

Energy and street food vendors

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Introduction

The activity of selling food on the streets forms a large part of the informal sector in urban areas worldwide. It is undertaken by entrepreneurial women and men, and more often run with the assistance of their families than paid labour. Their businesses are typically irregular, unstable and marginal. The concept of a street food vendor covers a broad range of activities. In Bangladesh, those who earn least are tea sellers, whose income is very low, but who require a daily working capital of less than 200 Bangladesh Taka (£2.50) to set up each morning (Figure 1). The most extensive operations comprise vendors offering a variety of foods; for example a vendor in Sri Lanka selling lunch packets, fried rice, meat and vegetable curries requires 4500 Sri Lanka Rupees (£35) to start his day's work (Figure 2).

There is currently a project being run by the ITDG country offices in Bangladesh and Sri Lanka and UK into the energy needs of street food vendors, and

Energie et vendeur d'aliments préparés dans les rues

La vente d'aliments préparés dans les rues est le principal gagne pain pour des millions de personnes vivant en milieu urbain. Ce projet d'ITDG a révélé que ce métier exige de longues heures de travail, est souvent une affaire familiale et n'est pas, en général, formellement reconnu. La contribution à la restauration des plats écoulés par les vendeurs de rue est significative et demande une quantité d'énergie importante qui pourrait être diminuée avec le recours à des équipements plus performants. Les principaux résultats de ce projet seront diffusés, entre autres, aux décideurs politiques.

funded by the UK government Department for International Development (DFID). This is an integrated project, bridging the areas of household energy and small enterprise. Previous studies of street food vendors have typically focused on the health factors of their products, and urban energy studies have either been concerned with non-commercial household activities or planning issues at a macro level. Street food vendors use energy for cooking, lighting and transport. This project has focussed on the energy aspect of cooking.

As there was a deficit of baseline data, the first phase of the

project has involved collecting information which will give an insight into this sector and lead to identification of possible interventions to improve livelihoods.

Street food vending is not an easy task. In Sri Lanka, 38% of those surveyed spent more than 15 hours on the street selling food every day. This does not include time spent in transport, in preparation at home, or in procuring ingredients and fuel (Figure 3). Also significant is that a typical street food vendor has been involved in this type of work for several years; in Sri Lanka 70% had been in the business for more than five years. This rela-



Figure 1: Tea seller, Bangladesh



Figure 2: Vendor selling a variety of foods, Sri Lanka

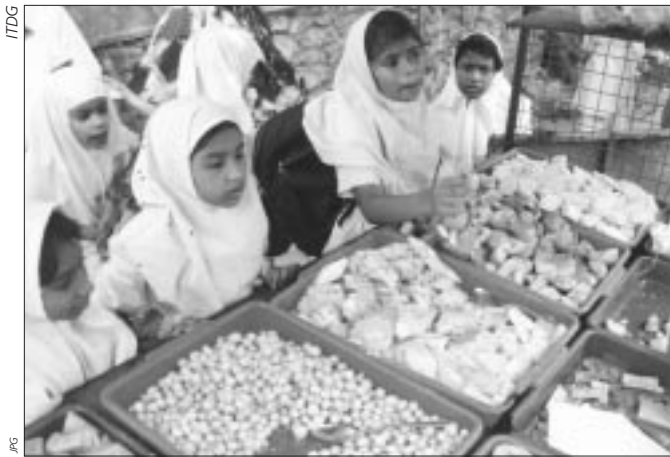


Figure 3: Food prepared at home and sold on the street, Sri Lanka

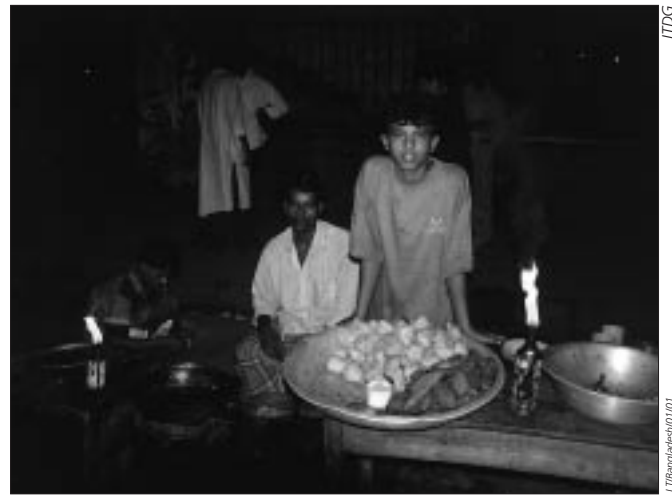


Figure 4: Food production is a family-based activity

tively long period of time suggests a proven capacity to sustain themselves in this informal trade.

Household energy and street food vendors

Production of food for sale is a family-based activity, and much of the preparation is done in the household environment; in Bangladesh 62% of people surveyed reported that food was wholly or partly prepared at home. Also as production is typically small-scale, all the issues of household energy are pertinent to street food vendors. Any improvement at a household level in the production of food for sale would be to the benefit of the livelihoods of street food vendors. So one element of working with street food vendors involves very similar issues to household energy.

Institutional context

Street food vendors are disadvantaged because there is usually no support from formal institutions to improve their businesses or protect them from external influences. The usual response at policy level is that they sell unhygienic low-quality food, dump garbage, engage in criminal activities and are a nuisance to maintaining law and order. They often have no legal status, resulting in victimisation by the police, public health institutions and local government authorities. This project hopes to address this problem in

the urban areas under focus by communicating the results to the local authorities; for example, the deputy commissioner of Bogra is the chief guest of the forthcoming workshop.

Street food and health

There is a specific connection between energy and health aspects of street foods as a poor, intermittent energy source will fail to destroy bacteriological pathogens. This is especially the case for food which is prepared at home and warmed at the point of sale. Therefore, an improvement in the energy aspect of street food vending, coupled with knowledge dissemination on the need for adequate hygiene will result in reduced incidence of (occasionally fatal) food poisoning.

Another factor is that the contribution of street foods to total nutritional intake of poor urban populations is large. This is because it may be cheaper to buy street food than for individuals to prepare food at home, as street food vendors can buy raw materials and make food in bulk.

Results of baseline study

The baseline study has been completed and many demographic statistics have been found. However, even more interesting are the findings of participatory research with selected vendors. Difficulties identified by street food vendors in Bangladesh are tabulated below:

Type of Problem	Frequency*
Capital shortage	36%
Natural calamities	35%
Oppression by police	32%
Bribe / Subscription	30%
Local <i>Mustan</i> (local racketeers)	11%

* more than one problem could be identified by each vendor

Natural calamities include epidemics, for which street food vendors receive much harassment from local authorities.

Gender and street food

The income generating activity of street food vending has a potential to empower women. Women can control the production processes, and keep the profits generated which would mean that the women labour is more recognised. In any situation where food preparation takes place at the home, the energy user is likely to be female (Figure 5). Throughout the project, it is therefore their knowledge which must be incorporated into the design of pilot interventions. As the street seller is often male (Figure 6), steps must be taken to go beyond identifying the need for interventions at the point of sale, and involve women in the decision-making process.

Energy aspects

The primary focus of the project was to explore the energy use patterns of street food vendors. There have been several interesting results. In Bangladesh, survey work was completed in the



Figure 5: The cook is usually female



Figure 6: The street seller is often male

capital, Dhaka and in peri-urban areas around Bogra. The main fuel sources in both areas were twigs and kerosene, though some users in the capital used gas and 20% of those in Bogra used *Ghuta* (fuel 'cakes' made from dried cowdung). All the vendors in Dhaka and most in Bogra procured their fuel from the local market. Reported problems in using fuel included smoke hazard, eye burning, and the heat. Respondents were asked about their opinions on

efficient fuel, and there was a clear-cut difference in perception of fuel efficiency. More than half the Dhaka respondents thought gas was the most efficient, whereas street food vendors in the peri-urban district of Bogra thought that twigs were the most efficient fuel. This would suggest that an intervention based on improved wood-stove technology would be suitable for piloting in Bogra (the Bangladesh Council for Scientific and Industrial Research, have developed an improved cook stove) and, with proper analysis of the affordability of LPG technology, gas stoves could be piloted in Dhaka.

A similar in-depth investigation of energy issues was completed in Colombo by the ITDG – Sri Lanka regional office. Here firewood, kerosene and LPG were the three major sources of energy for cooking, heating and lighting during selling. Of these, kerosene predominated with 76% of vendors using this either as the only, main or supplementary source of energy. Participatory research identified the factors that influenced the choice of fuel and the perceived constraints of the different fuels. The overall perception was that kerosene is relatively cheap and convenient. In

particular tea vendors found it was convenient to carry kerosene stoves in the market place. However some stoves were the wick-based stoves which are less efficient than pressurised kerosene stoves.

Conclusions

Research and field experience in the sector of street food vendors is valuable because it is a large significant area supporting the livelihoods of millions of the urban poor. It is a section of society that requires research input from many different disciplines within the sphere of development. It encompasses household energy used in small enterprise where gender issues are of prime importance in the division of roles, work and income, and where the entrepreneurial activity itself is in the field of food processing. This project has furthered the knowledge of this sector in three cities in the Asian sub-continent. The results of the investigations will be used as a baseline for interventions researching the efficacy of fuel switching and more efficient combustion to improve the situation of street food vendors. The dissemination phase of this project will take place in many fora: further workshops will be held with street food vendors, there will be meetings at municipal government level, an international workshop in Sri Lanka, and publications in this journal, in *Food Chain* and a stand alone publication. Informing policy makers and municipal authorities is seen as especially important as lack of recognition of street food vending as a viable occupation is a barrier to an improved situation for street food vendors.

Leonard Tedd, has recently joined the International Programmes Unit of ITDG. He studied engineering at Durham University and previously worked for ABB's Department of Energy and Global Change in Switzerland. He has experience of field research with appropriate technologies in Mozambique and Zimbabwe, working for PumpAid. 🍵