

This is an author-produced version of the following article published by Taylor and Francis as:

Graham Tipple The place of home-based enterprises in the informal sector: Evidence from Cochabamba, New Delhi, Surabaya and Pretoria, *Urban Studies*, April 2005; Volume 42 No. 4 Pages 611 – 632

<http://www.informaworld.com/openurl?genre=article&issn=0042-0980&volume=42&issue=4&spage=611>

hbes in informal sector revision 3 17/09/2004 42/11227

THE PLACE OF HOME-BASED ENTERPRISES IN THE INFORMAL SECTOR: EVIDENCE FROM COCHABAMBA, NEW DELHI, SURABAYA AND PRETORIA

By Graham Tipple,¹

Global Urban Research Unit (GURU),
School of Architecture, Planning and Landscape,
University of Newcastle upon Tyne.
Newcastle upon Tyne NE1 7RU.

a.g.tipple@ncl.ac.uk

Published in *Urban Studies*, 2005

Abstract

Home based enterprises (HBEs) are an accepted component in the informal sector in rapidly developing cities. However, they have generally received quite a bad press, especially through a concentration on the exploitation evident in piece-rate homework. From our work in low-income neighbourhoods in

¹ The author gratefully acknowledges the assistance of the following in the data collection and analysis for the main study from which this work arises: Justine Coulson, Peter Kellett, Nina Laurie, Maggie Anderson in Cochabamba, Alpana Bose in New Delhi, and teams at CSIR, Pretoria and ITS Surabaya. Katherine Gough, Peter Kellett, Mike Majale and two anonymous referees reviewed drafts of the paper and made very helpful comments.

Cochabamba (Bolivia) New Delhi (India) Surabaya (Indonesia) and Pretoria (South Africa) we assess HBEs with respect to the characteristics of the informal sector put forward in the literature. We examine our samples of HBEs against such characteristics as small-scale, low operator incomes, informal labour relations, and non-separation of production and consumption. We find that they largely conform to expectations. Incomes are low but they are very significant in poverty alleviation. Though many HBEs require few skills, a few compete effectively in international markets.

Introduction

It is now generally accepted that the urban informal sector is extremely important in developing countries where population and demand for jobs, goods and services are typically growing too quickly for the formal sector to cope with. Indeed, years of structural adjustment and reduction in government employment have reduced formal sector job opportunities in many urban areas² and many formerly formally-employed workers now operate businesses in the informal sector (Yasmeen, 2001). Furthermore, many formal sector functions are being increasingly performed by the informal sector (especially women) at lower prices, thus absorbing some of the cost of adjustment.³

The proportion of jobs in the informal sector in Asia has been estimated variously at a low of 10 per cent in the newly industrialising countries but mostly between 40 and 65 per cent (Sethuraman, 1997). Asia Development Bank (1999) figures estimate that the informal sector accounts for 75 per cent of all new jobs in South East Asia (cited in Pallen, 2001). In Latin America, the sector has increased from 19 per cent in 1980 to 24 per cent in 1992

² In a paper on street food in Kinshasa, Iyenda (2001) reports that, during the structural adjustment in DR Congo (then Zaire) in the 1980s, the civil service reduced from 429,000 in 1980 to 289,000 in 1985.

³ For discussions on the various theories of the origins of the informal sector, readers should consult some of the rich literature available, e.g., Berger (1996); Chen et al (1999); Dierwechter (2002); Maldonado (1995); Moser (1978 and 1984); Mies (1986); de Soto (1989) and Vega and Kruijt (1994).

(Sethuraman, 1997) and accounted for 85 per cent of all new jobs in Latin America in 1998 (Brown and Lloyd-Jones, 2002).

In Africa, 60 per cent of the urban labour force are in the informal sector (ESCAP, 2001). About 22 per cent of the adult population are in micro- and small-scale enterprises (MSEs)⁴ in five sub-Saharan countries⁵ compared to only 15 per cent in the formal sector (Daniels, 1999). About ten per cent of the population of the Dominican Republic, Zimbabwe and Swaziland work in MSEs (Mead and Liedholm, 1998). However, all such data must be treated carefully as they are subject to considerable errors especially when used comparatively between countries or over time (Funkhouser, 1996). Sethuraman (1997) estimates that the informal sector contributes between a quarter and a half of urban regional incomes.

In this paper, we address the questions of:

- how home-based enterprises (HBEs) fit into the composite picture of the informal sector which has been drawn up by the current literature;
- how they are similar to or different from informal sector enterprises in general; and
- what strengths HBEs demonstrate in relation to the rest of the informal sector.

We begin by compiling a list of the characteristics of the informal sector, as commonly cited. Then we use data from our DFID-sponsored study of selected neighbourhoods in Cochabamba (Bolivia), New Delhi (India), Surabaya (Indonesia) and Pretoria (South Africa) to assess how closely the HBEs in our samples conform with these known characteristics or deviate from them. Our findings contain few great surprises but are important in the empirical backing they provide for the current ideas about HBEs.

⁴ In this case, enterprises with less than 11 employees.

⁵ Botswana, Kenya, Lesotho, Malawi and Swaziland.

Our samples each consist of about 150 households with, and 75 without, HBEs for quantitative analysis, and about 25 for in-depth interviews (for qualitative analysis) and drawing a plan of their home with its HBE use. The case studies were selected in consultation with DFID, our sponsor,⁶ to include countries from each of the three rapidly-urbanising southern continents. The comparative aspects of this research were established to prevent our generalising from a single circumstance. We have avoided making too much of differences between countries but feel that similarities arising among such a varied group of countries should merit attention. Differences between HBE operators and non-HBE operators have, however, attracted more of our attention as they effectively represent the benefits or problems of HBE operation.⁷

The countries and cities chosen for the study fall within a broad spectrum of circumstances relevant to HBE research. Two countries were chosen in Asia as there is a particularly heavy concentration of HBEs there. The Indian context tells us a great deal about how households cope with fitting HBE space into a cramped domestic milieu. We also wanted to include a case study in the rapidly growing economies of South East Asia which had, at that time, entered a period of sharp decline. In Indonesia, there is a wide range of activities which have benefited from an economic boom. In the serious recession, we would expect HBEs to be important safety nets for household livelihoods (Yasmeen, 2001). We also expected the physical improvements achieved through the Kampung Improvement Programme⁸ to have some effect on HBEs. In Bolivia, we were aware of the international markets in which HBEs are involved and

⁶ DfID Research Project No. R7138. The UK Department for International Development (DFID) supports policies, programmes and projects to promote international development. DFID provided funds for this study as part of that objective but the views and opinions expressed are those of the authors alone.

⁷ Owing to personal security problems, our researcher in Bolivia only visited there during daylight, missing those households with all adults working. As a consequence, we realised after the event that our non-HBE sample may be confined to lower income groups than HBE operators.

⁸ The Kampung Improvement Programme (KIP) was one of the largest squatter upgrading programmes funded by the World Bank during the 1970s and 1980s serving about 4.7 million people at an average cost of about US\$100 (Kessides, 1997). It is still on-going in revised forms.

wanted to include this aspect into our work. In addition, there is a well developed micro-finance sector used by HBEs in Bolivia. Our South Africa case study comes from the relatively new and under-developed HBE sector in Sub-Saharan Africa but also carries the *apartheid* legacy of low entrepreneurial skills⁹ (Cross et al., 2001). In addition, we would find very large plots with plenty of private open space, the opposite of the India case.

The cities selected are all major urban centres (capitals or major industrial centres) and places where we have good partners to carry out the field work. Within the cities, neighbourhoods with a wide range of HBEs representative of activities in that city were chosen as the main purpose of the study was to assess the impact of as wide a range of HBEs as possible on the domestic and neighbourhood environments.

The case study areas are

- three neighbourhoods south of Cochabamba city centre (Cerro Verde, Huayrak'asa and Alta Cochabamba), known in our study as *la zona sur*,
- Bhumeheen Camp, a squatter settlement in South New Delhi,
- *kampung* Banyu Urip, to the south of Surabaya city centre, and
- a formal low-income neighbourhood (Extension Five) and an adjoining squatter settlement (Phase Two) in the Stanza Bopape neighbourhood in the east of Mamelodi, at the extreme east of Pretoria.

The first three are all quite close to major centres of industry or commerce within their cities and benefit from sources of demand for their goods and services close by. In addition, they are all close to other employment opportunities. The Pretoria sample, on the other hand, is peripheral to the city and far from alternative employment opportunities, which is reflected in high

⁹ Two features of this legacy are the education system for the majority which was directed only towards formal waged employment (which militates against local entrepreneurship) and the long distances between low-cost housing and formal employment opportunities (which makes local entrepreneurship more important).

male unemployment. However, it is close to large concentrations of low-income people living in the Mamelodi (former 'black' township) area in the manner of the *apartheid* city.

Prior to sampling, we carried out a census to locate HBEs and form a view of the range of activities present so that we could cover all main types in our sample. In Cochabamba, this was impossible because most are so hidden behind high walls and closed doors that they would not be found except through the snowball sample that was used to select the 165 cases in the survey. In New Delhi and Surabaya, the samples were chosen by first selecting some routes through the settlements. The surveyor then interviewed all the HBE along those routes. In Pretoria, the whole of the two selected neighbourhoods were surveyed using snowball sampling and we chose a representative range of HBEs.

We also sampled about 75 households in the neighbourhoods who do not operate an HBE. These are referred to throughout this paper as non-HBEs. This expression is not used for enterprises outside the home – non-home-based enterprises – but households who do not have an HBE.

Characteristics of informal sector enterprises

It is clear from the literature that the informal sector is complex and has fuzzy margins. Using characterisations of the informal sector by several writers (Bekkers and Stoffers, 1995; Berger, 1996; Buvinic et al., 1996; Hays-Mitchell, 1993; Mead and Morrison, 1996; Sethuraman, 1976; ILO, 1993; Vega and Kruijt, 1994 and UNCHS, 1989), we can build a composite picture of informal sector enterprises as shown in table 1.

Table 1. The characteristics of the informal sector as represented in current literature

Characteristics	Comments
<i>Range of activities</i>	Few activities, spread across a wide spectrum. Retailing is dominant. A few in almost any conceivable activity, especially niche markets. Transport is often dominated by the informal sector.
<i>Combinations of different activities</i>	Several activities are in a single unit, simultaneously or by frequent change. Products are made and sold in the same place.
<i>Small-scale</i>	Most are without regular employees, some have a few workers.
<i>Internal organisation and employment relations</i>	Flexible, casual, family run; unprotected workers. Long working hours.
<i>Invisibility: informal relationships with suppliers, clients, and the state</i>	Few licences or formal contracts, flexible hours, irregular contacts. Tend to be 'invisible', unregulated, and uncounted, avoiding taxes, licence fees, and standards.
<i>Informal skills acquisition and limited skills needed</i>	Skills gained through informal apprenticeships, a few have received vocational training. Few barriers to entry; low initial capital and skill required.
<i>Operators have low incomes</i>	Income not far above minimum wage for most.
<i>Low initial capital, limited access to formal credit and an under-capitalised process of production</i>	Informal capital from family, friends, money lenders, and other business interests. Limited technology may hamper efficiency and limit investment and improvement.
<i>Consumption and production are not separated</i>	Use personal and domestic assets; business expenditures, income, assets, and labour are linked to those of the household.

HBEs in the informal sector

A home-based enterprise is, quite simply, one which occurs in or very close to the home rather than in a commercial or industrial building or area. Some HBEs involve both a home-based component (e.g., making food) and a non-home-based component (e.g., selling food on the street). We regard the former activity as a production HBE, the latter is not a retail HBE but rather the non-

home-based activity to which the HBE contributes. Similarly, a rickshaw puller who stores his vehicle in the home at night is not an HBE. Fass (1980) points out how important is home storage for many enterprises but we do not regard such storage as an HBE in its own right. If enterprises take over homes and the residents move out, such as often happens in the development of a collection of shops on a main street, we do not regard them as HBEs. We do not regard working as a housekeeper as an HBE, even though a live-in housekeeper does indeed work in her/his home.

We recognise, along with Gilbert (2000), that renting rooms out to other people is probably the most important method of earning money using the home in rapidly developing cities. As renting does not represent a change of use from residential, it is not expected to affect dwellings or neighbourhoods as other HBEs do. Thus, we have not included them in our study.

As with the informal sector in general, some types of enterprise are more likely to be home-based than others. Much of the literature on HBEs concentrates on the ‘homework’ or ‘outwork’ system in which manufacturing companies contract simple manual tasks to workers in their homes as a way to reduce costs (Boris and Prügl, 1996; Prügl, 1998). In this context, HBEs usually feature as loci of exploitation (Boris and Prügl, 1996; Cinar, 1994; Ghvamshahidi, 1995; Sarna and Shukla, 1994; Singh and Kowale, 2000).

However, HBEs have been and are important in times when formal wages diminish or cease and enterprises are started in the only place available - the home.¹⁰ This has been regarded as undesirable in planning orthodoxy because it introduces commercial and industrial uses into areas zoned as residential. But the reality is that many low income households rely on HBEs for employment, income and services. Without them, countless millions of households would be unable to meet survival needs, food could not be purchased conveniently, and

¹⁰ This was done by the author’s father when he was laid off after completing his carpentry apprenticeship during the Great Depression in 1930s UK.

carrying out simple tasks, such as having a haircut, would require a major expedition.

There are major studies of HBEs by Strassmann (1987) and Gilbert (1988) which have since been reinforced by local empirical work including Cross et al (2001) and Rogerson (1991) in South Africa; Ghafur (2001 and 2002) and Mahmud (2003) in Bangladesh; Mehta (1990); Kellett and Tipple (2000) and Raj (1990) in India; and Gough and Kellett (2001) in Colombia; and in many other countries in papers presented at the CARDO conference (CARDO, 2000).

Frequency

HBEs constitute a large portion of the informal sector. Bose (1990) estimates that 70 per cent of the informal sector in Cordoba (Argentina), 67 per cent in Kano, 61 per cent in Lagos, 50 per cent or more in the trade and service sector in Manila, and 46 per cent in Jakarta, are in HBEs. According to Chen et al (1999), the proportion of HBEs in all enterprises range from 54 to 77 per cent in five Sub-Saharan African countries (see note 5).

Some enterprises, especially those run by women, are more likely to be in the home than others. According to Chen et al (1999), in Lesotho, 88 per cent of women's manufacturing enterprises are home-based (compared to 37 per cent of men's) and 57 per cent of women's service enterprises are home-based (compared to 30 per cent of men's). In Egypt, 53 per cent of women's and 10 per cent of men's businesses are home-based.

Homework is predominant in clothing and textile industries,¹¹ the leather industry, artificial flower making, beedi (cigarette) rolling, carpet making and, more recently, electronics and teleworking (Prügl, 1998; Chen et al., 1999).

¹¹ In Venezuela, 45 per cent of clothing industry workers are homeworkers (Prügl, 1992). In Argentina, 31 per cent of clothing and textile workers in Buenos Aires and 20 per cent in Cordoba are homeworkers (Marshall, 1992). In Thailand, 38 per cent of workers in the garment industry are homeworkers [estimates based on figures cited in Chen et al. (1999) and similar figures are relevant to the Philippines (Prügl, 1998)]. In Chile, home-workers produced an estimated 60 per cent of all women's and children's clothing and 30 per cent of all men's clothing in the early 1980s (Prügl, 1998).

In some cities, whole industries are composed of networks of HBEs.

Benjamin's (1991) study of Viswas Nagar in New Delhi found that HBEs in a small selection of trades are so numerous and so closely interlinked that he posited the idea of "neighbourhood-as-factory".

HBEs are quite common but they are only present in a minority of dwellings. Various estimates on frequency suggest from a tenth to a quarter of dwellings in the cities of developing countries (Strassmann, 1986), one in ten households in Bogota, Mexico City and Valencia (Gilbert, 1988), 10 per cent in resettlement neighbourhoods in South Delhi (Raj and Mitra, 1990) and 51 per cent in three intermediate cities in Bangladesh (Ghafur, 2000). Their frequency seems to depend on characteristics of the areas. Strassmann's (1986) study of Lima, Peru, shows that they occurred in one in six dwellings in the informal sector *pueblos jovenes*¹² while, in conventional residential areas, HBEs were found in only one in sixteen dwellings. Mesa (1990) reckons the reasons for the differences in HBEs occurring in Medellin, Colombia, are a combination of consolidation of the dwelling and more established populations generating more profitable local markets. Other likely influential characteristics are access to transport, proximity to formal sector enterprises, and degree of unemployment in an area. Cross et al (2001) describe a much more established and comprehensive HBE sector in long-established formal townships in Durban than in the newer shack settlements.

Sethuraman (1992) regards the density of income per square kilometre as a major determinant of the incidence of many types of small-scale enterprises, particularly those which provide retail and other services to satisfy local demand. More recently, Ghafur (2000) suggests that, in Bangladesh, the plan forms of the settlements and their relationships to main routes vary the extent to which women's spatial realms come into contact with customers and, consequently, the frequency of HBEs.

Table 2. Number of HBEs found in a brief census of our study areas

Country	No. of Households Surveyed	No of households with HBE(s)	Percentage of households with HBE(s)
Pretoria	722	285	39.5
New Delhi	674	161	23.9
Surabaya	729	154	21.1
Cochabamba	n/a	n/a	n/a
Entire sample	2125	600	28.2

We found that 20 to 40 per cent of households in our study areas have an HBE.¹³ The more central, upgraded squatter settlements, of Banyu Urip in Surabaya and Bhumeheen Camp in New Delhi, both had, as expected, between one fifth and one quarter of households with HBEs. In the peripheral areas of Mamelodi, Pretoria, we found nearly 40 per cent. Our higher figures may reflect a growth in the importance of HBEs to low-income livelihoods which would match our casual observation over more than a decade,¹⁴ and general assertions in other studies.¹⁵

Range of activities

Informal sector activities tend to be concentrated in a few activities, but also spread across a wide spectrum of industries; they are not just in ‘women’s work’ or in peripheral sectors. They are mainstream both in types of skills used and in products made and distributed. They affect most people’s lives on a daily basis. Retailing (merchants and shopkeepers, shop workers and street

¹² Formerly called *barriadas*, these ‘young towns’ are the unauthorised areas occupied by low income people.

¹³ This is similar to Kate Gough’s findings in Colombia where the same neighbourhood had HBEs in 20 per cent of dwellings in 1987 but in 30 per cent in 1997 (personal communication, 2003)

¹⁴ This is reinforced by a recent revisit to the areas featured in our earlier transformations study (Tipple, 2000). In both the Ghana and Egypt study areas, but especially in Egypt, the number of HBEs had markedly increased since 1993 and most ground floor dwellings on the main streets now appear to have some commercial enterprises.

¹⁵ As an example, a recently published study on the effects of HIV/AIDS in Zimbabwe links the retrenchment of formal sector workers in the Economic Structural Adjustment Programme there with the incidence of HBEs (Grant and Palmiere, 2003).

vendors) is dominant but garment workers, cooked food preparers,¹⁶ mechanics, wood workers, and hairdressers are also heavily represented (Buvinic et al., 1996). Most commentators include housekeepers in the informal sector but not as entrepreneurs. In some places, transport is dominated by the informal sector (e.g., Gallagher, 1992; Lee-Smith, 1989).¹⁷

The literature on HBEs shows how they fit into the range of uses. Strassmann (1986) found that nearly half of the HBEs were in the retail trade. Second in frequency came the manufacture of clothing. Selling manufactured goods to businesses, serving food or drinks, dispensing health services, and repairs of assorted goods were also common.

There are differences among neighbourhoods in the frequency of types of HBEs as shown by Strassmann (1986) and Cross et al (2001). Strassmann (1986) found that petty retailing and cooked food production tend to be most common in poorer informal neighbourhoods and where access is poor. Personal services were also important in these neighbourhoods. In areas with good transport links, close to formal sector enterprises, and where there is space, there tend to be enterprises with a city-wide clientele such as light manufacturing (food, clothing, and textiles) and a variety of services, especially medical and dental clinics. Selling manufactured goods to businesses, serving food or drinks, dispensing health services, and repairs of assorted goods are especially common in conventional neighbourhoods.

Similarly, in their work in South Africa, Cross et al (2001) found that 63 per cent of HBEs in shack settlements are in retail distribution, compared to 50 per cent in the formal townships. In the lowest income areas, spending in HBEs is tightly limited to a narrow range of commodities needed for daily living,

¹⁶ Yasmeen (2001) points out that demand for cooked food grows as more women are involved in the labour market.

¹⁷ There are few activities which are untouched by informal sector activity. Murray (2003) describes informal gold mining in Mongolia.

including the need to socialise.¹⁸ In the formal townships, where residents can afford a more sophisticated lifestyle, both the services and production sectors increase their market share. Also, more specialised shops and more skilled activities can be supported.

The least sophisticated HBEs involve either the cheap entry lines; selling matches or boiled eggs, single cigarettes or single bottles of beer; or use households skills, such as knitting; or rely on resources found free of charge, e.g., grass weaving, recycling scrap (Daniels, 2003). Cross et al (2001) call them ‘bootstrap starts’ as they start with little or no capital and rarely manage to produce more than a subsistence income.

Table 3. Types of HBE in our samples (percentage frequencies)

	Cochabamba n=201	New Delhi n=163	Surabaya n=187	Pretoria n=157
Sale of groceries	29	13	28	16
Sale of food and drinks	11	8	11	20
Other sales	2	12	10	11
Bar/sale of alcoholic drinks	2	0	0	12
Clothing manufacture	25	18	1	0
Tailor/seamstress (made to measure and repairs)	3	17	7	6
Crafts person or artist	4	1	10	0
Food/drink processing	2	1	5	17
Furniture/ woodwork/ upholstery	1	0	1	2
Repairs to cars/ cycles/ machinery/ appliances	4	7	3	7
Hiring equipment and videos	4	0	3	0
Others	14	23	21	11

NB. These do not precisely represent the distribution in the neighbourhood. Room renting is excluded.

¹⁸ Socialising maintains important relationships and provides social insurance.

Our samples were designed to collect information on each major type represented rather than to reflect the distribution of types. Some types are more difficult to find than others, especially the illegal or clandestine HBEs such as drug dealing, some liquor production, and prostitution to which no-one admitted.

In line with Strassmann (1986), we found that the HBEs in our sample concentrate in particular types of business but also spread widely with a few enterprises in many categories. By far the most common HBE in each of our case studies, and in our samples, is the small shop selling daily household necessities. Also, as expected from Strassmann (1986) and Cross et al (2001), we found petty retailing and cooked food production to be especially common in the Pretoria sample where access is poorest. There is also a range of more specialised shops: second-hand clothes, paraffin/kerosene, fish, meat, vegetables, sweets, soft drinks, ice cream (especially in Cochabamba), small cafes and teashops (especially in New Delhi and Surabaya), and beer bars (especially in Pretoria). Although they do not seem to be common in earlier studies (Strassmann, 1986), our samples contained several HBEs making and selling snack food for consumption on the premises or for sale outside either in the street or at work-places or schools.¹⁹

Production HBEs are dominated by clothing manufacture but only in two case studies. In the communities located in *la zona sur*, Cochabamba, the production HBEs are overwhelmingly concerned with clothing manufacture. In Bhumeheen Camp, New Delhi, homeworking in embroidery is common. In both Surabaya and Pretoria, the garment industry is not important at all.

We have a wide variety of manufacturers in our four case studies. There are manufacturers of knitwear, shoes, bags, jewellery, and stone monuments in *la*

¹⁹ Gokhale (1992) found in Pune, India, that street food tended not to be more contaminated than restaurant food because it had usually been prepared in a home. Yasmeen (2001) discusses the growing importance of snack and prepared food for households where all adults are in employment.

zona sur; and clusters of TV tuner assemblers and thread cutters²⁰ in Bhumeehen Camp. Banyu Urip, Surabaya, is known for its papier-mâché mask makers but there are also clusters of production HBEs manufacturing traditional Javanese furniture, rattan and wooden handicrafts, decorated birdcages for the Japanese market, and shoe uppers for multi-national companies (notably Ecco). The production activities in our Mamelodi study areas are very strongly concentrated on traditional housekeeping skills; producing a local version of an Indian pickle and brewing traditional beer. Services present fulfil a range of needs for local people and, sometimes, for a wider clientele. In our samples, there are,

- carpenters and electricians;
- repair shops for clothes, cars, household appliances, footballs, shoes and watches;
- personal services such as child-care, sewing clothes and furnishings to order, hairdresser and beauty parlour, barber, medical practitioner or traditional healer, dentist, and photographer;
- rental of videos and party equipment; and
- office services for band bookings, telephones, photocopying and assistance with legal documents.

Many HBEs are acting opportunistically; filling constantly changing niches in the economy left empty by the formal sector (Mezzera, 1996; PREALC, 1975; Robinson, 1977; Souza, 1979). Some niches are very large indeed, for example, convenience goods retailing, and the provision of cheap street food (Tinker, 1997). Others are narrow and are filled by HBE operators whose innovation, flexibility and risk taking are enabled by the ability to use the home rather than

²⁰ Cutting by hand the long threads left by the machine-stitchers on finished garments.

having to rent premises. Our case studies contained several of these HBEs, especially in Surabaya, including a feather artist and farmers of crickets.²¹

Combinations of different activities

Many informal sector enterprises defy industrial classification systems. As expected from the informal sector as a whole, there are many HBEs in our sample in which a combination of activities are carried out. Examples include,

- HBEs that handle different stages of the preparation and sale of a product;
- HBEs cooking food and selling it elsewhere;
- HBEs making jewellery and selling both it and other people's products; and
- Quite unrelated enterprises in the same home, such as a mechanic who also sells meat and allows customers to cook it on the premises with a free portion of local starchy staple.

Our qualitative evidence suggests that some of these activities are vestigial; former activities that have been retained for the incomes or flexibility they give. Others dominate activity seasonally and, though they may continue all year, cannot provide enough income alone in the off-season. Still others make use of different skills and networks to produce a portfolio of activity among household members that intertwine to generate a living. In all of these cases, the availability of the home space means that activities can be taken up on a trial basis, or can be retained where they may be cast aside if other premises, or possession of public spaces are needed for their continuation.

Small scale

The literature on the informal sector is clear that enterprises tend to be small and this is usually measured by number of workers (e.g., Mead and Morrison, 1996). However, the cut-off point for smallness is dependent on the branch of

²¹ These households keep thousands of insects are kept in ventilated boxes. The products are mainly eggs and baby crickets sold to feed the ornamental fish and song birds that are so highly prized in East Asia.

economic activity; a five worker enterprise in metal fabricating may be small but as a grocery shop it would be large. Also, with respect to accommodation, a five worker manufacturing unit may be small in a factory but it is large in a home.

It is evident from table 4 that our HBEs conform to this informal sector stereotype. Between about 30 per cent (in Surabaya) and about 60 per cent (in Pretoria) provide work for only one person. The proportion with more than two workers varies from only 10 per cent in Pretoria to more than 40 per cent in Surabaya. The employment opportunities provided by HBEs, therefore, are mainly ones of self-employment and household employment.

Table 4. Number of workers in HBEs (percentage frequencies)

	Cochabamba	New Delhi	Surabaya	Pretoria
1	56.1	47.5	28.5	59.9
2	20.2	29.0	27.9	30.6
3	5.6	10.5	19.6	6.1
4	5.6	5.6	14.0	1.4
5+	12.5	7.4	10.0	2.0
Mean	2.2	2.2	2.6	1.6
Median	1.0	2.0	2.0	1.0

Only the few larger HBEs in our study, mainly in production, tend to provide jobs for workers from outside the household but no-one should dismiss the importance of HBEs in employment creation. Indeed, where smallness is valued by an entrepreneur, the home is the ideal environment.

Table 5. No of workers per household having an HBE and not (Means)

	Cochabamba	New Delhi	Surabaya	Pretoria
Male workers				
HBEs	1.08	1.52	1.63	0.76
Non-HBEs	1.03	1.13	1.33	0.79
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.493	0.004	0.027	0.781
Female workers				
HBEs	1.15	0.93	1.41	1.00
Non-HBE	0.69	0.41	0.65	0.63
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.000	0.000	0.000
Total				
HBEs	2.22	2.45	3.05	1.76
Non-HBE	1.72	1.55	1.99	1.43
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.000	0.000	0.002

Table 6. Increase in number of workers per household by having an HBE (Means)

	Cochabamba	New Delhi	Surabaya	Pretoria
Male workers	0.05	0.39	0.30	-0.03
Female workers	0.46	0.52	0.76	0.37
Total	1.23	0.91	1.06	0.34

Table 5 shows how important a role HBEs can play a valuable role in job creation in low-income neighbourhoods, even though they are generally small. It is clear that their role is particularly important in women's employment as all four cases show statistically significant differences there (at the 1 per cent level) while male employment differences are less significant.

Table 6 on increase in workers through having an HBE shows mean values of at least 0.4 extra female workers per household in all the case studies with up to 0.8 extra female workers in Surabaya. In all cases, at least 50 per cent more women work in HBE-operating households than in those without an HBE, 130

per cent more in New Delhi where local culture reduces women's availability for work outside the home.

Table 7. Adult workers as percentage of adults in the household of the same sex (means)

	Cochabamba	New Delhi	Surabaya	Pretoria
Male workers				
HBEs	85.7	92.6	85.0	53.7
Non-HBEs	86.9	88.7	72.8	60.9
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.636	0.910	0.160	0.570
Female workers				
HBEs	83.2	69.6	72.7	71.3
Non-HBE	50.9	29.1	28.4	46.4
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.000	0.000	0.000
Total				
HBEs	83.2	82.6	77.9	62.2
Non-HBE	68.3	60.9	50.3	53.6
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.000	0.000	0.190

This increase in workers when there is an HBE present can also be shown by the increase in percentage of the adults in the household who are working (table 7). Apart from in Pretoria, where there is high male unemployment as a legacy of *apartheid*, our samples have similar high employment rates in HBE households (around 80 per cent). Non-HBE households have generally higher male employment rates but lower involvement in employment among women than HBE households. This is especially evident in New Delhi and Surabaya where less than 30 per cent of adult women in non-HBE households are in employment. The improvement in women's involvement in the workforce is significant at the 1 per cent level in all cases. Only in Pretoria is the statistical significance of the difference in the proportion of adults working worse than the 1 per cent level.

It is evident from table 8 that production HBEs provide considerably more jobs than those in retailing or services, except where production HBEs are in their infancy in Pretoria. This should be remembered when production HBEs are criticised over their perceived negative impacts on the neighbourhoods with respect to danger, noise, pollution, and traffic generation.

Table 8. Number of workers by type of HBE (Means)

	Cochabamba	New Delhi	Surabaya	Pretoria
Production	4.09	3.43	3.09	1.15
Retail	1.36	2.05	2.63	1.66
Services	1.24	1.63	2.00	1.57
Total	2.22	2.20	2.64	1.58

Internal organisation and employment relations: flexible, family, and unprotected

In the informal sector, the own account or self-employed proprietor is often worker, manager, and owner all at once. Informal sector enterprises display little or no division between labour and capital as factors of production (ILO, 1993). Labour relations, where there are employees, are based mostly on casual employment, kinship or personal and social relations, rather than on contractual arrangements with formal guarantees (Bekkers and Stoffers, 1995). Thus, working hours tend to be numerous and there are no sickness, holiday, severance or pension rights. Because enterprises are not easy to find, the hard-pressed regulators are unlikely to visit them and attempt to improve conditions of work.

It is evident in our study that many HBEs use household members as labour without paying them in cash; according to our in-depth interviews, some appear to receive just pocket-money. They are part of reciprocal arrangements in which skills training, food, domestic space, a base in the city, and other household goods are exchanged for work. As a result of their efforts, they enjoy a share of household incomes that are higher than those of non-HBE households (see below). In addition, because the work is in their own home, or

in a neighbouring house, such informally hired helpers can take maximum benefit of their time and resources devoted to informal and part-time employment.

Clearly, a characteristic of running an HBE is working many hours. Fapohunda (1985) reports a mean of 11.5 hours per day for small-scale enterprises in Lagos. Table 9 shows how, across the four case studies, running an HBE results in 6 to 7 day working weeks, with average working days of between 9 and 13 hours. Retail enterprises, especially, tend to be “open all hours” (with means of over 12 hours per day in each case study) providing for the needs of the neighbourhood’s residents and maximising opportunities for trade.²² The need for a separate space from the domestic activities is, therefore, particularly important for retailers. However, the time spent behind a shop counter may not be intensive work and retail HBE operators are often able to combine their HBE work with other household tasks such as child care and food preparation.²³ On the positive side, many of our interviewees mentioned the time that they are able to use for earning because they no longer travel to work.

Table 9. Length of operation per day and per week of HBE

	Cochabamba	New Delhi	Surabaya	Pretoria
Hours per day				
Mean	11.5	9.1	10.3	12.2
Median	12.0	9.0	10.0	13.0
Days worked per week				
Mean	6.01	6.5	6.5	6.4
Median	6.0	7.0	7.0	7.0

²² Note, however, retail HBEs in Pretoria would open for longer hours if they could be safe after dark.

²³ This is, however, often the subject of concern for writers on women’s multiple responsibilities and the added burdens of working for money.

One of the key problems associated with the informal sector and home-based work, and part of the exploitation theme, is the use of child labour - ranging from full time, (badly) paid, piecework to a few hours unpaid work helping out in the family business after school. The 'hidden' nature of the home environment means that it is easy for child labour to go unrecorded (ILO, 1994).

Our study suggests that home-based work is by no means inevitably linked with child labour. Our field researchers were asked to look out for instances of child labour and also to question HBE operators in our qualitative interviews about the role their children play in the HBE. We found seven HBEs in Cochabamba and four in New Delhi with children working therein. In all four case studies, however, retail HBEs are likely to call on children to 'mind the shop' if a parent or adult family member has to go out or do something in the home.

In Bhumeheen Camp, New Delhi, we came across only one example of children working in the evenings in their own HBE making paper bags from recycled paper to sell to local shops. In Surabaya, children are most commonly engaged in mask making, unpaid and in an evening whilst watching television (Frost, 2000).

Some HBE operators expressed a desire not to employ their children in the family business as there was a hope that they would go on to study and become professionals. In Pretoria, we came across examples of parents keeping the children out of the HBE because they were stealing the stock. Children in our study are more commonly expected to help out with domestic chores and the care of the younger members of the family to allow the adults more business time. This conforms to practice in Turkish homeworking where the eldest daughter is often in charge of babysitting and kitchen work (Cinar, 1994).

Invisibility: informal relationships with suppliers, clients, and the state

Informal sector enterprises tend to be ‘invisible’, not having licences or formal contracts, unregulated, and uncaptured by official statistics.²⁴ In this way the entrepreneur avoids taxes, licence fees, and requirements to conform to standards (UNCHS, 1989). HBEs are particularly invisible, especially when it suits them to be so. The fact that we had to establish our own mapping of Bhumeeheen Camp, Banyu Urip, and Mamelodi Phase Two, before we could carry out a census, is testament to the extreme difficulty that city-level censuses of HBEs would involve in many countries. Thus, HBEs generally do not appear in tax returns, labour statistics, and other formal sector accounting procedures.

At the neighbourhood level, many HBEs are invisible from the street. In our Cochabamba case study, dwellings are surrounded by high walls with only a stout gate to allow entry. Our surveyor had to use snowball sampling, asking known operators for information on others, in order to establish her sample. Elsewhere, where privacy is not a priority, it is still difficult to build up a comprehensive picture of HBE activity. Some activities advertise their presence, either by being at the front of the dwelling (as with shops and many services) or by a signboard. Others, however, are in inner or back rooms and have no need to advertise their presence. This is typical of all forms of homeworking as only the agent needs to know the location of the workers. The thread-cutters, embroiderers and TV-tuner assemblers in Bhumeeheen Camp and some mask makers in Banyu Urip fall within this category.

Informal skills acquisition and limited skills needed

The literature suggests that most informal sector entrepreneurs learn through informal apprenticeships in the sector; only a few have received vocational training (UNCHS, 1989). This suggests that the standard of work will be poor, unable to compete nationally or internationally.

²⁴ However, Mead and Morrisson (1996) found that a majority of informal sector enterprises are registered in countries as different as Ecuador and Niger.

It is undoubtedly true that many HBEs are founded on skills that are common and limited, such as cooking, sewing, knitting, and ironing. Indeed, the lack of special skill is cited by some writers as one reason why homework is undervalued by both the women who do it and by their menfolk (Mies, 1982 and 1986; Berik, 1987; Ghvamshahidi, 1995). However, the skill required to turn a household activity into a viable HBE should not be overlooked.

Translating an ability to sew into the efficient machine-sewing of retail quality goods, working within the market, or managing workers can be very difficult and may impose very serious constraints on profitability.

Many operators of HBEs are using skills acquired in the formal sector through training either on the job or in a training school. This is especially true of men in HBEs in Pretoria but it commits them to relatively expensive enterprises to set up, especially as car mechanics. Some formally-trained garment makers there are using their skills in HBEs.

Many of our HBEs use skills at a level suitable for national or international markets. Jeans and T-shirts made in our Cochabamba sample are sold internationally in South America. The bird-cage painters in Surabaya produce work that is prized on the international market in South East Asia. Their neighbours make masks of high enough quality to be used for one of the ceremonies at the Sydney Olympics. A mould maker has a market for his products among factories in Singapore. These highly skilled and competitive entrepreneurs do not fit well into the informal sector stereotypes.

Operators have low incomes

Sethuraman (1997) makes a very strong link between poverty and the informal sector; among the lowest income groups, very high proportions work in it. However, within the category of low-income, there can be very wide variations in the amount of earnings enjoyed. In a study of 256 small businesses in Mexico City, Vega (1994) found that a majority of managers earn less than three times the minimum legal wage. Mezzera (1996) holds, however, that adopting the triple role of entrepreneur-capitalist-worker, informal sector

operators can make more money than comparable waged workers in the formal sector. Aguilar (1989, cited in Yasmeeen, 2001) found that many street traders in Manila used to have formal sector jobs but earn more by being self-employed in the informal sector.

In comparing countries, we convert local currencies to Pounds Sterling using purchasing power parity (PPP) factors calculated from the differences between Gross National Income per capita in dollars and in PPP dollars as contained in the World Bank's statistics (World Bank, 2000).²⁵ In all the following income data, we see a great difference between the Cochabamba sample, which at that time was centred around a successful garment making industry with international customers, and the others.

Table 10. Monthly income from HBEs (means and medians, PPP£)

	Cochabamba	New Delhi	Surabaya	Pretoria
Mean	814	141	266	279
Median (25 th and 75 th percentiles)	479 (230, 1129)	118 (33, 205)	115 (57, 203)	147 (79, 316)
Percentage of household income from the HBE	73.6	58.0	59.6	70.3
Percentage with all income from HBE	41.2	36.7	33.1	53.9

Within the usual problems of collecting income data, it must be admitted that, with medians of between PPP£100 and 150 per month (table 10), incomes from HBEs are not large in New Delhi, Surabaya and Pretoria. In Delhi, for example, the minimum wage for the period was Rs.65 per day (about PPP£115 per month) (Bhagat, 1997), so HBE operators make slightly more than the minimum wage. In Indonesia, however, they earn much more than the very low minimum daily wage in 1999 of Rp.6,650 (about PPP£66 per month) (Seabrook, 1998). Indeed, in all the samples, medians are considerably lower

²⁵ The conversion rates we use for converting local currency measures to the PPP Pound are as follows: Cochabamba (from the US Dollar), 0.71; New Delhi, 14.66; Surabaya, 2615.81; Pretoria, 3.8.

than means as the overall effects of a few particularly successful earners are removed.

There are considerable differences among our case studies in the mean incomes generated by the HBEs but they make an important financial contribution to the household, either as its only income or augmenting wage employment or other business ventures, and do so with little overhead expenditure for transport and other expenses of working outside the home. In all the case studies, between one third and one half of households are supported with income solely from the HBE. These are higher than Ghafur's (2000) sample in which only 22 per cent of households have no other income. In those households where there are other sources of income, the HBE still tends to generate over half of the household income.

In Cochabamba, where fairly sophisticated machinery and international trading are features of the major clothing industry in the sample area, they contribute a mean of PPP£570 per month to the household income (74 per cent).²⁶ In New Delhi and Surabaya, the HBEs provide almost 60 per cent of the operating households' incomes. The Surabaya data agree with the findings of Susilastuti (1996) whose work demonstrated that, although HBEs used to be supplementary generators of household incomes, they now tend to be the main source of income for households with them. Without their HBEs, these households would be in serious danger of destitution (Susilastuti, 1996), especially in the years following the financial crisis in Indonesia. In Pretoria, the HBEs are contributing over 70 per cent of income, and all the income for a majority of HBE households. HBEs are, therefore, especially important there. The contribution of HBEs to household poverty alleviation can be assessed by comparing the household incomes of those who have them with those who do not, in the same neighbourhood. Non-HBE households have about 75 per cent of HBE household incomes in each sample except in Cochabamba where non-

HBE households only earn 38 per cent of the HBE households' incomes (see note 7).

We can also compare incomes per capita to a poverty threshold. Ravallion et al (1991) estimate that absolute poverty is represented by a per capita income of about PPP£21 per month.²⁷ The lowest mean incomes for HBE households in our samples, recorded in New Delhi, give almost three times the absolute poverty threshold for HBE households. At the other extreme, the Cochabamba HBE samples' per capita incomes are more than 13 times better than the absolute poverty level at the mean (table 11)

Table 11. Monthly per capita income measures (£PPP)

	Cochabamba	New Delhi	Surabaya	Pretoria
Mean monthly household income per capita				
HBE Household	280	59.9	84.2	121
Non-HBE Household	95.8	45.2	57.3	68.0
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.051	0.972	0.842
Means as multiples of the PPP£21 per month per capita poverty line				
HBE Household	13.3	2.9	4.0	5.8
Non-HBE Household	4.6	2.2	2.7	3.2
Percentages of households below the PPP£21 per month per capita poverty line				
HBE Household	0.6	11.3	8.6	11.2
Non-HBE Household	1.3	24.0	2.7	22.0

The data in table 11 suggest that, while HBEs conform to the perception that informal sector employment is poorly paid, the income gained from HBEs is often of vital importance to the household and must be one of the most important positive contributions HBEs make to urban life. Per capita incomes of non-HBE households are much closer to the £21 absolute poverty threshold, only twice the threshold in New Delhi, nearly three times in Surabaya, more than three times in Pretoria, and four and a half times in Cochabamba. In

²⁶ Indeed, production HBEs are more profitable than other types there by a factor of over one third over retail and more than 100 per cent over services.

addition, except in Surabaya, more of our non-HBE sample households fall below the poverty line than their HBE neighbours. In Surabaya, mean per capita incomes for HBE operators are slightly higher than the national average urban monthly expenditure per capita of Rp.137,453 (about PPP£53) (Government of Indonesia, 2000) while non-HBE household incomes are slightly lower. However, when the non-parametric Mann-Whitney U test is applied to the distributions of HBE and non-HBE incomes per capita, the only significant differences are the one in Cochabamba (at the 1 per cent level), where we have probable large sampling errors, and in New Delhi (at almost the 5 per cent level) where HBEs are the main source of female income outside domestic work in nearby higher income areas. However, in Surabaya and Pretoria, the lack of significance suggests that, while the increases in income through HBEs are undoubtedly important for the households that have them, HBEs cannot be unequivocally credited with improving income significantly more than outside earning opportunities.

Low initial capital, limited access to formal credit and an under-capitalised process of production

In the informal sector as a whole, capital tends to be short and found informally from family, friends, money lenders, and other business interests (UNCHS, 1989). We found that most HBEs are set up with limited capital, often just what can be spared from a formal sector wage, or from small profits from an earlier business. Indeed, one of the advantages of using the home is that capital is not required for renting a workplace.

The use of credit of any sort is only common in our samples in Cochabamba (38 per cent) and New Delhi (33 per cent) and very few have formal loans, as expected. Only in Cochabamba, where the commercial microcredit sector is substantial, through the likes of Banco Sol, CIDRE, and FIE, are formal loans common. Some HBE operators, however, stated that they had reluctantly taken

²⁷ A dollar a day,

out a loan because their competitors who had loans could carry much larger stock than they could contemplate without loans. In addition, there are no informal, community-level credit systems in Cochabamba. In Surabaya, most of the very few borrowers have received loans available from Bank Rakyat Indonesia (BRI) of up to Rp10 million (PPP£3,800) with between 1.5 to 2.5 per cent interest rate per month. In both Surabaya and New Delhi, there is a perception that bribes are necessary in securing a loan from a formal bank. There is a general distrust of credit in Pretoria which is reflected in the very few cases (five) where HBEs use it (table 12).

Table 12. Source of loans raised specifically for HBEs (percentage frequencies)

	Cochabamba	New Delhi	Surabaya	Pretoria
Percentage of HBEs with loan	38.2 n=63	32.7 n=39	7.9 n=12	4.0 n=5
Source				
Bank	100	15.4	91.7	-
NGO	-	20.5	-	100
Relatives/ friends	-	38.5	8.3	-
Money lender	-	20.5	-	-
Employer/supplier	-	5.1	-	-

Surprisingly, there is little reliance on informal credit (only ten per cent of the whole sample had any), even from family members. Indeed, one of our Indonesia respondents described it as “uncomfortable” to borrow within the family. Informal credit is more common than formal in our sample in New Delhi where about 40 per cent of borrowing is from relatives and friends. Unsecured, local money lending (at up to half a percent per day interest) is used by about one fifth of the HBE borrowers for their businesses. HBEs are not the main reason for borrowing from usurious moneylenders. HBE operators in the New Delhi sample are 50 per cent more likely to borrow money from moneylenders for purposes other than business, and 52 per cent of non-HBE operators have loans from moneylenders.

Some households use windfall gains, such as retirement benefits, to set up their enterprises. Some of the women belong to rotating savings and credit associations (ROSCAs),²⁸ but do not count these as credit. Members take turns at the month-end to benefit from the pool or a winner is chosen through a lottery. Some HBE operators have financed capital expenditure that way but others do not join, fearful of risks.

HBEs in Cochabamba and Pretoria have benefited from group borrowing which permits informal sector workers, especially women, to access loans that would otherwise not be available to them.

In the New Delhi, Surabaya and Pretoria samples, HBE operators who use credit tend to borrow less than PPP£2,500, and have median loans of less than PPP£600. The Cochabamba sample is very different, however, with a median borrowing of PPP£2,800 (42 per cent of their annual household incomes) and 5 per cent have loans exceeding PPP£30,000! However, within eighteen months of our study, the banks in Bolivia foreclosed on many debts and bitter demonstrations followed as large loans have become a serious and unpredictable liability.

Consumption and production are not separated

The behaviour of HBEs with respect to the use of space is one of the principal reasons we embarked on our study, especially as it can be a problem for policy-makers who like to separate consumption and production as different spheres. Part of what allows informal-sector businesses to keep operating is their use of personal and domestic assets, such as living quarters, vehicles, and furniture for the business (Todaro, 1978; Lipton, 1980). Home-based enterprises benefit especially from this seamless integration between consumption and production in what Lipton (1980) calls “extended fungibility” of space, time and money. It is one of their fundamental advantages over non-HBE informal sector enterprises.

²⁸ Called “committees” in New Delhi, “*arisan kopyokan*” in Surabaya, and “*stokvels*” in Pretoria.

In order to assess the impact of HBEs on the space available, we have 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 (Tipple et al., 2002). 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 totally inhibit domestic uses. 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 bar keeper is likely to use some of her domestic space for serving drinks and may also do domestic tasks such as sewing and childcare while talking to her customers.

Table 13. Net HBE space* (percentage frequencies)

	Cochabamba	New Delhi	Surabaya	Pretoria
Mean (square metres)	25.7	3.9	11.9	5.2
Median (square metres)	18.0	2.5	7.0	4.0
Percentage of area				
Mean	34.4	38.8	19.6	19.2
Median	33.3	45.8	14.3	17.0
Percentage that do not have a separate room for the HBE	34.5	68.0	44.7	87.8

*Exclusively used space plus half joint domestic and HBE space

Table 14. Net domestic space*

	Cochabamba	New Delhi	Surabaya	Pretoria
Mean net domestic space (square metres)				
HBEs	47.6	6.7	46.8	23.1
Non-HBEs	36.9	8.4	51.8	18.2
Asymp. Sig. of Mann-Whitney's U (two tailed)	.002	0.000	0.191	0.008
Net domestic space per person				
HBEs	11.9	1.3	10.5	5.5
Non-HBEs	8.7	2.0	11.6	5.7
Asymp. Sig. of Mann-Whitney's U (two tailed)	0.000	0.000	0.300	0.640
Percentage of area used by HBE	65.6	61.2	80.4	80.8

*Exclusively domestic space plus half joint domestic and HBE space

HBEs generally use very little net space and not many have a separate room. However, there are two quite distinct findings from our study with respect to the use of space and how far the HBE impinges on domestic life. In the New Delhi case study, dwellings are very small (a mean of 10.8 square metres) and set within a constricted street environment. In this context, the small amount of space used for the HBE (table 14), has a major impact on domestic space. The presence of HBEs reduces net domestic space per person to only 1.3 square

metres from 2.0 square metres for those without HBEs (table 15). This difference is found to be highly significant using Mann-Whitney's U.

On the other hand, in Cochabamba, Surabaya and Pretoria, the net domestic space left over gives little cause for concern, even when assessed as space per person (table 14). Indeed, most only use the space that they have extra over the households who do not have HBEs.

There is undoubtedly a great deal of interchange in the use of space between enterprise and domestic activity through the hours of day and night. In the small spaces in New Delhi, the change-over is more necessary and onerous than elsewhere as paraphernalia are put away and laid out – and this is probably reflected in the shorter hours of work there (table 9). In many cases elsewhere, the enterprise activities spread widely throughout the dwelling allowing social activity and work to intermingle almost seamlessly, e.g., in the busy times for the production of masks in Banyu Urip.²⁹

There may, however, be conflicts between HBE and domestic uses when the same space is used for both, even if times of use differ. Such conflicts can be very sharply focused when gendered spaces like kitchens are invaded for a male-operated cooking enterprise. Other conflicts arise, *inter alia*, between needs for domestic peace and a noisy or distracting HBE, or enterprise work requiring concentration in a noisy domestic environment, or domestic uses incompatible with the HBE (e.g., divining ceremonies and the domestic use of salt in the same room). Although most households regard a separate space as ideal, we found that most households quite successfully negotiate some equilibrium between domestic uses and HBE viability.

The fungibility of money is, perhaps, most clearly represented in two phenomena: the difficulty of accounting for business expenditure and profit, and the use made of household income to support the business. In our Surabaya sample, there is little understanding, or even differentiation, of business profit.

As most workers draw little or nothing in cash, their needs for food, shelter, fun, and comfort are met out of the money available. Thus, when we tried to enumerate workers' and operator's wages, and compare them with incomes from the HBE, we could find no correlation at all.

In all our cases, and in the literature, especially the study by Cross et al (2001), money is often vired from housekeeping to start or run an HBE. Many households have a wage-earner, often in the formal sector of the economy, and his³⁰ income is used to capitalise the business both at first and in times of necessity of expansion. Thus money is freely transferred between domestic and business uses, as expected from the informal sector literature.

Conclusions

In this paper, we have used a range of descriptive data to demonstrate the range and depth of HBEs present in the sampled low-income residential areas. In general the data confirms our expectation that HBEs conform to many of the known characteristics of the informal sector. However, their presence in the home bestows upon them certain constraints and advantages not experienced by their peers operating within other premises.

The main constraint that HBEs experience which other informal sector enterprises do not is competition for space with domestic activities. However, apart from in the tiny dwellings in India, this did not seem to be a problem for the majority. For workers, the main disadvantage of working in an HBE is the potential for exploitation, particularly because HBEs are difficult for regulatory officials to find and control. However, such exploitation of workers by employers seems much less common than the homeworking literature suggests.

²⁹ Space issues in our study are discussed in more detail in Tipple et al (2002).

³⁰ It is usually a male.

Much more common is self-exploitation either in an entrepreneur working ‘all hours’ or in a woman taking up paid work as well as all the domestic tasks.³¹

The advantages of HBEs include the ability:

- to maintain an enterprise at little overhead cost, except perhaps some disturbance of domestic activity;
- to make use of household resources, especially space and utility connections. Indeed, the home provides the ultimate environment for trading off resources between domestic and productive activities;
- to make effective use of time and money particularly by avoiding travel to work;
- to make effective use of social and human resources, particularly relatives and friends, in the enterprises in exchange for small sums of money or benefits in kind.
- To enable women to have productive work even in societies where their movement and social intercourse are restricted.

It is clear that, although the informal sector in general can provide a low-overheads route to income earning, through pavement sales, ambulatory hawking, or a simple workshop in a shack. The lack of statistical differences in male employment where HBEs are present suggests that they can easily find opportunities for informal sector activity outside the home. However, women often have more restricted access to public realms and are likely to have child-care ties. Thus, they gain significantly improved opportunities to work through involvement in home-based activity.

The legions of HBEs provide work, income and services for so many people that they constitute an extremely important social and economic resource which should not lightly be constrained by regulation or official apathy. Even though

³¹ Of course, self-exploitation only expresses part of the story. The impetus to work too hard or on too many fronts may come from others, including women’s male partners.

they must be among the smallest and least well-equipped enterprises in the manufacturing sector, some production HBEs are capable of making high quality products marketable over wide areas.

The idea that informal sector enterprises make extensive use of informal credit is not supported by our study. HBEs tend to run on cash (often wages from another household member's job) rather than loans, despite the growing micro-finance industry.

HBEs have an important place in the livelihoods of the people in the study areas. As with other informal sector activities, they should be accorded more attention by policy-makers, not to control them but to find ways of co-operating with entrepreneurs to assist them to be effective and efficient. More investment in servicing residential areas to a level at which HBEs can operate with adequate water supply, sanitation, power and solid waste disposal would be helpful. This requires a new attitude from officialdom, however, which can only come from confidence in and understanding of the nature of HBEs. Empirical evidence such as ours can help to promote this.

References

- Asian Development Bank, (1999). *The Bank's Urban Sector Strategy (Draft)*. Manila, Agricultural and Social Sectors Department (West), Asian Development Bank.
- Aguilar, F. V. (1989). "Curbside capitalism: the social relations of street trading in Metro Manila." *Philippine Sociological Review* **37**: 6-26.
- Bekkers, H. and W. Stoffers (1995). "Measuring informal sector employment in Pakistan: testing a new methodology." *International Labour Review* **134**(1): 17-20.
- Benjamin, S. (1991). *Jobs, land and urban development: the economic success of small manufacturers in East Delhi, India*. Boston, Mass, Lincoln Institute of Land Policy.
- Berger, M. (1996). An introduction. In M. Berger and M. Buvinic (eds.) *Women's Ventures: assistance to the informal sector in Latin America*. West Hartford, Conn, Kumarian Press.
- Berik, G. (1987). *Women carpet weavers in rural Turkey: Patterns of employment, earnings and status*. Geneva, ILO.
- Bhagat, M. (1997). "Poverty and Minimum Wages." *The Indian Journal of Labour Economics* **40**(4).
- Bhatt, E. (1989). "Towards empowerment." *World Development* **17**(7): 1059-65.
- Boris, E. and E. Prügl (eds.) (1996). *Homeworkers in global perspective: invisible no more*. New York, Routledge.
- Bose, M. (1990). *The Urban Informal Sector Revisited: Some Lessons from the Field*, Institute of Development Studies, Falmer, Sussex.
- Brown, A. and T. Lloyd-Jones (2002). "Spatial planning, access and infrastructure". In C. Radoki and T. Lloyd-Jones (eds.) *Urban Livelihoods: a people-centred approach to reducing poverty*. Sterling, VA, Earthscan: 188-204.
- Buvinic, M., M. Berger and C. Jaramillo (1996). Impact of a Credit project for Women and Men Microentrepreneurs in Quito, Ecuador. In M. Berger and M. Buvinic (eds.) *Women's Ventures: assistance to the informal sector in Latin America*. West Hartford, CT., Kumarian Press Inc.: 222-46.
- CARDO (2000). *Conference proceedings*. Housing, work and development: the role of home-based enterprises, University of Newcastle upon Tyne. 26-28 April.

- Chen, M., J. Sebstad and L. O'Connell (1999). "Counting the invisible workforce: the case of home-based workers." World Development **27**(3): 603-10.
- Cinar, E. M. (1994). "Unskilled urban migrant women and disguised employment: home working women in Istanbul, Turkey." World Development **22**(3): 369-80.
- Cross, C., T. Mbhele, P. Masondo and N. Zulu (2001). Inside the invisible economy: home-based workers in poor settlements of the Durban Metropolitan Area. CARDO/CSIR Workshop on "The Impacts of Home-Based Enterprises on the Social, Economic and Physical Environment", Pretoria. 1-2 March.
- Daniels, L. (1999). "The role of small enterprises in the household and national economy in Kenya: a significant contribution or a last resort?" World Development **27**(1): 55-65.
- Daniels, L. (2003). "Factors that influence the expansion of the microenterprise sector: results from three national surveys in Zimbabwe." Journal of International Development **15**: 675-92.
- de Soto, H. (1989). The other path: the invisible revolution in the Third World. New York, Harper & Row/Perennial Library.
- Dierwechter, Y. (2002). "Six cities of the informal sector - and beyond", International Development Planning Review **24** (1): 21-40.
- ESCAP (2001). Synthesis of National Reports on the Implementation of the Habitat Agenda in the Asia and the Pacific Region, Economic Commission for Asia and the Pacific Region Report to Istanbul+5, <http://www.unhabitat.org/istanbul+5/escap.doc.htm>, 15/2/02 2002.
- Fapohunda, O. J. (1985). The informal sector of Lagos: an inquiry into urban poverty and employment. Ibadan, Nigeria, University Press Ltd.
- Fass, S. M. (1980). The Economics of Survival: A Study of Poverty and Planning in Haiti. Washington D.C., Office of Urban Development, Bureau for Development Support, Agency for International Development - International Development Cooperation Agency.
- Frost, M. (2000). "Concepts of space, time and work, in Indonesian home-based enterprises: a case study at Banyu Urip, Surabaya". Department of Geography. University of Newcastle upon Tyne.
- Funkhouser, E. (1996). "The urban informal sector in Central America: household survey evidence." World Development **24**(11): 1737-51.
- Gallagher, R. (1992). The Rickshaws of Bangladesh. Dhaka, The University Press Ltd.
- Ghafur, S. (2000). Urban Poor Home-based Work and Development in Bangladesh: an Entitlement Perspective. Conference on Housing, Work

- and Development: the Role of Home Based Enterprises, University of Newcastle upon Tyne. 26-28 April.
- Ghafur, S. (2001). "Beyond homemaking: the role of slum improvement in home-based income generation in Bangladesh." Third World Planning Review **23**(2): 111-35.
- Ghafur, S. (2002). "Gender implications of space use in home-based work: evidences from slums in Bangladesh." Habitat International **26**(1): 33-50.
- Ghvamshahidi, Z. (1995). "The linkage between Iranian Patriarchy and the informal economy in maintaining women's subordinate roles in home-based carpet production." Women's Studies International Forum **18**(2): 135-51.
- Gilbert, A. (2000). In what ways does a self-help house constitute a good investment? Conference on Housing, Work and Development: the Role of Home Based Enterprises, University of Newcastle upon Tyne. 26-28 April.
- Gilbert, A. G. (1988). "Home enterprises in poor urban settlements: constraints, potentials, and policy options." Regional Development Dialogue **9**, 4(Winter): 21-37.
- Gokhale, V. (1992). "Eating on the run." IDRC. Reports **20**(2).
- Gough, K. V. and P. W. Kellett (2001). "Housing Consolidation and Home-based Income Generation: Evidence from self-help settlements in two Colombian cities." Cities **18**(4): 235-47.
- Government of Indonesia (2000). "Welfare Statistics 1999 and 2000: National Socio-economic Survey". Jakarta, Central Bureau of Statistics.
- Grant, M. R. and A. D. Palmiere (2003). "When tea is a luxury: the economic impact of HIV/AIDS in Bulawayo, Zimbabwe." African Studies **62**(2): 213-41.
- Hays-Mitchell, M. (1993). "The ties that bind. Informal and formal sector linkages in streetvending: the case of Peru's ambulantes." Environment and Planning A **25**: 1085-102.
- ILO (1993). Official Bulletin of the 15th International Conference of Labour Statisticians. Geneva. **LXXVI**: 178-88.
- ILO (1994). Home Work Report. International Labour Conference 82nd Session, Geneva, ILO
- Iyenda, G. (2001). "Street food and income generation for poor households in Kinchasa." Environment and Urbanisation **13**(2): 233-41.
- Kellett, P. W. and A. G. Tipple (2000). "The home as workplace: a study of income-generating activities within the domestic setting." Environment and Urbanisation **12**(1): 203-13.

- Kessides, C. (1997). World Bank experience with the provision of infrastructure services for the urban poor: preliminary identification and review of best practices, <http://www.worldbank.org/urban/publicat/alpha.html>, 10th September 2004.
- Lee-Smith, D. (1989). Urban Management in Nairobi: A Case Study of the Matatu Mode of Public Transport. In R. E. Stren and R. R. White (eds.) African Cities in Crisis; Managing Rapid Urban Growth. Boulder Co., Westview Press: 276-304.
- Lipton, M. (1980). Family, Fungibility, and Formality: Rural Advantages of Informal Non-farm Enterprise versus the Urban-formal state. In S. Amin (ed.) Human Resources, Employment, and Development, Volume 5, Developing Countries. London, Macmillan: 189-242.
- Mahmud, S. (2003). "Women and the transformation of domestic spaces for income generation in Dhaka bustees." Cities **20**(5): 321-29.
- Maldonado, C. (1995). "The informal sector: legalization or laissez-faire?" International Labour Review **34**(6): 705 (24).
- Marshall, A. (1992). Circumventing labour protection: Non-standard employment in Argentina and Peru. Geneva, International Institute for Labour Studies.
- Mead, D. C. and C. Liedholm (1998). "The dynamics of micro and small enterprises in developing countries", World Development **26** (1): 61-74.
- Mead, D. C. and C. Morrison (1996). "The informal sector elephant", World Development **24**: 1611-19.
- Mehta, M. and D. Mehta (1990). Home Upgradation and Income Generation from Housing. In M. Raj and P. Nientied (eds.) Housing and income in Third World urban development. London, Aspect Publishing: 129-40.
- Mesa, N. E. (1990). Economic use of housing 'pirata' and invasion 'barrios', Medellin. In M. Raj and P. (eds.) Nientied Housing and income in Third World urban development. London, Aspect Publishing: 27-40.
- Mezzera, J. (1996). Excess labour supply and the urban informal sector: an analytical framework. In M. Berger and M. Buvinic (eds.) Women's Ventures: assistance to the informal sector in Latin America. West Hartford, CT., Kumarian Press Inc.: 45-64.
- Mies, M. (1982). The Lacemakers of Narsapur: Indian Housewives Produce for the World Market. London, Zed Press.
- Mies, M. (1986). Patriarchy and accumulation on the world scale: Women in the international division of Labor. London, Zed Press.
- Moser, C. (1978). "Informal sector or petty commodity production: dualism or dependence in urban development." World Development **6**: 1041-64.

- Moser, C. (1984). "The urban informal sector reworked: viability and vulnerability in urban development." Regional Development Dialogue **5**: 135-83.
- Murray, W. (2003). "Informal gold mining and national development: the case of Mongolia." International Development Planning Review **25**(2): 111-28.
- Pallen, D. (2001). Reinventing the city: the role of small scale enterprise, Canadian International Development Agency.
- PREALC (1975). Situacion y perspectivas del empleo en Paraguay. Santiago, Programa Regional del Empleo para America Latina y el Caribe.
- Prügl, E. (1992). Globalizing the cottage homeworkers' challenge to the international labor regime. Washington DC, The American University.
- Prügl, E. (1998). Women and Homework. In N. Stromquist (ed.) Encyclopedia of Third World Women. New York, Garland Publishing.
- Raj, M. and B. Mitra (1990). Households, housing and home based economic activities in low income settlements. In M. Raj and P. Nientied (eds.) Housing and income in Third World urban development. London, Aspect Publishing: 171-82.
- Ravallion, M., G. Datt and D. van de Walle (1991). "Quantifying Absolute Poverty in the Developing World." Review of Income and Wealth **37**(4): 345-62.
- Robinson, J. (1977). "What are the questions?" Journal of Economic Literature **57** (4): 1318-39.
- Rogerson, C. (1991). Home-based enterprises of the urban poor: the case of spazas. In E. Preston-Whyte and C. Rogerson (eds.) South Africa's Informal Economy. Cape Town, Oxford University Press: 336-44.
- Sarna, T. and A. Shukla (1994). "A Study of Physical Health and Neuroticism among Women Engaged in the Home-Based Production of Chikan Embroidery", Social Indicators Research **32** (2): 179-91.
- Seabrook, J. (1998). "Corruption, collusion, nepotism: Indonesian politics." New Statesman **127**(4406).
- Sethuraman, S. V. (1976). "The informal sector: concept, measurement and policy." International Labour Review **114**: 69-81.
- Sethuraman, S. V. (1997). Urban poverty and the informal sector: a critical assessment of current strategies,
<http://www.ilo.org/public/english/employment/recon/eiip/publ/1998/urbpover.htm>, 1.12.03
- Sethuraman, S. V. and A. Ahmed (1992). Urbanization, employment and the environment.in A. S. Bhalla Environment, Employment and Development. Geneva, ILO: 121-40.

- Singh, V. and G. P. Kowale (2000). Employment Conditions, Exploitation, Safety, Income in Home-Based Enterprises in Brassware Industry of Aligarh. Conference on Housing, Work and Development: the Role of Home Based Enterprises, University of Newcastle upon Tyne. 26-28 April 2000.
- Souza, P. R. (1979). Emprego e salarios. Sao Paulo, Hucitec.
- Strassmann, W. P. (1986). "Types of Neighbourhood and Home-Based Enterprises: Evidence from Lima, Peru." Urban Studies **23**: 485-500.
- Strassmann, W. P. (1987). "Home-based Enterprises in Cities of Developing Countries." Economic Development and Cultural Change **36**(1): 121-44.
- Susilastuti, D. H. (1996). Home-based work as a rural survival strategy: a central Javanese perspective. In E. Boris and E. Prügl (eds.) Homeworkers in global perspective: invisible no more. New York and London, Routledge: 129-41.
- Tinker, I., Ed. (1997). Street foods: urban food and employment in developing countries. New York, Oxford University Press.
- Tipple, A. G. (2000). Extending themselves: user initiated transformations of government built housing in developing countries. Liverpool, Liverpool University Press.
- Tipple, A. G., J. Coulson and P. W. Kellett (2002). The effects of home-based enterprises on the residential environment in developing countries. In S. Romaya and C. Rakodi (eds.) Building Sustainable urban settlements: approaches and case studies in the developing world. London, ITDG Publishing: 62-76.
- Todaro, V. E. (1978). "A model of labour migration and urban unemployment in less-developed countries." American Economic Review(March).
- UNCHS (1989). Improving income and housing: employment generation in low-income settlements. Nairobi, UNCHS (Habitat).
- Vega, C. A. (1994). Small-scale industry in the context of the Mexican Economic Liberalisation Programme and the North American Free Trade Agreement. In C. A. Vega and D. Kruijt (eds.) The Convenience of the Miniscule: Informality and Microenterprise in Latin America. Amsterdam, Thela Publishers.
- Vega, C. A. and D. Kruijt (1994). The Convenience of the Miniscule: Informality and Microenterprise in Latin America. Amsterdam, Thela Publishers.
- World Bank, (2000). World Development Report. Washington DC, The World Bank.
- Yasmeen, G. (2001). "Stockbrokers turned sandwich vendors: the economic crisis and small-scale food retailing in Southeast Asia." Geoforum **32**: 91-102.