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Marginalized street food vendors promoting consumption of millets among the urban poor: A case study of millet porridge vendors in Madurai, Tamil Nadu, India

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Abstract

While Indian Policy makers have claimed that the number of people leaving below the poverty line has been reduced, a spatial analysis of poverty data reveals that most of the gains achieved have been concentrated within rural areas while the urban poor continue to experience abject poverty, food insecurity and malnutrition. Although the global food sovereignty movement have been instrumental in attempting to eliminate these urban disparities by promoting right to food legislation, an analysis of existing state-led food security measures indicates an inherent rural bias in these programs. These state-led programs provide little opportunity for participation of the urban poor, beyond being passive recipients of subsidized surplus grains. The current policy reforms under the new Indian food security act continue to ignore the potential role of the urban informal sector, which provides employment to the majority of urban poor in procuring, transporting, processing, and delivering raw agricultural produce as well as ready-to-eat food. The lack of attention towards the urban informal sector by development scholars, policy makers, and food activists is perhaps ingrained in the ideal agrarian vision of the development from which these urban poor might have chosen or coerced to escape.

This study explores how the street food vendors (SFV), operated primarily by urban poor, improve access to nutritious foods and generates employment opportunities for urban poor in the state of Tamil Nadu, India. It embraces a new direction for the food security debate where the urban poor are not simply passive recipients of subsidized food, but become enabled actors of a food chain that provides nutritious food for the poor and other classes in the urban landscape. The first section of the paper presents and in-depth analysis of the production, distribution, and consumption oriented food security initiatives implemented since the 1960s and highlights their limitations for addressing concerns of the urban poor. The second part describes research objectives, methodology, and provides background of street food vendors in the city of Madurai, Tamil Nadu. The third part focuses on the socioeconomic and cultural backgrounds of the street vendors as well as the uniqueness and diversity of food products they sell. A comparison of millet porridge vendors and street vendors selling other cooked ready-to-eat food products illustrates the unique role that porridge vendors play in providing the urban poor with access to a nutritious millet product. An examination of business management and labour strategies reveals that although women are marginalized they play crucial roles in the street food industry. Finally, an analysis of consumer preferences and perceptions shows that consumers from all socioeconomic backgrounds are concerned with health and food safety issues. The paper concludes with an analysis of the constraints faced by porridge vendors as well as suggestions for active engagement of urban poor in achieving food security.

Urban Poverty and Malnutrition

With emerging economic opportunities being concentrated in urban areas since India liberalized its economy in 1991, Indian cities are attracting rural migrants on an unprecedented scale. According to the Census of India, between 1991 and 2011 the urban population increased by 73 per cent whereas the rural population increased by only 33 per cent. Though the recent decadal population growth rates observed in urban India are not unusual compared to major cities of other developing countries, the sheer number of people (69 million and 91 million in 1991-2001 and 2001-11, respectively) involved in India's urban growth since 1991 is striking and presents unique challenges for the state. The urban population growth has exceeded the capabilities of urban economies to provide employment, and the state's ability to provide adequate social services. With migrants unable to attain a livelihood within the organized urban sectors, this exodus from the rural landscape to the centers of modernization has given rise to a growing urban poor class. With limited education, access to social services, and employment opportunities, the journey of these optimistic rural migrants often ends up in the slums or shantytowns of big cities (Fry, Cousins, and Olivola, 2002).

According to recent statistics released by the Planning Commission (2013), India has registered impressive economic growth rates since 1991 with substantial increases in GDP (9.32 per cent in 2010-11), per capita income (INR 36342 per capita net national income in 2010-11), and total food grain production (257 million tons in 2011-12). With these economic gains, the percentage of below poverty line individuals has shrunk from 45 in 1993-94 to 30 in 2009-10 (Planning Commission 2012:9). The economic growth of last two decades has also witnessed considerable improvements in many development indicators for education, health, transportation infrastructure, and life expectancy. However, spatial analysis of poverty data from India reveals that most of the gains achieved for reducing poverty have been from rural areas while the poor in urban areas continue to experience abject poverty, malnutrition, unhygienic living conditions, and economic as well as social vulnerability. A nationwide survey of slums conducted by the National Sample Survey Office (NSSO) in 2009 reported that 49,000 slum settlements provided shelter to one-fourth of the urban population of India[1]. Furthermore, the rate of poverty decline during 1993-94 to 2009-10 in rural India was 8.3 per cent whereas in the urban areas it remained only 6 per cent (Planning Commission 2012).

Though the average monthly per capita expenditure (MPCE) of urban people is substantially higher than those living in rural areas, urban India has a higher percentage of its total

[1] It is difficult to get precise statistics on people living in slums due to lack of consensus on definitions of slum and other legal complexity. The Ministry of Housing and Urban Poverty Alleviation, Government of India estimated 9.7 million people living in slums in 2013 (data available from the statindia.com).

population that consumes less than 1890 Kcal/day[2]. Urban residents also spend 30 per cent more of their income than their rural counterparts to meet their daily caloric intake ((ESCAP), 2007). A study conducted by Chatterjee (2012) in Mumbai slums found 76 per cent of household experienced severe to moderate food insecurity. Even smaller towns in Tamil Nadu and in some of the North Indian provinces showed similar trends of experiential food insecurity at the household level (Gopichandran et al 2010, Agarwal et al 2011). The statistics on protein energy deficiency, anemia, stunted growth, and underweight among urban women and children are at alarming levels in provinces with large cities and rapid industrial growth (Ghosh and Shah, 2004).

The dream of modern life offered by rapid economic growth has so far evaded most of the bottom quartile of the urban population. The poorest quartile of the urban population, identified on the basis of MPCE, continues to show the worst indicators for health, and access to health care, housing, water, and sanitation services as compared to rest of the urban population (Agarwal 2011). The high economic growth in urban areas has had manifold increases in inequalities compared to rural areas (Government of India 2012: 25). The Gini index, a measure of economic inequalities, has steadily declined in rural areas since 1977, in spite of the failure of the state to redistribute agricultural land and other agrarian and common property resources. While in urban areas the Gini index showed a reverse trend in the same period, with a steep surge from 1993-94 onward (Planning Commission 2012). Because of deep economic inequalities and methodological inconsistencies (Patnaik, 2013) in nationwide surveys conducted by the government for identifying the poor, the aggregated or average national data on development indicators scarcely reflect the reality of urban poor and their vulnerability for accessing nutritious food.

One of the reasons for the unattained dream of these urban poor is their inability to get employment in formal sector with adequate remuneration and tenure. The National Commission for Enterprises in the Unorganized Sector (NCEUS) reported that an overwhelming proportion of urban poor and vulnerable groups (more than 90 per cent) are employed in the informal sector. The architects of India's growth-led development, based on W W Rostow's linear model of modernization, envisaged a shift of surplus agricultural labour to non-agricultural enterprises located in urban areas. However, this path of modernization pursued through employment in non-agriculture sector has not yet trickled down any prosperity or peace to the majority of the urban poor. Instead, the majority of urban poor in developing countries continue to rely on the informal sector for their livelihood (ILO 2012). Out of 142 million people engaged in non-agriculture informal sectors, one fourth are officially recognized

[2] Percentage of population consuming less than 1890 Calorie per day is 13.90 per cent in urban region against 13.20 per cent in the rural areas in 2004-2005 (NSSO 2007).

as poor based on their MPCE in 2004-05 (NCEUS 2007: 24, 240)[3]. In spite of its contributions to livelihoods for the urban poor and recent economic growth, advocates of the neoliberal state consider the informal sector to be inefficient, exploitative, and impeding for modern markets. In absence of any enabling policy support for the informal sector, the urban poor are coerced into a perpetual cycle of income poverty and food insecurity.

State-led Interventions and Urban Food Insecurity

To mitigate food and nutrition insecurity, the state has historically implemented various measures to ensure poor households' access to nutritionally adequate food at all times. The examination of India's various food security related programs since its independence reveals that these interventions were framed on three distinctive approaches: increasing food production, promoting food distribution, and ensuring food consumption. Though these initiatives have had varying degrees of success over time, the persistence of high level of malnutrition, especially among urban poor, demands that these state-led interventions be analyzed critically.

Ecological historians argue that the British left the Indian subcontinent due to impending food insecurity resulting from the unsustainable exploitation of natural resources and declining agricultural production (Gadgil and Guha 1992). After independence, India focused on achieving self-reliance in food production by increasing agricultural productivity though the promotion of high yielding varieties of major food crops, chemical fertilizers, irrigation, and agricultural credit. These production-oriented schemes of the green revolution era are attributed with the 2.5% annual increase in agricultural production between 1950-51 and 2006-07 (MSSRF 2010: 9), surpassing the annual population growth of this period. These agricultural reforms made India self-reliant in food production by the early 1970s and equipped it with an ample buffer stock of food grains for preventing food scarcity due to natural calamities in any corner of its jurisdiction. Yaro (2004) described these production-oriented measures as a food availability decline (FAD) approach that presumes higher production inevitably results in enhanced access and absorption of food across socioeconomic strata and space. This theoretical correlation between production and access was more of a reality for rural poor in green revolution regions, as it increased the productivity of their small farms, and created employment opportunities for landless people. The benefits of production-oriented measures to the urban poor were indirect and primarily limited to presumed decline in consumer prices of food grains due to increased supply in the market[4].

[3] In addition, there are 11.7 million non-agriculture casual workers employed in the organized sector earning below minimum wages.

[4] From 1975-1979 urban poor consumed 2008 kcal of energy a day while the rural populous consumed 2340. This disparity increased by 1990 when daily per capita calorie consumption was at 1896 versus 2283 for the urban poor

As production-oriented schemes ushered in an era of unprecedented agricultural output in the early 1970s, concerns surfaced surrounding the markets' ability to provide adequate farm-gate prices and distribute the output to potential urban consumers with minimal transaction costs. The potential failure of markets triggered the state to establish markets that would buy and distribute food grains to curtail the effects of a looming surplus that could potentially drive down prices to the point of inefficient production by farmers. This second phase of state's role in food security revamped the colonial model of the public distribution system (PDS) and focused on the poor who were living in food deficit urban regions. The new National Production-cum-Distribution System (1971), created a centralized system of procurement for food grains from green revolution regions and distributed them at subsidized rates to poor in food deficit urban as well as rural areas. The underlying trigger for this state-led distribution scheme was to provide guaranteed minimum prices to farmers rather than assuring access to food and nutrition security for the urban poor. Irrespective of its production-oriented trigger, many scholars (Sen and Dreze 1989, Khera, 2011) underscored India's success in distributing surplus food production through state-led channels in food deficit regions. However, the financial subsidies incurred for distribution-oriented programs came under tremendous pressure during structural adjustment period in early 1990s (Patnaik, 2010). This led to a permanent shift in the public distribution system (PDS) from nearly universal coverage to a targeted PDS.

During the neoliberal era, targeted public distribution systems focused on the rural poor while the urban poor were confidently left to the mercy of market forces and economic growth. At the all India level, only one fourth urban households of the bottom 30 per cent of MPCE class were found to be receiving rice from the PDS system ((NSSO), 2007). The percentage of urban households in the same MPCE class that received PDS wheat was merely 12 per cent. Though urban areas had more fair price shops, a retail outlet of the PDS chain, than rural areas most of the urban poor remained excluded from PDS entitlements (MSSRF 2010: 93). Part of the problem in accessing the PDS entitlements resides with the residencies of the urban poor, in particular migrants of the past two decades, as a majority of them live in the non-registered slums or at their work sites making them officially out of sight for any food entitlement or development scheme. These poor primarily rely on street vendors and curbside food stalls for their daily food, as they do not have the time or infrastructure required for cooking.

Although PDS schemes have undergone several changes over time, more than half of the subsidized food grains released from the federal pool never reached to intended beneficiaries due to structural leakages and corruption (Planning Commission 2005: 87). Motivated by local

and rural people respectively. During the same period of production-oriented food security policies, the rural population also exceeded the urban poor's intake of protein, calcium, iron, and vitamin A (FAO 2006: 114).

political pressure, some of the southern Indian provinces like Tamil Nadu and Andhra Pradesh expanded federal PDS schemes and provided nearly universal coverage to people in their jurisdictions. Again, these schemes remained driven by available surpluses of rice and wheat from green revolution areas rather than the diverse nutritional needs of the poor. The PDS never procured nutritious small millets and other coarse grains that were part of the diverse food basket of the Indian population. Several studies using temporal data from the NSSO (Deaton and Drèze, 2009; Kumar, Mruthyunjaya, and Dey, 2007) suggested a 50 to 70 per cent decline in the consumption of coarse grains, especially among lower income groups, during last two decades. The replacement of nutritious coarse grains by cheap PDS rice in daily consumption has contributed to higher incidences of Type 2 diabetes (T2D) in Southern Indian provinces (Ramachandran et al 2008). Recent studies indicate that urban populations are more affected by T2D (Radhika et al 2009) and perhaps these trends could worsen quality of life for urban poor who have limited economic means for managing diabetes. Though causes of the emerging epidemic of diabetes are under investigation, many nutritionists suggest diversifying the supply-driven PDS through the inclusion of small millets that have superior nutritional qualities and low glycemic index.

The recognition of India's persistent hidden hunger, especially among children and women, at global level under the Millennium Development Goals and other poverty alleviation programs resulted in further reforms in food security measures. The federal government reinvigorated several programs such as Integrated Child Development Schemes (ICDS) and mid-day meal program, which provided ready-to-eat (RTE) food for ensuring direct consumption or absorption of food in targeted beneficiaries. These consumption-oriented schemes also had inherent rural bias and were prone to leakages, corruption, inferior quality, and insensitivity towards the cultural food preferences of the poor[5]. This period of policy intervention was also influenced by seminal work of Sen and other scholars (Sen and Dreze, 1989, Yaro, 2004) who emphasized on strengthening capabilities of poor rather than merely emphasizing on availability and entitlements of food. It recognized food security as a part of livelihood strategy based on different assets and capitals that an individual or household has control over (Yaro, 2004). This enhanced understanding related to food security prompted new policies such as National Food for Work program (2004) Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA 2005) to provide guaranteed employment to rural poor. The potential impacts of these employment schemes, implemented in only rural areas, on food and nutrition security of rural poor is under intense debate (Patnaik 2008; Ambasta etal 2008;

[5] The Mid-Day Meal scheme provides ready-to-eat food to120 million children in 1.2 million schools in India. The Indian media regularly reports incidents of poor quality of food and services in the mid day meal program. On the 17th of July 2013, 23 children died in India's Bihar state after consuming a meal provided by the school (Indian Express 2013). In the same week of July 2013, 170 girl students got sick after eating mid day meal at a public school in the Neyveli district of eastern Tamil Nadu (Hindu 2013).

Narayanan and Lokhande 2013). However, it is apparent that these rural schemes have very little potential to alleviate food, nutrition and livelihood insecurity experienced by the 76 million urban poor[6].

The disconnect between state-led food security measures, be they production, distribution or consumption-oriented, and the urban poor is stark and continues even under the upcoming Food Security Act (2013). The gains of the urban poor from a few relevant distribution and consumption-oriented schemes have been primarily limited to being recipients of food rather than strengthening their livelihood capabilities. Though several studies (Bhat and Waghray, 2000; Etzold, 2008; FAO, 2003, 2007; Tinker, 1999; Wipper and Dittrich, 2007) have highlighted the significance of street food in India and other developing countries for providing access to nutritious food to lower income urban consumers, all state-led schemes have failed to involve the urban informal sector. On the contrary, policy makers have tended to view street food vendors as a nuisance and a safety hazard as their presence on busy streets is blamed for traffic congestion while their food products are criticized for causing health epidemics (Lintelo, 2009). The scholars and activists associated with the global food sovereignty movement have been instrumental in bringing right to food legislations, universal coverage of PDS, and promoting well being of small farm holders. However, they have not emphasized the potential active role of the urban informal sector, which provides employment to the majority of urban poor in procuring, transporting, processing, and delivering food grains as well as ready to eat food. The lack of attention towards the urban informal sector by the food sovereignty movement and scholars is perhaps rooted in the ideal agrarian vision of the movement from which these urban poor have chosen to or were coerced to escape. This study explores how the street food chain, operated primarily by urban poor, improves access to ready-to-eat (RTE) nutritious food and employment opportunity for urban poor in the state of Tamil Nadu, India. It embraces a new direction for the food security debate where urban poor are not simply passive recipients of subsidized food, but become active actors of a food chain that provides nutritious food for poor and other classes in urban landscape. Thus, the study seeks food security for the urban poor by engaging the urban poor. The study also questions the notion of street food as unsafe calorie rich product stuffed with fat, sugar and devoid of any healthy nutrients. It illustrates how urban poor, rooted in their indigenous knowledge and experiences of eating healthy millet-based food at home, venture to offer nutritious millet porridge as the urban population becomes self conscious of the negative impacts of excessive consumption of subsidized rice from the universal PDS in Tamil Nadu.

[6] The planning commission (2013: 68) estimated 76.47 million urban poor, using methodology proposed by the Tendulkar committee for identifying poor, in 2009-10.

Research Context: Millet Porridge Vendors in Madurai

Bhowmik (2005) estimates that 2.5 per cent of India's urban population is engaged in street vending. Street vendors are entrepreneurial salespersons who operate without any official capacity or legal status. Street food vendors offer many types of food including: raw food, semi processed or prepared food, and ready-to-eat cooked food all made available on the street or through a delivery service. Although they are very visible on urban streets, in absence of any rights, they continue to operate on the social, legal, and economic margins of the Indian society.

Millet Porridge (Koozh)

Millet porridges, locally known as *koozh*, have been part of the traditional diet in rural Tamil Nadu and other provinces of South India. The growing health awareness and increased prevalence of type 2 diabetes among urban populations have recently made pearl millet (kambu) porridge and finger millet (ragi) porridge popular street foods in Madurai. The preparation process for both types of millet porridge is fairly laborious requiring a number of value adding processes. Firstly, the millet grains must be boiled in leftover rice water, and the thick mixture left overnight to ferment. This process is carried out at the residence of the vendor, and typically over a wood fed fire. Regardless of the sex of the vendor, this preparation process always involves the labour of a female member of the household whose efforts are unpaid. Although most vendors add water to the whole viscous mixture the following day before serving, other vendors modified this step to achieve a more distinctive product. These vendors bring the viscous millet mixture to the stall and mix it in a separate pot of water to make 6-8 servings at a time. By adding water in a more infrequent, on-demand basis, the millet was allowed to ferment for longer periods of time, achieving a more desirable taste. Regardless of the process used, the porridge was served with buttermilk and a variety of condiments including raw onion, green mango, chilies, and appalam. Some vendors also prepared specialized condiments at home to offer a unique taste to their customers. Until serving, the porridge is stored in either a metal container or clay pot per the preference of the vendor, with the former overwhelmingly favored for its durability and cheap cost, and the latter used to keep the porridge cooler. While the preparation processes for pearl millet porridge and finger millet porridge are very similar, vendors and consumers do not see the two products as interchangeable. Thus, pearl millet porridge was perceived to be a superior product with more consumer demand.

The growing popularity of millet porridges in south India has been well documented by local news sources (Gopal, 2013; Manikandan, 2012; Saqaf, 2012). There are major differences between pearl millet and finger millet porridges in terms of their perceived health and nutritional benefits. In Madurai, the consumption of pearl millet porridge is perceived to have

a cooling effect on the body and thus it is more readily available and consumed in summer. Conversely, finger millet is perceived to have a heating effect and is less popular than pearl millet porridge during the hot summer months. Yet many urban consumers consider finger millet porridge as a nutritious food which is good for managing type 2 diabetes. Recently, NGOs promoting diversification of small-scale agriculture and nutrition security have launched programs and platforms including up-scale restaurants and health stores that promote the consumption of millet based products. However, the impact of these millet promotion programs have remained largely confined to educated upper class urban consumers of niche markets. Thus, the illegal street vendors selling *koozh* are sole source of nutritious millet products for the urban poor.

Madurai as a Research Site

Tamil Nadu is one of the most urbanized provinces in India with 48.45% of the population living in urban areas (Sivakumar, 2011). Between 1991 and 2011 its urban population increased by 14.3% (Census of India 1991 and 2011). The study of street food vendors was conducted in Madurai, the third largest city of the Tamil Nadu province of South India. Madurai, being inhabited by 3.04 million people (Census of India 2011), belongs to top 10 South Indian cities with more than one million population. As a major urban center for the province of Tamil Nadu, it is a common destination for many rural poor and landless peasants who have been increasingly seeking out employment in urban areas during the last two decades of economic growth. The seasonality of the rain-fed agriculture in the region also leads to a temporary influx of urban labourers during the off-season. The link between the rural and urban population in Madurai is further strengthen by the city's ancient Hindu temple, which attracts thousands of daily visitors across the state. Thus, Madurai provides an excellent research site for gaining understanding of informal sector of street food vending and exploring linkages between rural-urban food chains.

Research Objectives and Methodology

Formulated against the backdrop of issues related to food and nutrition security for the urban poor n India, the research was conducted with the following five major overlapping objectives in mind: (i) To assess the potential role of street vendors for enhancing consumption of nutritious ready-to-eat food, such as small millets porridge, among low-income urban consumers. (ii) To understand sociocultural and economic characteristics of street food vendors and their struggle to seek livelihoods through street food vending in the existing policy and institutional environment. (iii) To understand the socioeconomic profiles of street food consumers and their preferences for food quality, nutrition, and hygiene. (iv) To explore the

interface between rural and urban food systems and foster partnership among rural peasants and the informal food sector employing urban poor.

Research Methodology

The study was conducted as a part of a large research project, *Revalorizing small millets for enhancing the food and nutritional security in South Asia* (RESMISA) implemented in South India, Sri Lanka and Nepal. Considering small millets as wholesome food in the given context of over consumption of rice and wheat promoted by green revolution era policies in South Asia, the project focuses on cultivation, production, value addition, consumption and promotion of small millets using gender sensitive participatory approaches. Three separate research instruments were employed to examine the various factors that influence complex value chain of millet-based porridges from grain procurement to consumption as a street food. Of these three research instruments, two were semi structured surveys consisting of qualitative and quantitative questions for porridge vendors and consumers. The remaining instrument was a guide with a set of observations on the health and safety practices of vendors. These instruments were developed after a rapid qualitative reconnaissance survey, field visits, a literature review and consultation with key street vendors and community development professionals in Madurai.

The semi structured vendor survey consisted of four sub-sections pertaining to: the sociocultural background and economic status of the vendors; food products and preparation methods on and off the food stalls; vendors' indigenous or informal knowledge, procurement of raw material and food ingredients, usage and interests in small millets; and vendors' management of their enterprises including the roles of men and women in different business operations. This vendor survey was conducted among a variety of street food vendors (total sample size 90), using a combination of stratified random sampling and snowball sampling, to understand the complex business operations of the ready-to eat street food industry as a whole. Out of these 90 vendors, 36 were porridge vendors who offered either pearl millet, finger millet, or both types of porridge to urban consumers. These porridge vendor respondents represented diversity on the basis of vending location (residential, transportation-hub, mixed-use, or commercial), product (pearl millet and finger millet porridge), gender and scale of operation. Furthermore, a virtual mapping exercise was conducted wherein vendors locations were plotted on a Google Map of Madurai city to ensure geographical diversity existed within the sample size.

The semi structured survey instrument developed to understand consumer preferences toward street food vendors and their products was carried out among 236 consumers. Out of these, 169 respondents reported consuming porridge from street food vendors. The consumer

interviews were conducted away from porridge vending sites in order to curtail answers that may have been influenced by the presence of the vendors. The survey included in-depth information about consumers' sociocultural and economic background, preferences for street food and types of vendors, frequency and scale of consumption, practice of eating similar food at home, as well as knowledge and practices related to small millets, nutrition, and personal and public health. As economic determinants were self-reported by consumers, there was the potential for respondents to either deflate or inflate their financial means and thus complicate accuracy in understanding of economic status. Further, many recent studies indicate that income or monthly per capita expenditure are not reliable indicators of economic poverty, nutritional status, and calorie consumption in India (Deaton and Dreze 2009, Patnaik 2008, Shah 2013). To mitigate this problem a wealth-ranking score was computed during data analysis, using a series of key indicators such as typology and size of the house, access to sanitation infrastructure, assets, and type of employment and number of earning family members, and household income. Though the majority of consumers were poor, this wealth score helped in segregating them in different meaningful categories based on their wealth.

Although the paper draws on understanding gained from overall study of different types of vendors and their consumers, the results and discussion in this paper are focused on in-depth analysis of 36 porridge vendors and their 169 consumers. This shift in the research scale was simply due to focus of the paper on millet porridge vendors. In addition to the vendor and consumer questionnaires, the research team conducted observations on the vending site related to cleanliness, cooking, storage, handling, and serving of food on the stall. These observations were developed on the basis of some scientific studies (Chakravarty, 1996; Mishra, 2004) that identified key variables for ensuring food quality, hygiene, and safety. Researchers also organized several group discussions of key vendor informants and had consultations with development professionals and local government officials in Madurai at various stages of data collection, analysis and interpretation.

Types of street food Vendors in Madurai

Madurai's street food industry is extremely diverse with a wide variety of street foods including fruits, vegetables, sweets, beverages, packaged food products, and ready-to-eat cooked foods. However, our study focused exclusively on vendors selling ready-to-eat cooked food prepared on site. The Madurai street vendors are classified on the basis of their infrastructure and type of ready-to-eat (RTE) cooked food they sell. Four distinctive categories emerged from this classification including: 1) Hawkers selling RTE cooked products without any or with very minimal infrastructure; 2) Porridge vendors selling finger millet and pearl millet porridges (locally called *koozh*) from mobile pushcarts or stalls; 3) Non-porridge pushcarts selling RTE cooked products from mobile pushcarts, tricycles or large tables; and 4) Small-scale restaurants

selling RTE cooked products from curb side semi-permanent structures with an open seating area for of up to 15 patrons. The distribution of 90 vendors included in the study sample across these four categories is presented in the Table 1.

Table 1: Typology of Street Food Vendors in Madurai (N = 90).

	Level of Infrastructure			**All Infrastructure Types**
	No Infrastructure	**Pushcart/ Tricycle**	**Semi-Permanent Structure**	
Selling other products	Hawkers (21)	Non-Porridge Pushcarts (13)	Small Scale Restaurants (19)	53
Selling porridge	N/A	Porridge Vendors (37)	N/A	37
All Products	21	50	19	90

Vendor typologies were further categorized on the basis of their vending locations, and ascribed a label of either; 1) transportation hub – defined by high levels of both pedestrian and vehicular traffic, 2) market area – defined by space principally utilized for commerce, 3) Residential – an area of predominantly used for housing, or 4) mixed-use space – pertaining to areas including both residences and commercial operations.

A total of 36 distinct RTE cooked food items or dishes were offered by the 90 vendors studies. The most commonly sold RTE street foods were rice based products (idli, dhosai, paniyaram, pongal, and fried rice dishes), millet based products (pearl millet porridge and finger millet porridge), wheat based products (poori, parota, and chapatti) and pulse based products (vada). While porridge vendors sold only two products (pearl millet porridge and ragi porridge) they also offered an array of different side dishes and condiments, which allowed their customers to customize these otherwise uniform products.

Generally speaking all of the street food vendors interviewed were poor, however, small scale restaurant operators and non-porridge pushcart vendors were found to be slightly better off. Porridge push cart vendors and especially hawkers were the most marginalized groups and

scored lower on all socioeconomic indicators. While women made up one half of all vendors, they were over represented within these inferior categories.

The socio-economic standing of porridge vendors was also evident when considering their living situation and resources available to them. Although porridge vendors typically ranked higher then hawkers in most economic categories, among all vendors typologies they were the least likely to have access to a bank account (16.7%), and were the least likely to be the member of an NGO (16.7%). This lends support to the notion that although as a group porridge vendors are predominately urban poor, they are still being widely excluded from private planning intervention which targets the most neglected populous, being hawkers. Nonetheless, 91.7 of porridge vendors were in possession of a Green BPL card, which entitles them to subsidized rice, and are thus recognized as poor by the government. It was also noted that porridge vendors predominantly belonged to the more marginalized classes, which are dynamic classifications recognized by the government to enable particular social and economic entitlements for, as 11.8% were Backward Class (BC), 29.4% were Scheduled Class (SC), and 52.9% were Other Backward Class (OBC). Porridge vendors were also the most likely to have a secondary source of household income, as 47.5% had alternative financial means, which to an extent may reflect that the group has less invested in the porridge vending operations. The household size of porridge vendors may also play a role in the secondary income as 55%, 19.4%, and 8.3% lived in households with 3-4, 5-6, and 7 plus members respectively.

This hierarchical economic structure within the street vending industry was also evident by the varying degree of material assets used in the vending operations. With minimal infrastructure hawkers seldom offered their customers any formal seating operations but instead capitalized on public space, such as sidewalks and ledges to be manipulated into seating, allowing them to be highly mobile. In contrast non-porridge pushcarts and small scale restaurants overwhelmingly supplied their cliental with plastic stools to sit at. This trend however was less evident by vendors stationed at transportation-areas whose cliental were typically more transient. Although pushcarts were constructed upon four bicycle wheels, and thus in theory mobile, the poor quality of their maintenance usually rendered them stationary, as tires were often flat, and the rims rusty and bent. The reality of this immobility is noticeable in the operations of the vendors as all but one pushcart vendor sold in the same location for the duration of their day. Vendors also remained in the same location day after day as they overwhelmingly left their cart at their favoured location, lending a territorial aspect to the industry.

Who are these Millet Porridge Vendors?

Among the 90 vendors interviewed, porridge vendors made up the largest group with 37 vendors or 41% of the sample. The majority of porridge vendors were middle aged (30-59 years) yet most had been in the business for only ten years or less. Thus, it appears that for many porridge vendors, vending was not their original or first occupation. While some vendors may have been formal sector workers who had lost their jobs during economic liberalization (Bhowmik 2005), almost half of them (43%) were migrants who had started vending at the time of their arrival in Madurai, which for many was around ten years previous.

Table 2: Socioeconomic Characteristics of Street Food Vendors of Madurai.

Socioeconomic Indicators	Vendor Typology			
	Hawkers (21)	Porridge Vendors (37)	Non-porridge Pushcarts (13)	Small Scale Restaurants (19)
% illiterate	76	61	27	10
% low caste (OBC, MBC, SC, ST)	100	94	100	100
% with less than grade 11 education	91	83	92	63
% without land owned for business	100	100	100	86
% without seating area	90	94	61	0
% without bank account	71	83	38	22
% without motorized vehicle	90	81	69	42
% below poverty line (BPL card)	100	92	100	89

Some vendors also saw millet porridge vending as a temporary source of employment while they sought out other jobs. Since entering the porridge vending industry is more labour intensive than financially demanding, prospective vendors have fewer barriers to entry. The

penetrable nature of this market is also noted by various authors, who state that the informal sector plays an important role in absorbing employment that the formal sector is incapable of (Reddy, 2007), and that it can be act as a buffer between employment and unemployment. Other studies have shown that rural migrants have benefited from this relatively penetrable characteristic of the informal sector as they are disproportionately employed by the informal rather than the formal economy (Malik, 1996). Interestingly, the presence of rural migrants was relatively higher among porridge vendors when compared with other categories of street vendors selling non-millet based RTE foods. Usually, it takes considerable time for a new immigrant to understand taste and food preferences of urban consumers and power relationships on the urban street to open a new vending business. Millet porridge however is relatively a novel RTE food product for the street food vending business as it is primarily based on agrarian knowledge, food preferences, and life styles. Some rural migrants sensed this emerging business opportunity, which had relatively less resistance within informal sector on the street due to inherent risk of a novel product, and took strategic advantage of their rural experience and knowledge.

Porridge vendors had very few qualifications in terms of formal education and training. Male vendors had more education than female vendors; however education levels were low for both sexes. 80% of all porridge vendors had obtained less than a grade 10 education and 40% reported that they were illiterate. While one vendor had received training in marketing from a local NGO, this was by far the exception to the rule. Given the informal nature of the street food industry and the different skillsets needed for the preparation and sale of street food, this lack of formal education among vendors is not surprising (Bapat, 1990). Instead porridge vendors rely primarily on their experiences from cooking at home, and use the recipes passed on to them through family networks.

Porridge vendors provide an important economic and cultural connection between rural and urban life. Since many of them were migrants that had lived in rural settings, it is not surprising that their consumption and knowledge of small millets were more consistent with rural patterns. This can be seen in the fact that among all vendor typologies, porridge venders were the most likely to be consuming finger millet on a regular basis in their homes. Furthermore, they were also the most knowledgeable when it came to identifying other lesser known small millet varieties such as kodo, barnyard, little, proso, and foxtail millets.

Women in the Porridge Vending Industry

Women are essential to the functioning of the street food industry. Tinker's EPOC study of street food vendors in lower and middle income countries found high levels of women's involvement in eight of the nine countries studied (Tinker, 2003). While only 43% of the

porridge vendors (operators) we interviewed were women, nearly all enterprises had women working at them often as unpaid family labour. As a family business, porridge vendors would often operate as a husband and wife team, however in other cases vendors relied on other female family members to help out as needed. And while many tasks were done by either men or women depending on who was available, it is also clear that certain activities were more likely to be done by women than men and vice versa. While men's roles tended to be more visible and extroverted, women were often more involved behind the scenes in the primary preparation stages of the porridge and the washing of dishes. However, when an enterprise was run exclusively by women, both the more visible and less visible roles became the domain of women and their workload was increased. In terms of a desire to expand their business, Tinker's study found that women vendors chose to invest in their children through food and education rather than investing in their business (Tinker, 2003). However the female porridge vendors in our study showed more of a desire to expand their enterprise than did their male counterparts. Thus, the entrepreneurial nature of Madurai's female porridge vendors should not be underestimated when designing gender appropriate interventions.

Table 3: Women's Involvement in the Street Food Industry in Madurai

Vendor Typology	% of enterprises with female owner or operator	% of enterprises with female workers	% of enterprises with female involvement
Porridge	43	65	95
Non-Porridge	23	85	100
Hawker	81	57	100
Small Scale Restaurant	42	79	100
Total	49	69	98

Women in the street food vending industry face marginalization on a regular basis. For female porridge vendors, this takes the form of having fewer customers per day, as well as a lower number of repeat customers, and results in lower profits than their male counterparts. Furthermore, female vendors also reported higher incidences of harassment, forced shutdowns and the payment of bribes to police and authorities. For those female labourers working as

paid employees of vendors, marginalization took the form of daily wages that were on average three times lower than their male counterparts. Additionally, female labourers were also more likely not to be paid at all given that they were mostly family members. Thus, while it is clear that women are vitally important to the street food industry, it is also clear that their contributions are economically undervalued.

Who are Millet Porridge Consumers?

Although street foods are enjoyed by people from a variety of economic, social, and cultural backgrounds, the particular role they play in providing the urban poor and working classes with an affordable source of food has been well documented (FAO, 2007; Tinker, 1999; Wipper and Dittrich, 2007). In India, studies have described the majority of urban street food customers as being: poor, less-educated, and with insufficient accommodations (Bapat, 1990), market traders (Chakravarty and Canet, 1996), and daily wage labourers (Nambi, Phillip, and Muniyappan, 2009). These descriptions support the notion that a large portion of street food consumers tend to be from poorer segments of society.

All consumers included in the survey were ranked on the basis of details of their type of housing and ownership, productive assets, number of family members earning, type of job and other sources of income, and other characteristics associated with economic status of the household. The analysis indicated 40 percent were poor while 47% were lower middle class. Only 13% of customers had a profile of upper middle class. In terms of occupation, more than one fifth (22%) were daily wage casual labourers, the poorest of the poor in the urban landscape. Other consumers included petty traders and small business owners (14%), and homemakers (14%), and students living on their own in the city (17%). Most consumers, except young students, had less than a grade 11 education, and more than one third were not even fully literate. Additionally, more than one third of consumers were from the lowest caste groups including Scheduled Castes (SC), Scheduled Tribes (ST), and Most Backward Classes (MBC). These determinants reiterate the notion that millet porridge is primarily served by the poor to the poor.

Table 4: Socioeconomic characteristics of street porridge consumers in Madurai (N= 169)	
Sex:	Male (64%) Female (36%)
Age:	Average age: 36 (Young and middle age working population) Majority (60%) are under age 40.
Caste:	Scheduled Castes and Scheduled Tribes (36%) Other Backward Classes (53%) General Caste (11%)
Education:	Majority (55%) have less than a grade 11 education
Occupation:	Daily wage earners and casual labourers (22%) Students (17%) Homemakers (14%) Other occupations (47%)
Wealth:	Poor (40%) Lower Middle Class (47%) Upper Middle Class (13%)

Women made up only 36% of all porridge consumers. Many of these female consumers were poor and engaged in low paying jobs in the informal sector or participated in unpaid labour at the home or assisted in small-scale family ventures. Most female porridge consumers (87%) were from lower or OBC classes, while close one fourth (22%) were either separated or widowed. This implies that they were the most marginalized of the urban poor. The low proportion of women consumers is not surprising given the social stigma surrounding women eating on the street and fact that millet porridge is generally consumed on the street. Alternatively, women are more likely to purchase other street foods that they are able to take home to serve to their families. Exceptions to this trend were widows and young single women.

Given their already low social status, widowed women were less concerned with this social stigma. Similarly, younger single women were also less concerned with the traditional social taboos and the majority of them (65%) consumed millet porridge on the street. This corresponds with findings of a study conducted in Hyderabad (Wipper and Dittrich, 2007) that even among higher castes it is becoming more acceptable to eat on the street.

Table 5: Prevalence of Diabetes amongst millet porridge street consumers and their households (Figures are in percentage of total sample).

	Consumer him/ herself	Consumer + HH member	Only HH member	Neither	Total
Poor (57)	12.3	0	15.8	71.9	100.0
Lower middle class (74)	10.8	1.4	29.7	58.1	100.0
Upper middle class (21)	9.5	9.5	38.1	42.9	100.0
Total (152)	11.2	2.0	25.7	61.2	100.0

Interestingly, some of the porridge vendors installed their vending businesses near hospitals and parks to galvanize evolving health awareness in the higher middle class. These location choices were strategic considering spiraling number of diabetes cases in Madurai and other cities in Tamil Nadu. One of the recent diabetes survey conducted in the city, involving screening of more than 10,000 people above 30 years, showed 13% were suffering from diabetes and that another 12% were in the pre-diabetic stage (Mallady 2013). The high prevalence of diabetes in the city has perhaps helped in bridging class divides among consumers of porridge. As illustrated in Table 2, more than half (57%) of consumers from the upper middle class identified themselves or someone from their household as diabetic. The consumers who were not personally affected but had someone in the family who had diabetes are considered highly predisposed to diabetes and were more cautious about rice based food. The low prevalence of self reported diabetes among poor and lower middle class consumers of street food should not be misconstrued that they are less vulnerable to diabetes. Further, millet porridge vendors in Madurai were not simply service providers to upper middle class diabetic patients. The urban poor, eating subsidized rice three to four times a day, are at high risk and

their ability to manage diabetes through diversified low glycemic food is very limited. In those circumstances, street porridge vendors may be among very few sources for these poor diabetic patients to get millet based healthy food at an affordable price.

Trends in Street Food Consumption

After millet porridges, the most popular street food products among porridge consumers were idli, dhosai, and paniyaram. Idli and dhosai being signature dishes of South India were sold by most of the restaurants and street vendors, with the exception of porridge vendors, while paniyaram was sold primarily by poor female hawkers. Most street foods purchased by consumers were also occasionally or regularly cooked in their homes, yet they chose to buy these foods on the street due to their busy travel and work schedules. Millet porridge deviated from this trend, as it was generally not prepared in the homes of its street consumers. This is in part a product of its laborious preparation process that includes overnight fermentation, and as such it is more efficient in terms of both time and money to consume at street vendors.

Consumer decisions to purchase street food because of its convenience in relation to their busy schedules are also reflected in their consumption habits. Although some consumers would walk to the vendors from neighboring businesses or residencies, it was common practice for many consumers to arrive via bicycle or motorbike. These customers would then immediately purchase and consume, or occasionally take away in a plastic bag or container. Since porridge vendors seldom offered any formal seating options, socialization and post consumption loitering were not encouraged. As a result, regardless of their means of transportation, consumers only stayed long enough to consume their porridge, lending support to the notion that porridge vendor patrons are highly transient and seeking a convenient meal of their choice.

On average, consumers spent Rs. 284 per month on street foods bought from vendors and Rs. 368 per month on street foods purchased from small scale restaurants (refer to Table 6). While poor consumers generally spent less than lower middle class and upper middle class consumers, on average they spent a larger portion of their income on street foods. This is consistent with Tinker's findings that "the smaller and poorer the family, the higher percentage of their food budget was spent on street foods." (Tinker, 1999).

Table 6: Socioeconomic class, monthly income and spending on street foods.					
Socioeconomic classes	Household Income per month (INR)	Average monthly spending (INR)			
		At Street Food Vendors		At Small scale restaurants	
		Total spending (INR)	As % of income	Total spending (INR)	As % of income
Poor (N=67))	8091	247	3.0%	263	3.2%
Lower middle class (N=80)	16406	319	1.9%	374	2.3%
Upper middle class (N=22)	23182	269	1.2%	683	2.9%
Total: 169	14027	284	2.0%	368	2.6%

While the majority of consumers bought street food at least once a week, food from street vendors was purchased more frequently than food from small scale restaurants. This trend can be explained by the fact that food from small scale restaurants was generally more expensive than food sold by street food vendors. For the same reasons, a larger percentage (37%) of poor customers purchased food from street vendors a minimum of once every two days. On the other hand, upper middle class consumers were more likely to be frequent customers of small scale restaurants. The higher frequency, and normal routine of purchasing street food by poor also suggests a dependence on the street food as a primary source for their daily food and nutritional intake, as compared to the higher class consumers who eat street food as a change from their usual consumption habits.

Whether consumers frequently ate at street food vendors or small-scale restaurants depended on both their socioeconomic status and what meal they were eating. Breakfast was the meal most commonly eaten on the street by poor (49%) and lower middle class (47%) consumers and was most often purchased from street vendors. This is not surprising given the fact that millet porridge is a dish generally eaten for breakfast and is only available from street food vendors. Consumers en-route to work often noted their preference for millet porridge as a morning meal by stating that it would leave them with a “full-belly”, and the “stamina” required to work long

days. Interestingly, the poor always described porridge as food that lasts longer while higher middle class consumers underlined its attributes for managing diabetes.

Table 7: Socioeconomic class of consumers and type of meal consumers ate at the street food stalls. (Total N = 169)

Consumers who eat Street food as a:	Percentage of Street food consumers			Total (N= 169)
	Poor	Lower middle class	Upper middle class	
Breakfast	64.2%	55.7%	40.9%	57.1%
Lunch	14.9%	24.1%	9.1%	18.5%
Dinner	13.4%	12.7%	9.1%	12.5%
Snacks	62.7%	67.1%	86.4%	67.9%

While two thirds of all consumers indicated that they did not eat lunch on the street, this figure was even higher for poor consumers who rarely ate lunch on the street and instead brought small quantities of food from home in metal containers. For all socioeconomic groups, dinner was a popular street food meal and was eaten at small scale restaurants. Finally, snacks were consumed throughout the day and purchased mainly from street food vendors. Unlike poor consumers, the dependence of consumers from higher class (86.4%) on the street food was primarily for availing supplementary snacks after leaving home for work.

Street Food Consumers' Health Awareness

Consumer perceptions regarding the health, nutrition, and sanitation of street foods have important implications for any policy interventions aimed at promoting the consumption of small millets among the urban poor or improving the livelihoods of street food vendors. Studies of street food in India have noted that the middle class has been the driving force behind more stringent food hygiene measures (Lintelo, 2009) and that the poor appear to be less concerned with the quality and hygiene of street food (Wipper and Dittrich, 2007). On the contrary, our study found that the urban poor consumers of the street food were not only concerned with the quality and hygiene of street foods, but they were also aware of the nutritional benefits of millet consumption, as well as general health issues.

Nearly half of all street food consumers stated they had experienced negative health effects from eating street food including indigestion or stomach upset, jaundice, ulcers, and fever. Many also listed types of street food that they would never eat including: non-vegetarian dishes, foods cooked in oil, spicy foods, sliced fruits, and boiled yams. On the other hand millet porridge varieties were not high on the list of foods to avoid. This demonstrates that the urban poor, while thought to be illiterate and least concerned for food safety and public health, have significant knowledge and ability to employ discretion when choosing among various street foods. The urban consumers' concerns pertaining to the unhygienic conditions of street vended food has also manifested itself in the cultural etiquette and practices of consumption. Millet porridge is served in a metal cup or glass with a rounded lip from which consumers pour directly into their mouths without ever coming in contact with the vessel. Although this practice is widely used for the consumption of water and other liquid products by poor people who cannot afford disposal or private utensils, porridge consumers noted its ability to mitigate the potential for contracting diseases or experiencing negative health effects. One-fifth of consumers (20%) preferred eating at a specific vending location as they perceived products of those vendors to be better, in terms of nutrition and quality, than the same products of other street vendors. The fact that the urban poor are concerned with the quality and hygiene of street foods should not come as a surprise given the fact they depend heavily on street foods for their nutrition and caloric intake, more so than the middle classes.

While street food consumers were aware of negative health issues associated with of street foods, they were equally aware of the positive health benefits associated with the consumption of small millet porridges and other millet based products. The study found that larger proportion of poor consumers consumed small millets in their homes and a majority of them also had indigenous knowledge related to identification and usage of small millets. Conversely, middle class consumers were less likely to consume small millets at home and were less knowledgeable about millets in general. In terms of an awareness of the health benefits associated with small millets, more than three quarters of consumers mentioned at least one positive benefit. In general, consumers mentioned that millets increased physical strength, prevented disease, and were a filling meal that prevented hunger. Finger millet was specifically mentioned as a treatment for diabetes and pearl millet was supposed to help cool the body.

Street vendors' Perception of Health and Safety: Conflicting Claims

Street vendors understood that their customers had quality and health standards, and did their best to ensure that their products were perceived as healthy, safe, and nutritious. The porridge vendors were acutely aware of health related issues pertaining to street food and the majority (62%) of them claimed to have taken steps to prevent health related risks among their customers. Most of the porridge vendors were found diligent in their efforts to reduce

contamination by dust and dirt, that was prevalent in high traffic areas, in their products by keeping the porridge covered with a lid at all times until serving. They stressed that their products were high quality, nutritious, and made with a personal touch. In terms of quality, no extra fillers or additives were used to stretch staple ingredients, and no old or leftover food was sold. These actions were contrary to the belief of some consumers who voiced concerns surrounding the use of rice in millet porridges to reduce the cost of production. In terms of personal touch, vendors strove to meet consumer expectations that food should look and taste homemade. Lastly, vendors also mentioned that they tried to keep their dishes, utensils, products and serving area clean.

The study found that vendors were constrained by limited access to clean vending sites and sanitation infrastructure such as clean running water and waste facilities. Participant observations of porridge vendors made during visits to the stall and their homes, where preliminary steps of preparation were normally carried out, indicated that although many vendors were aware with health issues, few translated this awareness into actual hygienic vending practices. Due to a limited supply of water, washing of dishes was commonly done in dirty used dishwater without soap and vending surfaces were rarely wiped down. Few vendors had waste bins and most threw their waste in piles next to their carts. Customers also contributed to the risk of contamination by handling foods and communal side dishes (such as sliced onion or mango) with their bare hands as well as throwing their trash around the vending sites. Of course, this disparity between street vendors' health awareness and their vending practices is not irrational when the profit margin is so slim due to fierce competition in the vending business. The intense competition among porridge vendors is evident from the flat price of porridge (10 INR per serving) across the city, irrespective of seasonal fluctuation in raw material prices, vending location, product quality and time of the service. In absence of any efforts from the state, consumers protection groups or development organizations, it is more likely that increased cost of any health and safety measures will be externalized to the poor street vendors.

SFV Indispensable for food security of informal entrepreneurs, marginalized women, and urban consumers

As is evident from the previous sections, Madurai's porridge vendors offer healthy millet based RTE food, with minimum transaction costs, and without any support from the state or civil society organizations. Their clients are primarily the urban poor who are more likely to be excluded from food entitlements distributed through state run delivery channels. Our study of porridge vendors in Madurai found that one serving of porridge costs only 10 rupees whereas the cost of one serving of lower scale restaurant food could range from 25-50 rupees. In addition to being cost effective, RTE street food such porridge is ideal for the urban working

poor who rarely have the time or infrastructure to make cooked meals at home. The Madurai porridge vendors dismiss the notion that only unhealthy food is served by street vendors as they provide healthy alternatives to diabetic patients who seek food with a low glycemic index. The majority of street food vendors are also poor and come from lower castes or marginalized social groups. The street food vending industry thus plays an important role to these marginalized individuals as it provides livelihood and employment opportunities that they are otherwise excluded from in the formal sector. The income generated from street vending enterprises also has a vital role to play in ensuring food security for street food vendors and their dependents.

Our study of porridge vendors in Madurai found an average of 1.14 additional workers per vendor, most of whom were women and related to the vendor.[7] The large number of women working in the industry, both as vendors and as unpaid assistants, presents unique opportunities and challenges for women's empowerment and livelihood improvement. Some earlier studies reported that female street vendors were less entrepreneurial as they diverted their profits to food and other social priorities of their family (Tinker, 2003). However, the female porridge vendors in our study showed more of a desire to expand their enterprise than did their male counterparts. Thus, the entrepreneurial nature of female vendors should not be underestimated when designing gender appropriate interventions. Prugl and Tinker (1997) cautioned that any interventions to promote the involvement of women in the street food vending industry need to seek a balanced approach that avoids the extremes of constructing female vendors as either the ideal independent self-employed entrepreneur or the exploited worker.

SFV Survives under challenging urban planning and policy environment

India's urban planning policies have tended to favour the more politically influential middle and elite classes whose priorities often conflict with those of the urban poor. This can be seen in class struggles over public urban spaces, which pit the utilitarian needs of the urban poor against desires of higher classes for keeping public spaces clean and aesthetically pleasing. To this extent, the elites have used various pretexts to have street food vendors removed. Among their major contentions are that street food vendors cause traffic congestion, engage in illegal activity, and are a risk to public health. These views have motivated anti-vending political action since at least the 1990's and have resulted in mass evictions of street vendors from urban spaces across the country[8]. The higher middle class has been instrumental in introducing

[7] For vendors in Madurai selling other products from pushcarts or small stalls, the number of workers per vendor could be even higher. Small scale restaurants had an average of 2.84 additional workers per vendor.

[8] On November 16-17, 1996, Kolkata officials forcibly removed over one hundred thousand street vendors and confiscated their equipment. The raid, which would become known as 'Operation Sunshine' was carried out to

several policies in the neoliberal era related to the environment, food safety, public health, public safety and transportation that victimize street food vendors.

In the area of food hygiene regulations, enforcement has consistently favoured larger food retailers operating over informal street food vendors (Lintelo, 2009). For instance, the Confederation of Indian Industry and their affiliated institutions have developed a policy manual for the Food Safety of street vended food CII (2008) without any participation from the street food vendors themselves. The fourteen check points recommended in the CII manual, endorsed by the Ministry of Food Processing Industry, expect street food vendors to use serving gloves, disposable plates and cutlery, to wash their hands each time after collecting cash from consumers, and to use treated water and a refrigerator at the stall. These policy prescriptions are derived from a corporate mindset that obviously does not reflect the reality of Indian street food vendors nor do they align with porridge consumers' expectations for quality and cost described in preceding section. Lintelo (2009) argues that rather than focusing on improving street food hygiene, public health policies pertaining to street food vendors have resulted in raids to clear vendors from public spaces and confiscate their goods. Without any official legal status vendors are at the mercy of police, authorities, and public health officials, and are significantly disadvantaged in their struggle for access to public vending space. More than one third street vendors interviewed in Madurai faced some kind of harassments, including increased bribe payments, relocation and threats of being shut down, in the last one year period. Female street vendors (40%) reported more harassment by the state administration, as compared to male street vendors. The fact that vendors must both pay bribes and be ready to clear out at any moment disincentivizes their ability and desire to invest in improvements to their enterprise (Bhowmik 2012). In the event of any epidemics or public health and safety concerns, the municipal administration tends to unilaterally call for closures of street food vending outlets. These extreme measures are often justifiable for the public safety and wellbeing; however in absence of any insurance or social safety nets for poor street vendors and their workers, the costs of public health get externalized to these vendors. For many of these porridge vendors in Madurai, street vending is sole source of income for their household and the closure of their vending business affects their access to food and livelihood.

In recent years harsher policy measures directed at street vendors have given way to a more measured approach by state planners. The *National Policy on Urban Street Vendors, 2009* noted that street vendors had rights to engage in business and trade, and to impose on such rights would conflict with the democratic process as well as the interest of the public who

uphold a 1980 Kolkata Municipal Corporation Act that prevents vendors on the street (Chakravarty and Cannet 1996). The police can arrest a street vendor in Patna, Bihar, without a warrant and convict or fine the person if found violating any law (NCEUS 2007: 61).

patronize the vendors (Goverment of India, 2009). However this policy does not go far enough as it fails to take a firm pro-vending stance and gives discretionary measures to government and law enforcement officials to be subjectively interpreted. Similarly, the most recent piece of legislation pertaining to street vendors, *The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill, 2012*, has been criticized due to the concentration of power given to the Town Vending Councils (TVCs) which have excluded the participation of vendors (Ali, 2012). Thus although there is growing awareness of the rights of vendors, this awareness has not translated into better vending conditions for vendors. The food sovereignty scholars and activists in India have overworked for pushing the National Food Security Act (2013) while ignoring to pay any attention to Street Vending Bill that protects the livelihoods, and thus food security, of the urban poor.

SFV Defies Modernists' Predictions

In the academic arena, the role of the informal economy, particularly street food vendors, and its potential for promoting food security and employment among the urban poor has been largely disregarded by scholars of both neoliberal economics and Marxist schools. The modernists instrumental in promoting technocentric production oriented food security measures, saw street vendors as a remnant of traditional pre-capitalist society. The economists (Farbman 1981, House 1984) of production-led food security era found that street vendors never accumulate capital and consequently were seldom able to invest or expand as a modern entrepreneur does. They assumed instead that the informal food sector would be absorbed by the formal sector with increased economic growth. However, in developing countries economic growth has led to urbanization and high rates of rural out-migration to urban centers. Rather than shrinking, the street food vending industry has grown as migrants rely on it as a source of income and a market from which to purchase daily necessities (FAO, 2007). Modernist scholars have also claimed that street food vendors are not entrepreneurs since they do not accumulate capital or expand their enterprises. Tinker (1997) noted street vendors' tendency not to invest a share of their income in business improvement and instead noted that they diverted profit to social and other family related priorities. However, millet porridge vendors in Madurai demonstrated different behaviour and business aspirations. A common aspiration of the Madurai porridge vendors was to one day be able to expand their business to sell additional products and to operate a small scale restaurant. Though they had no dream of launching a nation-wide retailing chain or franchise for selling their novel millet porridge, their several of their business practices demonstrate that they possess a great degree of business savvy. Firstly, porridge vendors were very selective in their choices of vending locations. While this is likely true for most street food vendors, vendors selling finger millet porridge often strategically located their enterprises in close proximity to hospitals or parks to capitalize on sales to diabetic patients from the higher middle class. Secondly, Madurai porridge vendors are

strategic in their procurement of raw millet grains. While most other street vendors purchasing rice or pulses would do so on a daily basis, half of the porridge vendors we interviewed purchased raw millets on a weekly basis or even less frequently. This practice of procuring millets in bulk, considering the limited financial capital that they have, demonstrates their business skills and knowledge related to the unpredictable supply and prices of millets in urban markets. Finally, porridge vendors were also very interested in the possibility of training or other interventions. Three quarters of porridge vendors (75%) indicated they were interested in small millet based training and nearly two thirds (60%) were interested in the possibility of introducing new small millet based products into their business. When compared with the other vendor typologies, porridge vendors stand out in their openness to try new things. Thus the arguments that all street food vendors lack entrepreneurial zeal to participate in the modern economy has little merit and subscribes to a narrow outlook that fails to account for the unique aspirations and needs of the marginalized informal sector.

SFV Unappealing for Marxists, Feminist and Food Sovereignty Scholars

While the stance by modernists and neoliberal economists towards street food vendors is perhaps understandable, Tinker (1997) is puzzled by subdued interest of Marxists scholars and labour organizations. The Marxist models have tended to see street vendors as pawns in the larger capitalist system forced to be retailers of cheap industrial goods from sweat shops and factories. However, street food vendors offering ready to eat cooked food distinguish themselves from other street vendors, as they do not sell any factory goods. However, their practices for hiring labour and resisting any benefits may create friction with the philosophies of Marxist scholars and labour organizations. Furthermore, the case of Madurai's porridge vendors could be even less interesting for Marxists as none of the vendors hired any paid labour. All porridge vendors relied on unpaid family members and most of the time these members were women. The presence of unpaid female labour, often as a subordinate to male vendor, also makes street food industry unpalatable for many feminists to promote the role of street vendors. Thus, the focus of Marxist, feminist and labour scholarship has not been on the positive aspects of street food vending, but rather on the need to organize and unionize street vendors in order to improve working conditions and counteract exploitative labour and gender relations. And while these goals are admirable, the steady critique of the street food vending industry has limited the discussion surrounding positive aspects such as its potential to contribute to food security and livelihoods. This inherent bias towards the street vendors has continued under the current debate on food sovereignty. Many street food vendors have made the decision to enter the industry or were driven by the booming growth of the urban economy to leave the small scale agrarian landscape that food sovereignty scholars have routinely considered as the foundation for solving the problem of global food security, poverty and environmental degradation. Nonetheless, these street vendors have the potential to become a

link between rural and urban food chains and to ensure food and nutrition security for the urban poor.

Engaging Street Food Vendors for Nutrition and Food security: Potential Interventions and Suggestions

Street food vendors present enormous potential to provide employment and food security for the urban poor. Although the current debate, led by scholars and activists associated with right to food, food justice, or food sovereignty movements, demonstrates deeper understanding of issues related food security, it fails to create any opportunities for engagement of the urban poor beyond being beneficiaries of subsidized food. This is more perplexing given that while the state has demonstrated its commitment to spend up to 5 per cent of its GDP on food security related schemes, there has been no meaningful debate on how to use these new state-led opportunities for promoting growth in the informal sector for employment of the urban poor. According to statistics provided by the Department of Food and Public Distribution (2013) and the Ministry of Women and Child Development (2013), the government of India spent a total of INR 121,429 crore for implementing public distribution scheme, mid day meal program and integrated child development schemes last year (2012-13). This budget has been increased by 22 per cent (INR 148,033 crore) in the current year to meet the additional coverage requirements under the new food security Act (2013). Of course, government estimates are very conservative and may not implement all requirements at full scale in the first year. The estimates provided by independent experts for implementing all provisions of food security act range from 241,263 crore (Gulati et al) to 314,000 crore (Bhalla 2013, Mishra 2013) which amounts to 3 to 6% of the total annual GDP (INR 5,503,476 crore) of the year 2012-13.

Irrespective of which estimates are realistic, it is a significant expenditure by the state and is devoid of any opportunity for urban poor other than being recipient of subsidized food. Interestingly, detailed analysis of the mid day meal scheme across India by the Accountability Initiative (Kapur and Chowdhary 2013) indicated that only 21% of the total mid day meal budget is spent for purchase of food grains. The remaining 79% of the budget is spent for cooking (labour and ingredients), kitchen infrastructure, transportation, etc. The proportion of cooking related expenses under the ICDS should be in the same range and together both schemes will spend INR 21955 crore annually (0.4 of the total GDP) for cooking and other non-food grains related expenses. The street vendors offering RTE food across the country are capable of participating in the delivery of these food security schemes provided that the state and other development actors help street food vendors in carving out this space. The neoliberal state, which is always keen in withdrawing its direct engagement for creating business opportunity for formal private sector, has not showed any interest in exploring opportunities to work with the informal sector.

There are a number of possible ways to incorporate street food vendors as a part of the state food distribution chain. A recent scheme providing RTE idli and other food launched by the Tamil Nadu government in Chennai is one possible model. Under this scheme, the government has created 73 shops or outlets across Chennai to provide RTE cooked food to urban poor at a subsidized price[9] (Nadar 2013). The state of Tamil Nadu has a history of introducing several failed schemes intended to enhance the poor's access to RTE food, this new scheme is however an improved model as it employs women from local self-help groups as cooks and service providers. Of course, this model is far from ideal and is not immune from political motivations and other limitations. The participation of the poor women in the distribution outlets is limited as they are contract employees of the public corporation rather than entrepreneurs or managers of their own food vending enterprises. These women are not involved in any business decisions and have little stake in how the business operates. Finally, critics of the scheme have argued that it will put existing street food vendors out of business as they will be unable to compete with artificially low prices at government run shops (Kandavel and Vijayakumar, 2013).

Another potential avenue to engage the urban poor in the distribution of RTE food is through the use of street food vouchers. The use of food vouchers is now common practice among agencies such as the World Food Programme (WFP) when dealing with urban food insecurity. These vouchers allow the urban poor to buy discounted food from a number of privately operated markets and are ideal for situations when food is locally available yet economically inaccessible. They are seen as a cost effective alternative for delivering food assistance while injecting money back into the local economy and adding choices for the consumer (Foliot, 2011). If such a food voucher scheme is improvised for promoting the existing informal economy it would utilize the established links between the street food vendors and their clientele comprised of the urban poor. Thus, the use of vouchers to subsidize street food purchases from local vendors would allow existing street food vendors to participate more fully in state led food distribution schemes and give them access a portion of the state's food security expenditure.

While street foods already provide nutrition for the urban poor, including carbohydrates, protein, fats, vitamins and minerals (Blair, 1999), there is still a need to improve their nutritional quality. Considering poor infrastructure, food diversity, and scale of street vending operations, limited attempts have been made by scientists from public as well as private institutions to improve nutrient content of street food. However, this should not deter any future attempts for participatory value addition research on improving nutrient content of street food. Positive examples involving improvement of street foods aimed at school children include the addition of nutritious legumes into cassava cookies in Indonesia or the addition of

[9] These shops charge 1 INR for idli, INR 3 for curd rice, an INR 5 for Sambar rice (Nadar 2013).

squash and fish protein concentrate to fish balls in the Philippines (Tinker, 1997). However care must be taken to insure that nutrition improvement through complex fortification process does not translate in unaffordable prices of products or introduces standards and processes that street vendors can never afford at their given scale of operation (Draper, 1996).

The responsibility of promoting active engagement of street food vendors does not lie simply with the state or market forces. Our study reveals that as a group, porridge vendors have not been invested in by nongovernmental organizations (NGOs). While many vendors from the poorer hawkers group were members of women's self-help groups, 80% of porridge vendors surveyed were not involved in any such organization. As a result, only six porridge vendors (17%) had access to a bank account and only one vendor was using a bank loan to run her business. Further, porridge vendors were very entrepreneurial and open to the ideas of training, interventions, and expansion of their enterprises. Thus, there is a great opportunity and responsibility for the non-governmental sector to invest in street food vendors for improving their access to financial and other formal institutions. Considering extensive experience of NGOs in agrarian development, they can also help in building linkages between rural and urban food chain. For instance, millet porridge vendors can be organized and linked with small farmers producing small millets in the rural areas. The street vendors can enhance effectiveness of various consumer supported agriculture models that link small producers and urban consumers.

Finally, in the era of universal access for food and other welfare related schemes, the state is increasingly realizing limitations of economic indicators for identifying poor (Shah 2013). It faces a real challenge of seeking balance between the fiscal implications of universal access and the limitations of targeted food security programs. The street food chain has potential for providing innovative solutions to deliver various food security schemes at a lower cost to the urban poor and lower middle class. The active engagement of street food vendors in distribution and consumption of RTE food would also create a better environment for vendors to improve health and hygiene standards, as there would be even greater incentive for them to keep existing customers and gain new ones. Vendors would benefit from increased sales and improved social standing as government planners begin to see them as an asset rather than a nuisance. At the same time, poor urban consumers would benefit from lower prices for the street foods they already consume as well as a greater selection of RTE foods within their price range. Having a choice of products from a multitude of street food vendors, as opposed to having to purchasing raw food items from a single government ration shop, would allow the poor greater agency in their quest for food security. The ability to buy these rations in a ready-to-eat form would also give the poorest of the urban poor, those without the time or infrastructure needed for cooking, an equal opportunity to be food secure.

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Food Sovereignty: A Critical Dialogue

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FOOD SOVEREIGNTY: A CRITICAL DIALOGUE INTERNATIONAL CONFERENCE PAPER SERIES

A fundamentally contested concept, food sovereignty has — as a political project and campaign, an alternative, a social movement, and an analytical framework — barged into global agrarian discourse over the last two decades. Since then, it has inspired and mobilized diverse publics: workers, scholars and public intellectuals, farmers and peasant movements, NGOs and human rights activists in the North and global South. The term has become a challenging subject for social science research, and has been interpreted and reinterpreted in a variety of ways by various groups and individuals. Indeed, it is a concept that is broadly defined as the right of peoples to democratically control or determine the shape of their food system, and to produce sufficient and healthy food in culturally appropriate and ecologically sustainable ways in and near their territory. As such it spans issues such as food politics, agroecology, land reform, biofuels, genetically modified organisms (GMOs), urban gardening, the patenting of life forms, labor migration, the feeding of volatile cities, ecological sustainability, and subsistence rights.

Sponsored by the Program in Agrarian Studies at Yale University and the Journal of Peasant Studies, and co-organized by Food First, Initiatives in Critical Agrarian Studies (ICAS) and the International Institute of Social Studies (ISS) in The Hague, as well as the Amsterdam-based Transnational Institute (TNI), the conference "Food Sovereignty: A Critical Dialogue" will be held at Yale University on September 14–15, 2013. The event will bring together leading scholars and political activists who are advocates of and sympathetic to the idea of food sovereignty, as well as those who are skeptical to the concept of food sovereignty to foster a critical and productive dialogue on the issue. The purpose of the meeting is to examine what food sovereignty might mean, how it might be variously construed, and what policies (e.g. of land use, commodity policy, and food subsidies) it implies. Moreover, such a dialogue aims at exploring whether the subject of food sovereignty has an "intellectual future" in critical agrarian studies and, if so, on what terms.

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