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# Private Infrastructure Service Providers Learning from Experience

## Final Report


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## 1 Summary

Small enterprises form a large part of the economy of most developing countries. The number of enterprises involved in service provision is growing and often forms the largest subset with the informal sector.

The hypothesis for this research is that Small Scale Infrastructure Providers (SSIPs) in various sectors have a common set of problems. These require particular sets of business support services and there may be an opportunity to capitalise on potential synergies across sectors.

The research highlighted several areas where Business Development Services could be provided cross-sectorally, such as increased professionalism in several sectors in Bangladesh and stock control and marketing in Peru.

The research also highlighted the areas where further research is needed to obtain a more complete picture before interventions can be made. This is because SSIPs usually work in a supply chain with other small enterprises as either suppliers, or customers. Some interventions aimed at SSIPs may be able to have multiple intervention points along a product supply chain. Other interventions need careful consideration of both informal and formal service providers to discover the most cost-effective and sustainable way of improving the quality or reach of the service to consumers. Any improvements made to formal service providers will have livelihood consequences for SSIPs and their existing supply chains.

The most pressing areas for research can be split into 3 categories

- Regulation, legislation and competition
- Needs assessment for BDS for small scale infrastructure providers
- Recognition and co-operation with existing formal sector providers, utilities and state and local authorities

How these topics relate to SSIPs in particular, rather than small enterprises in general is adequately known. Business Development Services that are needed in the manufacturing and processing sectors may not be at all applicable in the service provision sector.

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# 2 Methodology

Current thinking on the research problem is that small enterprise engaged in providing infrastructure services have the potential to develop their businesses to provide sustainable and appropriate services to meet a large scale demand, particularly in urban and peri–urban areas. In order to achieve this they need support to reduce the constraints that they face and support to create an enabling business environment. Initially the constraints may be a lack of access to start-up capital, knowledge, local regulation etc. Long term growth and sustainability may be restricted due to a lack of access to markets, restrictive regulatory frameworks, limited information on demand, lack of suitable technology, basic skills and poor infrastructure.
The hypothesis for this research is that Small Scale Infrastructure Providers (SSIPs) in various sectors have a common set of problems. These require particular sets of business support services, which are generally not yet available and there may be an opportunity to capitalise on potential synergies across sectors, e.g. a book keeping training course for a water vendor is the same as that for a kerosene seller. Equally, economies of scale in providing services to SSIPs may not be realised in a sectoral approach, but could be achieved with a larger and broader market.

A literature study firstly collated current knowledge and experience. Including web based materials and grey literature from the North and the South.

Field research was undertaken in both Peru and Bangladesh to study various sectors in more detail and final stakeholder workshops were held in each country to collaborate and discuss the findings.

## *2.1 Methodology of the field survey in Peru*

- In the Water provision sector, the study focused on the work carried out by tank trucks that supply water to shanty towns or urban fringe areas in the city of Lima.
- In the Energy provision sector, the study focused on the work carried out by the main suppliers of cooking fuel (gas and kerosene) in the city of Lima.
- In the Security provision sector, the study focused on the work carried out by guards who provide domestic security services (watchmen).

### 2.1.1 Gathering Information

- General Information: This was obtained from statistical data and other sources, to obtain a general outlook of the study.
- Information on Service Suppliers: Information was obtained via semi-structured interviews from those providing the service.
- Information of Service Users: Information was obtained via structured interviews from those receiving the service.

2.1.2 Size of the sample

The size of the sample was 300 interviews with service users. Their distribution with respect to the target population appears in the following table:

| Table 1: Interviews and target population | | | | |
|---|---|---|---|---|
| **Description** | **Water** | **Energy** | | **Security** |
| | | **Gas** | **Kerosene** | |
| **Number of interviews** | 90 | 90 | 60 | 60 |
| **Target population** | Urban Fringe Areas (Lower Middle and Lower Strata) | Middle and Lower Strata | Urban Fringe Areas (Lower Middle and Lower Strata) | Middle and Lower Middle Strata |

### *2.2 Methodology of the field survey in Bangladesh*

2.2.1 Gathering Information

The primary research on SSIPs in Bangladesh rapidly surveyed 20 sub sectors through open ended questionnaires with SSIPs and key informants. This highlighted some of the common constraints for SSIPs. Further investigation into 5 specific SSIPs sub sectors was carried out to gain better insight into the operations of the enterprises. Samples from the selected 5 SSIPs sub-sectors were randomly chosen from known SSIPs.

The sub-sectors were as follows

1. Private clinics
2. Sanitary hard wear
3. Coaching Centres
4. National courier services
5. Travel and tourism

The survey questionnaires were designed to collect data from SSIPs and other stakeholders including consumers, suppliers, NGOs, banks/financing institutions, international/donor organisations, trade associations and licensing authorities.

2.2.2 Size of the sample

The team interviewed 30 SSIPs and another 40 other stakeholders and they focused on gaining qualitative data that can be selectively used to highlight the factors above. Most work was carried out in Dhaka, but some samples were included from Narshindi, Shibpur, Faridpur, Gazipur and Savar.

# 3. Results

## *3.1 Literature*

The literature review looked at the current profile of small enterprises that provide infrastructure services and their characteristics. Details on their performance and the value they have to the economy, society and their customers was studied. The scale and scope of SSIPs was investigated although current literature in no way captures all aspects of the variety of SSIPs that exist. The context, market conditions, enabling and regulatory environment which they operate in, together with their flexibility has an impact on the sustainability of the services and enterprises. Special treatment for SSIPs such as subsidies have been debated as they have advantages and disadvantages for the end service user and the SSIPs involved.

The following conclusions have come from the literature review

### 3.1.1 Market Conditions

An interesting phenomenon is that SMEs not only operate in very constrained markets but also help in creating new markets, this is especially true of informal SMEs. SMEs represent an important coping strategy in responding to the economic, physical and social crisis and as such are playing major role in recovery of the economies of many countries and households.

### 3.1.2 Coexistence of Formal and Informal

The trend of at least supplementing formal income with informal income is becoming very common. Interestingly relatively middle-income people within formal employment, are diversifying their livelihood strategies and supplementing their incomes with money from informal economy. There is no consensus as to whether these activities are efficient and effective, yet concern has been raised that income from the formal sector may be subsidising relatively unprofitable informal activities.

### 3.1.3 Undervalued

The informal activities of SMEs do not show up in official statistics but the subterranean economy is now widely recognised to have become relatively important, autonomous, and self-propelling in almost all developing countries and represents the beneficial outcome of indigenous small enterprise development.

### 3.1.4 Employment

SMEs in the informal economy are the largest creator of employment. A number of cases stated how business creation in the informal sector became an important coping mechanism in the context of economic crisis. Nonetheless, there are concerns about working conditions, health and safety, terms of employment and labour standards and some commentators are concerned about the increasing polarization between the formal and informal sectors.

### 3.1.5 Flexibility

SMEs have proven records of being flexible, providing different levels of service and responding to demands that would be very expensive to meeting through formal instruments. In addition, it is relatively easier to enter and exit the market through SMEs. There is a desire in some articles to regulate the informal SMEs, yet this raises the question of how to ensure that the SMEs especially in informal economies do not loose their advantageous position of being flexible and responsive.

### 3.1.6 Skills Needed

There is a general assumption that SMEs need certain stocks of human capital and skills such as financial management, bookkeeping, managerial and accounting skills. In most of the cases the assumption is that what is good for the formal sector is good for the informal as well. The science of formal businesses is well documented, yet the art of business by SMEs is not fully understood.

### 3.1.7 Scalability

Although the scale on an individual SME may be limited, SMEs are a significant proportion of the economy performing in almost all the basic infrastructure services. There are very few examples of coherent SME growing into large operations. Separate scaling up activities may be necessary in order to achieve economies of scale, levelling the playing field between large companies and small scale providers.

### 3.1.8 Impacts

It is generally assumed that SMEs have a positive impact, as the literature revealed a qualitative account of usefulness of SMEs and the benefits of the services provision. However, a quantitative cause and effect relationship between SMEs and livelihoods improvement are not found. Furthermore, the current interest in market based solutions to improve low incomes obscures the need to tackle the structures which cause and perpetuate poverty, vulnerability and powerlessness. The review also provides evidence of the potentially exploitative nature of SMEs especially in the context of basic service provision.

### 3.1.9 Special treatment for SMEs

There is some criticism of artificially supporting SMEs, especially formal SMEs, through mechanisms like tax and subsidies in order that they survive in the market. The literature also pointed to an emerging consensus on the need to tax SMEs.

### 3.1.10 Micro-Finance

There are many accounts of micro-finance initiatives and programmes used as the capital basis for initiating and expanding SMEs, however the poor typically rely on personal or family savings. The detailed comparisons, impacts analysis and the determination for value for money are lacking from the literature reviewed.

#### 3.1.11 Social Capital

The role of social capital created by in the small-firm sector in developing countries was explored. Some empirical studies find that social capital hampers economic performance by creating market segmentation and inducing rent-seeking activities. Other studies conclude that social capital is an important prerequisite for productive interaction among small firms. Some developed a concept of social capital governance, which distinguishes between inclusive and exclusive social capital, while inclusive social capital furthers economic performance while exclusive social capital may not.

#### 3.1.12 Environment

A range of environmental policy instruments that can be employed in relation to SMEs; education, self- inspection and self-audit, supplier relationships, incentives, and both traditional regulation, and what is termed 'co- regulation', are all considered. While the cost of service remains an important criterion to the success of SMEs, the social acceptance of any model is also vital. It is clear that not all of these policy instruments will be suitable in all circumstances or to all SMEs.

### *3.2 Background*

#### 3.2.1Background of urban informal and micro enterprises in Peru

In Peru, centralism is a colonial heritage whereby society and the Peruvian economy were organised on the basis of a central State based in Lima, in which economic centralisation and State centralism are combined, with a centralised State bureaucracy that depends on a centralised economy. Surprisingly, however, the private sector is relatively more centralised than the State and Lima accounts for nearly 50% of the GDP and 85% of income raised from taxes. In the decentralisation process there is a tendency to strengthen municipalities and to create regional governments as a way of achieving regional and local development and strengthening democracy.

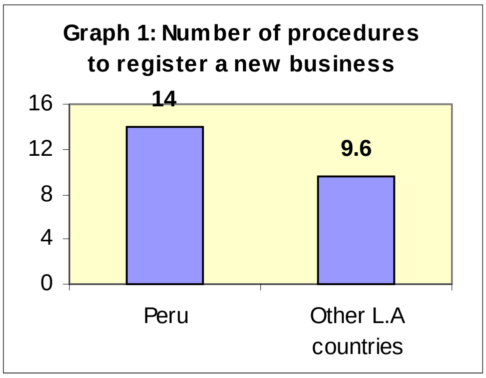
- <u>Subsistence or survival micro enterprises</u> are characterised by being unstable, fairly unproductive, operating below cost, earning insufficient income for their owners and workers, playing no part in business networks with other companies or institutions, they are mostly *informal* (tax, labour and municipal registration), they do not generate adequate employment (from the point of view of income and hours worked) and employ mostly family members. They also employ unskilled manpower and their production techniques are mostly simple and rudimentary.

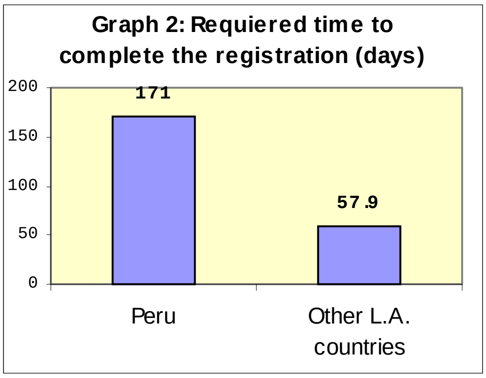
- <u>Viable Micro Enterprises</u> are those with a *growth potential*, that create surpluses and provide income and interesting development prospects for their owners and workers and have access to credit. They also employ family members, but most of them comply with minimum formal requirements, therefore they can be qualified as “semi-formal”. In view of their viable nature or capacity to accrue dividends, they need to be supported in economic rather than social terms. They have simple organisation systems, centralised around a family structure. They use limited financial services, have better levels of training than non-viable micro ones, but still have certain limitations.

- Small companies are associated with economic development, growth and competitiveness. These enterprises are economically viable units capable of generating surpluses, creating employment and contributing to the country's competitiveness. They are formal companies in terms of municipal and labour taxes and the division of duties and hierarchy in their organisation tends to be straightforward. The owner usually manages the company and workers are often relatives. They use financial and non-financial services regularly. There is a higher level of professionalism among managers and workers. They use basic information technologies and include quality in their management and production procedures.

In Peru, SMEs account for approx. 75% of the employment in the country ("Profile of the Small and Micro Enterprise Worker, 1997" – INEI) .Of these 95% are concentrated in micro enterprises and the remaining 5% work in small enterprises. Employment figures are rising and have shown at least 5% growth from 1996-1998. According to the ENAHO 1997 survey, small and micro enterprises have a significant presence in the Services Sector. This is where 62.3% of those working in the SME sector are employed.

From previous knowledge and work with SMEs in Peru, it was known and validated by the fieldwork that an important issue of SMEs is their legal status. It is estimated that in Peru 58% of the small and micro enterprises are informal, becoming the second Latin American Country with the highest informal sector. Factors to account for this include the time and number of steps required to become formally registered.




3.2.2 Background of urban informal and micro enterprises in Bangladesh

In Bangladesh, SMEs play a vital role in earning much needed foreign currency which directly contributes to establish macro economic stability in the country. One USAID study shows that SMEs comprise about 98 percent of industrial units, almost 90 percent of industrial employment and 46 percent industrial sector share to GDP. There is a lack of reliable and current data, but it is estimated that there are over 20,000 manufacturing SMEs and 10,000

SMEs involved in service side activities (Draper and Hossain, 2001). In recent years, the service sector in the urban and peri-urban centres of Bangladesh has grown to provide a wide range of services. Some of these SMEs are domestic courier services, private clinic, travel and tour companies, and security services.

Regulations governing the industry and employment in Bangladesh have recently been revised in the draft Industrial Policy of 1999. This is to stimulate an increase in employment in the small and cottage industry; to encourage labour intensive investment; to create female employment and skills upgrading and to support decentralised small and medium industry.

## *3.3 Water sector results from Peru*

### 3.3.1 Background

A housing census taken by INEI[1] in 1993, indicates that the public water network supplies 70% of the homes in the country. Apart from this, the most popular sources are fountains, wells, tanks, and rivers/ditches.

**Table 1: Type of water supply in Peru, by geographical regions**

| Region | Public network | Fountain | Well | Tank | River- Ditch | Others |
|---|---|---|---|---|---|---|
| **Coast** | 58% | 10% | 9% | 7% | 14% | 2% |
| **Highlands** | 28% | 14% | 7% | 1% | 47% | 3% |
| **Jungle** | 23% | 9% | 31% | 1% | 32% | 3% |

Source: INEI , National Population and Housing Census, 1993
Drawn up by: Energy Programme, ITDG-LA

The type of service used usually depends on the areas in which people live. Planned urban areas are largely supplied by the public water network wheras the growing urban fringe areas which have grown with no urban planning, and the informal settlements, are resorting to fountains, tankers, welss, rivers/ditches.

In general, towns on the coast have more people creating “urban fringe areas”, who find it difficult to obtain a water supply service, therefore they resort to tank trucks or public fountains. Both in the constitutional province of Callao and Lima, 12% of the population obtains water from tank trucks – the highest percentage in the country.

In Lima it was estimated that over 115,000 households are supplied with water from tank trucks in 1998.

### 3.3.2 Supply to water to SSIP tanker trucks in Lima

Owners of tank trucks supply safe drinking water under an agreement with SEDAPAL[2], using waterspouts that belong to that company. The

[1] *INEI: National Institute of Statistics and Data Processing*

[2] The entity in charge of providing sanitation services, comprising safe water supply and sewage services, sanitary excreta disposal, latrines and septic tanks.

quality of the water and the technical and infrastructure requirements are checked constantly. Tank truck owners currently working under an agreement with SEDAPAL started working as informal water suppliers in urban fringe areas of Lima, having taken over this activity from their fathers. Once the agreement with SEDAPAL became an alternative, the majority of tank truck owners signed up for it, formally registering in the SEDAPAL data base. Consequently, the quality of the water improved, since SEDAPAL guaranteed the water supplied by its waterspouts and the tank trucks had to meet certain requirements.

Tank trucks obtain their supply of water from pre-established areas, so as to prevent oversupply. In these areas, the routes are selected by the drivers themselves, most of whom have no complaints about the distribution process. In some areas there is a small amount of co-operation and price fixing between tank truck owners

Tank truck owners who supply water informally obtain their supply from unauthorised wells, usually clandestine ones located relatively near the areas they want to serve.

### 3.3.3 Enterprise operation

Tank truck owners begin working 4:00 a.m. and finish at about 1:00 p.m. in winter. In summer, they start about 3:00 am and finish working at about 3:00 p.m., due to the greater demand for water during hotter weather.

For most of these people, this is their only job and the only source of income for their families. Enterprises usually employ an assistant who is paid a wage and provided with meals.

Customers require water depending on consumption and size of water storage facilities, but the average household uses around 30 litres per capita per day and requires a delivery two or three times a week.

Water is acquired from SEDAPAL waterspouts at a fee of US$ 0.13 per cubic meter. The price charged to the final user was fixed at a maximum of US$ 0.43 per cylinder, equivalent to 200 $dm^3$ of water. Penalties have been established for anyone not abiding by this standard. The research, however, found that tank truck owners usually sell for less than the established price and customers often pay more than the established price, indicating that the market (and price) does respond to supply constraints. A simple financial analysis of the costs and charges gives a daily profit of US $ 23 in the winter and US$ 46 in the summer. This takes into account basic figures for salary costs and depreciation which may not be fully accounted for by tank truck owners.

### 3.3.4 Outlook

Over 70% of the water provision by tank truck is currently supplied by enterprises having an agreement with SEDAPAL. Informal water suppliers are gradually decreasing in number, because of the agreement with SEDAPAL covering areas previously supplied by informal suppliers and because people are capable of choosing the service that suits them best, according to tank truck owners, the price and the quality of the water supplied.

### 3.3.5 Improvements

- Tank truck drivers should identify themselves to prove they really come from SEDAPAL to ensure that the water they have is of the quality required by the SEDAPAL agreement
- Tank truck providers should supply water more frequently, especially to the 40% of customers who consumer less than the 30 litres per capita per day.
- They should not only distribute water in the lowlands, but also in other areas which suppliers do not usually cover.

## *3.4 Gas service sector results from Peru*

### 3.4.1 Background

In Peru, the use of fuel for cooking is fairly varied, depending on the geographical region. National statistics indicate that 46% of the homes on the coast use gas and 33% use kerosene as the main cooking fuel. In other regions, more than 50% of the homes use firewood (see table 2).

**Table 2: Fuels used for cooking, by regions**

| Region | Electricity | Gas | Kerosene | Fire wood | Coal | Others | They don't cook |
|---|---|---|---|---|---|---|---|
| Coast | 0.6% | 45.6% | 32.7% | 17.9% | 0.5% | 0.0% | 2.7% |
| Highlands | 1.3% | 12.0% | 22.4% | 50.5% | 0.7% | 10.8% | 2.3% |
| Jungle | 0.8% | 15.0% | 16.6% | 60.6% | 2.2% | 0.9% | 3.9% |

Source INEI, National Home Survey 1998
Drawn up by the Energy Programme, ITDG-LA

### 3.4.2 Supply of gas services to distributors

In Lima, 64.8% of the families use gas and 29.6% use kerosene for cooking. Due to the opening of new gas fields in Peru, the production of gas rose from 13 mmfc[3] in 2001 to 31 mmfc in 2002. The use of these fuels has given rise to the establishment of a number of intermediate businesses, either as specialised points of sale that only sell the particular fuel or others who sell it to complement their normal line of business, thus creating production chains. Below is a small list of the terms used further on in this report.

- Official Distributor: People who sell only one brand of gas in their establishments, operating as small branches of the bottling plants from which they buy the product.
- Small Distributors: Those who sell gas from various bottling plants in their establishments.
- Kerosene pumps: Establishments that only sell kerosene, usually in areas adapted by the front door of their homes.

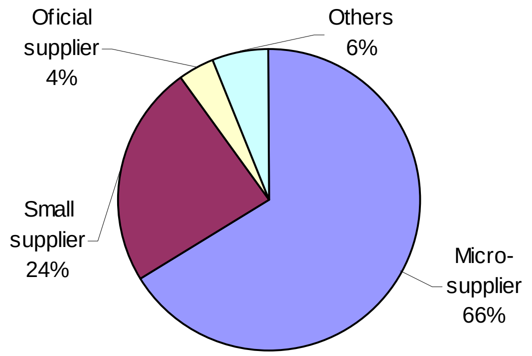
[3] Millions of cubic feet

- Service stations: Large establishments that sell fuels. In recent years, many of them have started selling gas as well, whereas they have been selling kerosene for many years.
- Shops: Micro suppliers who sell gas and kerosene as one more product within their lines of business.

Official gas distributors obtain their supply directly from points of sale, using units (pick-up trucks and lorries) that belong to the bottling plant and have been adapted for this activity. Small gas distributors also obtain their supply from points of sale, through official distributors, or directly from plant distributors. The number of flasks requested (2 or 3 units) is evidently no impediment for small distributors, because they follow frequently used routes created by the large demand. In short, neither official distributors nor small distributors have encountered any major difficulties in obtaining their supplies.

The procedure is similar for micro suppliers. That is, they obtain their supply from official or plant distributors.

**Graph 12: Type of gas suppliers**




Most families use less than one flask of gas a month, although many are constrained by the cost of gas and supplement their energy needs with kerosene.

### 3.4.3 Enterprise operation

The way various distributors supply the final customers depends on the characteristics of the area. Gas can be sold at points of sale, which means that users have to go there to buy their gas and return home with the gas. This is still the main way of supply route for gas supply in Lima as a whole.

A home delivery service has been established in many areas as a strategy to improve customer services and to prevent clients from having to go to the point of sale. This is still only available in certain areas of Lima, in particular where a significant number of people have access to telephone services, which is an essential requirement for this kind of service to work properly, as orders are generally made by phone. Where it is available, over 70% of customers use the delivery service.

Gas is delivered in many ways. Some distributors use a shopping trolley, others use bicycles or small motorbikes, whereas larger distributors have small pick-up trucks. These means of transport are usually adapted to transport gas, but do not meet minimum safety conditions for transporting gas flasks.

In some areas that are not easily accessible (where the sand is soft or the slopes are too steep), or when appropriate means of transport are not available, gas flasks are delivered on someone's shoulder or "al hombro"[4].

Some businesses have street maps so that clients can be located quickly. A negative aspect is that they do not have a registry of clients, much less of how frequently they buy gas.
It was found that distributors advertise their products through loudspeakers or shouting from their trucks as they drive around the neighbourhood. In general, businesses that have more clients are the more established enterprises, or those who implemented a more aggressive promotion campaign, through flyers, notices on lamp posts or interesting promotions.
Likewise, selling prices to final users vary depending on the brand and the distribution area, ranging from 25 to 31.5 soles. Prices are not controlled in any way. The bottling plants or "brands" suggest a selling price, on which distributors base their price
A simple financial analysis of the costs and charges gives a break even point of 9 gas flasks a day with expected profits shown below

**Table 19: Flasks sold and profits per day**

| | **Flasks sold per day** | | | |
|---|---|---|---|---|
| **Flasks sold** | 20 | 25 | 30 | 35 |
| **Daily profit (US$)** | 5 | 7.2 | 8.6 | 10 |

Source: Energy Programme, ITDG-LA. Field interviews, Nov. 2002

This takes into account basic figures for salary costs, depreciation telephone expenses or rental of the site which may not be fully accounted for by distributors.

### 3.4.4 Outlook

Official and small distributors look upon the market as stagnant, owing to the increasing competition from both formal or informal enterprises. This increase in the number of distributors has given rise to a better supply for final users creating strong competition and, consequently, a lower income or profits for some enterprises.

This competition is in part due to the lack of control on the part of authorities in many areas, which is reflected in the increasing number of informal traders, encouraged by the ever-increasing demand for the product, particularly in recent years. This exponential increase was observed mainly among many micro suppliers, who may not sell many units individually, but together form a significant market force and, in particular, an alternative source of supply for nearby neighbours.

[4] The phrase used to describe the delivery of gas carried on someone's back or shoulder.

### *3.5 Kerosene service sector results from Peru*

#### 3.5.1 Background

Practically all the owners of kerosene pumps stated that they have been in the business for over ten years and the majority began their activities when shanty towns began to appear in the outskirts of Lima.

Micro suppliers are more susceptible to market conditions and while some have been in business over 20 years, some had been operating for less than 20 weeks.

#### 3.5.2 Supply of kerosene

Kerosene pumps obtain their supply directly from refineries or the large suppliers within them. Two stages were identified in this process. Selection and procurement depending on the proximity and the price and then transport from the refinery to the kerosene pump. This transport is often done by other independent enterprises who own trucks

Payment for the kerosene is made in cash in the refinery itself. Some companies provide credit, but only for a few hours

Micro suppliers have an organised direct supply, either with the owner going to buy the product from a kerosene pump or a service station or The kerosene pump enterprise delivering the fuel to the shop on a small motorbike, tricycle or other means of transport. Micro suppliers usually pay for the fuel in cash, except in a few cases when distributors allow a few days of credit for trusted clients.

Micro suppliers are sensitive to any problem with supplies, often due to quality and quantity problems when dealing with informal distributors[5].

#### 3.5.3 Enterprise operation

In general, kerosene is distributed in two ways

It is distributed at the point of sale directly into flask provided by the customer. Kerosene is also distributed by tricycle or motor-tricycle directly to final users who regularly use high volumes. These clients tend to be comprised mainly of bakeries, restaurants, soup kitchens and others.

A simple financial analysis of the costs and charges gives break even point of 30 gallons a day. Kerosene pumps tend to sell between 40 and 150 gallons a day.

**Table 22: Variation of profits according to sales**

| | Gallons sold per day | | | |
|---|---|---|---|---|
| **Number of gallons** | 40 | 60 | 100 | 150 |
| **Daily profit (US$)** | 3 | 9 | 21 | 37 |

Source: Energy Programme, ITDG-LA. Field interviews, Nov. 2002

[5] Informal distributors have been known to put a false bottom in the kerosene tins to give the impression they are selling the same quantity and, in some cases, at a lower price.

Once again this takes into account salaries of assistants, depreciation and other fixed cost that may not be taken into account by the enterprise.

The most common way of obtaining kerosene is to buy it from micro-suppliers, 70% of people buy it from shops whereas only 30% go to a kerosene pump or a service station. Micro suppliers can usually be found every other block, so providing easy access for their customers.

### 3.5.4 Outlook

The outlook for kerosene is stable in the short term, but gradually decreasing due to the general increase in gas usage among the urban population , and the introduction of either gas or electric cookers by the volume buyer such as bakeries and restaurants.

## *3.6 Security sector results from Peru*

### 3.6.1 Background

For the past twenty years, various socio-economic problems in Peru have aggravated common crime. Over 16% of Peruvian homes were affected by domestic thefts during the first quarter of 1999[6]. Within this context, security guard services to protect homes have become an alternative source of employment for many people, particularly in urban areas. According to INEI, 1% of the homes in urban areas have private security guard services. Some pecularities in Peru are the dealing with minor crimes[7] and the use of District Municipalities[8]

### 3.6.2 Supply of security services

There are two kinds of security services: formal and informal. The former are established companies that provide security services mainly to banks, hospitals, airports, private institutions, etc. The security guards who work for these companies are properly trained and equipped with the necessary equipment.
Informal services are offered by companies or individuals who provide security services to private households or groups of houses.

Households who want to hire security guard services have three alternatives to choose from:

i) <u>Formal companies</u>: Those that comply with all the legal requirements established for this activity.

[6] Source: INEI, National Home Survey, 1999
[7] Minor crimes are not punishable. The Civil Code stipulates that when the compensation amount is less than US $ 400, the crimes are classified as minor.
[8] Most District municipalities have an unarmed Municipal Police in uniform, whose actions are backed by the police force.

ii) Informal companies: Irregular companies whose paperwork is not in order. It is worth mentioning that normally, clients make no distinction between formal and informal companies, because their irregular nature depends on internal variables.

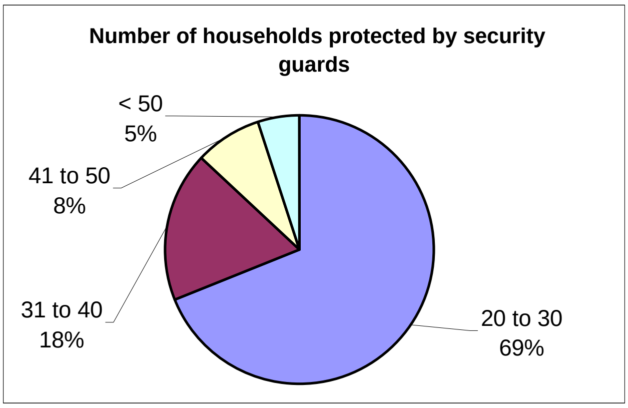
iii) Independent guards: Individuals who provide security services, usually without any permit or training.

The field work revealed that in middle and lower middle class districts, security guards are mostly independent workers who either offer their services directly or are contacted by someone who knows them. Most of them live in or near the district. In some lower middle class areas, the security guards are youths from the same neighbourhood seeking job opportunities.

There was also some evidence of independent guards as well as formal guards hired from security companies in upper middle and high class districts.

### 3.6.3 Enterprise operation

It was established that independent security guards protect between 20 and 30 houses[9] (see graph). In some areas, because some of the neighbours are not up to date with their payments, guards are forced to increase their sphere of action to adjacent areas, therefore their service is less effective.




In the case of companies (specially formal ones), the number of houses is based on a previous study of the neighbourhood, where it is determined how many guards should be placed strategically in the area.

In middle and lower middle class areas, security guards are selected at a neighbourhood meeting. Guards offering their services are initially interviewed at a neighbourhood meeting and if accepted, then the terms of the service are discussed[10]. Usually, guards are asked to provide a copy of their national identity card, a health certificate, a certificate of good conduct (to prove they have no criminal record), a certificate of residence and a full uniform.

The requirements are usually more demanding when the person comes from another area to offer his services. However, if the person is known in the neighbourhood, there are very few requirements and it is not even compulsory to have a uniform. Some neighbours remarks include *"He lives near the neighbourhood, he has been offering security*

[9] They may be distributed on a single street with houses on either side of the road, or along two continuous blocks.

[10] These terms are usually agreed verbally, without signing any document.

*services for some time and we all know him"; "It is better that way, he goes by unnoticed".* In such cases, his uniform consists of an overcoat and a cap with "Security" printed on it

Security guards work an average shift of 12 hours a day, alternating between night and day shifts every other week

For most security guards, this is their only employment alternative and source of income to complement the economy of their families. Security guards working for companies are forbidden from doing any other activity, since this could affect their performance. Independent guards never have a day off, because the service usually covers every day of the month. Consequently, when they do take a day off, they have to find a replacement and pay for that day. Security guards working for formal companies are given a day off and are replaced so that the neighbourhood is always protected.
Payments are usually made by each house, once a week or once every two weeks. Table 23 shows the costs of security services by methods of payment. Whatever the payment method, the average cost of the service is between 115 and 1000 US$ a month in total.

**Table 23: Costs of the service and methods of payment**

| Payment periods | Daily | Weekly | Monthly |
|---|---|---|---|
| Average cost [US $] | 0.3 | 1.6 | 7.2 |

Source: Energy Programme, ITDG-LA. Field survey, Nov. 2002

Collecting their wages is a problem faced by many security guards, because some neighbours fail to pay on the due dates and others argue that they do not want the service[11]. Wages of security guards who work for companies are fixed by the company at a similar level, but the company charges approximately US $ 350.

### 3.6.4 Outlook

There is a preference for independent guards rather than agents of a security company, because of the cost involved. All types of security guards consider the market unattractive from a financial point of view. Younger guards view this work as temporary employment until their financial situation improves or until they find a better job paying more money. Older guards with more experience apparently thought the same when they first started, but due to the lack of job opportunities over the years, they realise that at least they have been able to create a job for themselves.
The current trend indicates that insecurity is on the increase as over 60% of the household security services have been in operating for 3 years or less. Which should produce more job opportunities in this sector. Future problems may include the work becoming too hazardous,

[11] Only in one of the districts covered by the study, a neighbourhood co-ordinator was in charge of collecting the money from the neighbours and paying the guard.

especially as security guards have no adequate insurance to cover their increasingly more risky profession.

Some neighbourhoods have taken complementary steps to improve the overall efficiency of their security services including neighbourhood alarms and even fencing off entire neighbourhoods. These measures depend largely on how organised the neighbours are. Many are not willing to commit themselves and leave it up to the neighbourhood committee to take charge. In other words, they feel that as long as they pay for the service, they are doing their bit.

#### 3.6.5 Improvements

Guards who provide security services in middle and lower middle districts are mainly independent workers. Common problems with these arrangements are:

- If a theft occurs whilst the guards are on duty, nothing can be done except to fire them.
- Security guards are not covered by any insurance against accidents or attacks.
- There is no control of the service, some guards have other jobs during the day and therefore “fall asleep” during the night shift.
- Guards are inexperienced people with no training and none of the knowledge required to guarantee a good service.

Improvements could be made counter these problems, but all may add costs to the service.

- The service should be provided by an agent with a certain degree of experience in this kind of activity.
- The security guard should have a bicycle so that he can ride around the neighbourhood more frequently.
- Security guards should be trained by the police so that they obtain adequate information regarding the actions to be taken in different circumstances.
- Security guards should only cover a specific area in which he can effectively provide a good service.

### *3.7 Private clinic sector results from Bangladesh*

#### 3.7.1 Background

One of the main components of human development is health. The Government and donor’s commitment to improve maternal and child health together with lowering the lower birth rate has achieved some results. In Bangladesh health infrastructure and its services are mainly controlled and managed by government and some NGOs. Private sector services are mostly confined in the cities. There are more than 300 private clinics including dental and eye clinics in Dhaka and in the other major cities and towns such as Chittagong, Khulna, Rajshahi and Sylet.

Private sector clinics have made a contribution to health services through their participation in child immunisation schemes, family planning and mother and child health care programmes.

### 3.7.2 Supply of clinic services

Clinics provide diagnostic, pathological and overall treatment facilities to patients with a wide range of services such as urine, stool, cough and blood screening tests, Electrocardiogram (ECG), ultra-sonogram etc and other general treatment facilities. Some clinics also provide health care services to pregnant mothers and infants.

Clinics have a number of clients although patients are the main service recipients. The main responsibility of clinics is to provide care, diagnosis and treatment for its patients. The clinics receive patients who are referred to them by doctors working in other government and private clinics. Doctors will visit patients on behalf of the clinic if there is a serious need.

The clinics also provide services to corporations, insurance companies and NGOs, in terms of regular staff check ups. Some clinics provide medical support to the poor ( often those who are NGO supported) as although there is no distinction most clinic services are not within the reach of the poor. One of the respondents from Faridpur said that the clinic he owns provides services with a 70% discount for the poor and for the extremely poor it makes no charge.

### 3.7.3 Enterprise Operation

Clinics are generally run by either doctors, pathologists or technicians although some of the clinics maintain a promotion officer to promote and support existing business linkages.

Some clinics are run privately but working under foundations i.e. funded by a social/philanthropic organisations. The main purpose of such clinics is to provide medical and clinical services to their clients and at the same time discharge their social commitment.

From the interviews it was revealed that in most cases capital for the clinics was managed out of individuals savings or from borrowing from friends and relatives. Some clinic owners started as part-time physicians while others also manage diagnostic centres as they are mutually supporting services.

Suppliers play an important role in this business and therefore, clinics provide various incentives for keeping them connected with them. The owners of clinics mentioned that a key aspect of many of these relationships is the provision of gift and bonuses / *bakshis* (tips) to foster good terms and conditions.

Credit is available from some suppliers, so good relationships need to be built with these suppliers. Other doctors are good suppliers of patients as patients come to the clinics with prescriptions from doctors. For doctors who refer many patients there may be commission payable. Clinics also often have a profit-sharing relation with the diagnostic and pathological centres. Clinics also try to maintain relations with government hospitals and with other larger clinics for complicated cases that they are not qualified and equipped to deal with. The regulatory bodies dealing with the clinics have complex processes for registration, and bakshis is often required here in order to operate.

### 3.7.4 Outlook

Some interviewees said that at the beginning business was profitable but gradually competition has been increasing in the sector, especially for small scale operations. Respondents from one area of Dhaka said that as they are very near to a major medical college they get a lot of patients. This is due to the fact that the college suffers from a lot of bureaucracy and their services are not satisfactory, so people use the clinic nearby.
Although they serve a large number of clientele groups, the services of some of these clinics are not wholly satisfactory, especially to people in the health sector. Problems include unhealthy environment of hospitals and other related institutions such as diagnostic centres, lack of access to water and electricity facilities, lack of accountability, lack of finance and overall poor management of the systems.

### 3.7.5 Improvements

Clinic owners expressed the need that the information they received was not good and they needed more of it.

| Type of information | Source of information | Format of information |
|---|---|---|
| • Test fee<br>• New medicines / Kits<br>• General information about illness<br>• Information clip<br>• Technology<br>• Techniques of service promotion<br>• Publicity | • Director General of Health Services<br>• Company Representatives<br>• Equipment suppliers / non-government organizations<br>• Diagnostic Centers/Hospital<br>• Different media<br>• Doctors | • Signboard<br>• Billboard<br>• Radio<br>• Television<br>• Newspaper<br>• Brochure<br>• Letter<br>• Flip-chart presentation<br>• Folders |

They would also like to see the removal of bakshis from many operating relationships with doctors, suppliers, tax inspectors, licensors and others. This may be achievable through favourable changes in the government policy, inclusion of local representatives in the license committee, special consideration for tax exemption and inclusion of the clinics in more favourable trade categories.
Power and water supply shortages often affect their work yet they can not afford expensive backup systems.

### 3.7.6 Case study

7 years ago, Dhanmondi Clinic in Dhaka was a mini clinic in a tiny apartment in Dhanmondi Residential area. The initial investment was £500 and the clinic was located in small rented apartment at Dhanmondi with 2 doctors, 3 nurses and the owner being the manager, co-ordinator, and accountant at the same time.
Few people knew about the clinic, but the owner was able to do business by developing contacts with his clients and friends he knew. All their equipment was hired to start the business, and slowly the business grew.

The family then decided to sell their inherited property and buy land to base the clinic on. They also borrowed money from a bank. They now employ 35 people at the Dhanmondi clinic and they have started another clinic with 40 staff members.

### *3.8 Sanitary Hardware sector results from Bangladesh*

#### 3.8.1 Background

The sanitary hardware sub sector is comparatively new in Bangladesh. As the real estate business flourished the demand for quality sanitary and hardware fittings has increased. Most of these were imported goods. Both public and private campaigns on health and hygiene have promoted this business in the recent years and now there is increased demand in both rural and urban areas.

#### 3.8.2 Supply of sanitary hardware

Entrepreneurs purchase sanitary products in instalments and pay the amount on weekly or monthly basis. Staff capacity of the enterprises varies from 4-15 persons. House owners, apartment owners and public and private offices are consumers in this sector. Most of these customers are from the individual category, and those who are constructing houses or apartments are the core customers. Most consumers are mainly from Dhaka, although many retailers and wholesalers from other areas come to Dhaka to purchase stock. In the rural areas individual purchase again form the bulk of the purchases.

#### 3.8.3 Enterprise Operation

Almost all of the SSIPs are self-financed. The initial investment required to start the business is low. Some NGOs provide financial and technical support, especially for the SSIPs operating in more rural areas and those operating as part of a development project.
SSIPs get their raw materials from a variety of suppliers, including large companies and smaller dealers. Credit terms are sometimes times offered to SSIPs, but paying in cash is often cheaper. Most SSIPs sell their products to customers on a cash basis. Often customers require installation services also, so SSIPs broker linkages between the customers and masons who install the equipment.

The main trade association supporting SSIPs is the Bangladesh Pipe and Tube Well Traders Association. Standard business regulations apply for starting and registering a company, although the Bangladesh Standard Testing Institute (BSTI) does provide some testing to ensure the quality of products.

#### 3.8.4 Outlook

Public Health education and promotion in both rural and peri urban areas has increased the demand for sanitary hardware. Locally produced items at a lower cost than imported goods are finding an increasing amount of demand, and this looks et to continue foe a while, especially as the market is currently buoyant due to donor activities and programs surround the sub sector.

3.8.5 Improvements

Harassment for bakshis is also common in this sector, particularly concerning income tax and license registration and renewal . Other major constraints are collateral requirements for bank loans and delays caused by poor transportation and general strikes

### *3.9 Courier service sector results from Bangladesh*

3.9.1 Background

There are about 39 courier services working within Bangladesh, only 2 of these are international, leaving the remainder predominately serving the national market. 13 couriers have offices and agents throughout Bangladesh enabling them to have full national coverage. The other firms have a lower coverage outside of Dhaka. The national courier service companies have been established for nearly twenty years. The Courier Services Association of Bangladesh acts as a bargaining body for drawing attention of government and other institutions who have influence over the courier sector.

3.9.2 Supply of courier services

Customers of courier services are usually businesses such as banks, multinational companies and others operating in the business sector. Service charges depend on the weight of the materials and the destination. A average charge for a local delivery of a letter is around £0.10 Some courier service offer discounts, which are generally negotiated with larger customers supplying a sizeable amount of business.

3.9.3 Enterprise Operation

The courier services started their business with a principal office employing about 10 staff. After several years of successful operation some were able to extend their business up to district level, then regional level and further afield. At that time they also increased their staff and it was noted that women are employed in middle management positions throughout the companies. This is not always seen in the private sector in Bangladesh.

All the companies started business with their own money, which averaged around £2,500. A few were able to access bank loans as well, but faced problems with gaining these loans.

Courier companies do advertise their services in Bangladesh, often in daily newspapers and other forms of mass media. They maintain regular contact with their main customers knowing that the business sector demands flexible hours and customer satisfaction but is mainly concerned with timely and safe delivery

Transport is a big part of the courier's business, and most rely on other transport operators to deliver packages, rather than owning transport themselves. Good relationships in the transport sector are needed to ensure business is conducted with maximum speed and efficiency.

3.9.4 Improvements

Many of the courier services are interested in using modern technologies more for their business. Integrated computer records across their branch offices would enable them to offer a better service. The use of ICTs (such as mobile phones) has benefited the SSIPs but they do see further uses for more sophisticated forms of communication technology, especially in the more remote areas of their service coverage.

3.9.6 Case study

| |
|---|
| While working for the Bangladeshi airline company Mr. Ruhul Amin Chisty noticed many worldwide courier services and thought about setting up a domestic courier service. In 1983 he started Continental courier service with his savings, opening an office in Dhaka and employing around 9 staff. Since then his business has gradually grown, so that now there are offices for the service in India, Saudi Arabia, Dubai and the United Arab Emirates. A lot of Bangladeshi nationals work in these countries and so have a need for reliable courier services back to Bangladesh. |

### *3.10 Coaching sector results from Bangladesh*

3.10.1 Background

Coaching centres have been in existence in Bangladesh for the last 20 years. There are now around 115 coaching centres operating in Dhaka, Chittagong and Khulna. The only association for coaching centres is the Bangladesh Coaching Centre Association which is not very active.

3.10.2 Supply of coaching

Most of the coaching centres do business with students residing in hostel accommodation for schools and collages. They collect syllabuses from the students and then prepare teaching materials. The aim is usually to provide specific coaching for an exam or test, such as the admission or entry test to certain courses. University teachers know the practice is on going and several are related to coaching centres as advisors. The centres also rely on teachers of different institutions for specific assignments that may need further investigation or teaching materials to be produced.

3.10.3 Enterprise Operation

Most of owners of the centres were tutors and teachers themselves. Some of them have been started by ex-students who found they were informally tutoring their colleagues during their courses. Owners use their own savings, or those from family and friends to start the centres, although many form partnerships with others to establish the centre

The centres are aware of the need to advertise their services and are proactive in this area. They use daily newspapers, leaflets and wall posters, but when images of their successful students performing well or receiving scholarships are published, they use this as evidence of the quality of their service.

#### 3.10.4 Outlook

Coaching centres are still popular, and have even become a way of life for people to gain entry to further education.
Some centres are highly driven by profit rather than education and as the aim is to coach a student for an external event there are no available standards. Some people are concerned that the lack of standards may lead to problems and that a system for certifying centres should be introduced.

#### 3.10.5 Improvements

Coaching centres are well established in traditional forms of education. Some have seen an opening in teaching computing, software and other skills using new technologies. Others see that by using computers and other technology, a wider variety of subjects and skills can be taught to students. Both these improvements require access to and training in the use of new technology, which is currently either unavailable or too highly priced for SSIPs.

#### 3.10.6 Case study

Mr. Saifur Rahman Khan was a student of Electrical and Electronics Engineering at university, and took classes at a coaching centre. He noticed that a lot of students struggled with their English and there was a need for coaching in English. After graduating and further study he joined the IBA (Institute of Business Administration) as a lecturer. When he was working as a lecturer he managed to save some money as he still had the idea of English language coaching. One year ago he finally started his coaching centre with his own savings and employed 4 staff in the centre. Most of his coaching was dealing with reading, writing, speaking and understanding English. He uses cassettes player for listening skills and he has written several guide books for students. He employs well educated teachers on good salaries so they are well motivated. He even approaches retired professors to give advice about the teaching system he uses.
His business has grown well and established an excellent reputation and now he has branches at Banani, Phanthapath, and Siddeswari within Dhaka and also throughout Bangladesh at Sylhet, Chittagong and Khulna.

### *3.11 Travel and Tourism service sector results from Bangladesh*

#### 3.11.1 Background

Tourism in Bangladesh is minimal. There are currently few international tourists or even Bangladeshi tourists who visit other areas of their country. There are few facilities for tourists in Bangladesh but this may be one of the advantages that the country can use to market itself. The Bangladesh Parjatan Corporation (BPC) is a state run authority that has the dual responsibility of establishing and operating tourist facilities as well as regulating and promoting the tourist industry in general.

#### 3.11.2 Supply of travel and tourism services

For the sector there are two specific areas of SSIP operation – the journey to the destination and the stay at the destination. Companies can provide one or other of these services, or both. There are several National Parks and reserves where interesting wildlife can be seen and Bangladesh has a surprising amount of art, culture and history. Dhaka also has several sightseeing activities in or near the city for those people limited by time, such as travelling business people.

### 3.11.3 Enterprise Operation

SSIPs operating in this sector have been doing so for 10 years or less. Most of them are graduates who through their own ambition and experiences have started business in tourism. The SSIPs felt the need for institutional training to improve their skills and add professionalism to their services as this was highlighted by customers as currently being poor.

### 3.11.4 Outlook

The tourism industry in Bangladesh faces numerous challenges. The ability to succeed and the future performance of tourism and related activities will depend largely upon the skills, qualities and knowledge that service providers will be able to bring in their business. If tourism is to be incorporated into development plan of Bangladesh it must be organised and developed according to a strategy constructed on sound foundations that take account of the co-ordination of the tourism-related sectors, and the supply and demand for the tourism product.
The Internet is a vast expanse of information for the service provider operating in the tourism industry. Since tourism is a complex, global industry, information is its life-blood and technology has become fundamental to the ability of the industry to operate effectively and competitively

### 3.11.5 Improvements

More infrastructure facilities related to transport and accommodation are needed to improve the services offered to the tourist. SSIPs are currently using telephone and printed materials, to contact their customers and suppliers, but have highlighted the fact that the Internet, email and secure on-line payment mechanisms are all available to help improve their operations. Eco-tourism is another area where SSIPs can become involved to both promote tourism while upholding the culture and heritage of the country.
The current promotional strategy of the state run BPC is neither appropriate nor satisfactory because, without identifying the target market aimless promotion has involved expenditure only with little results.

### 3.11.6 Case Study

Mr. Hasan Mansur graduated in agriculture and worked for the government agriculture department. After the liberation war he was unemployed but in 1977 he got a job performing river tours for the American schools in Dhaka. After a while he noted that there were few other tourist facilities in Bangladesh and he was encouraged by BPC to started a tour guide business. By 1989 he had saved enough money to buy a boat to carry 25 people to the Sundarbans area, a huge mangrove forest which includes a National Park and is home to the rare Bengal Tiger. This proved popular with domestic tourists and he now has another boat able to carry 50 people. His wife, his two sons, his two brothers and sometimes his sisters all help with the business that provides the personal service to those wanting to explore Bangladesh.

### *3.12 Livelihood analysis*

Small-scale Infrastructure Service Providers (SSIPs) in Bangladesh – A Preliminary Livelihoods Analysis by Heather Mackay, ITC

3.12.1 Generic trends that influence the viability of the SSISP

The following are some generic trends identified from this preliminary analysis that affect the long-term viability of the private service provision:

- All influenced by government policies (some general economic, other specific regulations etc concerning their sector)
- Corruption and need for bribes
- Need for financial resources varies therefore credit support not necessarily the greatest need for SSIPs
- Market demand effects ie. public perceptions of and desire to use their service. Related to quality of service and reliability issues.
- Only the music industry seemed unaffected by seasonalities. Other SSIPs were likely to be affected (albeit differently) by weather changes, fluctuations in user numbers and other seasonal variations.
-Any rise in the cost of labour will likely reduce revenues from business.

3.12.2 Comparison of Livelihood Assets

Each SSIP has quite a different asset pentagon. None studied here, except the childrens park, are very reliant upon natural capital. More agricultural produce-related SSIPs would likely be more reliant upon natural capital. A lot of the other SSIPs rely on human skills, and to some degree their social networking, therefore skills development and training would be a positive intervention.

All of the 5 SSIPs studied require a relatively high level of physical infrastructure (albeit different types). However it may still be possible to conclude that infrastructural improvements will benefit SSIPs, but particularly in relation to roads, electrification and telecommunications.

3.12.3 Potential interventions that could reduce vulnerability (changes made by the SSIP themselves not by an external agent

| | |
|---|---|
| Private Clinics | - Purchase medical equipment locally or perhaps secondhand equipment from hospitals if possible in order to reduce infrastructure costs. |
| City Taxis | - Fuel switch to LPG or other form of cleaner fuel (for environment) to cushion from petrol-related shocks and also benefit the environment and be an extra PR boost to attract customers? |

| | |
|---|---|
| Children's' Parks | - could they source/purchase/build the play park equipment and rides locally to cut out the vulnerability to fluctuating foreign exchange. This would also have add-on benefits to those employed in the equipment production process.<br>- If vandalism or theft becomes a real problem they could hire security services (greater costs but probably long-term advantages as reduces risk). |
| Courier Services | - Same as for city taxis with regard to fuel. Use non-motorised transport where ever possible. |
| Music Industry | - Ensure own power supply (diesel generator, renewable sources) – has obvious cost implications which may not make this achievable for small enterprises.<br>- Could they start to offer some kind of IPR agreement or royalty. This may be impossible to regulate and police but it would likely attract a steady stream of talent to them (NB: this action tackles the vulnerability of the supply chain which they are affected by but it is not their own vulnerability). |

3.12.4 Possible support that could be provided by a project or programme:

- Information and training on how best to tackle corruption (police, laws, enforcement etc)
- A generic area of support in customer service, quality assurance and reliability would benefit SSIPs across sectors
- To help SSIPs overcome the affects of seasonal variations some form of support to enable livelihood diversification could be beneficial
- Budget and financial management support – to allow SSIPs to recognise the costs of price increases upon their business and to be able to flex costs in line with external price changes in order to maximise revenues
- Training could be given to those working with and as SSIPs to help them to identify their own specific vulnerability context and the policies, institutions and regulations that affect them, as well as the supply chain upon which they depend. This information could help SSIPs to respond positively to changes in their enabling context, and to minimise risk.

3.12.5 Limitations of this livelihoods analysis

The generic nature of this study provides a reference frame and stimulates awareness of the context within which each SSIP must operate however the framework will vary when it is used to analyse specific individual private enterprises in each sector. It would be valuable to conduct a similar livelihoods framework analysis of 3-4 private enterprises within each sector to allow comparison within the sectors and to enable cross-sectoral analysis. This would help to highlight specific areas of support that a project wishing to support the development of small-scale infrastructure service providers could provide.

### 3.12.6 Potential future areas of research

Potential future research could undertake the following activities be:

- To conduct a similar livelihoods framework analysis of 3-4 private enterprises within each sector to allow comparison within the sectors to identify the main vulnerabilities, assets, stakeholders and influencing factors.
- To then conduct a more detailed cross-sectoral analysis in order to highlight specific areas of support that could be implemented to benefit the development of such small-scale infrastructure service providers.
- The need to understand their specific vulnerability context, the actual policies, institutions and processes (PIPs) and the relevant regulations that affect SSIPs; and the supply chain is an area for further research.
- The work could also be enhanced by linking from the Livelihood Strategies to the Supply Chain management diagrams. This would allow identification of areas of vulnerability and interconnections with the supply chain.
- The framework could be used to draw arrows to show linkages and feedback loops in each sectoral context. This could then be used to test what would happen if a change occurs to a certain part of the context ie. how it would affect the assets and filter through to affect the livelihood outcomes.

# 4 Key recommendations

## *4.1 General and cross sectoral lessons*

- From the research and literature review, it is obvious that a large percentage of SMEs in developing countries are now engaged in some form of service provision, rather than in manufacture or processing. A substantial amount of literature addressing SMEs in developing countries implies they are purely productive enterprises. The vast majority of interventions, intervention methodologies and BDS services are aimed at these productive enterprises.

- The scale of charges, revenue and costs in the sectors studied show that small enterprises can make sufficient profit from infrastructure service delivery. Examples in the research tended to make a profit of around US$25 per day and this is further corroborated with other studies. This sum is small enough to exclude larger scale enterprises from operating in the area, but large enough to be sustainable as a viable small enterprise. The low capital investment needed, together with the flexibility of the work are other factors that encourage new entrants into the service provision sector.

  Often however, people engage in small scale infrastructure provision as a temporary measure due to the low entry and exit barriers, using the enterprise as a subsistence measure until other employment can be found. The research found that often these people continue for several years, with no other sign of formal employment available. They may eventually realise the ability of their "temporary enterprise" to provide them with sufficient income and concentrate more on growing and improving their service provision work.

- If possible, SSIPs will usually work with the public sector or larger suppliers and utilities to deliver services to those areas that are not currently reached. SSIPs value having quality services delivered to them on a regular basis, rather than having unreliable but informal suppliers as this enables them to serve the consumers better. This came out strongly from the workshops in both countries, as well as from the initial research. Contracts and agreements with SSIPs need to be clear and unambiguous to enable trustworthy business relationships to form.

- Not all SSIPs serve the poorest sections of the community. Several sub sectors have grown up offering services to larger organisations. These larger organisations often need specific and tailored services that the public sector cannot easily supply. SSIPs are able to supply these services, either alongside their other operations, or as a dedicated service.

- The research shows that customers will pay marginally higher costs for services delivered to their door. They know the benefits of time savings and the reliability that comes from having a regular delivery, even if the price for the service is higher. When both home delivery and store based services are available, the home delivery often had over double volume of sales.

- While having no gender specific remit, some SSIPs have found that they are effective in encouraging women's rights both through employment of women at all levels in their operation and in service provision to women.

### *4.2 Competition and Regulation*

- Competition is one of the key advantages of using SSIPs in service delivery. Competition has regularly been shown to bring better and more reliable provision, lower charges to customers and consequently lower profits for SSIPs. When dealing with the poor, price is often of primary importance and any price increase will prevent access to the service by large numbers of people.
  Small enterprises will however co-operate in the distribution of services to avoid competition and this can sometimes lead to price fixing. This negates some of the benefits of involving the private sector and can also produce other problems.

- The research also shows that, given a choice, consumers will choose services that best approximate to what they need. They will differentiate services in terms of quality, cost, reliability and other aspects, with those SSIPs not able to deliver against these indicators forced to either change their service or go out of business.

- In service sectors where there is regulation, such as price regulation of water in Lima, SSIPs are flexible enough to alter their charges if under and over supply occur. Charges in summer were sometimes higher, but charges in winter were lower, even though the SSIPs faced penalties from the regulatory body if caught over or undercharging.

- Competition can be hampered by excessive regulation and in certain circumstances it was found that the areas where regulation was weakest or not enforced, competition was strongest, giving consumers a greater choice of supplier. Often this is due to outdated regulations or a shifting market that means legislation and regulation are unrelated to current conditions and therefore ignored. The question of whether to regulate or let the market regulate itself is best answered on a case by case basis. The research showed that specific improvements are often requested by customers, trade associations or regulators, but any rise in service charge is not welcome by the consumers. Some improvements are designed to protect those already operating or increase the entry barriers rather than deliver better services. Many SSIPs are successful because of their attention to customers' needs and demands, making use of their flexibility advantage over others operating in the same market, rather than relying on regulation to protect their market share from others.

- Regulators do need to be involved to make sure some standards are kept, especially when providing services in which quality is not always visible, such as in water, health, and education. In some cases there is also a need for information and public education about water standards, health issues etc so that consumers become aware of standards and can then better exercise their choice for the level of service they require.

- Donor activity in some sectors can increase demand for services. Existing large companies are often unable to cope with the large rises in demand and so SSIPs can quickly fill the gap in supply. This is true in Bangladesh where public health education campaigns have created huge additional demand for some services which are now supplied by SSIPs as well as larger formal companies.

### *4.2 Governments and local authorities*

- State run authorities that have dual roles and responsibilities are often unable to concentrate fully on both aspects. This can be especially problematic when one role demands impartiality in the market such as regulation or legislation, yet the other role as a service provider means the organisation is not a neutral player in the same market.

- Decentralisation processes often require strengthening of the local management of service provision. Working with and formalising the use of and co-operation with SSIPs can be a way of capacity building in a newly decentralised system. It can also bring about gains to all stakeholders in the service delivery chain. Consumers will be happy with improved services, SSIPs will be happy at being recognised and accepted and the local management can concentrate on improving its existing services and also take credit for improved outreach of the service.

- Urban planning processes should be able to build on SSIP research to improve new settlements. Acknowledging that consumers will need services, even if they aren't provided to every household or operated by the formalised large companies, should improve the infrastructure in those areas where SSIPs operate. The urban fringes are places which suffer from poor supply by existing companies so they are more reliant on SSIPs and infrastructure for distribution.

- Some SSIPs, although operating in the private sector as profitable enterprises, have been shown to have more social conscience than governments and local authorities, supplying poorer communities with services at discounted rates, at cost or even subsidised by the SSIP themselves.

- In some respects SSIPs are no different from other small enterpreneurs. They have difficulties with business registration and others in authority who often need bribes and favours to process documents or turn a blind eye to infringements, however minor. SSIPs rarely see the need to change their business operation from informal to formal as it usually involves longwinded processes, time and cost to register a business.

- Trade associations and institutions do have a role to play in supporting the voice of SSIPs towards governments, regulatory bodies and others with influence over the sector. While some do not always advocate effectively for the main needs of their wider membership, others do retain respect from SSIPs for their work in the wider trade environment.

### *4.3 Problems and interventions*

- Health and safety standards, working conditions and workers' rights are generally much poorer in the informal sector, although this is something widespread throughout most small enterprises. The cause for concern with SSIPs is that poorer standards, particularly in hygiene, could affect consumers as well as those working as SSIPs and hence have a much bigger negative impact on populations.

- Most SSIPs have problems accessing both start-up capital and working capital. Although the levels needed are low compared to a lot of small enterprise activities, it still represents one of the biggest entry barriers to those starting up as SSIPs. As a result, these funds mostly come from savings or from family or friends. The supply chains they work in although formalised often do not accept credit unless there has been a longstanding and trustworthy relationship established, although this could be seen as standard (albeit cautious) business practice.

- NGOs and donors often are a source of BDS and credit to SSIPs. The activities undertaken may or may not distort the market for business development services and credit depending on the approach taken, but lesson should be learnt from their activities and attention paid to existing schemes and facilities used by SSIPs.

- SSIPs usually work in a supply chain with other small enterprises as either suppliers, or customers. Some interventions aimed at SSIPs may be able to have multiple intervention points along a product supply chain.

- Problems in public services or large scale companies and utilities are often of benefit to SSIPs. They often maintain their customers because services are poor or simple not provided by the existing formal suppliers. Any improvements made to these formal services will have livelihood consequences for SSIPs. Careful consideration of interventions at the informal and formal level needs to be carried out, to discover the most cost-effective and sustainable way of improving the quality or reach of the infrastructure service to consumers.

- The research shows that in some sectors, training of SSIPs, particularly in administration and marketing, would help them reduce their operating costs, improve the quality of their service and become more efficient, especially in areas such as stock control and building and retaining client relationships.

- New technology and information are areas where SSIPs acknowledge that they are weak. They need support and training to gain access to technology and information. They also sometimes lack detailed understanding in how best to use what is available to enable them to operate better and more efficient services for customers.

## 5 Ways to take project forward

Both the literature review and the research in-country highlight the fact that little is known specifically about SSIPs.  They form a large proportion, sometimes a majority of the small enterprises in a country, yet their specific needs have not been greatly studied. Further research is needed in three main areas

- Regulation, legislation and competition.
  Much has been written about regulation and legislation, but not directly related to SSIPs. Regulations, legislation and subsidies will all have an impact on how SSIPs operate and survive in the open market. The effect that these have on competition and how this then relates to the infrastructure service that is provided by SSIPs and their competitors is unknown in most, if not all service sectors.

- Needs assessment for BDS for small scale infrastructure providers. It is clear that SSIPs need some similar services to small enterprises. They all need more tailored Business Development Services although it is not clear if these are best provided by the same BDS providers, or through other means such as embedded services along their supply chain, independent regulators or others.

- Recognition and co-operation with existing formal sector providers, utilities and state and local authorities. This is the area that shows most promise for immediate development. This research and others have shown how SSIPs, state authorities and even the formal private sector can work together to provide services to all levels of population wherever they are.  The lesson learning from these examples needs formulating into practises that can easily have a higher profile into decentralisation and privatisation processes across a variety of sectors.