



Analysis and Action for Sustainable Development of Hyderabad

Hyderabad as a Megacity of Tomorrow: Sustainable Urban Food and Health Security and Environmental Resource Management

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“Research for the Sustainable Development of the Megacities of Tomorrow”

**CHANGING FOOD PURCHASING AND
CONSUMPTION HABITS AMONG URBAN
MIDDLE-CLASS IN HYDERABAD**

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Research Report 3

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Changing Food Purchasing and Consumption Habits among Urban Middle-Classes in Hyderabad

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Abstract

This preparatory case study provides an overview on the issue of changing food purchasing and food consumption habits among urban middle-classes in the South Indian emerging mega-city of Hyderabad. It analyses how food purchasing and dietary habits in this specific urban stratum are subject to profound changes due to increasing spending capacity and changing lifestyles in the context of economic liberalisation and globalisation processes. Another objective of the study examines health aspects of the changing food consumption habits. While nutrition research previously focused on the serious problem of undernutrition-related nutrient deficits, recent data shows that overweight and nutrition-related chronic diseases are more and more becoming serious problems particularly among India's emerging urban middle-classes. Questionnaires and several interviews were carried out to collect empirical data on these issues. Embedded in a broad literature review, results, consequences, and challenges of changing food purchasing and consumption habits are discussed. The findings point to the necessity for further action-research.

KEY WORDS: urban food problems, urban middle-class, Hyderabad

Foreword

India represents one major region of mega-urbanisation worldwide. Presently the country has forty large cities/urban areas with a population of more than one million people. A total of some 130 million Indians, or 12% of the national population live in these cities. The Indian ranking of cities by size is headed by Mumbai, Delhi and Kolkata, each of these mega-cities count more than 15 million residents. According to UN estimates Mumbai will cross the 20 million mark by 2010, Delhi about five years later. The “big three” are followed by the emerging mega-cities Chennai, Bangalore, Hyderabad and Ahmedabad that are rapidly moving towards the 10 million line with annual growth rates of 3 to 4% annually (UN 2006).

While the Indian economy is opening up to the world market these large cities became the hub of industrial and economic activities and attractive destinations for foreign direct investments. They strongly emerged as the prime engines of India’s booming economy and as generators of national wealth. Projections state that their contributions to national economy has increased from 20% in 1951 to approximately 50% in 2001 (Dittrich 2004). In the context of globalisation and economic liberalisation processes India’s large cities are also exposed to profound urban restructuring. They grow much faster than their infrastructure, and their uncontrolled urban sprawl fosters large traffic volumes, high pollution levels, ecological overload, unregulated and disparate land and property markets, insufficient housing development and the disparity of extreme poverty and wealth living side by side. In present-day urban India lavish skyscrapers and super-malls jostling with slums reflecting an increasing social-economic polarisation and spatial fragmentation. With regard to the food situation in India’s rapidly growing urban centres two contradictory trends needs to be recognised: (1) While the urban poor are consuming fewer calories and nutrients and their deficient diet is aggravated by poor health and sanitation, (2) the food situation of the newly emerging middle-classes is marked by profound changes in their food purchasing and consumption patterns. Examples of this trend are the shift to large food malls and supermarkets; the shift from home-cooked food to convenience food, restaurants, food snack bars, ice-cream parlours and the like; and increased consumption of fast food, sugary beverages, alcohol, and food products containing less strengthening contents which results in an increase in malnutrition and obesity.

With respect to the changes in the food consumption and purchasing patterns among India's urban middle-classes little interest has been shown in conceptualising it for detailed studies and action so far. This study tries to fill the gap to some extent.

1 Introduction

1.1 Subject of the Study

Since the 1990s, a new “geography of food” (Bohle 1990) has emerged. It has been defined as “the study of the spatial and environmental aspects of food production, provision and consumption” (Crang 2000: 272). This definition points to the fact that geographical work on food has so far mainly focused on the spatial constitution of food systems. In this context, food systems can be defined as the spatial, functional, social and environmental integration of four types of sub-systems: production, exchange, delivery and consumption of food (Cannon 1991: 298). The newly emerging geography of food is thus basically a “geography of food systems.”

The little research that has been done on India's urban food systems is mostly focused on aspects of food insecurity and the vulnerability of the poor vulnerability to food crises. The emerging urban middle-classes and the way they satisfy their nutritional needs do not appear to be considered part of this food system by researchers, or at least not a part important enough to focus on in research.

In the course of economic liberalisation and globalisation processes the food distribution system of Hyderabad is subject to profound changes. Due to economic growth and changing lifestyles the demand for a greater diversity of food products in Hyderabad has never been as high as it is at present. This makes investing in the city's food market exceedingly profitable. Hyper- and supermarkets mushrooming all over the city are just one sign of this. Wal-Mart opened its first store in November 2006, other multi-national companies such as the German Metro AG are just waiting to enter the Indian market. The emergence of new supermarkets inevitably leads to a strong competition with traditional retailers.

Changing food consumption patterns do not only result in new kinds of stores but also in new dietary habits, which becomes evident in the change of the daily dish in middle-class households. Instead of traditional products like pulses and millet, more and more wheat is consumed, accompanied by higher intakes of meat and sugar. Increasing numbers of fast food

restaurants, food snack bars and ice-cream parlours make this trend visible. According to recent clinical studies, the city of Hyderabad has the highest national rate of patients with diabetes as well as an alarming number of overweight children and obese people (Rao 2006). “Well fed but poorly nourished kids” (Thomas & Jayarj 2002: 8) are no longer a phenomenon of high income countries. For India, the economic costs of this nutritional transition are not predictable at present. The few studies conducted on this issue show that these costs are rapidly increasing and already amount to a serious component of the gross national product (Popkin 2006: 295). This “secondary malnutrition” will be one of the biggest problems that India’s middle-class will face in the years to come (Griffiths & Bentley 2001: 2694).

1.2 Objectives of the Study

- to give an overview of changing food purchasing and consumption habits in Hyderabad, divided into three topics: changes in purchasing patterns, changing dietary habits, and health issues;
- to identify the consequences of changing urban food distribution systems for the traditional retailing system;
- to point out counteractive measures that are already taking place or are planned in Hyderabad;
- and to work out recommendations for further investigations.

2 Conceptual and Analytical Framework

To talk about India and nutrition is no longer confined to speaking about famine and malnourished, poor children living under worst conditions. Globalisation in Hyderabad as elsewhere in India has not only arrived in the form of new businesses or new job challenges. The huge influence of globalisation is also reflected in changing lifestyles and consumption patterns, especially food consumption, which is reflected in well-off urban areas such as Banjara Hills or Himayathnagar in Hyderabad. Fast food chains like Subway or Kentucky Fried Chicken are lined up next to coffee shops and Chinese takeaways along the streets. People in India never spent more money on food, while and at the same time the number of malnourished children is higher than ever before (Thomas & Jayarj 2002: 8). A

novel aspect about this development is that this immense number is not only composed of children not only from low and lowest income families but also from higher income classes, who are affected by such problems for the first time ever.

The concept of nutrition transition is not a new one. Ever since humankind emerged on earth it underwent changes in food consumption. However, according to Popkin (2006: 289), over the past three centuries the pace of dietary change appears to have accelerated. Another even more recent trend is that dietary changes tend to develop to varying degrees in different regions of the world. Globalisation simply reinforces the speed and intensity of recent nutritional transitions. In analysing nutrition transition, the food consumption patterns of a society, a social group or individuals assume a key role.

Food consumption (see figure 1) is characterised by a dietary pattern and an activity pattern. Both are determined by several factors which can be divided into supply-related and demand-related factors. Even slight variations of these factors will affect food consumption. Indicators for this are nutritional outcomes such as the average stature, body composition, and health status of individuals or groups.

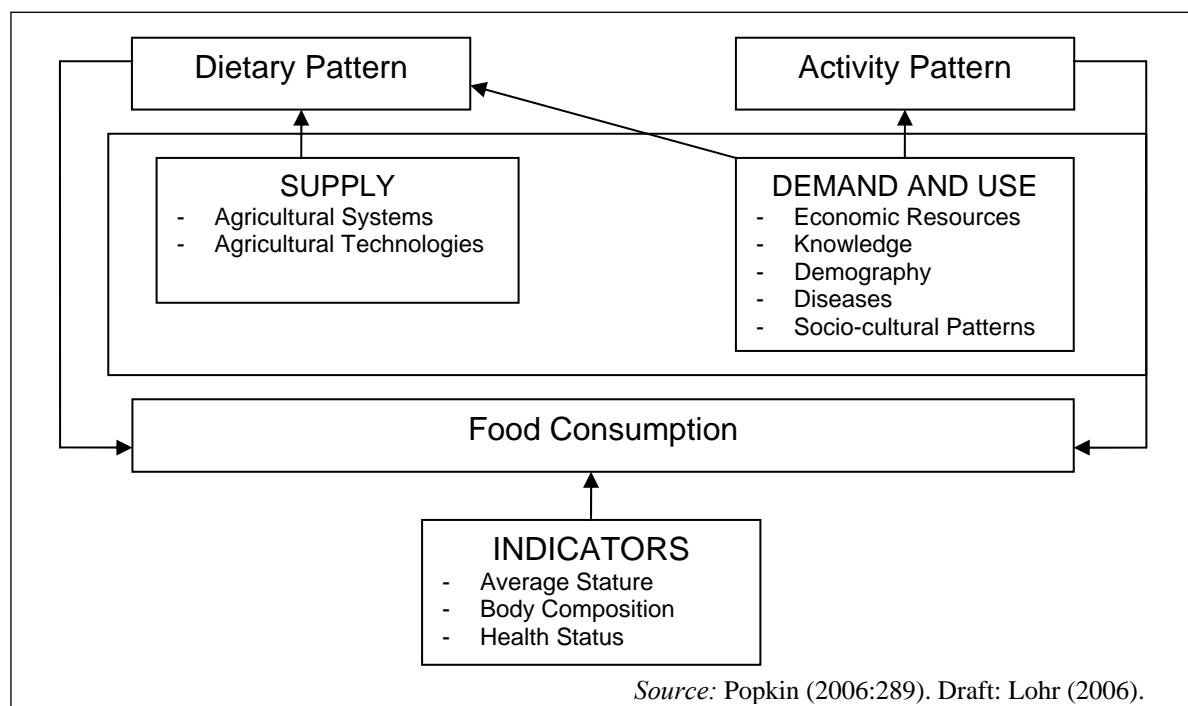


Figure 1: The Concept of Food Consumption

The concept of nutrition transition focuses on large shifts in structure and overall composition of dietary and activity patterns. Popkin (2006) described five patterns of nutritional transition.

The first pattern is linked with hunter-gatherer societies. In this pattern, the diet is very healthy, while diseases and living conditions shorten life expectancy. In the second pattern, nutritional status worsens as periods of famine occur while modern agriculture gets developed. Nutrition is dominated by cereals and marked by low variety. According to Popkin, the last three patterns are represented by the majority of the global population at present. Famine begins to recede as income rises in pattern three. In pattern four, “changes in diet and activity patterns lead to the emergence of new diseases and increasing disabilities”. High intakes of fat, sugar and processed food result in obesity and diabetes as most common non-communicable diseases which characterise this fourth pattern. In pattern five, a behavioural change is noticeable. Negative tendencies of previous patterns are recognised and life expectancy increases. Factors which drive these transitions are the same that influence food consumption (see figure 1). The factor of urbanisation should be mentioned in particular. All three, or even the last four patterns, can be identified in today’s India. Patterns three to five are found in very confined urban space, and can thus be said to be influenced by urbanisation. While transition from pattern three to four usually happens very rapidly, pattern five emerges very slowly and only in certain parts of a society.

In order to be able to conduct research on changing food consumption, it was necessary first of all to identify what the “middle-class” in Hyderabad is considered to be. The next step was to ascertain which pattern of Popkin’s model this class belongs to or is moving towards. It was reasonable to assume that the middle-class of Hyderabad can be described by pattern four. However, the still very traditional structure as well as India’s first organic food store in Banjara Hills led to some doubts concerning this classification.

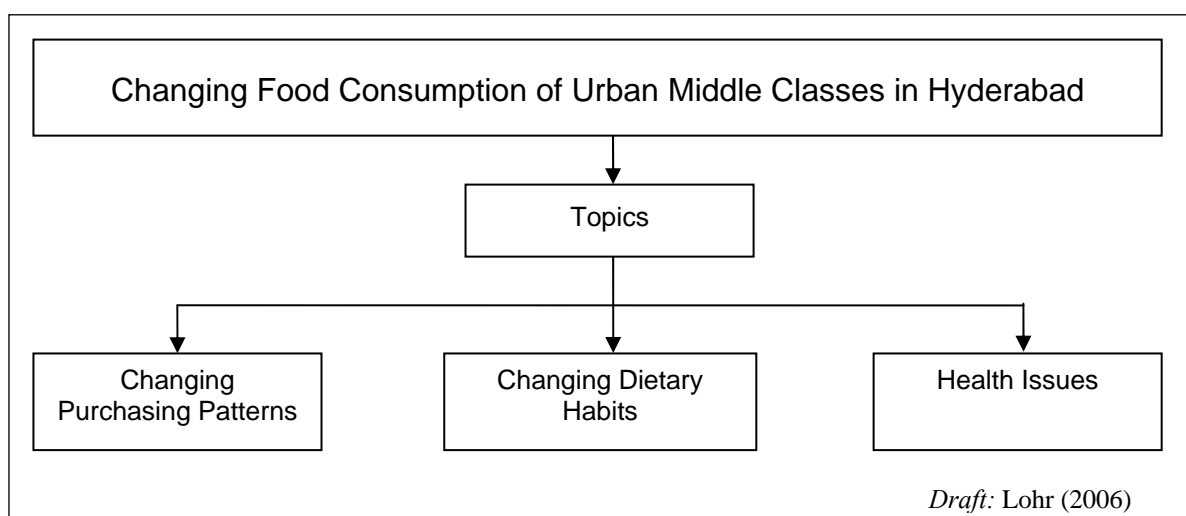


Figure 2: The Conceptual Framework of the Study

The subject was divided into three representative topics (see figure 2). By bringing all topics together it should be possible to give an overview of changing food consumption in Hyderabad. Another aim is to provide evidence of a beginning transition into the fifth pattern.

3 Methodology

3.1 Primary Research

The primary research that was carried out can be divided into standardised questionnaire interviews (8.4), semi-structured interviews (8.4.2), and interviews with experts (see table 3). While the semi-structured interviews were thematically very specific, the questionnaire interviews tried to cover all three topics.

Table 1: Questionnaire-based Interviews Conducted on Changing Food Consumption

Type	Total	Himayathnagar	Vidyanagar	Banjara Hills	Adarshnagar
Questionnaires on Supermarket Customers	35	25	6	4	0
Questionnaires on Retail Customers	13	5	4	1	3

Questionnaires were conducted outside supermarkets. Nine shops were selected, and the questionnaire and the objectives of the study were explained to the managers/owners, five of whom gave permission for doing the survey. All areas belong to the Hyderabad area and show the main characteristics of middle-class neighbourhoods (see chapter 4.1). A Hindu/Telugu Interpreter assisted with the survey. Questionnaires consisted of questions on quantitative and qualitative data.

Table 2: Semi-Structured Interviews with Retailers

Type	Total	Himayathnagar	Vidyanagar	Banjara Hills	Adarshnagar
Semi-Structured Interviews With Retailers	11	3	3	2	3

In order to obtain an overview of the situation of retailers in middle-class areas it was important to choose an empirical method which allows more open questions. The interviews took approximately twenty minutes time and were translated by a Hindu/Telugu translator.

Table 3: Expert Interviews Carried out on Changing Food Consumption

Type	Total
Expert Interviews on Health Issues	5
Expert Interviews on Changing Diets	2
Expert Interviews on Changing Purchasing Patterns	2
Expert Interviews on Organic Food	3

Table 4: Expert Interview Partners

Topic	Interviewee
Health Issue	Mr. P.V. Rao (Nizam's Institute for Medical Science), Mr. Raja Mukherjee (Dr. Reddys Foundation), Ms. Dr. Satya Lakshmi (Nature Cure) and Mr. Dr. D. Raghunatha Rao (National Institute for Nutrition), Mr. Sudershan Reddy (Mathma Gandhi Hospital)
Changing Diet	Ms. Dr. Latha Srinath (Nutrifit) and Ms. Dr. K. Uma Maheswari (Agricultural University, Home Science College)
Purchasing Pattern	Mr. B. Vinod Kumar (Subhiksha) and Mr. M.B. Umesh (Trinethra)
Organic Food	Mr. Rajeswar Reddy Seelam (Sresta Bioproducts), Mr. Gangadhar Vagmare and Mr. Zakir Hussain (Center for Sustainable Agriculture)

All interviews were carried out face-to-face and were recorded. Furthermore, question-led observations (8.6) were undertaken. Ten lower and upper middle-class areas (Himayathnagar, Vidyanagar, Banjara Hills, Kothi, Sikh Village (Secunderabad), Adarshnagar/Basheerbag, Somajiguda, Panjaguda, Gandhinagar, Kulkatpally) were selected. Observations were gathered in a formalised form.

3.2 Secondary Research

In order to supplement primary research data, a review of literature and internet research were carried out. Several sources of primary data were received from institutions such as Dr. Reddys Foundation, Nizam's Institute of Medical Science (NIMS), or Subhiksha and Trinethra Supermarkets.

4 The Empirical Case Study

Given the fact that this study was accomplished in only four weeks, that the topic is very general and that no similar research has been conducted before, this report cannot be a detailed or representative study. The report should rather be seen as a preparatory case study with the main intention of pointing out tendencies and giving an overview of the issue of changing food habits among urban middle-classes. Nevertheless, the need for more research on this topic should become evident in this report.

4.1 Urban Middle-Classes in Hyderabad

Initially, the aim was to figure out what "middle-class" in Hyderabad means. The "Great Indian Middle-Class" is prominently treated in Parman K. Varmans Bestseller (2003) as well as in some scholarly articles on the general issue. Nonetheless, detailed studies on several urban areas are lacking. In order to be able to do research on the topic the question of how to define "middle-class" has to be answered. A huge variety of categories is conceivable: by income, telephone connection, motorisation, home loans or even self estimation. Still there is no clarity about what "middle-class" really means. Facing the importance of being able to easily distinguish the social stratum in a questionnaire, the income definition was chosen for this study. In agreement with local scholars income groups were defined as follows. To begin with, the middle-class was divided into three categories: lower, higher and upper middle class. Regarding the monthly income of all earners in the household, a family with 8,000-16,000Rs

was counted as lower middle-class, those with 16,000-38,000 Rs as upper and those exceeding 38,000 Rs income as higher middle-class. Families in which the monthly income is below 8,000 Rs. were defined as lower income. This study focuses mainly on the lower and upper middle-classes.

4.2 Supermarkets in Hyderabad

Concerning the survey on supermarket customers it was important to get a general idea of the supply side. Supermarkets can either be divided by their range of goods or their ownership. There are four hypermarkets in Hyderabad: Magna, Food Bazaar (Banjara Hills), Big Bazaar (Abids), Wal Mart and Reliance Fresh. These hyper markets were not present in Hyderabad until recently. Supermarkets, however, which have a smaller range of goods, are spread all over the city. Three types of ownership can be distinguished in the case of supermarkets: private/independent, franchised, and chain stores. Subhiksha, Spencer's and Spears settled in Hyderabad about two years ago, while Food World came up six years ago, Trinethra as many as 20 years ago. Table 6 shows all supermarkets which have more than one subsidiary in Hyderabad. Apart from privately run supermarkets, there are several other chains that have single stores in the twin cities, too. The range of goods differs by supermarket and chain, but tendencies of enlarging the assortment are the same at all stores. Recent trends are to offer eggs, dairy products, vegetables, meat (very rare up to now), and pharmaceutical products. All supermarkets supply processed food, convenience food, cool drinks, grains and pulses, spices and cosmetics.

4.3 Survey on Supermarket Customers

The aim of this survey was to get quantitative and qualitative information on all three topics. For the analysis of food consumption some socio-economic data was essential as well. Customers were selected randomly. While 67 customers were asked to answer the questions, 35 agreed (70% female, 30% male). One third of all persons were between 31-40 years old, 40% between 20-31 years, and the other age groups were around 10% each. Six per cent of all customers lived on their own, 43% in families, 29% in joint families, 14% in couples (9% others). Sixty-three per cent had a bachelor's degree, 42% were postgraduates, and one each had more than one master's degree or a PhD. Only three persons had an educational level below a bachelor's degree. None of them and none of the other customers were employees doing the shopping for their employer's household. For a breakdown of all customers into

income groups see figure 5. All but one customers purchase at other supermarkets as well. Those who purchase their every-day needs at supermarkets (63%) confirmed that they mostly visit the same supermarket. The breakdown of items which are bought at supermarkets are shown in figure 5. Supermarkets are highly frequented for the purchase of processed and convenience food (43% and 37%). Fruit and Vegetables are mostly bought at producer markets/rythu bazaars, followed by street food vendors. Very little fruit and vegetables are bought at supermarkets (see figure 5). Three-quarters of customers stated that the well-arranged and nice-looking appearance of supermarkets make them buy there. While the good quality of products was mentioned afterwards, the proximity to their homes and the hygienic aspect were additional reasons for more than half. The facts that shopping at supermarkets can save time and that new products are offered were important for more than one third of respondents. Just a few agreed that shopping at supermarkets could be seen as trendy or that it is cheaper there. Figure 6 shows the share of money spent in supermarkets of the total monthly amount spent on food.

So far, several parameters related to purchasing patterns related parameters have been shown. In the case of the changing dietary habits issue more open questions were used. While all customers stated that they never purchased convenience food when they were asked about the catalogue of food items they usually buy (question 3.a), three-quarters admitted to do so after an explanation of what “convenience food” includes. Reasons given were time saving (72%) and taste (57%). Especially housewives named the wishes of their children as the most important reason for purchasing convenience food. The favourite food of older customers still seems to be traditional Indian dishes. Merely two young persons preferred pizza to biryani, dosas and halwa. It is rare to go out for eating, too. Although all customers agreed that they visit more restaurants than five years ago, 76% still enjoy eating out only once or twice a month, mostly for dinner. Two-thirds of the questioned persons confirmed that their food consumption habits changed over the last five years. In particular health consciousness grew, but yet cooking oil consumption increased. Interestingly, three-quarters answered that their daily plate now shows a higher variety and one third thinks that they now consume more instant food than five years ago. Customers’ self-assessed changes in their consumption of fruit and vegetables, diary products and rice are presented in figure 4. The questionnaire showed that although most customers became more conscious of their health, only one third does something for their physical fitness (including going for a walk in the evening). Very little response was given to the question on organic food. Seventy-six per cent had never

heard about organic food and three customers knew about it but did not know where to get it. Only one questioned person stated that he/she purchased organic food.

4.4 Survey on Retail Customers

Interviews with retail customers were conducted outside four retail shops. All retailers could be characterised as Kirana shops with the typical range of goods. The survey in middle-class neighbourhoods showed that the clientele is comparable to supermarkets, except for their higher age. This fact is also reflected in the reasons given for purchasing at retailers. All customers gave personal attachment as the most important reason, followed by prices, proximity to their homes and quality of goods. All customers emphasised that they also value the flexibility and working hours of retailers. The delivery service of the prevailing shop is made use of by most of the customers. According to the survey results, Kirana retailing serves both everyday needs as well as occasional purchases. The biggest turnover of Kirana retailers is made with grains and pulses as well as processed food, especially biscuits.

4.5 Interviews with Retailers

The survey on retailers was carried out in four different areas: all retailers were selected randomly. Eight out of the interviewees run Kirana General Stores. Additionally, one Pan Shop holder and two retailers who offer grains, pulses, spices and a few instant products were interviewed. Out of 23 questioned retailers, 11 agreed to give an interview. All interviewees own the store or are members of the owner's family. One third has been holding the shop for more than 10 years, while half of the stores only opened 3-5 years ago and are mostly rented. The following goods could be found in all Kirana shops: oil, grains/cereals, pulses/millet, spices, tea, instant food, biscuits and sweets. Half of all retailers offered dairy products, drinks, eggs, fruits and vegetables, cosmetics and washing powder. One third had cigarettes available, too. Most retailers realised a change in their range of goods over last five years. More instant food and ready-made food as well as packed snacks and sweets like chips or biscuits are sold now. Another tendency which was noticed by most retailers is trend towards packed items in general, such as packed grains or spices.

Half of all customers still tend to buy their everyday needs at Kirana Stores, but they do not always purchase at the same Kirana. One third said that customers are more in flux than five years ago. The reason for that was mainly seen in the changing means of transport. While it used to be easy to just walk into a Kirana store for a cyclist or pedestrian, powered two-

wheelers and cars need to seek a parking space first. Especially those shop holders along streets where the road has been widened complained about the loss of pedestrian customers. According to retailers, another change in customers' habits can be detected in an increasing health consciousness which is reflected in the consumption of more fruit and vegetables. Furthermore, the amount of purchases by single customers decreased during the last years. However, all retailers saw the increasing number of customers in general as compensation. "Business now is faster than it was a few years ago" one retailer said. Typical customers usually reflect the neighbourhood of a store, but interviewees generally described their average customer as above 35 years, purchasing the needs of his or her family. Two thirds of questioned retailers run delivery services as well, and also have housemaids shopping for their employers among their customers.

The reasons retailers named when asked why their customers also purchased at supermarkets were time pressure, fashion and the special offers supermarkets announce. All retailers suggested that the preference for a certain type of store for satisfying food needs depends on the generation. Younger generations use supermarkets, because it fits their lifestyles better. Other advantages of supermarkets which were seen by questioned retailers were their credit card facilities, special offers, the higher variety of goods and the arrangement. Although retailers exactly knew about all this, only two agreed that supermarkets are competition for them so far. The interviewees stated that retailers are still cheaper and more flexible, and that customers have a personal attachment to the specific store. It was not doubted that the big retailers will become competitors in the future, however. Especially the entry of Reliance Industries into the retailing system worried most retailers. However, the largest problems for small retailers so far are high taxes and finding reliable employees as well as associations that represent them.

5 Results of the Study

5.1 Changing Purchasing Patterns

5.1.1 The Supermarket-Scenario of Hyderabad

"Hyderabad is the new retail hotspot," CNN-IBN headlined in November 2006 (D' Souza 2006). And indeed, national and recently international companies introduce their retail stores

into business at breakneck speed. The fact that all of them choose the twin cities for their debut is evidence of the inviting conditions for retail investments.

Hyderabad's economy is growing fast, as retailing used to be dominated by "mom-and-pop stores" and hundreds of thousands of customers were just waiting for locations to spend their money. Although land prices have already increased by 15% and are predicted to grow by another 30% within the next years (Pepper 2006), greenfield constructions are still low-priced. Within the last quarter of 2006 for instance, Reliance Industries, Wal Mart and ITC Choupal Fresh started their India-wide retail campaign in Hyderabad (Santosh 2006). Another dozen companies such as the Dubai-based Landmark's Max Retail, Lanco, IVRCL, Rahejas or Divyashree are also waiting to enter the market (D' Souza 2006). Speaking of a "retail revolution" in Hyderabad is thus perfectly justified.

The far-reaching repercussions of this revolution are not only affecting retailers (see chapter 5.1.1): chain stores will also have to struggle within this development. A closer look at Hyderabad's supermarket landscape before 2006 shows why: In a first phase retailing was principally dominated by neighbourhood shops, with a share of 97% (Reuters 2006). In view of this figure, it is no surprise that the retailers questioned in the survey were not anxious about their future. In 1986, when Trinethra entered retailing, things also did not change as much as had been expected. In its first days, the supermarket was no more than "a better organized and bigger scaled retailer, offering mainly grains, pulses and millets" (Kumar 2006).

Simultaneously to the emergence of private supermarkets in the late 1990s, old fashioned Trinethra also renewed its image (Kumar 2006). Private or independent stores can be regarded as a further development of former Kirana Stores, often replacing a Kirana but run by the same family. Differing in size and arrangement, their range of goods continued to be nearly the same as before. Chain stores such as Food World or Spencer's were specific for the second phase, starting in 2000/2001. A generally wider variety of goods including fruit and vegetables as well as the first own brands were offered now. Hence, with a comparatively large number of small corner shops and the ability to offer cheaper prices, Kiranas could still survive despite the competition of supermarkets.

Large malls Big Bazaar and Giant opened in 2001 in the very heart of Hyderabad city. In the beginning, these first malls hardly troubled retailers. People quickly realised they were nice spots to spend their leisure time and weekends or make extraordinary purchases, but according to survey results, the lower and upper middle-classes did not purchase their everyday-needs in Abids' or Musheerabads' commercial centres.

Subhiksha however can already be seen as a harbinger of the “retail revolution” taking place in the third phase, commencing in 2005/2006. Following the “no frills” philosophy (Image Retail 2006), the Chennai-based supermarket was the first one in Hyderabad to define itself as a real discounter, trying to gain customers with cheap prices and special offers rather than with nice arrangement. In contrast to the other stores, Subhiksha was the first franchise store entering the market that did not try to compete with size, competing for the customers of small shops customers with small stores. Their maxim was a large number of subsidiaries.

Their stores were yet another type of food market. Taking the size as an example shows why. Until 2006 only 5% of all Indian supermarkets were larger than 500,000 square feet. The flagship markets opened by Reliance have doubled in size by now and are focusing solely on food rather than manufactured goods (Pepper 2006). Another type of stores can be found in the malls which GVK or Lanco are planning to install or that already exist, such as Hyderabad Central (opened in 2001), Big Bazaar or Giant.

Whose needs do these new retailers and new types of retailing address? Customers demand more variety, which is not only reflected in the wish for a larger range of goods, but also in the desire for several types of stores. The retailers attend to this wish for variety by providing more hygienic, fresher food both at better prices and in nicely arranged, brightly lit stores, all of which were reasons given most customers in the survey for buying at supermarkets. These new features make food purchasing more attractive, and saved time can be spent on other activities that accompany Hyderabad’s new prosperity. Customers as well as the entire economy of the twin cities will profit greatly from these new developments in retailing. Whether the large-scale retail sector can meet the expectations that young, less educated Indians now have concerning job opportunities is not predictable yet. However, a lack of experienced workers available for mid-management positions is already obvious.

5.1.2 Supply Right on the Doorstep – Retailers in Middle-Class Areas

The survey undertaken in Hyderabad’s middle-class areas in 2006 shows that supermarkets already absorb a huge amount of customers’ money spent on food. Although three-quarters of food retail stores were Kiranas, their share of customers’ food purchases was estimated to be less than half of the total by both retailers and supermarket holders (Gupta 2005). During the last three years the fast restructuring of areas and the construction of new apartment buildings that had been taking place in the upper and higher middle-class was extended to lower middle-class areas. As this was accompanied by an increase of road widening measures, an ideal environment for investing in retail business was created. All retailers in the survey

admitted that they knew about other shop holders who had had to give up their stores within the last five years because of the competition with supermarkets or because of road widening.

On the one hand, increasing incomes do not only lead to a different consumption of food (chapter 5.2), but also to a total increase of food purchases, which seems to balance the loss of customers at supermarkets. On the other hand fast urbanisation and a growing middle-class stratum might have brought an increasing number of customers for corner shops, too. Survey results provide evidence of this assumption. "We cannot complain about the situation", nearly all of the interviewees said. A personal attachment to customers, low prices and the proximity still enable the owners of corner shops to compete with supermarkets. However, the situation might become worse in the near future.

The very fact that Reliance Industries is planning to open up new stores worried Hyderabad's retailers in advance. The breaking down of protectionist trade barriers with the entrance of Wal Mart into the market finally made them take to the streets. In October 2006, five thousand shopkeepers went on strike in Delhi: where four of them got killed in clashes with the police. However, the angry crowd did not protest against Reliance or Wal Mart but against government policies. The administration's attempt to enforce long ignored zoning laws will now clean out overgrown marketplaces and make malls and big retail more attractive for capital.

Today, traditional retailing in the sense of small neighbourhood stores employs up to 54 million Indians (Pepper 2006). Breaking down this number for Hyderabad, nearly 400,000 Hyderabadis work in this business. Considering the number of families whose livelihood depends on the income of Hyderabad's small retailing, about two million people will unavoidably be affected. Traditional retailing can neither compete with low price retailing nor with the great variety offered by hyper- and supermarkets. The resulting changes in urban infrastructure will have even worse consequences.

Up to the last quarter of 2006 all hypermarkets were still mostly located in the centre of the city or at least close to middle class areas. As mobility increases with the growth of income, the proximity factor of Kiranas will become less important. When Hyderabadis start travelling longer distances to purchase their everyday needs because hypermarkets are located farther than the Hussain Sagar nucleus, the impact on retailers as well as supermarkets will be substantial. Undoubtedly the innercity business will become noticeably smaller.

Even if retailers will prove capable of handling this problem, the trend to purchase at more fashionable stores should not be underestimated. The survey indicates that customers below thirty years of age already prefer supermarkets to "mom-and-pop-stores". A fast replacement

of the latter by supermarkets, especially such as Subhiksha, which tries to combine the advantages of both types of retailing, suggests itself. None of the interviewees hoped for governmental or local support to ensure their livelihoods security.

In Hyderabad, a retail lobby does not exist any more, and new associations do not seem to have emerged yet. There are three possible ways for Kiranas to deal with their near future: A huge number of retailers will have to give up and seek new employment. For many older retailers this will not be an option, however. Three interviewed retailers indicated that they will run their shops as long as they are able to, but the next generation will not continue to do so. A small third group alleged that they would take counteractive measures and fight for survival in the retail business.

A number of strategies have already been realised. Most retailers for instance maintain home delivery services. An expansion or improvement of such services could improve the livelihood basis especially of families with more than one source of income. In addition to offering such services the results of the survey also suggest the improvement of quality standards at small-scale retailers as another solution. Packed items, especially in the case of grains, pulses and millets, are one way of meeting those quality standards.

In the vegetables and fruit sector however, it will be even harder to compete with super- and hypermarkets. Though Reliance Fresh made wholesale offers to retailers and even street food vendors, they do not have adequate storage facilities (Pepper 2006). Hence, the transformation into an independent supermarket will suit those owners who can afford the investment, whereas most others will get lost along the way pursued by big retail business (Gupta 2005). Furthermore, the consequences for to hundreds of thousands of even more vulnerable street food vendors in Hyderabad should be recognised and taken seriously.¹

5.1.3 Rythu Bazaars

According to the survey, three-quarters of customers purchase fruit and vegetables at Rythu Bazaars. Of those customers who can be defined as higher middle class, as many as 100% go to farmer markets. Rythu Bazaars were established by the Indian government in order to eliminate middlemen in the sale of agricultural products, particularly vegetables (Prashat Reddy 2006). In this context, the direct sale platforms as well as the provision of extension services and transport facilities aim to increase the number of vegetable growers in villages.

¹ See the report on street food vendors in Hyderabad (Wipper & Dittrich 2007).

In the meantime, most Rythu Bazaars also began to provide door delivery services within a certain radius and for orders worth more than 250 Rs. The whole concept was very successful. According to the Erragadda In-Charge Director Vani Prasad the number of stalls doubled while the number of customers and farmers increased by four times since the first farmer markets in 1999 (Hinduonnet 2006).

This situation could change now: Reliance Fresh started its campaign of placing contracts with Ranger district farmers, offering inviting conditions for vegetable and fruit producers to have a secure monthly turnover. Analysts fear that if permission to conclude an agreement will be given by the Department of Agriculture, the model of Andhra Pradesh's sixty-nine Rythu Bazaars could be jeopardised (Rao 2006), as farmer markets will neither be able to compete with supermarket facilities to ensure quality nor with the power of purchasing trends.

Table 5 lists supermarkets in Hyderabad that already offer fruit and vegetables only. The packed, refrigerated, and, if customers wish so, cut fruits and vegetables as well as the freshly squeezed juices they offer are a very convenient way of healthy consumption. As a consequence of the increasing health consciousness of customers, stores like Green Dale, Pure and Natural or ITC Fresh can compete even though their prices are higher than at Rythu Bazaars. This study showed that so far only higher middle-class customers who can afford it purchase there. Whether their customers can afford it. If Hyderabad's lower and upper middle-class will follow is not yet predictable. Possibly, they might rather continue to purchase at general grocery supermarkets. The competition between those and Rythu Bazaars, however, will be determined by prices and the power of purchasing habits, the personal attachment to suppliers, and the consciousness to support small farmers.

5.1.4 The New Demand: Health Food and Organic Food

The survey proves that on the one hand middle-class customers increasingly consume processed and instant foods and on the other hand they appreciate the easier access to fruit and vegetables as well as nutrition information on food items. Changes in consumption habits and their health consequences are pointed out in the following chapters. In the case of purchasing patterns, changes related to an increasing health consciousness are already visible. At first, however, it should be made clear what is meant by "health food".

Two dimensions of health food should be distinguished: the composition of alimentation, and the quality of food items. The most pertinent aspect of the first dimension is the composition of a balanced diet. Middle-class, especially lower middle-class customers can easily satisfy their alimentary needs, but the way they do so increasingly leads to an overfed

but undernourished nutritional status (see chapter 5.3). This is an aspect that demands a closer look, particularly with regard to its impact on the health status of India's urban middle-class.

In addition, traditional food items and preparation techniques of India's cuisine tend to fall into oblivion as a result of rapid urbanisation and sociocultural changes (Rao 2000: 3). In the case of the middle-classes, more convenient preparation methods are used and alien food items are introduced, replacing traditional ones or letting them fall into oblivion. The very rare consumption of millets as raghi or jowar, the declining consumption of tumeric and cumin or the loss of the knowledge of using boiled rice water are a few examples (Khosla 2004).

Another aspect of the composition of alimentation that reflects a newly emerging health consciousness are products for therapeutic use available on the Indian market, such as low calorie foods and products with a higher content of fibre or added vitamins (Hameed & Devi 1997: 1). Srivat Foods for instance, a small organisation run in Marredpally, Hyderabad, specialises in providing such nutritious food items with very good success. A recent online consumer opinion survey, carried out by ACNielsen's, even placed India within the top ten nations buying functional foods (Watson 2006).

The second dimension of health food concerns the quality of food items themselves. When Coca-Cola suffered another pesticide-contamination scandal in summer 2006, the discussion about food safety in India came up once again. Nonetheless, the Indian government refused to conduct a national diet survey, while the World Health Organisation (WHO) is just waiting for the request to do it, says Alex Hildebrandt, the WHO's regional advisor (Reddy & Srivastava 2006: 33).

A first nationwide study by the Indian Council of Medical Research carried out in 1993 showed that about 37% of tested samples contained DDT residues above the tolerance limit, as well as high rates of Hexachlorocyclohexan (HCH). The latest study in 1996 even evidenced that 51% of all analysed food items were contaminated with pesticides, one fifth out of these were above tolerance levels. The challenges and opportunities for farmers, India's food industry and the government which are created by this fact cannot be discussed within this study.

The possibilities that urban middle-class customers have should be mentioned, though. Despite "home remedies to detoxify food of harmful contaminants" (Reddy & Srivastava 2006: 33), the purchase of organic food can prevent consumption of heavy metals, pesticides, fertilisers and other chemicals. India is one of the largest exporters of organic products worldwide (70% of the total organic production is exported), but in contrast there are still

only very few locations within India where organic food can be purchased. Little to no certified brands, an incomplete range of goods, and government policies that are geared towards exports (Caroll 2005) are to blame for the inadequate availability of organic food. Overall – even if they customers are aware of organic food – customers have to spend 20 - 50% more for healthy food.

In Hyderabad, there are six locations where organic food can be purchased. The range of goods differs greatly, especially in comparison to 24Lettered Mantra, the first countrywide organic and natural food store set up in Banjara Hills. The products at 24Lettered Mantra are certified by SKAL, ECOCERT and IMO (Reddy Seelam 2006), and the range, including organic fruit and vegetables which are otherwise hard to find in retail, justifies the label “supermarket” for this store.

Fabindia offers some own-brand goods in its subsidiaries, and so does Food Bazaar which recently introduced an organic product line. Non-brand organic food is also available at the Dekkan Development Society’s office and at the Centre for Sustainable Agriculture. Both obtain grains, pulses and millets from farmers producing under their guidelines in Warangal and Zaheerabad. At the Erragadda Rythu Bazaar two stalls offer organic food and every Sunday farmers also sell organically produced vegetables and fruit there. It was shown that there is a supply of organic food in Hyderabad, even though it is modest and, except for the case of 24Lettered Mantra small-scale.

At least in Hyderabad, the demand for healthy food in the sense of organic food is in a very early but vital stage. Questionnaire-based interviews with supermarket customers showed that just one quarter of them had ever heard about organic food, although most claimed to be more conscious of their health now than a few years ago. Only higher middle-class interviewees knew about organic food, which confirms the customer profile of 24Lettered Mantra in another interview (Reddy Selaam 2006). Apart from the socioeconomic background, all suppliers characterised their average customer as someone who opts for organic food because they already suffered from health problems. Environmental reasons or the well-being of farmers do not appear to motivate the purchase (see also Garibay 2003:17).

However, the market potential for organic food in Hyderabad should not be underestimated. Given the rapidly increasing numbers of NRCD cases, a growing middle-class, and a rising consciousness regarding the value of healthy food, this still very small retail sector is very likely to grow within the next years. Innovative Kirana Stores or even street vendors could profit from this opportunity as well.

5.2 Changing Dietary Patterns

5.2.1 *The Consumption of Processed and Convenience Food Items as Lifestyle-Indicator*

“The heat-and-eat revolution is sweeping urban India,” Rao warned in 2000 (Rao, P.: 2000), and correspondingly the present survey on supermarket customers showed that processed and convenience food is purchased by 75% of all middle-class households. Most items bought were ready-made products, such as instant noodles and soups, sauces, jams and pickles, carbonated drinks and biscuits. Following a survey on the dietary habits of schoolchildren in Hyderabad, less than 1% of lower socio-economic groups consume instant food daily, while in higher classes 28% of children eat instant food every day (Vijayapushpam et al. 2006: 685). These results very much confirm middle-class’ consumption tendencies found in the literature (Mujeeb-Ur-Rahman 2001: 293-298; Griffiths & Bentley 2001: 2692). Households with a higher standard of living consume processed and convenient items for several reasons, both socio-economic and cultural. Nuclear families emerge while joint families disappear more and more. The loss of joint family kitchens, with grandmothers or aunts preparing meals, accompanied this change. The dual responsibility of modern middle-class mothers who have to earn their livelihood and run the house concurrently makes them opt for easy alternatives (Dube 2001:4). This trend is reflected in the fact that even very traditional dishes such as idly, gulab jam or rawa are available ready-made. A twofold change in the valuation of food is recognisable. Convenience and time saving, the two arguments for ready-made or processed foods mentioned most frequently, show that consumers nowadays do not want to spend their scarce time in the kitchen making laborious preparations. Consumers try to reduce time used for alimentation in order to have more time for other activities. In contrast to this development, the event character of food is also gaining importance. India’s middle-class, as the survey evidenced, eats out more often than ever before. Shopping for hours in high-variety supermarkets is a common week-end activity, and coffee bars mushrooming all over the city reflect the high demand for the pleasure of relaxing with a cup of coffee.

Middle-class households however are more likely to possess the resources needed to buy expensive and healthy food, which is reflected by a generally higher intake food with high protein content such as flesh foods, green leafy vegetables or fruit and vegetables (Mujeeb-ur-Rahman 2000: 176; Griffith & Bentley 2001: 2697; Vijayapushpam et al. 2006: 683). Otherwise, the specific middle-class diet is also characterised by a high consumption of processed and convenience food, which results in high fat, sugar and edible oil intake.

Common preparation methods, such as storing cooked food in the refrigerator and microwaving, led to the loss of any little source of protein or vitamins (Raghuram 2002). In summary, all factors lead to nutrition-related health implications which will be discussed in chapter 5.3.

5.2.2 The Run on Fast Food and the Internationalisation of Food Consumption

Table 7 shows the general food consumption pattern of the Indian low and middle/high income population (Prahadeeswaran & Narasimham 2005: 236). The “snack-culture” of the latter, besides the ability to purchase relatively expensive snacks, reflects the large influence of Western alimentation habits as well as the huge market potential for the food processing and fast food industries and even street food vendors. Consumption of fast food is increasing tremendously in India. A study carried out by the DMC Heart Institute showed that 60% of urban students in Ludhiana consume fast food once and 19% twice a week (Thomas & Jayari 2003: 12). The consumption of fast food among adolescent girls in Hyderabad amounts to 59% (Raghunatha et al. 2004: 86). These figures are closely associated with the increasing amount of money spent on eating out. When McDonald’s India was checking out the location of Hyderabad before opening their first subsidiary there, they found out that the amount Hyderabadis spend on meals outside home had doubled in the past decade (Kalanidhi 2006: 32). However, fast food is not defined simply as the products offered by well-known fast food brands. For instance, 44% of urban Indians opt for cold or carbonated drinks every day, as the national Hindu-CNN-IBN food habits survey showed (Yadav & Kumar 2006: 12). Considering this findings it is not surprising that soft drinks top the list of food advertisers (Thomas & Jayari 2003: 13). Within the “fast food revolution” (Srinath 2006) the emergence of coffee bars and ice cream parlours is also remarkable. Furthermore, fast food in India also includes bakery items, which young Indians in particular consume very frequently. According to the National Institute for Nutrition (NIN), young urban girls in Hyderabad daily eat bakery items daily (Raghunatha 2004: 87). Most importantly, over the last few years Hyderabadian schools in middle-class areas, similar to anywhere else in India, gave multinationals the permission to sell anything ranging from chocolate to soft drinks, potato chips and ice cream in their canteens (Srinath 2006; Thomas & Jayarai 2003: 13). Pizzas, burgers and ice cream subsequently became the food symbols of young middle-class Indians.

Among other influences, increasing fast food consumption reflects the influence of many Indians’ relatives living abroad as well as changing work cultures. Furthermore, Hyderabad in particular is the best example for the “butterfly effect” emerging call centre employment can

have on food consumption. Apart from the convenience, cleanliness and hygiene, it is also the fact that “hungry youngsters” (Kalanidhi 2006: 31) can have food after their shift at 2 am, which makes fast food so popular. Every day the queues outside McDonald’s, which opened its doors in July 2006, demonstrate the success of fast food in Hyderabad. Kentucky Fried Chicken, Subway, Domino, Yo! China, Pizza Corner and Pizza Hut are the most prominent companies which opened subsidiaries in the twin cities since 2004. Kalanidhi summed up: “Hyderabad loves the way the world eats food and wants to replicate the same here” (Kalanidhi 2006: 28). Another aspect worth mentioning in terms of popularity is what Sharma (2006: 25) pointed out: “TV and fast food go together.” (see chapter below). Finally, even though the term “fast food” underlines the speed of ready-to-eat food, another important reason is the rare opportunity restaurants offer their customers: Especially coffee chains, for example in Hyderabad Barista, CoffeeDay, jaffa green and Qwiki’s, give something to young middle-class members that is mostly missing in India’s urban areas – a public space to spend time in tranquility. According to Pal (2006), the success of coffee chains all over India is mainly based on the possibility to sit at a table and have social interaction without being forced to leave. One effect of the food revolution which is taking place fast among young Hyderabadis will be the intensification of the specific middle-class diet in terms of high fat, sugar and additives as well as low fibre and empty energy content.

5.2.3 Influence of the Media

So far, very little research has been conducted on the topic of the influence of mass-media on food consumption habits in India. However, the mere facts that average middle-class children spend 4-6 hours a day in front of the TV (Nandana 2003: 66) and that urban spaces in India are covered with advertisements suggest a great impact of the media. Unlike in the USA, fast food companies in India target middle-class customers in order to expand their market (Assadi. 1996: 185). The prime interest of advertising agencies lies in children as they are the key decision makers concerning what families will buy and where they go out to for having meals. A Health & Media, Lintas Ltd. study found out that 50% of food advertising in India is targeted at children (Thomas & Jayarai 2003: 13). Questionnaires also showed that 70% of those customers who purchase convenience food do so because their children ask them to. As a result, an increasing demand for new food products and beverages is becoming apparent. According to Dube (2001: 5), TV made eating certain types of food socially prestigious or attached a tasty tag to some dietary items. It is just a matter of time until functional foods will find their way into the media, too. Nutrition consultants in Hyderabad such as Janaki Srinath

(Nutrifit) or Satya Lakshmi (Nature Cure) already face the problem of young, skinny, zero-calorie dieting Indian females. Another aspect of the influence of the media on consumption habits is the very consumption of television itself. Idle watching, uninterrupted snacking, a sedentary lifestyle and abstaining from outdoor activities make children more prone to obesity (Dube 2001: 3), which is one reason for increasing numbers of obese children (chapter 5.3).

5.2.4 The Pulses-Rice-Wheat transition

India is the world's largest producer of pulses, which are an important component of the Indian diet. Consumption declined during the last twenty years, however, while relative price levels increased. Although South India's daily plate is traditionally dominated by rice, a distinct transition has taken place: For the poor, who are highly sensitive to prices when taking food purchase decisions, pulses had to give way to cheaper rice (Price, Landes & Govindan 2003: 1). Higher income groups transformed their consumption habits similarly but increasingly for polished rice (Raghuram 2002). A more recent development in the dietary intake of South Indians is the increase of wheat consumption. With the loss of traditional foods, wheat with its empty calorie content became popular. Especially when considering the emerging nutrition-related health problems of urban middle classes, the loss of pulses, which contain more iron, protein, fiber, and carotene, or even the long forgotten millets should not be underestimated (Kohli 2005). Organic food stores have already grown aware of the revival of millets and pulses among middle- and higher-class customers and offer these traditional items again. The newly emerging market potential of those food items should be regarded as another opportunity for small-scale retailers as well as street food vendors to improve the security of their livelihoods.

5.3 Health Issues

5.3.1 Obesity

Non-communicable diseases (NCDs) in terms of chronic, food-related or lifestyle diseases or even "diseases of inactivity" are named as epidemic in developing societies (Shetty 2000: 153). India ranks among the ten nations with the highest obesity rate worldwide, and a closer look on Hyderabad's health situation also gives evidence to this fact. While one half of the population is still poor, highly food insecure and vulnerable to undernutrition-related diseases, the other half is at risk from serious overnutrition-related diseases. Data on adult overweight and obesity is still lacking, although a few studies on Hyderabadian children and adolescents

were carried out. According to Sudershan Reddy, 9% of Hyderabad's middle-class children are obese and 30% are overweight (Reddy 2006). A study undertaken by Rajat Prakash (2004) in the schools of Hyderabad showed that 9% of middle-class households and 13% of the upper-class children are overweight or obese. As childhood and adolescent obesity persist during adulthood, the above findings are alarming. The risks associated with obesity, such as diabetes, cardiovascular diseases, hypertension, atherosclerosis, hernia, gall bladder, appendicitis, liver disorders, postural derangement, and in case of child obesity sleep-apnea and orthopaedic complications constitute a huge challenge for urban health systems.

Factors responsible for the increasing number of obese Indians can be divided into two groups. Initially, obesity results from an imbalance between energy intake and energy expenditure. This study showed that there is a general dietary tendency of middle and higher income families towards high-energy foods. Especially children quickly learn to prefer tastes, flavours and even textures that are associated with calorie dense foods (Nageswara Rao 2006: 26-27). "Chubby babies are a benchmark for being in a higher social stratum" as Thomas and Jayari (2003: 11) summed up. In addition to that, a study among school-age children in Hyderabad revealed that family size and birth order are other factors related to obesity. The majority of obese children came from nuclear families (97%) and were the oldest or only children (80%) (Nandana 1999: 58). The second factor responsible for the increasing number of obese Indians is a genetic predisposition of part of the population to metabolic syndrome, a syndrome consisting of hypertension, insulin resistance, abdominal obesity and dyslipidemia (Ehtesham et al. 2005: 1). Hence, the emerging nutrition transition leads to a rapid increase in overweight and obesity among the higher socio-economic groups in India. Their risk of non-communicable diseases has greatly increased. Furthermore, Griffiths and Bentley mentioned that „it is to be hypothesized that in populations with high rates of stunting and low birth weights, there may be an increased risk of obesity-related chronic diseases in adulthood“ (Griffiths & Bentley 2001: 2699). If this hypothesis is correct, Hyderabad will face a large dual public health challenge, significant risks of morbidity and mortality related to undernutrition, while a large proportion of the population will face non-communicable diseases at the same time.

5.3.2 Diabetes

India's doubtful reputation as „the diabetic capital of the world“ is rooted in the number of over 30 million patients affected by diabetes (Mohan et al. 2004: 29). Urban areas are generally affected more strongly than rural ones. In a comparative study of seven urban areas,

Hyderabad showed the highest rates for both, diabetes (17% of total population) and impaired glucose intolerance (IGT, 30%) (Mohan et al. 2004:29). According to Rao (2006), 60% of the total population of Hyderabad above twenty-five years are going to suffer from diabetes within the next five years. The prevalence of diabetes in the twin cities increased fivefold from 2.1% to 12.1% between 1970 and 2004, similar to elsewhere in India (Mohan et al. 2004: 29). What causes the epidemic increase of diabetes in India? It is highly suggested that the socio-economic development during the last forty to fifty years, which resulted in urbanisation and a transition from traditional to modern lifestyles lead to physical inactivity and changes in diet, as mentioned in the previous chapters, changes which could affect insulin sensitivity adversely and lead to obesity. Genetic predisposition, which is triggered by environmental and nutritional factors, causes type 1 diabetes. In the case of type 2 diabetes, by far the most common form of the disease, there are still doubts about the importance of several triggers. Rao (2006) for instance stated that only 40% are caused by dietary patterns, while Ehtesham et al. (2005: 5) attributed 75% to nutrition. Obesity, with all its health implications, leads to a significantly higher prevalence of diabetes. The parameters determining Hyderabad's extremely high rate of patients affected by diabetes are not ascertained yet (Rao 2006).

The economic implications of diabetes can also be considered as burdens on the national health system and on society as a whole. Cost implications as consequences of epidemical increasing diabetes are manifold. While patients' families and the health system have to face the direct costs of diabetes, indirect costs such as the loss of economic productivity, affect society and the government. Intangible costs in terms of effects on the quality of life of patients should not be underestimated, either. By now, the Indian per capita expenditure on health is only 6.4% of the average world spending, "while India accounts for 23.5% of the world's disability adjusted life years lost due to diabetes" (Mohan et al. 2004: 31). Facing this, challenges caused by an increasing diabetes incidence in Hyderabad should be taken very seriously.

5.3.3 Health Education and Consumer Clubs

Nutrition-focused education programmes could be key actions towards solving health problems among the urban middle-classes mentioned above. So far, four studies on the impact of nutrition education have been conducted in Hyderabad. Results of Mujeeb-ur-Rahman's study on the effects of socio-economic status on food consumption suggest that the quantitative intake of food decreases significantly while the intake of high-quality food

increases with growing income and education (Mujeeb-ur-Rahman 2001: 2999). In connection with findings of Vijayapushpam et al. (2003), there is evidence for the value of nutrition education among urban middle classes. Vijayapushpam detected an encouraging improvement in the knowledge levels of upper and higher middle class schoolchildren. Especially with regard to the intake of protective foods such as green leafy vegetables and fruits a significant difference became apparent after only one session of nutrition-focused health education with posters, slides and folders. In contrast to that, the survey Raghunatha et al. (2004) carried out showed a very low impact of nutrition education programs on adolescent girls of low income and lower middle-class families. The education level of male and female heads of households, however, has a different impact on food consumption patterns. Education for women, unlike for men, has an effect on the consumption of nutritious food and on food preferences (Mujeeb-ur-Rahman 2001: 2989). As the survey showed, women and children are considered to be very successful multipliers for health nutrition education.

Several measures for improving health and nutrition education should be mentioned. Consumer clubs for instance, which are still very rare in India, could serve as institutional multipliers and advocates of Indian customers' interests in safe and healthy nutrition. The inauguration of a consumer club initiated by Hyderabad's Agricultural University/Home Science College in October 2006 proved the slowly emerging interest in the issue. The successful postgraduate programme in Healthcare Management, provided by Dr. Reddy's Foundation in Hyderabad, reflects the immediate need for specialists in nutrition and health education. Since 2004, Dr. Reddy's has been qualifying health educators in medical and dietetic subjects. Specialists are urgently needed in state and private hospitals, as the high demand for graduates shows (Mukherjee 2006). Nutrition labelling is another instrument of nutrition-related health education, and yet there are no specific laws or guidelines for labelling in India. The now compulsory best-before date, labelling of infant foods, statutory warning on tobacco items and the labelling of genetically modified food are first steps in nutrition labelling which need to be encouraged for the aim of improving food safety and nutrition education in India (Subba Rao & Babu 2001: 21).

6 Conclusion and Recommendations for Further Applied-Research

6.1 Conclusion

The aim of this study was to demonstrate how food consumption habits among urban middle-classes in Hyderabad are changing or have changed already. For analysis, the issue was divided into three major topics.

With regard to changing purchasing patterns, the focus was on small-scale retailers competing with an increasing number of super- and hypermarkets. Little corner shops and street food vendors will lose within this development, as they are weakest part in the retailing hierarchy of Hyderabad and elsewhere and anywhere. Flexibility, personal attachment and cheaper prices, which used to be their strong advantages, have lost their value. Customers are becoming more mobile, and supermarkets provide cheapest prices, higher variety and even better quality of food. Members of the lower and upper middle-classes will not make their everyday purchases at those stores any more. The livelihoods of retailers and vendors livelihoods become highly insecure as a result of this development, a fact which has to be recognised rapidly, keeping in mind that counteractive measures should be taken.

A growing consumer consciousness for health and food quality could bring forth a movement towards organic food or regionally produced food. India has a vast population to feed, with food requirements increasing every year. This has led to an increase in the use of chemical fertilisers and pesticides in the country. Indians eat food contaminated with some of the highest amounts of toxic residues found in the world (Chander 1997: 221). The concept of organic farming and the importance of healthy food need to be promoted, not only for the sake of food safety for urban middle-classes but also for the well-being of millions of Indian farmers. While food security does exist for Indian middle-classes due to their high standard of living, food safety does not, due to the lack of knowledge and a lack of availability of healthy food. An improvement towards food security as well as food safety for all strata of urban India is one of the biggest challenges Hyderabad has to face over the next few years.

The loss of traditional foods, a movement towards an alimentation containing less pulses and millet and more flesh foods, wheat, sugar and fat, new preparation methods and an increasing popularity of processed, convenient and fast foods characterise the continuing nutrition transition of India's middle-class. Furthermore, changing food consumption patterns are associated with less physically demanding occupations, a reduction of physical activity

because of an increase in leisure time, occupational shifts and a lack of exercise opportunities and facilities. These changes are caused by several lifestyle factors and lead to overweight, obesity and associated chronic diseases, such as diabetes. Additionally, an increasing proportion of India's population will be at risk in the coming decades due to fast urbanisation and in-migration to urban areas. So far, the Indian government has done little to handle the increasing number of patients with nutrition-related diseases. The emerging nutrition transition has enormous resource implications for future health and nutrition programmes and policies and should be taken seriously, even more so when considering that Hyderabad will have to deal with problems of over- and undernutrition at the same time.

6.2 Further Recommendations

The following recommendations for further research and applications arise from the thematic study on changing food consumption patterns of urban middle classes.

6.2.1 Recommended surveys on changing food consumption patterns

Several detailed studies should be carried out to create a representative survey on changing food consumption patterns among the urban population in Hyderabad. Priority should be given to a study focusing on Hyderabad's middle-classes in particular. This study should include a detailed analysis of middle-class livelihoods, lifestyles and consumption patterns as well as their impact on the urban landscape. In terms of changes in dietary intakes, socio-economic studies on the use of processed and convenience food (the most recent study was conducted by B. Sridevi in 1994) as well as the consumption of fast food are necessary. More specific surveys are recommended on the consumption of fruit and vegetables. Attention should also be turned to the influence of the media on consumption habits among different socio-economic groups.

6.2.2 Livelihoods of retailers

It was shown that the city of Hyderabad rapidly has to recognise the importance of ensuring the livelihoods of small-scale retailers as well as street food vendors. A socio-economic analysis of the livelihoods of retailers should be carried out for this purpose. Furthermore, the installation of an association and a policy for educating retailers on alternatives or retraining measures are highly recommended.

6.2.3 Improvement of health and nutritional status through health education

In general, the foundation of consumer clubs or associations should be promoted. In cooperation with them, health education programmes should be developed and implemented. The mass media could be used for large-scale nutrition education as well as food advertising, while targeting children should be prohibited. The installation of public and free-of-charge nutrition consulting offices all over the twin cities could improve knowledge on balanced diets and self-medication care. A particular focus should be on urban middle-class schoolchildren should be focused on in particular. Banning fast food restaurants, ice cream parlours and also food and snack hawkers in immediate vicinity of schools and the supply of healthy snacks and mid-day meals instead could improve the nutritional status of Hyderabad's children. Furthermore, health and nutrition education should become part of their curriculum.

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8 Appendix

8.1 Tables

Table 5: Fruit and Vegetable Supermarkets in Hyderabad

Name	Corporate Structure	Introduction (Hyd)	Total No.	Outlets by Area
Pure and Natural	Chain store	2003	2	Himayathnagar, Banjara Hills
Green Dale	Chain store	2004	4	Kukatpally (twice), Habsiguda, Himayathnagar
Choupal Fresh	Chain store	2006	1	Banjara Hills

Table 6: Supermarkets in Hyderabad (Corporate Structure, Introduction, Number, Location)

Name	Corporate Structure	Introduction (Hyd)	Total No.	Outlets by Area
Food World	Chain store	1995	20	Ameerpet, Barkatapura, Begumpet, Chaitny-apuri, Dilshuknagar, East Maredpally, Habsi-guda, Himayathnagar, Jubilee Hills (twice), HITECH City, Kukatpally, Mehdipatnam, Nalla-kunta, P.G. Road, Shanthi Nagar, Srinagar Colony, Vikrampuri, West Maredpally
Spencers	Franchise	2003	7	Kukatpally, Banjara Hills, Himayathnagar, Raj Bhavan Road, A.S. Rao Nagar, Tolichowki, Motinagar
Spears	Chain Store	2004	2	Himayathnagar, Vidyanagar
Subhiksha	Franchise	2005	23	See homepage: www.subhiksha.com
Trinethra	Chain store	1986	62	See homepage: www.trinethra.com

Table 7: General Food Consumption Patterns of Low and Middle/High Income Population Groups

Meal	Low Income Population	Middle/high Income Population
Morning: Breakfast/brunch	Tea Wheat and/or millet chapatti or rice; vegetable pickle; onion+salt+chilli; jaggery	Tea or coffee Wheat parantha and/or millet chapatti, milk or curd; rice& vegetable and/or pulse & banana or bread, butter, jam+fruit
Mid-morning	Tea (sometimes)	Tea or coffee & snack (biscuit, sandwich, samosa or pakora, or burger)
Lunch	----	Wheat and/or millet chapatti or rice & vegetable and/or pulse & salad and/or fruit
Mid-afternoon	Tea & sometimes a small bun or biscuit or savoury snack	Tea or coffee & snack (biscuit, sandwich, samosa or pakora, or burger)
Evening/dinner	Same patterns as for brunch, generally includes a vegetable or pulse	Same as lunch with higher variety

Source: Prahadeeswaran, M. and Narasimham, S. (2005:236); draft and few modifications: Lohr (2006)

8.2 Figures

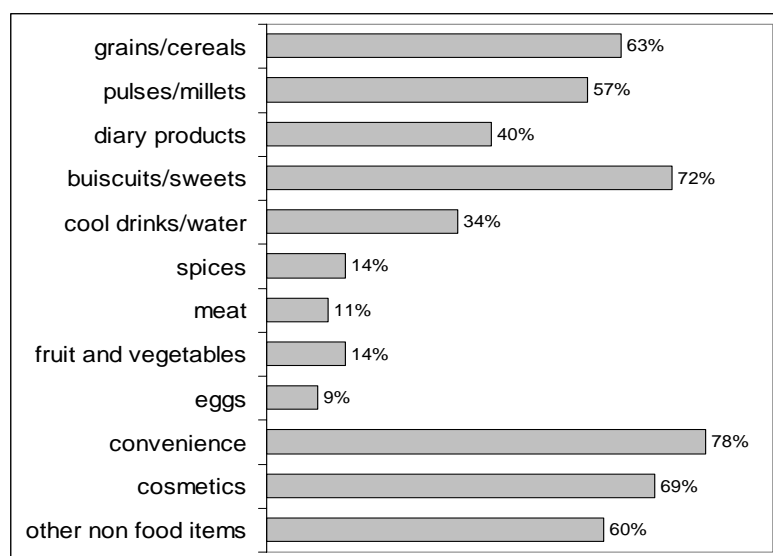


Figure 3: Breakdown of Products Bought in Supermarkets

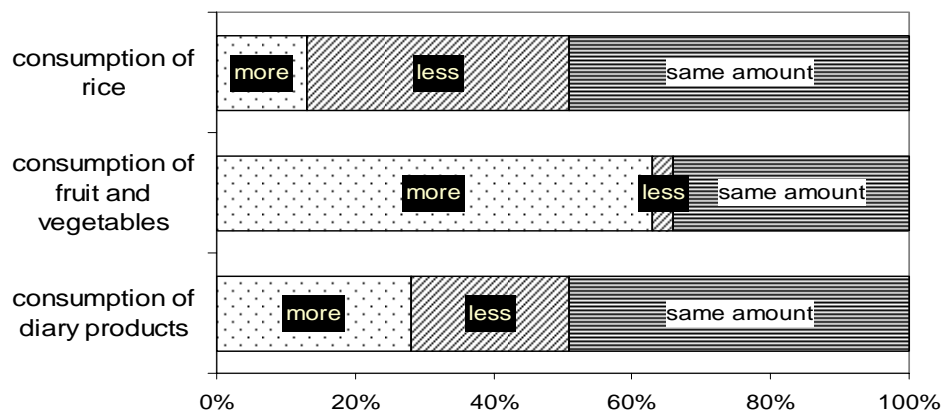


Figure 4: Changing Consumption of Fruits and Vegetables, Dairy Products and Rice

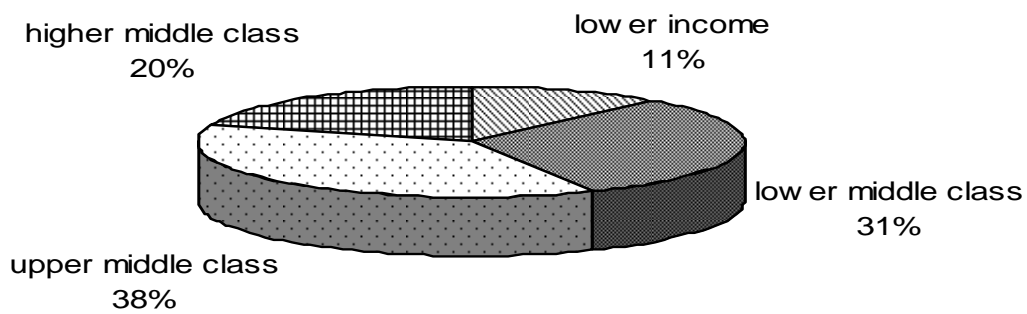


Figure 5: Customers by Monthly Income

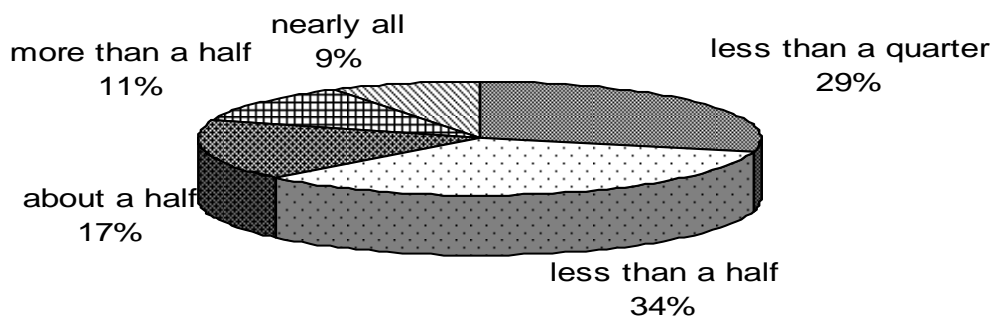


Figure 6: Share of Total Money Spend on Food in Supermarkets



Figure 7: Privately-Run Balaji Super Market, Gandhinagar



Figure 8: Srinivas Kirana General Store, Banjara Hills



Figure 9: Organic Food Stall at the Erragadda Rythu Bazaar



Figure 10: Organic Food Provided by Deccan Development Society



Figure 11: Advertisement for Fast Food in Banjara Hills



Figure 12: Organic Food Bazaar at the CSA



Figure 13: Instant and Convenience Food at Food World Supermarket

8.3 Addresses

8.3.1 Changing Food Purchasing

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8.3.2 Consumption Patterns

Nutrifit

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Mrs. Srinath is the founder of Nutrifit, a Nutrition Counselling Clinic that is based in Somajiguda, Hyderabad. She is a Nutritionist working together with the Fernandez Hospital, the Mahatma Gandhi Hospital as well as private patients. Ms Srinath has been instrumental in organising various health awareness programmes like food shows, health food Expos and awareness lectures. Nutrifit runs workshops and conferences to provide health education for physicians and medical staff. They also run a nutrition education programme at a school in Jubilee Hills. A new nutrition-focused health education programme in schools is planned.

Dr. K. Uma Maheswari (Associate Professor) Angrau

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Bahadurpura (Po)
Ranga Reddy District
Hyderabad 500 064
Tel: 024015317
Mail: maheswarisekhar@yahoo.co.in

8.3.3 Health Issues

Mr. Dr. A. Laxmaiah

Assf. Director, NIN
Hyd – 7
Tel: 0091 40 27019141 or 27 00 892
Mail: avulalaxman@yahoo.com

Mr. Laxmaiah did some research on obesity of adolescent girls in Hyderabad (see bibliography) as well as supervised several theses about the topic.

Mr. Dr. P.V. Rao

Department of Endovirology – Diabetes Centre
Nizam's Institute for Medical Science
Panjagutta
Tel: 0091 40 55341355

Mr. Rao is the head of the Diabetes Research Centre at Nizam's. Under his supervision a PhD thesis on genetic determination of diabetes has just been finished. Nizam's Diabetes Research Centre is presently conducting a national study on the prevention of diabetes. Mainly lower and upper middle-class patients are treated at Nizam's institute.

Mr. Dr. P. Sudhershnan Reddy Ms. Huma Bindhu Singh

Department of Paediatrics Department of Paediatrics
Gandhi Hospital – Musheerabad Gandhi Hospital – Musheerabad
Tel: 0091 40 23311719 or 0091 9849010679

Ms. Singh and Mr. Reddy did research on childobesity in middle-class areas in Hyderabad in 2004. Both are very interested in the subject, but working at Gandhi Hospital, which is a state-run hospital, they do not deal with NRCs in their every day work.

Dr. D. Raghunatha Rao

Assistant Director for Extension and Training Division
NIN
Ministry of Health and Family Welfare. Govt. of India
Jamai Osmania PO,
Hyderabad – 500 007
Tel: 0091 40 27008921

Residence:
3-4-226/1. Opp. Jain Mandir
Lingampally
Kachiguda
Hyderabad – 500 027
Tel: 275522723 or 9848755981
Mail: drr_rao@yahoo.com

Satya Lakshmi (Nature Cure)

Mail: komarrajusl@yahoo.co.uk

Ms. Lakshmi works as a medical consultant at the Nature Cure Center, Banjara Hills. Nature Cure provides nutrition-focused health education programmes.

Mr. Raja Mukherjee (Senior Manager) – DRFHE

6-3-1192/1/1 White House
Block III, 5th floor, Kundanbagh
Begumpet
Hyderabad – 500 016
Tel: 0091 40 23731946
Mail: raja@drreddys.com
Homepage: www.drreddys.com

Mr. Raja is the coordinator of Dr. Reddy Foundation Health Education Programme, that has been running since 2005.

8.3.4 Organic Food

Organic Food Products can be purchased at following locations:

Sresta Organic Food / 24lettred Mantra Mr. Rajashekar Reddy Seelam

Store Sresta House, Plot Nr. 7
24 lettred mantra organic food store LIC Colony, Sikh Village
Rd. nr. 12 Secunderabad – 500 009
Banjara Hills Tel: 0091 40 27893028
Hyderabad – 5000034 Fax: 0091 40 27893029
Homepage: www.24lettredmantra.com Homepage: www.sresta.com
Mail: rajseelam@sresta.com

Mr. Reddy is the managing director of Sresta Bioproducts Pvt. Ltd. Sresta that opened the first India-wide organic food store. Sresta works together with several NGOs and obtains its products directly from farmers in Karnataka, Tamil Nadu, Andhra Pradesh and Maharashtra.

Centre for Sustainable Agriculture (CSA)

12-13-445, Street No. 1
Tanaka, Secunderabad – 17
Tel: 0091 40 27017735 or 0091 40 27014302
Fax: 0091 40 27005243
Homepage: www.csa-india.org

Gangadhar Vagmare Zakir Hussain
Address see CSA Address see CSA
Tel: 0091 9866664050 Tel: 0091 9849258262
Mail: gangacsa@gmail.com Mail: zakircsa@gmail.com

There is an organic food bazaar every fifth day of the month. On few tables organically produced products are offered. Farmers from Warangal district who joined the programmes of

CSA deliver several pulses, vegetables and soaps for this market. In the office several pulses and rice can be purchased permanently.

Erragadda Bazaar

There are two stalls where organic food can be purchased at the Erragadda Raythu-Bazaar. The market is located in the north-west of Hyderabad. It is held every day except for Monday. Pulses, rice, soaps and honey are available every day, and on Sundays, there are also organically produced vegetables and fruits for sale. Both farmers who offer their products there produce under the guidelines of the Deccan Development Society and are controlled by them.

Deccan Development Society (DDS)

101 Kishan Residency
 1-11-242/1 Street No. 5 (Opp. Pantaloon Show Room)
 Shyanlal Building Area
 Begumpet
 Hyderabad – 500 016
 Tel: 0091 40 27764577 or 27764744
 Mail: hyd2_ddspvr@sancharnet.in
 Homepage: www.ddsindia.org.in

The Deccan Development Society is also the Andhra Pradesh secretariat of the Organic Farming Association India (OFAI). Several Pulses and Grains are available at the DDS office.

8.4 Questionnaires

8.4.1 Survey on Supermarket Customers

1.a How often do you purchase at supermarkets?

several times a week once a week once in a while it's my first time

1.b Do you purchase your everyday needs at supermarkets?

yes no sometimes

2.a Do you also visit other supermarkets?

yes no sometimes

2.b Which supermarkets do you visit?

3.a Which food items do you buy at supermarkets?

grains/cereals pulses/millets milk products biscuits/sweets
 cool drinks/water spices meat vegetables and fruits
 eggs convenience food (like maggi)
 other food items/which? cosmetics other non food items/which?

3.b If convenience food is purchased:

Which items? Why?

4. Which items do you buy the most at supermarkets?

- unprocessed food (grains, spieces etc.) processed food (like biscuits, sweets, drinks etc.)
 convenience food (like maggi)

5. Reasons to buy at supermarkets?

- it's close to my home good quality of products it's trendy
 everything is well arranged and nice looking I save time, everything is in one place
 new products price reason hygienic aspects

6. Where do you buy the biggest amount of fruits and vegetables?

- supermarket producer market street vendor others/where?

7. How much of the total money you spend on food a month is spent in supermarkets?

- less than a quarter less than a half about half more than half nearly all

8. Organic food

- I never heard about organic food
 I heard about it but I don't have the opportunity to get it (few markets, distance)
 I do not buy organic food because it's too expensive
 I do not buy organic food because I don't see a reason to buy it
 I do buy because it's good for health
 I do buy because it's very tasty
 others/which?

9. How often do you eat outside per month? Where (Canteen, Street Vendors, Restaurant, Tiffin)? Breakfast, Lunch or Dinner?

10. What is your favourite dish?

11. Which major changes in your food consumption habits have you realised during the last five years? (cooking oil consumption, health consciousness)

12. Do you now eat more or less milk products than five years ago?

- more less same amount

13. Do you now eat more or less fruits and vegetables than five years ago?

- more less same amount

14. Do you now eat more or less rice than five years ago?

- more less same amount

15.a Do you do something for your fitness?

- yes, frequently yes, sometimes no

15.b What do you do for fitness?

16. Level of education?

- bachelor/degree master/postgraduate two or more master degrees
 PhD other/which?

17. How many people live in your household permanently?

18. Total monthly income of all earners in the household?

- less than 8.000Rs 8.000-16.000Rs 16.000-38.000Rs
 above 38.000Rs

19. Age group

- 20-30years 31 – 40years 41-50 years 51 – 60years above 60 years

20. Sex

- female male

21. Remarks

8.4.2 Survey on Retail Customers

1. How often do you purchase here?

- several times a week once a week once in a while

2. Which food items do you buy at retailers?

- grains/cereals milkproducts biscuits/sweets cool drinks or water spices
 eggs
 other food items/which? non food items/which?

3. Reasons to buy at retailers?

- it's close to my home I have always purchased here good quality of products
 price reason other reasons/which?

4. How much of the total money you spend on food a month is spent at retailers?

- less than a quarter less than a half about half more than half nearly all

5.a Do you purchase at supermarkets?

- yes no sometimes

5.b Which items do you buy the most at supermarkets?

- unprocessed food (grains, spices etc.) processed food (like biscuits, sweets, drinks etc.)
 convenience food (like maggi)

6. Where do you buy the biggest amount of fruits and vegetables?

- supermarket producer market street vendor others/where?

7. Organic food

- I never heard about organic food
 I heard about it but I don't have the opportunity to get it (few markets, distance)
 I do not buy organic food because it's too expensive

- I do not buy organic food because I don't see a reason to buy it
 I do buy because it's good for health
 I do buy because it's very tasty
 others/which?

8. What is your favourite dish?

Veg./Non Veg./Sweets

9. Which major changes in your food consumption habits have you realised during the last five years?

10.a Do you do something for your fitness?

- yes, frequently yes, sometimes no

10.b What do you do for fitness?

11. Level of education?

- less than 10th standard/SSC SSC/10th standard until 12th standard/inter
 bachelor/degree master two or more master degrees PhD other

12. How many people live in your household permanently?

13. Total monthly income of all earners in the household?

- less than 8.000Rs 8.000-16.000Rs 16.000-38.000Rs
 above 38.000Rs

14. Age group

- 20-30years 31 – 40years 41-50 years 51 – 60years
 above 60 years

15. Sex

- female male

16. Remarks

8.5 Semi-Structured Interview

1. Is this your business?

- mine one of my relatives I'm employed

2. Since when has this market been running?

3. What products do you offer?

- grains milkproducts biscuits/sweets cool drinks or water spices eggs
 fruits and vegetables other food items/which? non food items/which?

4. Do you now offer other products than five years ago? Which ones are new? Do you now sell more packed food items?

5. Do you think the consumer profile of your shop has changed over the last few years? If yes, why?

6. Which major changes do you see in the consumption habits of your customer? In terms of:

- a. Products they purchase here
- b. Amount they purchase
- c. Time when they make their purchases

7. Do a lot of your customers buy at supermarkets? Why / Why not?

8. Are supermarkets competition for you?

9. What are the biggest problems for retailers at present? Reasons?

10. Is your economic situation nowadays better or worse than five or ten years ago? Reasons?

11. Is there a retailer association? Are you a member?

8.6 Observations

The following questions lead the observations:

- Location: Is road widening taking place or is it already finished?
- Retailers: How many traditional retailers are along the main roads/minor roads? What kind of retailers? Are there street food vendors/what kind of vendors?
- Supermarkets: Are there supermarkets or shopping centres (private or chain)? Do they have traditional retailers in their neighbourhood?
- Health: Are there health caring/consulting institutions? Which density, what kind of?
- Which advertisings can be seen? How much and what kind of street vendors can be recognised? Which newspapers and magazines are offered?

9 Authors Addresses

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