside his front door in the narrow lane.

In contrast, even though internal space is more generous, the pedestrian alleyways in the Indonesian case study are important for a number of HBE activities. Activities which do not require fixed equipment frequently take place in the lanes where not only do the light and ventilation make it more comfortable but also there are increased opportunities for social interaction. A shoe-sewing enterprise (making components for Ecco), run by a woman at the end of one of the lanes, has at its core a group of related family members augmented by a broader network of friends from the same lane. As they sit chatting in small groups outside their houses, their sewing can be seen to symbolise the social act of consolidating the relationships among them (Kellett et al., 2002). There is also a tolerant attitude in the Indonesian neighbourhood to people taking over the lanes temporarily for work or social occasions. Many of the mask makers report being able to leave their masks in the lanes to dry in the sun. In addition, the occasional use of lanes for weddings and other social events generates HBEs in the hiring of canopies, chairs, and sound amplification equipment.

The Indonesian dwellings are arranged back to back but in a very ordered and regular pattern. Dwellings are deep with relatively narrow frontages, typically in the proportion of 3:1. This is an efficient layout in many respects and achieves a high density but is restrictive in terms of access, ventilation and light. Although access is restricted to the front of the dwelling, some HBE operators manage to have a separate entrance for their customers, suppliers and workers. For example, the dwelling of Mr Y, the tailor, has three entrances leading from the front veranda so it is possible to enter the house without going through the spaces where he is working.

Dwellings at the end of rows can also be accessed from the side as well as the front. Although the plot sizes are relatively generous (with a mean area of 100 square metres), in most cases the house occupies the whole plot leaving only front verandas. Therefore, for both access and environmental comfort reasons (light and ventilation), most HBE activities take place towards the front of the dwelling. Typically the HBE activity occupies the front third of the dwelling area.

In most cases, the HBE activity is clearly visible and occupies space which must be passed through by residents or guests entering the dwelling. In smaller dwellings it is not possible to continue work if guests arrive. This is well expressed by SM, an artist, referring to visits by his wife's friends.

“On such occasions I would just stop working for a while, because I wouldn’t feel comfortable to keep working while there is an event going on in my house.”

Limited space also impacts on particular social and religious activities. However, those concerned respond flexibly, which is an effective approach to minimise potential conflict where space is limited. Such strategies are common in the Indonesian sample where household and community cohesion is high. For example Mr K, a shoe maker, works in the main living area but must accommodate the Koranic reading sessions of his wife.

“It’s never been a problem because I think all of them are willing to understand our conditions. It’s true that sometimes the living room is needed for reading the Koran and I also use this room for working, so my family members which are many will clean this room and in a short time it can be used. When the reading of the Koran is finished so work activity will be back as usual. Reading the Koran also doesn't take a lot of time, so it's no problem for us to let this room be used first for other needs like that. It’s never been a serious problem in this case.”

Few dwellings have an upper floor but, even those that do, rarely use it for HBE activity. A number of dwellings are configured to make use of ceiling spaces for storage.

Some households in the India case study area have access to flat, open roof space, which HBE operators may use when the weather permits. Mr CS is able to separate his printing HBE activity from domestic activity by working upstairs and does not find combining home and work difficult. However, the quality of the upstairs room (i.e., three matting walls) threatens the quality of his work and he is forced to use the space downstairs some of the time:

“If the weather is bad and it rains I have to bring the things [down] from upstairs because the frame and the cloth can get wet and become useless. There'll be no problem when it's built. Now there's a problem; if the sun is strong, things will get spoiled in the sun. ...In the rainy season the paints go bad, so they have to be

kept downstairs. If we [have a pucca structure there,] we can work upstairs in the rainy season.”<sup>6</sup>

## Space sharing and separation

Between our case study areas there are a number of shared patterns of space use as well as significant variations owing to the differing circumstances. Trying to combine domestic activities and business in a single space can cause conflict in the household. There is little doubt that the ideal for most HBE operators and their household members would be spatial separation between domestic and production activities through the allocation of dedicated spaces for the HBE. In reality, however, this is difficult to achieve for many respondents given the limited space and financial resources. One strategy is to be flexible about domestic arrangements.

## Conflicts and problems

For some households, conflict arises with respect to the different ways in which space is organised for work and living. Whilst, in a living space, the aim may be to keep possessions stored away and the space tidy and open to family and friends, the demands of the business may require that tools and raw materials be on hand and the work spread out, even on show. The problem of domestic order *versus* accessibility of work was one identified by a number of HBE operators in Indonesia. A respondent in an HBE making *papier-mâché* masks reports that, during the peak season, the masks and their various trimmings are stored in every available space in the house,

"There are no special rooms for family and for business. We have furniture [...] for the guestroom and for the dining room. But it doesn't just function as the dining room or the guestroom, because the dining room and the guestroom are also used to work in. So it all gets very untidy."

Another insight into this is offered by Mr Y. is a tailor who also lives in Banyu Urip,

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<sup>6</sup> At the time of the interview the structure upstairs consisted of an asbestos roof and mat on three sides and a pucca wall of a neighbour.

"This home is still a mess. The problem is [here] as long as the living room, besides being a family room, is also used as space for sewing. In addition, I also use the veranda for working. Therefore, I want to make a special work room, in order that the space functions rightly [...] I have plans to make a room next to this, a room for working [...] then this room could function as a living and family room so it would be more comfortable for all members of the family."

In the India case study, the very small, unplastered dwellings combined with a lack of sanitation can cause quality control problems for HBE operators. If products become damaged or soiled owing to the lack of suitable storage space, this will obviously affect the price at which they can be sold, the ease with which a buyer can be found and, therefore, the competitiveness of production and retail HBEs. Mr. L. explains the problems he faces storing the bags that he makes:

"The pieces get spoiled - the shape, the structure; the locks may get distorted. [Lack of] space does create problems. The pieces can get dirty. One has to do everything in [limited] space. I have no cupboard, no garage [storage space], no tables. Do you understand [the problems]?"

It is also impossible to keep vermin such as mice, rats, and insects out of stock where dwellings are not fully sealed and smoothly finished inside. Such animals can damage or devour stock and spread dirt and infection. Mrs P is a tailor and makes bedsheets:

"[Mice] have gnawed three bedsheets. I've kept them apart. I'll mend them and use them at home. [...] they also gnawed one (ladies') suit. I offered to pay the customer. She said that I hadn't done anything intentionally and that it wasn't a problem. I got it mended for 30 rupees."

For some dwellings, the limited space in the dwelling causes a greater inconvenience for domestic life than work activities. A key concern is finding space to sleep in the extreme climate of Delhi. Cold winters require that all household members sleep inside. In the very hot, humid summers, everyone prefers to sleep on the roof of those dwellings with suitable roof space. In HBE households where goods and equipment must be stored, the problem is made worse. Mrs MJ, who runs a general store from her home, complains of having to sleep on the floor. She believes that the solution would be to build an additional room to separate work and domestic life:

“We have difficulty in the night. We sleep on the floor. Our son sleeps in his sister's house. If we can build upstairs, we'll keep our household articles there and the goods will remain here. But that'll require Rs.15,000. Where'll we get Rs.15,000? We'll neither have the money nor be able to build that.”

Although having separated spaces is regarded as desirable in Indonesia, the robust household relations and high levels of social cohesion and tolerance among neighbours mean that some of the inconveniences and problems associated with shared space use are minimised.

### **Moving furniture**

A common coping strategy of HBE operators in all our case study areas is to move equipment and furniture on a daily basis in order to accommodate the business activity and domestic activity at different times of the day. Many small dwellings in India have a large high shelf upon which household paraphernalia can be cleared away during business hours (Tipple et al., 1996). During the day, charpoy beds may be upended and stored, or put outside, or used for displaying wares for sale. Everywhere dining tables become places to sew and cut fabric rather than eat, sofas are used for storing finished products, food preparation for sale interchanges with household food.

In Banyu Urip, Indonesia, Pak B's household live in a 15 square metre, single room rented dwelling. They earn their living by screen printing cloth and plastic; currently they print laundry bags for the Hilton Hotel. Most of their few items of furniture are located around the edge of the room but, before work can begin, the mattresses must be rolled up and placed by the walls to make space for work. On wet days, the products must be hung to dry on a series of strings strung across the whole room. It is still possible to prepare food on the stove at one end of the dwelling but, during the day, the dwelling is effectively a workshop with the printing press, drying lines, boxes of materials and the pungent smell of inks. When the working day is over (which depends on the urgency of the order) the space reverts to a dwelling place: the press is moved back to the wall and chairs, a folding table and beds are re-arranged.

For some households, although the furniture may stay in the same place, its use throughout the day changes. For the K family in Banyu Urip, who make *papier-mâché* masks and toy furniture from home, eating and sleeping spaces become storage

spaces to keep masks. The HBE upplants domestic use of space, and eating and sleeping become activities that are no longer linked to a specific space in the house.

“[...] Sometimes we must move some furniture when we have a lot of orders. The dining table even sometimes functions as the place to put the masks on, or the (toy/model) furniture.<sup>7</sup> To eat we don't have to use the dining table. We can eat anywhere we like. ... For instance, sometimes when we have many masks, ... the masks are placed [on the bed] then we cannot sleep on it. [My] small daughter sleeps with me here (in the living room). There are usually 3 or 4 people that sleep here. We provide mats for them, sometimes they use it and sometimes they don't. About sleeping we don't make a fuss. The main thing is that we can sleep. Where we sleep is not important.”

Similarly, their neighbour who also makes masks has problems at busy times:

“This place would be a whole mess, the masks would be everywhere, even on my bed there would be masks. So you could say that every space in this house gets used. I even sleep on on the floor when there's a lot of work to be done.”

## **Extending and improving space**

The presence of an HBE may motivate the household to invest in improvements to the dwelling where they would not if the business were non-existent. In our India case study, house extension is rarely an option. HBE operators, however, have made improvements to their houses in other ways. Mr. P. has improved the floors in his home for his classes of children:

“I've had to get this floor cemented after the [summer] vacations when the coaching classes were to resume. Where else will the children sit? Now I have to buy carpets for them; they can't sit on the floor in winter. I have to sit on this bed because this place is small. Twelve children are sitting on the floor. Where else can I sit? I have to manage somehow. I need a stool, a chair, and a desk. If I have more space I would like to have benches for the convenience of children. But there's no space. What to do? [...] The main problem is that this place is so

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<sup>7</sup> They also make tiny model furniture as children's toys.

small. I can't teach more than 12 children here. If I teach for two shifts I get some rest, but when I have to teach for three shifts I don't get any rest."

One respondent in Bhumeheen Camp told us that she had used the money she had earned from her HBE selling bedsheets to install a septic tank and construct a toilet outside her front door so that she could avoid using the communal toilets provided by the NGO Sulabh International.

The lack of legal tenure and the constant threat of eviction in the India case study, however, may dissuade HBE operators from investing as much in their house as they would like to and can afford to. Mr SS., a textiles shop owner, has invested money in his house improving the floors and constructing a bathroom. However, he has no more plans to expand further in Bhumeheen Camp,

"I don't want to spend any more money here. It'll be demolished after sometime. Let it remain [like that]."

Interviewer: "Would you like to have a bigger shop here or elsewhere?"

"Elsewhere. There's no scope for expansion here. This place is so small. I [wish] to keep [sufficient] stock here. If this [place] is demolished I'll probably be given [a house] elsewhere. I'll try to do something there. But nothing can be done if we're not given [any place]."

### **Some elements of a strategy to facilitate income generation in the home**

The utopian dream of suburban residential areas, full of happily dozing households and quietly playing children is so far from the reality of low-income neighbourhoods as to be useless in policy formulation. In their place are bustling, vigorous, changing, challenging and productive places within which households either cope with the rigours of life there or draw layered screens around themselves to create their islands of relative peace and privacy.

The two most important elements of strategic assistance to HBEs are the acceptance of HBEs as valuable to the national, city, neighbourhood and household economies, and a change in the mind-set that sees them as antithetical to residential peace and quiet.



So often, HBEs are simply not valued or accounted for in the national economy. Their enormous contribution to people's lives is counted as worthless. This is partly because they are statistically invisible which, in turn, arises from their illegality and the fear of their operators that they will be closed down or harassed for *ex gratia* payments to allow them to continue operation. With a hospitable attitude towards HBEs would come more trust on the part of operators and, after a grace period when the trust is being established, an ability to include them into national statistics.

However, a change of official attitude will be unpopular with many people who wield power from the highest to the lowest level. Side-payments and opportunities for bribery would be lost if HBEs were to be regarded as beneficial, so opposition should be expected from officials.

A mind-set that expects HBEs in residential areas would allow for (among others)

- plots large enough to work on, and
- dwellings a whole room larger than planned-for occupancy rates would indicate.

There is obviously no bar on HBEs imposed by small plot sizes. However, it is evident that the HBE has a more marked effect on domestic space when plots are very small. Thus, just as indicated in our work on post-occupancy housing extensions (Tipple, 2000), plots should not be small in the expectation that a single household could just manage thereon. Instead, space for potential HBEs should be included in the initial designs or plot layouts. Where dwellings are designed they should be sufficiently flexible to accommodate additional and changing demands for space for both domestic and productive activities.

This advice to have larger dwellings deals with expectation and encouragement rather than provision or compulsion. Householders would be expected to have larger dwellings than where HBEs are absent but should not be compelled to have them by prescriptive policies on housing standards, such as: "No households is allowed to live in a single room".

There are, undoubtedly, HBEs that we would regard as unacceptable but there are very few examples in our study areas. We did not find leather tanning (cf. Mahmud 2001) or pig keeping, but we did find the occasional kerosene seller using

inappropriately dangerous technology (open drums). If there are good reasons to prevent particular uses on health and safety grounds, there should be proscriptions. However, where possible such decisions should be taken locally within the principle of subsidiarity, where local land use and development decisions are passed down to the lowest level commensurate with carrying out the functions. There is evidence from our Indonesia case study to suggest that local exercise of power to control and enable activities at street level can be highly effective, not least as those most affected are in the best position to decide which activities are appropriate.

However, for the rest of the HBEs, we would contend that our data show them to be no great damagers of the residential environment. They tend to reduce space within the home to poorer levels than their non-HBE neighbours enjoy but this is only really serious where dwellings are very small.

The use of spaces within low-income residential areas for income generation is a fundamental component in facilitating the daily struggle for survival in developing world cities. If effectively supported, such activities could play an increased role in poverty alleviation than is possible when they are harassed or ignored.

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