



Research for the Sustainable Development of the Megacities of Tomorrow - Energy and Climate efficient Structures in Urban Growth Centres

Hyderabad as a Megacity of Tomorrow: Climate and Energy in a Complex Transition towards Sustainable Hyderabad – Mitigation and Adaptation Strategies by Changing Institutions, Governance Structures, Lifestyles and Consumption Patterns

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THE CHALLENGE OF ORGANIZING HYDERABAD'S FOOD SYSTEM IN CONTEXT OF GLOBAL CHANGE

An analysis on relevant stakeholders, networks
and power relations

**Sarah Nischalke, Sujatha Surepally and
Christoph Dittrich**

Analysis and Action for Sustainable Development of Hyderabad Hyderabad as a Megacity of Tomorrow: Climate and Energy in a Complex Transition towards Sustainable Hyderabad – Mitigation and Adaptation Strategies by Changing Institutions, Governance Structures, Lifestyles and Consumption Patterns

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Humboldt University Berlin
Leader of the Project Consortium:
Prof. Dr. Dr. h.c. Konrad Hagedorn

Coordinator of the Project:
Dr. Ramesh Chennamaneni

Department of Agricultural Economics and Social Sciences
Division of Resource Economics
Philippstr. 13, House 12
10099 Berlin
Germany

Phone: ++49 30 20936305
Fax: ++ 49 30 20936497

Email: k.hagedorn@agrار.hu-berlin.de
r.chennamaneni@agrار.hu-berlin.de
Web: <http://www.sustainable-hyderabad.de>
<http://www.agrar.hu-berlin.de/wisola/fg/ress/>

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Sarah Nischalke, Sujatha Surepally and Christoph Dittrich

Institute of Cultural Geography
University of Freiburg, Germany
Werthmannstrasse 4, D-79085 Freiburg
and

Sannihita, Centre for Women & Girl Children Society, Hyderabad 500020

Email:

Project coordination in Germany: christoph.dittrich@geographie.uni-freiburg.de

Project coordination in India: sannihitaindia@yahoo.com

Authors: sarah.nischalke@gmx.de/ssurepally@gmail.com/christoph.dittrich@geographie.uni-freiburg.de

Stakeholder Analysis

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Abstract

This stakeholder analysis is giving an insight into the highly dynamic food system of the emerging megacity Hyderabad in Southern India and introduces all relevant protagonists in the field of food and nutrition, existing networks and power relations. Despite concerns over food and nutrition are increasingly perceived in Hyderabad, no major agency has taken up this important topic, but rather a myriad of departments, cells and institutions, with overlapping or conflicting skills and responsibilities is in place. Hence, the analysis aims at understanding the diverse strands of stakeholders, detecting formal and informal linkages and locating entry points for further project activities in this complex spatial reality. Major Programs concerning social safety nets, food safety or direct-marketing of organic products are presented and an assessment of their influence as well as importance provides a base for a substantiated implementation of the sustainable street food plan and learning processes in the field of nutrition and health transition. Finally, the analysis provides recommendations on how increased coherence and cohesion might be achieved in order to improve the system's efficiency.

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GLOSSARY

AAY	Anthyodaya Anna Yojana
AMC	Agricultural Market Committee
ANP	Annapurna
AP	Andhra Pradesh
APL	Above poverty line
AWC	Anganwadi Center
BPL	Below poverty line
CESS	Center for Economic and Social Studies
CMEY	Chief Minister's Empowerment of Youth program
CMSNP	Community Managed SNP
CSA	Center for Sustainable Agriculture
DC	Deccan Chronicle
DDS	Deccan Development Society
FAO	Food and Agriculture Organization
FCI	Food Cooperation of India
FDTRC	Food and Drug Toxicology Research Centre
FNB	Food and Nutrition Board
FP-Shop	Fair-Price-Shop
GAIN	Global Aid Network
GHMC	Greater Hyderabad Municipal Cooperation
HACA	Hyderabad Agricultural Cooperative Association
HIV	Immunodeficiency virus
ICDS	Integrated Child Development Services
IFPRI	International Food Policy Research Institute
ITC-R &D	ITC Research and Development (large Indian company)
LFM	Local Food Model
LPG	Liquefied Petroleum/Propane Gas
MDM	Mid-day meal
NCLAS	National Centre for Laboratory Animal Sciences
NGO	Non governmental organization
NIN	National Institute of Nutrition
NNMB	National Nutrition and Monitoring Bureau
NPM	Non-pesticide management
PEM	Protein Energy Malnutrition
PPP	Public Private Partnership
RDA	Recommended Dietary Allowances
RPDS	Revamped Public Distribution System
RTE	Ready-to-eat food
SERP	Society for Elimination of Rural Poverty
SNP	Supplementary Nutritional Program
TPDS	Targeted Public Distribution System
UNICEF	United Nations International Children's Emergency Fund

INTRODUCTION

In a large country like India that is famous for measuring poverty in accordance to calorie intake vulnerable groups are at current times in accordance to FAO (2008) still at high risk due to increasing food prices, the financial recession, political conflicts and climate change. Still, India is home to the world's largest food insecure population, with more than 200 million people and only inhabits slot 66 in the Global Hunger list 2008 (out of 88 developing and transitional countries), mainly due to very high malnutrition rates and underweight children (IFPRI 2008, see also Food insecurity map of India, p. 63). Malnutrition is comparably higher in urban areas than in rural India due to limited coping mechanisms. Hence, the average food intake might not at all be an appropriate indicator for the food intake of the (urban) poor.

The growing Indian megacity Hyderabad and capital of the state Andhra Pradesh, that is expected to reach 10,5 million population (currently around 6 million) till 2015, is facing very diverse developments, dynamics and hybridizing processes¹ in food consumption, patterns of lifestyle as well as livelihoods within different groups and classes, who all have diverse needs in food supply, distribution, production and consumption. Therefore, it is crucial to prepare for changes and rethink (governance) structures and processes. The growth in urban centers and metropolises in accordance to Waibel and Schmidt (2000) poses "a tremendous challenge for the agricultural sector and the food supply industry". While there is need to transport more food over larger distances, it is also necessary to respond to an increasingly diversified consumer demand in terms of product quality and food safety standards". This also goes hand in hand with required considerations on how the high demand for energy provision can be met (or better minimized) and green house gas emissions that are contributing to climate change can respectively be reduced. Is this factor ignored (globally), climate change is very likely to affect the production side and the living of the (Indian) population devastatingly². However, the Indian context also requires the provision of a safety net for a large number of people who might not have the capacities, resources and the knowledge to take care of themselves. Keeping in mind the high malnutrition rates in India and urban spaces, supplementary feeding and subsidized food

¹ As for example the two current trends in Hyderabad: "health transition" and nutrition transition" (Shetty, 2001), for further details see background studies of Radha Chada (Food, Consumption and Nutritional Status in Hyderabad) and Rebecca Hofmann (Changing Food Culture in Globalizing Hyderabad).

² Phenomena linked to climate change are already increasingly recorded in India as for example floods, heat waves, etc. (Gupta et al. 2009).

provisions are crucial. Hyderabad remains accordingly not a homogenous sphere, but a complex spatial reality with diverse cultural and economic traits.

Hence, the underlying hypothesis for this stakeholder analysis is that, despite, concerns over food and nutrition are increasing in Hyderabad no major agency is dealing with this important topic, but rather a myriad of departments and cells, with overlapping or even conflicting skills and responsibilities. This kind of fragmentation also seems to exist among the parastatal and private organizations as well as NGOs. Many organisations working on the same topic are totally uncoordinated and might not even know each other. Therefore, the need for this comprehensive stakeholder analysis becomes evident.

The food supply and distribution constitute a complex range of processes and relations of diverse actors and institutions such as producers, assemblers, importers, distributors, wholesalers, retailers, processors, shopkeepers, street vendors, service providers etc. Other agents, indirectly or directly involved in the system, are public institutions (e.g. city and local governments, food marketing boards, ministries dealing with agriculture, transport, health or poverty) and private associations and unions (traders, transporters, shopkeepers/street vendors and consumers) (Aragrande and Argenti 2001:16). Furthermore, the actors link local, regional, national and international arenas (Bohle 2002:404), which underlines the complexity of an urban “food system” and requirements for regulating bodies. What Bohle (1994:245) describes as an urban food metabolism: “taking in people, food, resources and energy, transform these into a distinctive quality of life and emit people, products and waste” includes the four sub-systems of production, supply, distribution and consumption of food (Cannon 2002:345). Their metabolic processes are influenced by problems such as growth of urban spaces, environmental pollution, growing socio-economic disparities and lack of governmental institutions that should be in place to establish socially just and ecologically sound policies and programs. The metabolism does not know local, district or national boundaries, which means that the metabolic characteristics of the food system and internal as well as external influences and outgoing impulses might reach arenas ranging from local to global. What Kraas (2007:9) is expressing about megacities in general is particularly true for the food system: “[megacities] affect global change just as profoundly as global change affects megacities”.

Four major parallel processes influence the nature of the urban food system in Hyderabad, which need to be considered at levels, where (food) policies etc. are created and implemented: (Smith cited in Bohle 2002:402): the globalization of the food system (see also Vepa 2004), the specific nature of poverty and food insecurity in urban areas, the vulnerability context of the urban poor and the characteristics of food distribution. All those processes require certain strategies and diverse tools of governance as well as strong cooperation between involved institutions and organizations. After conducting the diverse research studies on food aspects, the experience showed that changes in food culture cannot explicitly be traced back to global influences (spread by media, advertisement, Indians returning from abroad etc.) but in a vast country such as India, also hybridizing processes take place or cultural adaptations are initiated by local, regional or national fashions, politics etc. and crucially determine lifestyle changes (e.g. the large demand for chat food sold in street stalls, for further details see Hofmann 2009). This fifth process should be added to the list, in the context of Hyderabad. Hence, this analysis attempts to find a response to the question, whether existing institutions are able to integrate those aspects into their activities in a comprehensive manner.

This is particularly important for developing ideas of emission abatement and energy provision mitigation as well as adaptation strategies related the food system and current lifestyle trends. Therefore, a cooperative governance structure is indispensable for communicating and cooperation with regard to our perspective action plan (sustainable street food plan). One promising option in protecting the climate and reducing the emissions is the support of “traditional” structures of food supply, the decentralized systems. Even though, the two major trends of dietary convergence (worldwide food habits) and dietary adaptation (new lifestyle patterns) result in demand for new food consumption infrastructure (fuelled by the increasing concentration of retail trade [Shrivastava et al. 2007]), they do not automatically contradict with our objectives. But “revolutionary” adaptations of existing structures of small-scale shops (retailers, wholesalers) and street vendors, who provide the essential base for a climate-friendly and sustainable food supply system, are required. Otherwise, if the poor segments of society, that are not affluent or urban originated, are not integrated properly into the changing food scenario the risk of further marginalization and increased food insecurity is large and vulnerability (also due to consequences of climate change) extremely high.

This stakeholder analysis was conducted in order to understand how Hyderabad's food system is organized by different players, to detect formal and informal linkages and locate entry points for further project activities. During the process of visualizing the stakeholder analysis (which is explained in detail in the following chapter) different strands of commitment and activities popped up and were identified as six (partly) interlinked arenas:

- Public Distribution System
- Supplementary feeding programs: ICDS and MDM schemes
- Food safety and research on food and nutrition
- Structures of direct-marketing and market organization
- Promotion of organic/NPM food/health
- Associations and Unions

In accordance to those discovered arenas the report is structured. While the first chapter presents the process of creating a matrix, detecting (key) stakeholders and assessing their potential within the food system and for our project, the second chapter introduces all actors, who are playing a role in Hyderabad's food system in more detail. A specific focus was placed on the objectives of the stakeholders and their interlinkages as well as their ability to cooperate with partner organizations. Hence, the third chapter provides the reader with a critical assessment of the network of actors and analyzes the food system as a whole. Finally, the conclusion presents our outcome, which means a perspective for our project, including the central key stakeholders and recommendations for further proceeding as well as research.

I. METHODOLOGY OF STAKEHOLDER ANALYSIS

Geographically and content-wise stakeholders, involved with food in Hyderabad are very diverse and appear to be extremely fragmented. Therefore, a stakeholder analysis is crucial in order to understand who the stakeholders are, what their areas of concern and commitment are and especially what their perceptions and interest in our project might be. What also needs to be kept in mind is their individual importance to the action plan and its implementation at a later stage of time (United Nations Centre for Human Settlements 2001).

Furthermore, a food system of a city of this size is incredibly complex and dynamic at the same time. The moment you identify and engage with stakeholders, you also understand more about Hyderabad's food system. This is required, in order to achieve the defined objectives of this project, which are the promotion of sustainable food production, provision, diet and livelihoods. This includes especially the promotion of community supported food provisioning, going hand in hand with low-carbon life-styles and sustainable food consumption patterns. Voluntary changes in lifestyle, food purchasing and nutrition could contribute to the stabilization of global climate change as well as food and nutritional security and the evolvement of ecologically sound and socially just food distribution channels and consumer policies.

However, a stakeholder analysis as such needs to go beyond a description of the institutions involved and should be able to critically assess the functioning of actors and their ability and willingness to cooperate in order to minimize risks and guarantee a positive outcome of project activities (Schmeer 1999).

Questions of definition

In this context it needs to be emphasized that the term stakeholder itself, seems to be ambiguous, because many of our detected stakeholders did not perceive themselves as such, but referred immediately to groups and people, influenced by them (their own stakeholders). Usually the term stakeholder refers to people, groups, organizations or institutions who/that either are affected by a process or event or do have an effect on it. This stakeholder analysis does aim at assessing the involvement and impact of certain groups, institutions and organizations in the food system of Hyderabad. Therefore, we were treating the term stakeholder in the sense that "somebody has a

stake in something”, describing the political protagonists or actors (German translation: Akteur). A distinction between primary and secondary stakeholders is therefore dispensable. However, we have been exploring, who would be interested in and interesting to our project in order to create ties between the project team and the stakeholders. Some stakeholders might have been involved with awareness raising, others with providing a safety net for the poor or the promotion of direct-marketing. Initiatives originate from national, state and local governments to grassroots organizations. However, most activities are barely interlinked (see Chapter III).

Creating a matrix

The two authors of this analysis tried to combine their local/global expertise and developed a matrix, including the following points after brainstorming (see Appendix):

- Type of stakeholder
- Interests/objectives
- Assessment of activities
- Partnership
- Influence
- Attitude

After identifying all potential stakeholders and preparing a comprehensive list (which was rather a flexible than static process), we met the stakeholders and conducted semi-structured interviews. Through reviewing collected information and filling the matrix, we attempted to identify the potential and significance of stakeholders for the food system of Hyderabad. The aim was to find answers to the questions of what the stakeholders’ objectives and interests are, how effective their activities appear so far, with whom they are connected and cooperating, how influential they are in their work arena and therefore important to us and last but not least how their attitude was towards our project. Of course, some of the stakeholders have already been involved in our project activities beforehand (e.g. participating in the Scenario workshop on March 2nd 2009 in Hyderabad).

Afterwards, priority has been assigned to the stakeholders based on the outcome of the combination of three features (influence, attitude and linkages/existing cooperation). Those aspects, we considered particularly important in order to classify different groups and detect starting points for potential cooperation as well as risks and limitations that need to be taken into account during the project process. Positioning the stakeholders in relative terms according to the three criteria (see annex I) was necessary to point out key stakeholders, constituting the network of institutions, organizations and groups, that do either have significant influence in the system or are important for the success of our project and/or its outcome.

The category *influence* is dealing with the question of how influential stakeholders are within the food system of Hyderabad. The power of stakeholders can be determined by characteristics such as type of stakeholder, general strength and negotiation position (depending on financial and political resources), access to expert knowledge, leadership capabilities, degree of organization, dependence on other actors and interlinkages with other players (for further details on stakeholder mapping see also Administrative Staff College of India 2002).

Exploring the category *partnership* as well as power relations can only be done in depth within the introduction part of the stakeholders (see Chapter II) and critical analysis (see Chapter III). The matrix structure as such is just pointing out trends and visualizing existing networks, but can not indicate missing linkages. Examined in combination with the category *influence*, it points out tendencies concerning the ability to persuade or coerce others, for example to follow “recommendations” in decision-making processes.

In contrast, the category *attitude* is trying to assess and predict the stakeholders’ interest into cooperation with our project and potential for future collaboration. Highly influential stakeholders with a rather negative attitude (weakly or strongly) and limited interest in our project activities, might require a reorganizing and rethinking process of project strategies and planning. Also a shift of cooperation towards less influential but convinced stakeholders is imaginable in order to avoid the risk of failure during the stage of implementation.

As authors of this analysis, we still remained outsiders of the community, which is dealing with food in Hyderabad. Therefore, we were only able to acquire an overview of the current situation and develop some sense for assessing linkages, power relations and problems. Hence, our estimates are based on direct conversations with stakeholders, vulnerable groups and literature review, including media). To increase our credibility, we adapted the tool “ranking of confidence for estimations” into our matrix for the two assessment categories of ‘influence’ and ‘attitude’, ranging from *fully confident* to *wild guess*.

While the purpose of this analysis demands a focus on so-called secondary stakeholders (formal and informal actors which can be seen as intermediaries having a stake on primary stakeholders such as vulnerable groups and communities etc. via policies, programs or initiatives), the community of street food vendors, as one of our target groups, is highly vulnerable and will, therefore, be treated as one primary stakeholder in the implementation stage of this project. Ties that have been established during the first street vendors workshop in Hyderabad (Street Vendors for a better Hyderabad, International Workshop on the constraints, risks and opportunities of urban petty traders in Hyderabad, February 25-26.2009) will be consolidated and associations and unions are going to serve as communication channels in the future (see chapter II.3).

III. THE NETWORK OF STAKEHOLDER STRANDS IN HYDERABAD'S FOOD SYSTEM

1. Government network

Besides institutions that are entrusted with physical organization of markets and interventions, food safety and general research, the major programs adopted by the government are regarding food supply (PDS) and supplementary feeding programs (MDM, ICDS), which will be introduced in the following chapters

1.1 A battle ground for political parties: The Public Distribution System (PDS)

In order to meet the basic right to food in India, where more than 500 million people are undernourished and many more vulnerable to food security, Virmani and Rajeev (2002) point towards two ways of preventing increases in malnutrition, hunger, starvation deaths and farmers suicides: control of food prices and supply of food grains to people at subsidized rates.

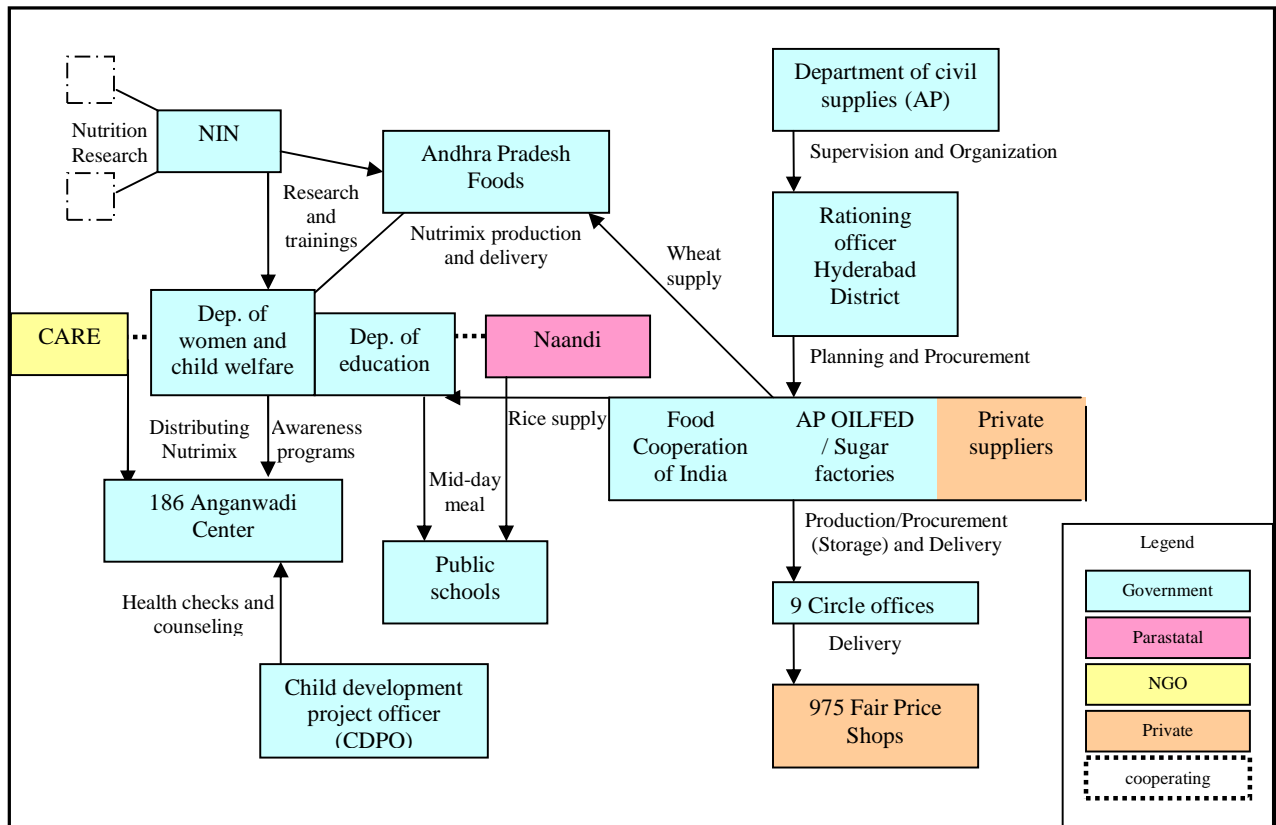
The Public distribution system was introduced by the British in 1939 to ensure equitable distribution of food grains to the urban consumers in times of high prices (due to famines) and is nowadays the most important program in ensuring food security and poverty alleviation as well as in eliminating the threat of malnutrition in India. Under the supervision of the Ministry of food and civil supplies (created in 1984) the system evolved over time, first targeting particularly urban spaces (under British rule), then focusing on economically and socially backward and, therefore, disadvantaged areas (drought prone etc.) under the Revamped Public Distribution System (RPDS) in 1992 and finally placing a strong focus on BPL families and vulnerable sections of society under the Targeted Public Distribution System since 1997 (Devasahayam 2008).

In Andhra Pradesh more than 70 percent of the poor rely on PDS (Swamy 2005), whose objectives as social policy are:

- Providing food grains and basic food items to the poor at reasonable prices
- Ensuring equity in the matter of distribution of essential commodities
- Influencing the open market prices of cereals, control prices

The program functions in the following manner: The Andhra Pradesh State Civil Supplies Corporation (state agency) procures rice and wheat from the Food Cooperation of India³ (in existence since 1965, responsible for procurement, logistics and storage of food grains), Sugar from cooperative factories, Oil from AP OILFED and the open market (like all other items) and supplies them to three different target groups. The items are delivered from the buffer stock (in Hyderabad it is found in Sanath Nagar, North West of the city center) to circle points after amounts have been fixed by the district rationing officer and are then distributed to so called fair price shops (see figure 1), where the targeted people, who have received specific “ration cards” can buy products at subsidized rates.

Figure 1: The government network of social safety nets



³ Rice is usually bought directly from rice millers, who have to sell a certain percentage of processed product to the FCI as levy at a fixed price (in total 25% is going into the open market, while 75 % of the product is delivered to FCI).

In accordance to income and status, people receive a white or pink ration card, an Anthyodaya or Annapurna card (after application process).⁴ A white card is given to people who earn annually below 75,000 Rupees (60,000 in rural areas), while the pink card is only given to people above the poverty line (APL) as an identity proof. The Anthyodaya Anna Yojana (AAY) scheme targets disadvantaged BPL families, headed by widows, terminally ill or disabled persons, single women or men without societal support, tribal people, landless laborers, farmers or people earning their livelihood on a daily base in the informal sector.

In contrast, the target group of the Annapurna scheme, constitutes of destitute Senior Citizens, (65 years and above) who are not covered by the National Old Age Pension Scheme (which is providing 75 Rupees per month as pension). In Hyderabad a total number of 975 Fair Price Shops exist and 54 LGP outlets (points where kerosene is distributed), which cover 619,011 white ration cards as well as the other cards mentioned in figure 2.

Figure 2: Number of cards issued for welfare schemes:

White card:	619011
Pink:	554781
Anthyodaya Anna Yojana	21960
Annapurna	740

Source: Office of Chief Rationing Officer, Hyderabad

The identification process of beneficiaries is carried out by local government officers (in cooperation with District collectors). Eligible people do have to apply at the circle offices and receive an entitlement card (with a picture of the whole family) in case of approval. However, for example, for the Anthyodaya Anna Yojana scheme there is no exact definition or income limit in place. When TPDS started, only 10 kg of rice were distributed. Now white card holders usually receive a maximum of 16 kg rice (even though the documents mention 20kg), 10 kg wheat, 1 kg salt, 10 l of Kerosene for cooking and 1 kg red gram dal (at the current point of time). Figure 3 is presenting the items that are available depending on the ration card at the fair price shops in 2009 (usually, of some items only limited amounts are available and not the whole assigned ration can be given – e.g. of sugar and oil):

⁴ B. Prakasham, Dy. General Manager, FCI Regional Office interviewed by R. Hofmann on 23.1.2009 and Mr. Reddy, Executive Officer, FCI buffer stock, Nacharam, interviewed on 31.3.2009.

Figure 3: Subsidized items sold in ration shops

Commodity	Quantity and Prices	Open market prices (ca.)
RICE	@ 2 Rs/kg, 4 kg per person, max. 20 kg per family/white card, 35 kg AAY	18 – 20 Rs/ kg
Wheat	@ 7 Rs/kg, 10 kg (white card)	17 – 20 Rs/kg
Palm oil	@ 30 Rs/l, 1 liter	45 – 60/l
Red gram	@ 35 Rs/kg 1 kg (temporarily)	35 – 45/kg
Sugar	@ 13,50 Rs/kg, 1 kg (white card, AAY)	30 Rs/kg
Kerosene	@ 9,75 Rs/l, 10 l (white card, AAY coupons)	45 Rs/l
Salt	@ 4 Rs/kg, 1 kg (white card)	10 R/kg

Source: Govt. of Andhra Pradesh Hyderabad District Report 2008

In accordance to the Chief rationing officer in Hyderabad, the amounts of sugar (1kg) and palm oil (1l) are just met partially. While the families with Anthyodaya cards receive 35 kg of food grains per month at two Rupees per kg, the people eligible for Annapurna receive 10 kg of rice free of cost (Government of Andhra Pradesh, Consumer Affairs, Food and Civil Supplies Department: Citizen Charta, updated 2008).

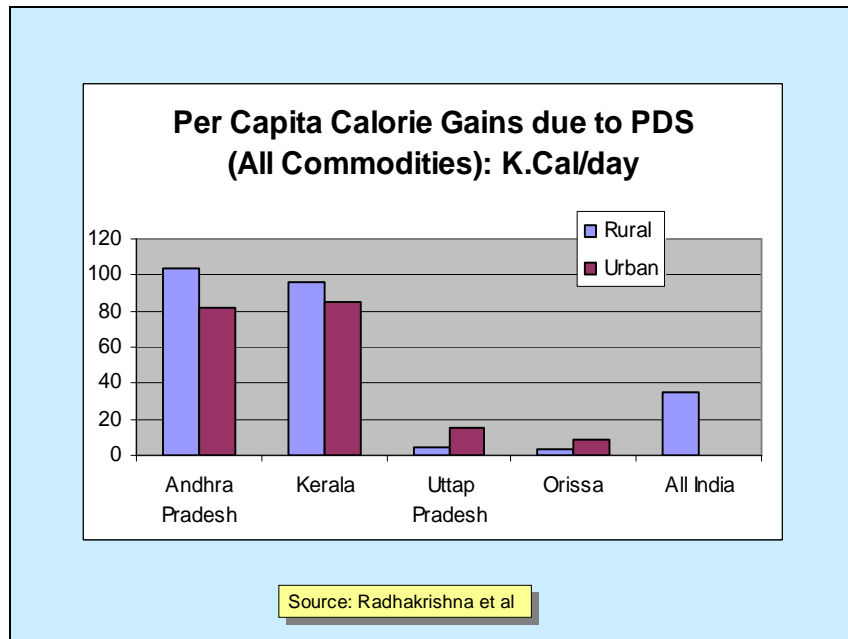
PDS is becoming a political agenda for many political parties in India, because food is an area where the poor are largely dependent. However, food is the major area which influences policies and politics and many parties are competing and promising to feed the poor by reducing the prices of food grains or distribute items to the most vulnerable communities free of cost. During the elections in 2009 in Andhra Pradesh, all parties tried to benefit from promises with regard to the PDS scheme (for example: “The competitive politics of rice”, “Congress promises 6 kg rice in manifesto” (Hindu), TD⁵ rice isn’t free (DC), etc.).

After elections, those promises usually vanish into thin air. However, the system that is in place has achieved acknowledgeable calorie gains as shown in Figure 4. Especially in Andhra Pradesh

⁵ TD is referring to the Telugu Desam Party.

and Kerala, both in urban and rural areas, improvements can be seen. A comparably lower effect in other states might be due to less established PDS schemes among other reasons.

Figure 4: Per Capita Gains due to PDS



However, the Rationing Officer in Hyderabad⁶ is well aware that this kind of provision can only serve as supplementary food and does not meet minimum nutritional requirements. The Commissioner for Civil Supplies in AP⁷ confirms the need for higher investment as well as better control of the PDS system: “Hyderabad is a growing city and there were thousands of applications for ration cards. Without increasing the budget it is very difficult to distribute minimum food grains to the people.” He also points to a difference in definition between the Central and State government, which results in a higher number of BPL people. Just recently, the government has increased the income level from 26,000 Rupees to 75,000 for white ration cards in urban areas. The large migrant population in Hyderabad also poses a problem to PDS, because people sell their cards before they leave the city after seasons.

⁶ Lokesh Kumar, Chief Rationing Officer, Hyderabad, interviewed on 8.4.2009.

⁷ Sanjay Jaju, Commissioner of Civil Supplies, interviewed on 7.4.2009.

Among the card holders a lot of complaints on the PDS can be heard also. Most of them are concerned with the quality of rice and wheat and the availability of goods. The Chief Rationing Officer of Hyderabad comments on that by explaining that it is a question of favored varieties. People in Hyderabad do not want to eat the “sticky variety” of common rice, but favor the more expensive Sona Massori, which can not be supplied by PDS due to the higher expenses. Due to the fact that FP outlets, which are privately run, only have limited space available, FCI cannot deliver the amounts needed for a whole month, but has to deliver in tranches. Therefore, delays and lack of stock and unreliable opening hours of FPS are common problems; and sometimes people cue for several days to reserve their ration (see article “Ordeal at Attapur ration shop”, The Hindu). People also complain that stocks are often old. The Monitoring body of PDS is the Vigilance Food Advisory Committee, existing on different levels, which is supposed to review the system and give suggestions for measurements of improvement.

Regarding political involvement in the scheme, Mr. Sesi Keran, Director of the renowned National Institute of Nutrition points out that “they [NIN] do not have any control on food quality in PDS Fair Price shops”. Sometimes a strong political lobby results in the distribution of certain varieties of rice and dal, which may not be good for health. A lack of political commitment, effective mechanism of controlling and monitoring and people misusing the system are among the reasons, why the PDS cannot guarantee food security to poor groups of society. The leakage of the PDS System in AP is estimated at less than 25 percent, which is low in comparison to other states (“Performance Evaluation of TPDS by Program Evaluation Organization 2007: ix). The leakage at FPS level is ranked moderate due to the fact that between ten to twenty five percent of food grains are diverted to the open market and leaving some people in need with empty hands. The Problem of the FPS owners is that they usually have to lift their monthly quotas on cash down payment. Furthermore, the viability of many Fair Price Shops is low (ibid.).

Other problems that occur are linked to the identification process of eligible persons. On the one hand side several cases of “ghost”-cards have been detected (of families who do not exist)⁸, on the other hand the exclusion of people who might be in need is high. The amount of rice is calculated on the base of four family members, so only those four will be considered and be

⁸ In Andhra Pradesh the number of ghost cards is relatively low, compared to other states, less than ten percent.

mentioned on the card. However, many families are of bigger size and the amounts required are not met (see Kist 2009). Besides the acknowledged loopholes, there are also people buying themselves ration cards or “converting” themselves into white ration card holders to receive the additional Arogya shree health card and benefit from free medical facilities. Andhra Pradesh has introduced a coupon system for rice and kerosene in the year 1998-99 to improve the delivery and prevent fraud (to fight the leakage at FPS level). However, coupons were also traded on the market and, therefore, not effective problem solution.

A recent study proved the government’s inefficiency by calculating that one Rupee transfer to the poor costs 3,65 Rupees. government administration costs (Athrade 2008). All the problems and loopholes do reflect the prevalent corruption and misuse of the system as well as missing transparency and accountability. Hence, Even though the concept of PDS is brilliant and feeds millions of people, there is a need for increased convergence of the departments of health, food and market agencies and strategic planning to properly utilize this program.

1.2 How therapeutic powder and free meals are used to fight malnutrition: Integrated Child Development Services and the mid-day meal scheme

The health and social welfare sectors took up short and long term programs with an approach of supplying the deficient/missing nutrients through fortified food which is habitually consumed. However, short term approaches hardly address the poverty, ignorance and inadequate health care which are the root causes for malnutrition. As part of it, several nutrition intervention programs were initiated and short term programs, complimented by long term strategies, towards increasing food production, income generation and improved awareness regarding a balanced diet (Rao 2004:484).

ICDS

Due to the fact that India is home of 36 percent of world’s malnourished children (home to 20 percent of all children) (Greiner and Pyle 2000), the Integrated Child Development Service is an essential program addressing malnutrition and health among children at the age of several months up to six years. This period is crucial for child development as Samvad (2006) points out.

ICDS started in the year 1975/76 as a multiple approach of addressing health education, nutrition as well as feeding practices and maternal and child health services (Gillespie et al. 2003). Its primary focus lays on child welfare, especially for children under the age of six. The idea to combine health, supplementary nutrition and pre-school as well as education for mothers/adults has been combined for the first time. Furthermore, the approach considers the mother and child as one ‘biological unit’, which is a unique feature of this program (Rao 2004:501). The major objectives of ICDS are in accordance to the Department of Women and Child Development (2004) the following:

1. Improve the nutritional and health status of children in the age group of 0-6 years and adolescents
2. Lay foundation for proper psychological, physical and social development of the child
3. Reduce the incidence of mortality, morbidity, malnutrition and school drop out
4. Achieve effective coordination of policy and implementation amongst the various departments to promote child development and
5. Enhance the capability of the mother to look after the health and nutrition needs of the child through proper nutrition and health education

The services to achieve those objectives are offered by small centers known as “Anganwadis” or “Anganwadi Centers”. Those Centers are not only a focal point for the delivery of services, but also social institutions, where child care is offered and pre-school education is practiced. Furthermore, it provides a forum for pregnant women, mothers, adolescent girls or other adults to discuss problems and receive further education on health and nutrition (e.g. benefits of green leafy vegetables, preparation of cheap nutritious food, hygiene etc.). However, one major purpose is to provide supplementary nutrition to children aged six months to six years and to pregnant and lactating mothers. The Anganwadi workers/teachers play a key role in achieving those objectives and success or failure of the program highly depends on them.⁹

In accordance to the Supreme Court orders, all state governments need to establish Anganwadis for a population of 1000 people in each locality (Samvad 2006). Theoretically, every person,

⁹ Sarala Rajyalaxmi, Deputy Director ICDS, interviewed on 15.2.2009 and Rajya Laxmi (ICDS), interviewed on 12.2.2009.

independent of background and economic status, can utilize its services. It is estimated that 75 percent of the poor are availing of ICDS services (and 91 percent benefit from the mid-day meal scheme). However, the average food intake of provided food is low compared to the Recommended Dietary Allowances of the National Institute of Nutrition and only able to cover less than 50 percent of the suggested levels. Furthermore, about 55 percent of preschool children are still underweight with a higher prevalence among Schedule Castes and Tribes compared to other communities (NIN 2003).

Andhra Pradesh has 385 ICDS projects with 70,034 Anganwadi centers and about 80,000 community-based Anganwadi workers are employed in urban and rural areas. Of those, 186 Anganwadis are located in Hyderabad. They are provided with supplementary food by Andhra Pradesh Foods, a government of A.P. enterprise, located in Nacharam (Eastern part of Hyderabad), which is the executive arm of the Department of Women Development, Child Welfare and Disabled Welfare and is responsible for the manufacturing of products, developed by NIN, in a large-scale manner (cp. Figure 1, p. 16). The production is limited to four products which are: Modified therapeutic food (also called Nutrimix or Hyderabad mix), Instant Upma Mix, Instant Halva Mix and Instant Kichidi Mix. Only the first product is distributed to the 186 Anganwadi Centers in Hyderabad as supplementary food for small children and pregnant as well as lactating mothers in order to improve their nutritional status.¹⁰ The food is a powder substance and is consumed mixed with a small quantity of water. It consists of wheat, soya, sugar and vanaspathi¹¹ (also fortified with vitamins and minerals) and needs to be available to all children of six months to three years within the assigned community of each center every day at the doses illustrated in figure 5.¹² Apparently, the Hyderabad Mix is suitable especially for the needs and deficits of the urban population, while the instant mixes are suitable and therefore distributed to rural areas. However, AP foods is not conducting any monitoring or influencing any of the development and distribution processes, but executing the task of a food manufacturing unit for

¹⁰ Besides the Ready to eat food, manufactured by AP foods (and due to all criticism that a centralized distribution system is facing) one other scheme has recently started, mainly in rural areas (2002): The community managed SNP scheme or Decentralized/Local Food Model (LFM). It attempts to make use of community ownership and decentralized structures in order to increase efficiency. People at the local level (e.g. from Self Help Groups, newly formed groups of women) and procure, process and distribute food to the Anganwadi Centers. Care is providing technical assistance.

¹¹ A cheap substitute for ghee/ Indian name for fully or partially hydrogenated cooking oil.

¹² Mrs. Sukashiri, Child Development Project officer, interviewed on 30.3.2009.

the state of Andhra Pradesh only. The NGOs Care and UNICEF supported the set up of the plant in 1976 financially but are not longer involved with A.P. Foods directly.¹³

The only linkage between the ICDS scheme and the PDS (besides large amounts of people who are using the infrastructure of Anganwadi centers and owning a ration card/ buying in ration shops), is, that wheat is usually supplied to A.P. Foods by FCI (and rice to the mid-day meal schemes) (cp. Figure 1, p. 16).

Besides supplementary feeding, the following interventions are done through the Anganwadi Centers/Ration shops:

Figure 5: Salient Features of Nutritional Intervention Programs

Intervention	Objective	Target	Content	Strategy	Dept/Agency
Supplementary feeding (distribution of therapeutic food)	To prevent and control PEM	Pre-school children Pregnant & Lactating woman	67 g/per day per child (=300 kcal, 8-10 g protein) and 125 /2 times/month (=600 kcal, 16-20 g protein)	On spot (Anganwadi Centers) or take home	Women and child welfare (ICDS)
Massive Dose Vitamin A	To prevent nutritional blindness	Pre school children	200,000IU	Once in six months	Health Dep.
Iron & Folic acid distribution	To prevent and control nutritional anemia	Pregnant & Lactating women, Pre school children	60 mg Iron, 500 pg folic acid 20mg Iron, 100 pg folic acid	1 tablet per day on 100 days per	Health Dep.
Iodized salt	To prevent iodine deficiency disorders	Ration card holders	150 micrograms of Iodine per 10g of salt	Continuous	Civil supplies

Source: Rao (2004)

While the supplementary food consists of therapeutic powder, the iron and folic distribution and Vitamin A dose is given in form of tablets. In contrast, the salt is sold at a subsidized rate in the ration shops (see chapter II.1) and not distributed for free.

¹³ P. Prem Kumar, Deputy Director, Andhra Pradesh Foods, interviewed on 31.3.2009.

Hence, ICDS is combining efforts of different departments of the state government. The costs for the supplementary feeding program are borne by the state government, while infrastructural cost is taken up by the Department of Women and Child welfare. The areas concerned with health, in contrast, are looked after by the Department of Family Welfare and Health and the mid-day meal scheme is funded by the Department of Education (see following sub-chapter). NGOs such as Care or the public trust Naandi Foundation are supported by the government and entrusted with diverse tasks in implementing those programs (mainly technical assistance). The fact that so many different institutions and departments are involved makes the schemes vulnerable to fraud, because all processes become very intransparent. Furthermore, does lack of communication result in problems of coordination and, finally, efficiency. The organizations are not well interlinked and do act in an isolated and fragmented way. The need for increased convergence and cohesion of all those departments or at least proper modulated planning and coordination processes should be accordingly a common goal.

CARE International, the NGO located in Hyderabad, recently started to support the effective implementation of the ICDS program (distribution do Anganwadis), due to the fact that they realized that urban malnutrition is often higher compared to rural areas among the poor. According to J. Kandimalla¹⁴, their major objective is to reduce malnutrition among children. While NIN develops recipes and does research in the name of ICDS, Care contributes with technical assistance and capacity building. It also conducts trainings to the staff of ICDS and the District Medical and Health Office. Apparently, Care also supports the distribution of supplementary take home rations of 65 g of rice, 10 g of dal (lentils) and 5 g of oil per month. However, we could not detect people, who received those rations or were talking about it (due to time constraints). Furthermore, monthly meetings of Care, involved actors on grassroots level and the DMHO are held and health and nutrition days/camps are jointly organized periodically.

The Food and Nutrition Board, which was taken up by the Department of Women and Child Development in 1993, is responsible for monitoring of ICDS. It is not only testing food samples of the supplementary feeding program and the mid-day meal scheme, but also developing nutrition education materials and conducting trainings in home scale preservation of fruits and vegetables, providing Anganwadi workers with adequate knowledge to teach at the centers

¹⁴ Jayakumar Kandimalla, Regional Manager of Care, interviewed on 06.04.2009.

(Gillespie et al. 2003). Health and weight monitoring (with record cards for each child) as well as counseling of children/parents is frequently done by the Children Development Project officer and her team (cp. figure 1).

However, it is important to understand that the supplementary nutrition is not a solution to malnutrition, but only supposed to supplement basic calorie requirements. Most Centers fall short in achieving the objective of being also a health counseling center. For many people it just a 'powder distributing centre'. Taking into account that the allocation of money for child welfare is supposedly ten to fourteen percent of the state budget and approximately 20 percent were spent on child health, in the 2007-08 budget, the outcome is rather poor. One major problem is that prevention programs only receive about one percent of the allocated money, reflecting the reactionary behavior of the government (Sriraman 2007).

Deshpandey et al. (2008) underlines that taste and food choice as well as locally available foods should be taken into consideration for the government food programs. Therefore, good quality food must be served with love, care and dignity to all as fundamental right of every child.

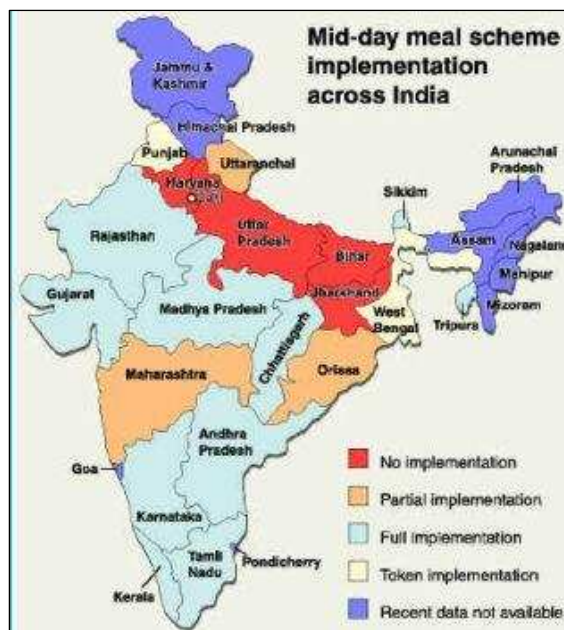
Besides the problems of limited budgets and cohesion between the involved institutional structures as well as missing political commitment, civil society involvement should increase and properly trainings as well as salaries should be provided to Anganwadi workers in order to create some incentives and improve their skills in assessing the health needs of mothers and children (Anganwadi workers are also supposed to make home visits in order to see whether recommendations giving at the centers are followed and counsel families concerning diets and nutrition – e.g. to eat more green leafy vegetables).

Mid-day meal Program

The mid-day meal scheme was first introduced in the State of Tamil Nadu in the year 1956 to retain school enrolment and has proved remarkably successful in increasing school attendance in that state. This experiment finally led to the creation of a National Program of Nutritional Support (mid-day meal scheme) in 1995 (India together 2004) and after a successful public interest litigation in Rajasthan (based on the right to food, 2001), the Supreme court issued an order to

introduce cooked meals in all government and aided schools, providing 300 calories and 8-12 grams of protein each day to each child for a minimum of 200 days/year. In 2003, the scheme has been introduced to most states (see Figure 6), covering students up to the seventh standard. By now it has become the largest child feeding program in the world (Parikh and Yasmeeen 2004).

Figure 6: Mid-day meal scheme implementation across India



Source: <http://www.educationforallindia.com/mid-day-meal.html>

In Andhra Pradesh, the mid-day meal program started in 1982 in some primary schools, but was a failure due to financial constraints. In 2003, the AP government launched a new mid-day meal program under Chief Minister Shri Chandra Babu Naidu. Initially, the amount spent per child was 1.25 Rupees per day, covering preparation of food and providing facilities for cooking etc., which has been increased to 3.00 Rupees per child by now. All government, local body and government aided primary schools as well as children enrolled under the Education Guarantee Scheme and Alternative and Innovative Education Centers are provided by mid-day meals through the program. In cooperation with Self Help Groups, Community Based Organizations and NGOs, the state governments implemented this scheme (detailed network visualized in figure 1, p. 16).

The main objectives are to provide supplementary food to children in order to address malnutrition and increase school enrolment rates at the same time. Furthermore, the program

improves socialization among children belonging to diverse backgrounds and provides empowerment through provision of employment to women (who are preparing food and setting up the infrastructure of the program)¹⁵. Jean Dreze¹⁶, professor and member of the Right to Food campaign, comments on positive aspects of the mid-day meal program by stating that it is not only increasing school attendance and improving child nutrition, but also providing space for socializing, reducing the caste and class lines, when children are eating together and mitigating the gender gap due to the fact that the number of girl children attending school increases.

In Hyderabad one of the government supporting organizations is Naandi Foundation, an autonomous public trust, whose main objective is to eradicate poverty. It is working on child rights, education, sustainable livelihoods, drinking water and (recently) mid-day meal schemes for the last ten years. Together with the state government and financed by donations, Naandi is running several automated central kitchens to serve hygienic meals to the children. In Addition to the amount of 3.00 Rupees spend by the government per child per day, Naandi contributes 0.50 - 0.75 paisa (per child) for transport, electricity etc. Naandi Foundation is covering 151,753 children in 1,134 schools in the twin cities of Hyderabad and Secunderabad. Leena Joseph¹⁷ emphasizes considerable improvements in enrolment due to the scheme.

The menu is developed in consultation with NIN for each week in accordance to calorie intake, proteins, but also calculations of costs. Ms. Leena is emphasizing that rice is one of the major staple foods in Andhra Pradesh and children favor it as main ingredient of their lunch (it is provided by the Food Cooperation of India). Usually, pupils are supposed to receive rice, dal (lentils), egg and vegetables (around 100 g per child per day, including 9-10 g of protein). While rice and sambar (vegetable broth made with tamarind) seems to be served regularly, eggs and bananas are served twice a week. At times pulao (flavored fried rice), tamarind rice and moong dal (certain kinds of lentils) are also prepared.

Even though, the implementation of this program sounds very promising, the ground realities leave a lot to be desired. The lack of stringent laws to implement the program efficiently is highly

¹⁵ Mr. Subramanyam, Field Officer MDM, Education Department, interviewed on 16.2.2009.

¹⁶ Jean Dreze, Professor at the Delhi school of economics, cited in Parikh and Yasmeen (2004): "Ground Well Mid Day Meal Scheme".

¹⁷ Leena Joseph, National Head of Mid-day meal, Naandi Foundation, interviewed on 06.02.2009.

problematic. Practically, the program is functioning well, where there is a strong political commitment towards the people and children. NGOs and engaged parents are central players for guaranteeing success to the scheme, fostering the improvement of the nutritional status of children. While the ICDS scheme records the health status of children, monitoring and evaluation of the mid-day meal scheme is only concerned with cooking facilities, amounts of stock and budget allocation. One other major problem is the economical aspect, the budget allocation, because many areas are suffering from lack of funds. Hyderabad is comparably better off due to the established infrastructure of Naandi Foundation, which has a strong network of sponsoring in place (to sustain financial stress). However, Naandi is only covering certain areas of Hyderabad and so the problem of funding remains pathetic in many pockets, because schools do not have proper kitchen facilities and utensils or trained staff available.

Furthermore, complaints exist with regard to poor infrastructure and lack of availability of food grains. Due to unhygienic conditions and untrained staff children appear to fall sick from time to time. Apparently the quality of food grains is often not satisfying to the children, so that they do not enjoy their food. Leena (Naandi Foundation) also points out the problem “that food is not served according to the prescribed quantity to the children by some of the individuals who have taken the contract for MDM from the government. This malpractice is more prevalent in the rural areas and it needs strict surveillance.

While this program addresses disadvantaged people coming from Scheduled Castes, Scheduled tribes and other back ward classes through reservations (for cooking and helping staff), it is not able to tackle the caste question in general, which is still persisting in many parts of society. Parents and children belonging to upper classes might reject food that is cooked by lower caste women or men.

Dreze (2004) recommends that, though there is scarcity of resources, politicians should be committed to implement this program in a proper way and if not so be pressured by the community, intellectuals as well as parents.

1.3 Nutrition research and food safety – neglected areas?

There is only one major research institution in Hyderabad that is dealing with food and nutrition issues within the city itself. It is the National Institute of Nutrition, founded in 1918 as Beri Beri Enquiry Unit, which is part of the Indian Council of Medical Research (ICMR), an autonomous body of the Ministry of Family Welfare and Health, Government of India, New Delhi. It closely collaborates with three other major sister institutions: the National Nutrition and Monitoring Bureau (NNMB), which is another centre of NIN along with the Food and Drug Toxicology Research Centre (FDTRC) and the National Centre for Laboratory Animal Sciences (NCLAS). NIN focuses on four major areas of work: clinical studies, laboratory studies, community studies and extension/ training. It is one of the first institutions in India to offer a regular training program in human nutrition to professionals of the same field at various levels.

NIN's broad research oriented objectives are to:

- Identify diet and nutritional problems
- Monitor diet and nutrition situation of the country(through NNMB)
- Management and prevention of nutritional problems(through pilot programs)
- Research activities on nutrition
- Work with government programs in the areas of health and nutrition
- Lobby and advocacy with governments on health and nutrition issues
- Train different sections of people for skill development in diet and nutrition

Therefore, NIN plays an important role in drawing attention to the urgent need to reduce malnutrition and over-nutrition in the country as well as in Hyderabad. It provides institutions with data on diet and the nutritional status of the community in order to achieve nutritional goals either through direct policy changes with the government or indirect institutional or structural changes. In Hyderabad they conduct, for example, awareness programs at schools and colleges and experiment with different methods in order to find out what the most effective way of communicating nutrition topics are (via theatre plays vs. classical lecture style). NIN is not only contributing to the 5 year plans, but also providing inputs to the National Nutrition Policy of India and publishing “Recommended Dietary Allowances” for Indians in order to improve the nutritional status of the population. Besides that, its research is often conducted in cooperation

with local NGOs, as for example, the Confederation of Voluntary Association, the Deccan Development Society or the Bill Gates Foundation. But it is also collaborating with private companies/institutions all over India (e.g. ITC-R &D center, Nestle, International Life Sciences Institute and Nutrition Foundation of India, all located in Delhi). However, a strong focus lies on the rural side, covering vulnerable groups and communities at risk (women and children, the elderly, scheduled castes and tribes). Based on the ground realities and budgetary limitations, education programs are concerned with topics ranging from locally available foods, breast feeding and obesity to diabetics.

NIN stands first in South Asia as an institution with almost 80 years of experience. Its eminent scientists in the field of nutrition are entrusted with all tasks of diet related issues, lobbying with government institutions and services to the community in order to create a “healthy society” (Dr. Keran, Director of NIN)¹⁸.

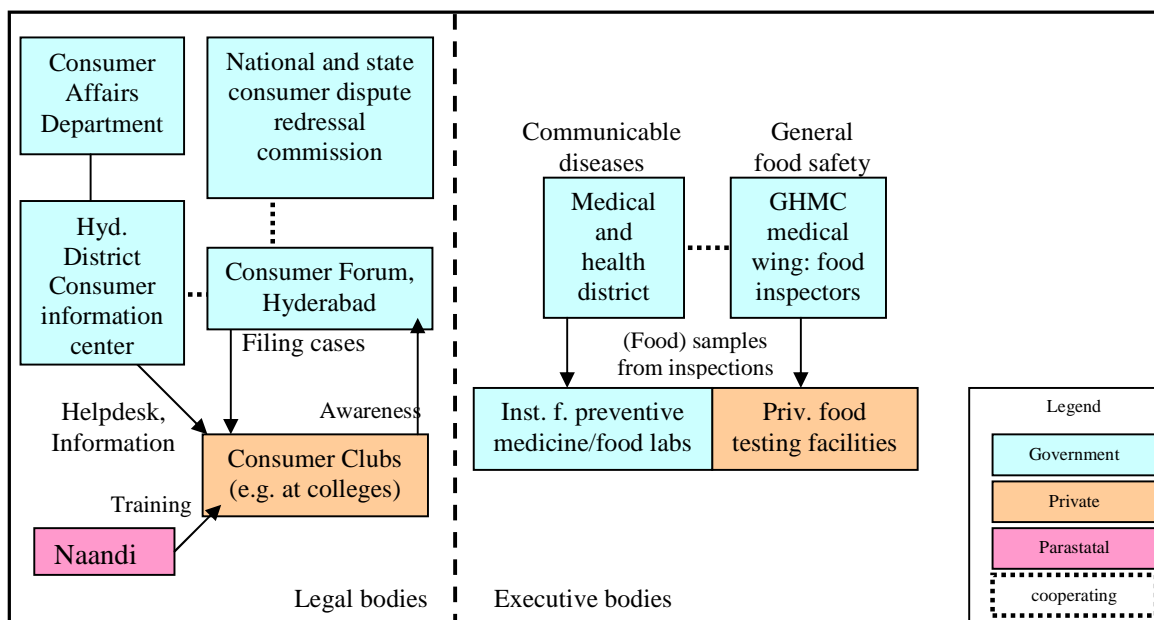
The director of NIN emphasized that the government always plays a reactionary role, only responding to epidemics, famines etc., instead of installing preventive policies and initiatives. It consults NIN on most aspects of health, nutrition and food. Therefore, NIN played an important role in research on Iodine Deficiency Disorders and Iron Deficiency Anemia, Fortification of Supplementary food, etc. and was entrusted with designing formulas for various programs such as mid-day meal schemes and ICDS. NIN is also involved in most government program evaluation processes. Besides its resource center it is also taking up capacity building through trainings and nutrition wards at reputed hospitals like Niloufer or Osmania General hospitals working on the prevention of adulteration of food (food cooked in hospitals etc.). However, one major constraint is falling short of budgetary allocations because the majority of activities are stalled or postponed due to the financial crisis and research topics are determined by political decisions and agendas.

While NIN is only involved with food safety as one partial area of their research, food safety controls and consumer protection should be one priority area in an urban space, where so many people consume food on the streets, in restaurants or at home. The medical wing of GHMC runs a team of food inspectors, which periodically tests food joints. Currently there was a range of close

¹⁸ Dr. Sesi Keran, Director of NIN, interviewed on 27.02.2009.

downs due to unhygienic conditions of kitchens (see articles “Rise in food poisoning cases”, “Seven more food joints shut down” and “Five food joints closed” (The Hindu 2009c,d,e). Rules that need to be followed include that sanitation and hygiene (of kitchen, dining hall, storerooms and wash areas) need to be maintained to the food inspectors’ satisfaction and standards. They come without notice and serve notices if necessary. If restaurants or food stall owners do not rectify defects, their establishments will be closed down. Hawkers, for example, are supposed to dispose their waste as directed by sanitary supervisors, which means not to dump it on the road, but use GHMC waste containers, otherwise their carts will be seized.

Figure 7: Food safety network



A study, conducted by NIN (2008), on food safety and capabilities of safety inspectors (assessing their knowledge) proved that they are not entirely skilled and also face a lot of problems in conducting their tasks. They usually check the sell-by date and products, without labeling, by examination of physical appearance (rice, pulses etc.). Cooked food samples are usually sent to the laboratories (e.g. the Institute of Preventive Medicine with its Public Health Laboratories or other private food testing facilities offering services in biochemistry, microbiology and pathology, cp. figure 7). However, the infrastructure to investigate microbial contaminations is limited.

One other problem, detected by NIN, is lacking knowledge on new adulterants of food, because the majority of inspectors only knows about classical scams such as inexpensive oils or chili powder mixed with chalk. To further questions on details of food safety (e.g. insects transmitting bacteria to food, pathogenic bacteria in food etc.) they neither received satisfying responses. Each inspector has a particular area assigned, where he/she is supposed to investigate hotels, restaurants and small food stalls.

Common problems that the inspectors face are that food poisoning outbreaks of larger scale usually get reported delayed and often food samples are discarded already. Lack of transportation in order to reach the site was also a challenge in accordance to them. Usually, after a sample is declared contaminated, a case is booked and further legal procedures followed. One problem is that solving the case sometimes takes several years or some just remain in trial. Apparently 70 percent of the households in India do not have the knowledge, where they could report food poisoning cases to. Besides, the food inspection unit, the consumer forum¹⁹ (which exist in every district) is the legal address for complaints (detailed structure, see figure 7). A person in charge at the Hyderabad consumer forum (P. Basker, Superintendent Hyderabad, interviewed on 7.4.2009) explained that, besides huge cases regarding brands like Coca Cola (contamination with pesticides in 2003) cases of food contamination rarely make it to their forum. He did not dare to make any guesses for reasons. Furthermore, the district consumer information centers (in Hyderabad located in the facilities of the Department of Consumer Affairs, Food and Civil Supplies) has the task to build awareness about consumer rights, responsibilities, restrictive and unfair trade practices as well as to safeguard the interests of consumers through strengthening of consumer redressal mechanisms and encourage consumer clubs etc. (Andhra Pradesh State Consumer Disputes Redressal Commission Homepage). Awareness raising on consumer issues is mainly done at schools and colleges in Hyderabad. Then consumer clubs are built within those institutions; its members are serving as multipliers the institution or among family members, friends etc. Naandi Foundation, as the coordination committee for consumer clubs, has trained teacher guides and an attempt was made to include the topic in the curriculum at schools (The Hindu 2004). However, one article refers to estimates of 3 lakh cases regarding consumer protection are pending in 500 districts and 27 state commissions (Times of India 2003). Even

¹⁹ Consumer forums are responsible for complaints not exceeding 20 lakh regarding compensation, while the National Redressal Commission is covering complaints above 1 crore (state commission cover amounts in between).

though institutions and infrastructure are in place ranging from a national consumer day to consumer information centers on mandal, district and state level as well as redressal institutions on all levels functioning consumer protection mechanisms are absent due to inefficient court bodies.

The other institution involved with food contaminations in Hyderabad is the district medical office, which is only dealing with communicable diseases (in our cases related to food: hepatitis, cholera etc.), but apparently closely working together with the health wing of GHMC. They conduct monthly meetings to exchange information and communicate.²⁰

1.4 The difficulty of direct-marketing in Hyderabad and an introduction to structures of urban (wholesale) market places

Even though the Department of Agriculture and Cooperation is usually concerned with rural areas and issues of production, one segment also deals with direct-marketing opportunities in Hyderabad. An interesting attempt has been made to link rural and urban areas and provide spaces for farmers to sell directly to the consumers. The Department is not only embracing the Hyderabad Agricultural Cooperative Association (HACA) (see the following chapter 2), but also running the Directorate of Marketing²¹, whose purpose is on the one hand to structure and control conventional wholesale market spaces all over AP (including Hyderabad district) and on the other hand to provide and supervise mandis (market spaces) for the Rythu bazaars (vegetable markets, where only farmers have the opportunity to sell their products free of costs at fixed rates).

In Hyderabad it has set up 4 agricultural market committees (AMCs) at major conventional wholesale spots: Bowenpally is the main vegetable yard, located in the North of the city; Gaddiannaram (better known as Kotapet) is the major fruit market, South East from the center; Mahaboob Mansion grain market (known as Malakpet Grain and Seeds market towards the East of the City center) is a hub for onions, chilies and turmeric, but also large amounts of grains can be found there; and the fourth one is Gudimalkapur, which is a vegetable market, that is located South-West of Hyderabad. The committees' role is to provide the space (including the collection of a market fee), record traded amounts (coming in and going out of Hyderabad), taking care of

²⁰ Dr. Ch. Jaya Kumari, District Medical and Health Officer, interviewed on 7.4.2009.

²¹ Compare figure 8: Marketing Board and Promoters of organic/NPM food.

the market spot and accompanying and supervising the tenders in order to record prices, which are then send to the Marketing office. After collecting maximum and minimum prices from all over the state (314 committees) they are published on the internet (<http://market.ap.nic.in>). Usually the committees are also entrusted with the task of care-taking of the market space itself, including the provision and maintenance of sanitary facilities, drainage and waste disposal (so far, it leaves still a lot to be desired). The Committees reject that they might be involved in market interventions, but they provide the basic data for controlling the markets.²² The research experience rather showed the prevalence of internal price agreements, fostered by private vendors and commission agents, who are withholding products etc.

After prices have been set (at the vegetable yard Bowenpally) and reached the Directorate of Marketing, it fixes the prices for the Rythu bazaars in Hyderabad. The attempt to institutionalize direct-marketing started in 1998. So far, bazaars exist in the following nine spots: Alwal, Kukatpalli, Erragadda, Falaknuma, Mehdipatnam, Ramakrishnapuram, Saroor Nagar and Vanasthalipuram. Each market space has a canteen and sanitary facilities run by an Estate officer, who is also responsible for publishing the fixed rates of the day, issuing identity cards for the vendors (valid for six months) and going for field visits from time to time, in order to control, whether the people selling are actually farmers. Furthermore, bus transport is provided at reduced fares in the morning and evening (Market timings are from 8 am to 8 pm). While the farmers supply vegetables and fruits without having to pay rent, young people under the Chief Minister's Empowerment of Youth program (CMEY) can also build groups of at least five people and get the opportunity to sell purchased products in this yard (they have to pay rent of e.g. 1,400 Rupees/month in Falaknuma Rythu market). Supposedly, they sell products, supplementing the local supply of food crops (apparently e.g. green peas and beetroot are not grown by local farmers). However, they obviously are also selling the usual products offered in the markets. In accordance to the Estate officer²³ of Falaknuma Rythu bazaar, their market space receives a number of 5,000 – 6,000 consumers and 500 to 600 vendors daily.

However, the functioning of the Rythu bazaar concept needs to be questioned immensely, because farmers do barely have time to come to the marketing yard for a full day and sell their

²² Mr. B. Mohan Rao, Secretary of Mahaboob Manison Market Committee, interviewed on 30.03.2009.

²³ Ms. Shamala D., Estate Officer of Falaknuma Rythu Bazar, interviewed 23.3.2009.

produce. So, more and more intermediaries can be found in the yards, who pretend to be farmers, but can barely respond to questions about agricultural practices. Other criticism is particularly concerned with low frequencies of vendors and customers (however, this seems to be true only for certain locations) (see “Steps to improve Rythu bazaar functioning in AP” and “Rythu bazaars lower retail market prices”).

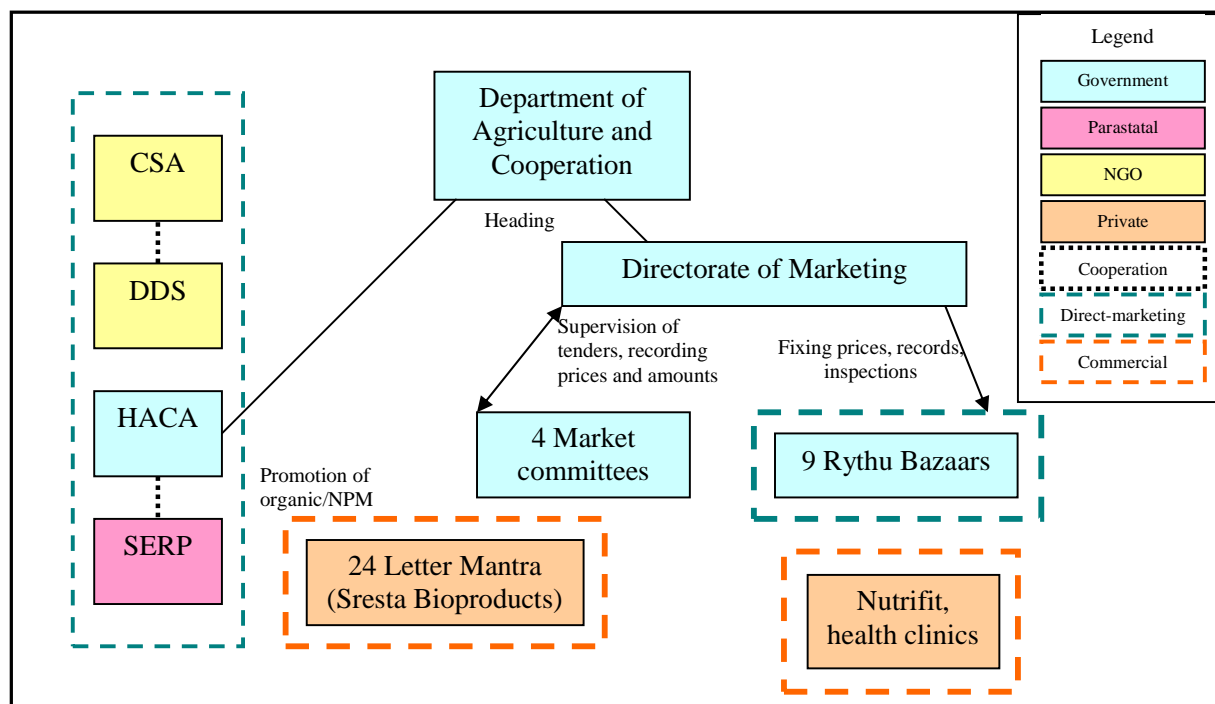
2. Organic and NPM products for the megacity - Promoting actors

The indicated trend of a “health transition” (see Introduction) raises the question what kind of stakeholders serve as protagonists in this field and do promote organic or NPM food products as well as other products considered healthy in Hyderabad. One result of this slight transitional trend, is that the upper and upper middle classes become more aware of the existence of organic food and are taking health issues into consideration for making food choices. It needs to be emphasized that the number of organizations involved with organic food is limited and most “awareness raising” seems to be done by “trend-setters” returning from the West and media. However, the Center for Sustainable Agriculture (CSA)²⁴ and The Deccan Development Society (DDS)²⁵ are two NGOs focusing on direct-marketing and livelihood improvements for farmers as well as lifestyle improvements for consumers. In contrast, Sresta Bioproducts Pvt. (24 letter mantra brand) is a commercial player, setting up an infrastructure of organic food via their own outlets and through sales of their own branded-products to supermarkets (see figure 8: Marketing Board and Promoters of organic/NPM food). However, the three of them are active and relevant to the issue of awareness raising. CSA and DDS are usually focusing on different work territories in rural areas. While CSA is more concentrating on vegetable farming, DDS is involved with promoting traditional grains and pulses (especially millets) arguing that their characteristics are suitable to the local conditions, climate and health. Both organizations are promoting ecological and health advantages of organic products, however they do not aim at receiving the international or national organic label (Indian National Standards for Organic Production – NSOP), but rely on credibility schemes of farmers. Therefore, there is no clear boundary between organic and NPM food. Their main purpose is to deepen direct rural-urban linkages, the provision of platforms for direct-marketing and the promotion of organic (traditional) ways of farming and products.

²⁴ Dr. Ramanjaneeyulu, Director of CSA interviewed 12.2.2009.

²⁵ Kiran Sakkhari, DDS and Organic Farming Association, India, interviewed 18.2.2009.

Figure 8: Marketing board and promoters of organic/NPM food



While DDS has one mobile vendor going to certain areas of the city at certain days, selling pulses, CSA is in process of opening up a stationary store in Tarnaka, in order to sell organic vegetables (replacing a temporarily available food vending stall in front of their office). However, most of their activities are taking place in rural areas (empowerment of farmers, trainings etc.), but their role in awareness building and research should not be underestimated for the Hyderabad area. Hence, their outreach is very limited - in geographical and numeric terms. From time to time the two NGOs jointly organize campaigns such as the Brinjal Festival in Shilparamam in March 2009, whose purpose was to raise awareness on organic farming, contamination of food crops and the loss of biodiversity (in food crops). Events like this take place in rather secluded circles of people and address accordingly the upper segment of society.

This is also and especially true for the customers of Sresta Bioproducts brand 24 letter mantra. They have one store in Banjara Hills on Road No. 12, (the living area of affluent classes) and provide a large range of supermarkets (in total nine) with their products such as organic rice or pulses. It is a commercial, profit-maximizing company and therefore not focusing on direct-marketing strategies or the welfare of farmers. However, they appear to be the largest supplier of

organic food to the Hyderabadi retail markets and, therefore, their indirect role in awareness-building (advertisement in English language newspaper, e.g. an ongoing 24 letter mantra recipe contest in The Hindu) needs to be acknowledged. Hence their outreach is limited to the upper segment of society (meeting the currently existing demand). The 24 letter mantra outlet in Banjara Hills is not comparable to what organic supermarket chains or stores offer in Germany, because they also offer conventionally produced food items (vegetables etc.). This can be criticized as misleading, because customers might assume that all products on offer are organic products.

While the Rythu bazaars are focusing on direct-marketing, the production processes of vegetables and fruits play a minor role. In contrast, HACA, a government subordinated institution is working on promotion of Non-pesticide management products in cooperation with the Society for Elimination of Rural Poverty (SERP), an independent autonomous society, mainly working on the creation of livelihood opportunities to the rural population (e.g. via microfinance schemes). In the heart of the city, at HACA Bhavan (close to Public gardens), one store has been set up by them for direct-marketing and one farmer is selling diverse vegetables on behalf of a cooperative of several farmers. The cooperative structure seems to be the only feasible way, because small-scale farmers do usually not have the time to come to the city. Luckily, the farmer, who is primarily selling at the HACA shop, has several plots of land and employees, so that he can afford the time.

Hence, this is just one store, but more are probably going to come: HACA and SERP²⁶ are planning to expand their activities in the future and establish several NPM-kiosks around the city. Furthermore, jointly they are planning to establish a participatory guarantee system, because so far their activities are still based on pure credibility. As the name suggests, SERP is usually engaged with rural areas and established the linkages to the farmers. HACA is also giving provisions of basic food to temples and other institution. However, all those promising plans still seem to be a vision at this point of time (for further details see Osswald 2009).

²⁶ Mr. D.V. Raidu, State Project Advisor (Agri-NPM), SERP and B. Krupakar Reddy, Assistant Director of Agriculture, HACA, interviewed on 20.2.2009.

Furthermore, the health transition is, of course, not at all limited to organic and NPM-Products, but a whole range of nutrition counseling institutions and health clinics as well as fitness and wellness infrastructures are popping up with increasing demand. One “role model” is Nutrifit, one of the many diet and nutrition counseling centers/clinics in Hyderabad, whose objective is to increase awareness about the importance of nutrition, providing services in counseling on weight gain or loss (based on analysis of health and family history), analyzing nutritional content of foods and developing fitness schemes on case to case basis. One major focus is dealing with diseases that can be prevented by appropriate dietary habits. Organizing a health expo in 2001 in Hyderabad (with participation of Nestle India, Parry Nutraceuticals etc.), or a day long nutrition education program on obesity in 2009 as well as frequent articles in the newspapers, for example advising people what a balanced meal for one day is (recommending e.g. Idli, sambar and orange juice or vegetable punch for breakfast) shows the “public” engagement of Nutrifit (see Reddy 2000, Raghuram 2002). In the whole health sector, there is a lot of business opportunity: Health Total is just one brand of many coming up with nutritious snacks (e.g. nuts, garlic sticks, biscuits and rusk without fat) in Hyderabad. Srivats-foods, for example, advertises its nutritious foods at affordable prices, producing oat ginger biscuits (high in fiber and carbohydrates), cereal mixes (fortified, proteins and vitamins), flax seeds, rice flakes, which all exhibit certain characteristics printed on the package and allegedly benefiting ones health. However, those businesses are mainly interested in profit and might also contribute to the spreading of false or very selective health information.

3. Associations and Unions – providers of social safety nets and mediation

As shown above, NGO engagement in the urban food system in Hyderabad is rather limited, because organizations are involved rather with topics such as health, water or sanitation. Besides that, there is a complex and intransparent network of associations, unions and religious institutions that provide various kinds of safety nets or services like social mediation within a certain area or work sphere (compare figure 9: Associations and Unions). Different street vendors associations (for example Bhagyanagar Hawkers’ Union²⁷, EKTHA Foot Path vendors Association²⁸ or INTUC²⁹) do advocacy work, awareness raising (on their representatives’ rights,

²⁷ Inayat Ali, President of Bhagyanagar Hawkers’ Union, interviewed on 26.3.2009.

²⁸ Laxman Yadav, President EKTHA Foot Path vendors Association, interviewed on 7.2.2009.

²⁹ S. Sree Ramulu, Secretary A.P. State INTUC, interviewed on 25.3.2009.

e.g. The National Policy on urban street vendors or other legal matters) as well as representing their members towards the government authorities and try to retain peace and social harmony in their area.

Most of them do work in particular geographical areas (Old City, Koti etc.) and do have a number of members ranging from around eighty to several hundreds. In order to claim their rights effectively and establish a stronger negotiation position, they try to unite their members. In case, social conflicts with the police or local authorities arise, they try to solve them, playing a kind of community mediator's role. However, cooperation between different associations is limited, the meetings are mostly frequented by a small number of highly motivated participants and recruitment of new members is difficult due to the fact that street vendors hardly have time and capacities to spare (loss of livelihood).

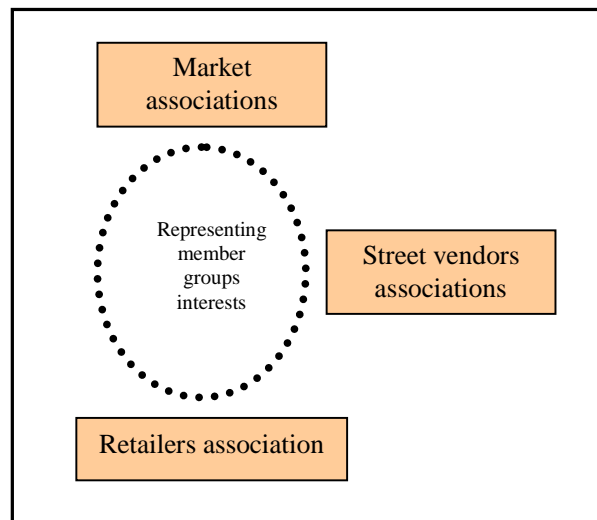


Figure 9: Associations and Unions

Also larger market spaces have their associations that are usually linked to specific merchants or products in a certain location (e.g. Hyderabad District Dal Mill and Merchants Association in Mukhtiar Gunj³⁰, the wholesale fisheries association: Nagara Gangaputhra Sangham in Zamisthapur³¹ or the AP Grains and Seeds Merchants Association in Malakpet³²). They are not only trying to maintain a peaceful business environment in the market, but also serve as communication channel between authorities and the vendors. Legal changes/matters concerning licensing, standards for products etc. or even the market locality as well as any other market or price interventions are addressed by those (market) associations. Their members range from around hundred to several hundreds of people/stores, depending on the location. The same purpose is followed by the Hyderabad and Secunderabad Retail Dealers Association, whereas,

³⁰ R.D. Agarwal, President of Hyderabad District Dal Mill and Merchants Association on 24.3.2009.

³¹ G. Narsing Rao, President Nagara Gangaputhra Sangham (fisheries), interviewed on 31.3.2009.

³² President of AP Grains and Seeds Merchants Association, interviewed on 31.3.2009.

this association is not limited to a certain area, but has small scale vendors (retailers) from all over Hyderabad among its members (around 600 to 800 members, 98 percent Kirana stores). Its main objective is “to provide a common platform to identify and solve the problems of a particular business community, the small scale retailers. Cooperation and mutual understanding among the members shall be fostered and unity in the business community shall be maintained”³³. Even the Fair Price shops that are supplied by the PDS system, but privately run, do have the F.P. shop dealers association, representing their interests.

Usually, associations/unions offer a yearly or life membership at a low rate. In general they are influential in their specific area, but not very strong towards the government bodies. In rare cases, depending on issue and urgency, associations/unions also cooperate with each other. However, personal networks are crucial institutions in India and, therefore, individual conflicts, competitive relationships etc. become a huge obstacle for collaboration. Our project’s main interest in associations comes down to their potential function as a communication channel, reaching large amounts of people at grassroots level.

Additionally, some actors provide social safety nets (serving as a last resort) in the sense that they distribute food for people who do not have enough to live on. This is usually performed by religious institutions such as churches or temples or committed private persons that do provide services to anybody in need (ex. the distribution of a loaf of bread on Tuesdays and Sundays at St. Antony’s Church in Mettuguda, Secunderabad or K. Rambabu, who is distributing breakfast to one hundred to two hundred people, mainly attendants of patients, daily at the Nizam’s Institute of Medical Sciences in Panjagutta) (The Hindu 2009f).

³³ Interview conducted by J. Meyer-Ueding with Dilip Pansari, General Secretary of Hyderabad and Secunderabad Retail Dealers Association on 28.03.2009.

III. CRITICAL ANALYSIS OF THE FOOD NETWORK AND POWER RELATIONS

While a small segment of Hyderabad society is fond of olive oil (exported from Greece and Spain) and wants to by exotic ingredients to prepare recipes from Thailand and Mexico or eat organic rocket served with dried tomatoes at a nice Italian restaurant, do many Hyderabad families depend on the availability of basic subsidized food items sold in ration shops or the supplementary therapeutic powder from Anganwadi centers for children and pregnant women, because they can barely make ends meet.³⁴ While globalization initiates new consumption patterns and lifestyles and introduces global market developments and economic policies that influence food prices, the institutions of the food system and their policies and activities rather seem to be at a stand-still, but also highly localized. The Public Distribution System might be influenced by global market developments as, for example, surpluses of certain products are fed into the system, but adaptations embracing quantities, qualities or other cultural changes and food preferences are neither aimed at nor acknowledged.³⁵ However, a study conducted by FAO estimates that food demand in Asian cities increases by 49 percent in cereals (18 percent in vegetables, 16 percent fruits and 8 percent in meat products). Hence, the population growth in combination with nutrition and health transition trends will pose a major challenge on natural resources and, therefore, on the governments need to become active (Aragrande and Argenti 2001).

Examining the (governance) structures of this food system is a challenge in itself. Not only do interlinked layers of structures exist on diverse levels, but also fragments in parallel order or on top of each other. Some are interlinked others isolated. It highly depended on the personal knowledge of our interviewee (and our literature review) to discover all linkages. Even within their own work area (e.g. food safety) people's knowledge on organizations and initiatives beyond their own work sphere was very limited, often out of missing interest and ownership. However, after looking into one structure, which we got to know and thought it to be the only one, more and more structures, linkages and layers appeared. The same is true for the legal

³⁴ The Consumer affairs, food and civil supplies department, responsible for Andhra Pradesh, estimates that close to 65% of the city population belongs to the group of BPL, while above 90% of the state's population is earning less than 3 \$ per day (Interview with Sanjay Jaju, Commissioner of Civil Supplies, on 7.4.2009).

³⁵ In 2009 a surplus of dal in Myanmar leads to its temporary distribution to ration card holders in Hyderabad. Furthermore, imported palm oil from Indonesia/Malaysia, which is available at very low rates, is fed into the system (Interview with Lokesh Kumar, Chief Rationing Officer, Hyderabad, interviewed on 8.4.2009).

framework. India has an extensive body of laws covering very diverse areas, ranging from Food Safety and Standards Act, Consumer Protection Act 1986 to the National Nutrition Policy (1993). However, the mere existence of all those complex structures does not mean in any way that they function efficiently and do benefit the people/poor.

A lot of institutions are not systematically interlinked with each other and cooperating in a sensible way, but collaboration rather seems to be imposed or it depends on personal relationships and commitment. In many cases it is very technically or only happening if inevitable (e.g. due to [national, international] political agendas). In cases such as CSA/DDS and HACA/SERP who are aiming at establishing direct-marketing concepts in Hyderabad cooperation could have lots of synergy effects. Implementation problems such as the ones experienced on the Rythu bazaars could be tackled jointly, after combining the expertise of all the organizations involved with direct-marketing. Learning processes could be initiated, concepts rethought and strategies developed to prevent failure or correct existing structures. Especially cooperation between HACA and the Directorate of Marketing would make more than sense.

Furthermore, a closer interaction of GHMC's medical wing and NIN could be very beneficial in order to locate problem areas concerning not only the skills of food inspectors and the situation of food safety in Hyderabad, but also the contamination of (street) food. Solution strategies could be developed jointly and trainings organized for the staff. NIN also seems not to be able to preach to the choir by addressing problems of PDS, ICDS and the mid-day meal scheme. The responsible officials do not show any interest in problems of inefficiency concerning the distribution of food on time, the supply of good quality items and sufficient quantities or the administrative processes. Possibly financial constraints as well as static political coalitions and power relations or even the lack of ownership are reasons for NIN and other civil society players falling on deaf ears.

The fact that a large amount of white card holder families are also using Anganwadi infrastructure and having children who receive mid-day meals at schools brings home the necessity of joint cooperation in order to develop strategies to tackle malnutrition and food-related health problems in a comprehensive way. Exchange of expertise and data between PDS, ICDS and the mid-day meal actors, jointly held health counseling/checks as well as (weight and

health) monitoring, but also home visits, education programs etc. could achieve much better results (and save resources) than conducted separately. Furthermore, criticism coming from the beneficiaries themselves (or Anganwadi workers as communication channels and “experts on ground realities”) should be taken up and taken seriously, because it might be crucial information for the improvement of the system. For example, the iron tablets, given to pregnant women often are rejected by them, because they feel sick after taking them. There is a need for some kind of mechanism to which common problems can be communicated and an institution that can initiate improvements. It seems as if all the evaluation and monitoring bodies and activities in existence end in talk. As long as Anganwadi workers do not dare to criticize systems, because they are an actual part of them and afraid of losing their employment, they can not serve as efficient communicators.

Also, there is a need to observe and react to new food consumption patterns and lifestyles in order to sustain resources and maintain the health of society. Keeping the (affluent) people healthy will relieve the society of an increased financial burden. All in all the government institutions still act by far too reactionary, be it the current cholera outbreak or obesity. The main attempt seems to be the cut of their losses in the sense that a major focus is placed on minimum support for the poorest segments of society, (only supplementing their resources, no installation of a proper safety net due to too many inefficiencies and loopholes). However, poor people might bear most of the consequences of global changes due to their high vulnerability (e.g. to prices), but the arena, where global change is visible are the middle classes and upper classes of Hyderabad.

However, it is also possible that we did overlook certain linkages due to the fact that many employees only know details about their work area, also a self-explanatory result. The smallest units (associations and unions) became a mirror of what is going on top level; cooperation is taking place if perceived “necessary” (due to certain contents or a better negotiation position), but most of the time people mainly mind their own business and competition as well as personal power struggles are an obstacle to proper collaboration. One positive example is the recently established cooperation between street vendors associations (cp. p. 14).

In contrast, Rythu bazaar administration, the market committees and market associations are rather technical bodies that are mainly implementing certain orders and recording market activities. In case of the market associations, people are strongly concerned with “pure” business issues (having their own store or mainly dealing with technical issues of legislation etc.). One problem faced by the street vendors (associations) is that they are struggling with very basic problems of legal security, police and authorities and therefore, issues such as hygiene, new marketing strategies and climate change are peripheral issues (for further details on street vendors see Rani 2009). To the excuse of the organizations with very small scale outreach (CSA, DDS) it needs to be emphasized that many of them are much stronger involved in rural areas. However, the growth of Hyderabad, the migration and the existence of large groups of BPL families point to the necessity for more commitment in the urban space of Hyderabad.

But it is not only the street vendors who are far away from perceiving climate change as a threat and understanding the risks. CSA and DDS might be aware that their work is also supporting the climate protectors and protection, but because ongoing livelihood questions are most relevant to their “beneficiaries” it rather serves like a positive by-product. One problem, we are facing is that our key stakeholders are also “victims” of the modernization processes and aim at a European life style. Hence, it is difficult to get consistent support for the empowerment of street vendors and small scale retail infrastructure. Therefore, a down-up approach in combination of reminding our supporters on the administrative level of their objectives seems auspicious. Of course, other stakeholders declining or ignoring linkages between life style changes, consumption and climate change are also very interesting targets for awareness campaigns.

The scarcity of research institutions working on food and nutrition issues in Hyderabad is also a self-explanatory fact and discloses a broad field (especially with regard to globalization impacts on local food systems with a strong focus on urban spaces), where further research activities need to be initiated. Besides NIN and the organic food promoters CSA and DDS, we could not detect any other private or governmental institution involved with the food situation (or street food vendors) in Hyderabad. It does not necessarily mean that there are none, but they did not manage to appear or become known to us, a result that might speak for itself. Most research is focused on rural areas (especially food production) or generally on India or even on different issues of

sustainability such as health or sanitation. CESS (see Mahendra, Radhakrishna etc.), for example, has done interesting research on the PDS System, food security, prices etc. but not particularly focusing on Hyderabad.

While the vulnerable groups of street vendors are very interested into the project work, the better established businesses community is not. Exploring the market with organic products does not seem a very attractive option to many vendors, because they do not have a clear idea about potential advantages. The idea of supporting traditional structures in favor of climate change and energy usage is also alien to most vendors. Changing practices (e.g. with regard to hygiene) does only seem to be an option, when free of cost or at low costs (with long-term financial benefits). However, the street vending community is very open and enthusiastic, because we are interested in their concerns.

Social safety net Programs, based on very interesting approaches such as food transfers (PDS and ICDS) fail due to lack of political commitment and social responsibility of all segments along the chain. Loopholes and delays result in minor quality of food and insufficient quantities of supplies to the people, who are in need of support. Furthermore, their nutritional and food security is threatened. Quality needs to be ensured from procurement to distribution. The same is true for the MDM program. Children and parents do complain about the watery “dal-soup” and small amount of bad quality rice (not to talk about lack of vegetables or other fresh produce) (see Hofmann 2009). Hence, a consistent all-embracing evaluation of all programs (tackling availability, accessibility and affordability of food) is inevitable. However, it makes only sense if the outcome is translated into action. Furthermore, an integrated development approach for Hyderabad’s food scenario should be aimed at. The Majority of the population is not aware of laws, food safety measures, organizations which can help or guide them towards realizing their rights or improve their living/health conditions. A lot of institutions can not serve their functions due to the fact that resources are often scarce or diverted. NIN Director Keran, for example complains about lack of resources and research decisions based on political maneuvers. However, revised norms and increases in budgets show that governments acknowledge the significance of welfare programs, fueled by increasing numbers of people suffering from malnutrition or the pressure of reaching the targets of the Millennium Development Goals.

CONCLUSION

Newspaper headlines such as “Sustainable development a bigger challenge than climate change” (Hindu 12.4.09 citing the chairman of the intergovernmental panel on climate change R.K. Pachauri) indicate that the issue of climate change is not embedded in policies and minds. Isn’t the heading raising the question, how development can be sustainable without integrating climate change considerations? Climate change seems to be treated as an abstract separate topic. One major result of this analysis was that most actors involved in the food system do barely see a linkage between their own role/organization’s role, changes in consumption patterns and effects on climate change. Street vendors, for example, are mostly perceived as threat to health³⁶ or a nuisance on the roads for traffic, even though they, as well as small scale retailers/restaurants, are decentralized and climate-friendly providers of low priced food items. This fact should not be ignored in future planning processes. This not being the case so far underlines the reactionary attitude of the government.

One major problem is that our hypothesis proved to be right and no major single Ministry and/or Department is concerned with food in Hyderabad. Instead several separate institutions take care of food safety, the ration system or the distribution of food to the malnourished. Within those institutions exist again several divisions (in accordance to governance level or certain functions etc.) that have assigned responsibilities. This kind of fragmentation leads to problems in communication and cooperation. A strong system of hierarchies contributes to the fact that people are mainly concerned with executing their specific tasks without registering developments and activities in other units of the system. In order to implement a perspective action plan and achieve our objectives we would have to cooperate with a diverse set of stakeholders. However, our matrix/analysis showed that the feedback of the interviewees, representing their institutions as well as their influence varies a lot. Hence, our key stakeholders are also located on various levels and are to be found among different organizations. The very positive response of the Chief Medical Health Officer of GHMC, Dr. M. Jayaram as well as of the renowned National Institute of Nutrition, make them two of our main key stakeholders, because they are central players in the field of hygiene, health and nutrition and have the expertise as well as the access to important

³⁶ See newspaper article “Watch out, water bug on the prowl” (DC), publications of NIN or billboards on the industrial exhibition (2009) as well as in the Health museum pointing out that “food articles sold in market are often adulterated, which is injurious to the health”).

groups. In order to support and “modernize” the street food vendors (and small scale retailers/restaurants) for the coming decade by developing and implementing a sustainable street food plan, administrative support is crucial. Furthermore, the two stakeholders could contribute immensely to our second objective of organizing learning processes concerned with issues arising from the nutrition and health transition. However, applying a top-down approach alone in order to construct a safety plan for grassroots level actors does not seem very promising. Hence, participation of organizations and unions (on local and national level) is an important element, because they are relevant communication channels linking our project to the ground level at a larger scale. Fortunately, they are also very enthusiastic about cooperation. This is not the case for the market associations, which are mainly private players and were not very cooperative during our interview process, because they did not perceive it as a business advantage. The same was true for the private businesses of Sresta Bioproducts and Nutrifit, whose main purpose is to make profit out of the health transition trend. However, that we are sharing the objectives of promotion of sustainable food production and livelihoods as well as community supported food provisioning with the NGOs CSA and DDS as well as with the parastatal body HACA (in cooperation with SERP) is a very positive sign for future proceeding. Linking up those organizations and supporting their activities means to support awareness raising on low-carbon life-styles as well as initiating sustainable consumption patterns and at the same time decreasing street vendors’ vulnerability, ensuring their livelihood and therefore improving food security for them and their customers. What still needs to be explored further is a potential collaboration with the consumer protection agencies, which seem to work rather inefficiently so far, but provide fora for awareness campaigns and could therefore be interesting partners for learning processes with regard to transitions in food and nutrition.

However, this seems to paint a very rosy picture, which is not identical with reality, because most initiatives are taking place on a very small scale or pilot base and the rather reluctant or skeptical responses, coming from influential stakeholders on higher government levels such as the Civil Supplies Department and the ICDS or mid-day meal officers makes the evolvement of ecologically sound and socially just food distribution channels and consumer policies a distant prospect. Also, a reluctant reaction (on government level) towards “revolutionary” ideas such as linking fair price shops/street vendors to organic producers or providing traditional pulses in the

PDS system comes as an obstacle for our project activities. Some of the high officials do not seem to want to think beyond their area of work. Hence, the demand of Waibel and Schmidt (2000) that “in times of lesser and lesser public investment a “more active role for cities in shaping agricultural and food policy” is required still seems a necessity. Besides, our aspired activities of developing strategies to sustain involvement and maintain contacts as well as conducting frequent meetings, now, the challenge is to tie up to the existing projects and activities and integrate them into the development process of our sustainable street food plan as well as to benefit from knowledge of our key stakeholders and jointly develop ideas concerned with nutrition and health aspects in context of climate and global change.

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APPENDICES

Annex I: Stakeholder Matrix

stakeholder	type	objectives and programs	assessment of activities	partnership	influence	attitude
PDS (Civil supplies, rationing office)	Gov	Ensuring food security by supplying subsidized basic food items, Stabilization of food (grain) prices Poverty alleviation Responding to threats from famines, droughts	+ (?), central food safety net for the poor - (?)problems: loopholes in distribution and identification process, food grain quality varies, little quantities	Gov, Gov Corp., Priv	H (/)	°(?)
FCI	Gov	Supply to PDS, MDM system of rice and wheat Procurement, storage and distribution	+ (??) - (?), at times old stock and delays in distribution	Gov, Priv	M (?)	°(?)
ICDS (Department , CDPO)	Gov	Mother & Child development through supplementary nutrition Pre-school education Health education for adults Combined programs to reduce infant mortality, morbidity and malnutrition	+ (?) important program to supplement nutrients and provide education - (?) lack of proper monitoring and evaluation and training for Anganwadi workers	Ngo, Gov, (also SHGs)	H (/)	- (?)
Care	Ngo	Technical assistance in projects Ration and ICDS distribution in order to fight malnutrition of urban poor, poverty alleviation, Trainings for institutions	+ (?), trying to tackle deficits of gov. programs, improvement of implementation	Gov, Ngo	M (??)	+ (?)
MDM: Education Dep./ Naandi Foundation	Gov, Past	Supplementary feeding program at schools, increasing school enrolment rates, address malnutrition social empowerment of women through employment	+ (?), important program to tackle malnutrition - (?) problems: lack of health monitoring mechanism, bad quality, quantities too little, no adaptations to dietary changes	Gov, Ngo, Priv (also SHGs)	H (?)	°(?)
NIN	Gov	Food analysis, Food fortification, Nutritional monitoring, Research and	+, highly dependent on government funding and decision making	Priv, Gov, Ngo	M (?),	+ (?)

		Training, Awareness campaigns				
GHMC - medical wing	Gov	Food inspections in order to create food safety and establish safety standards in	°(?) inspectors' skills and infrastructure are limited	Gov, Priv	M (?)	++ (/)
Consumer Forum	Gov	Court body: filing cases in order to establish consumer protection/rights, Awareness raising	- (/) Regarding complaints on people do not address the forum Cases are pending long	Gov, Priv	L (??)	--(/)
HACA/SERP	Gov, Past	Promotion of NPM products Empowerment of farmers, Direct-marketing in Hyderabad	+ (/)only on a very small scale	Gov, Ngo	L (?)	+ (/)
CSA	Ngo	Awareness raising on organic food products Empowering farmers and consumers Creating direct marketing opportunities Research	+ (?) only on a small scale, limited outreach due to limited capacities	Ngo	L (?)	++ (/)
DDS	Ngo	Promotion of traditional varieties and farming practices Mobile vendor selling organic/ (NPM) products Direct marketing Awareness campaigns Research	+ (?) only on a very small scale due to limited capacities (Organic mobile)	Ngo	L (?)	++ (/)
Sresta Bioproducts (24 letter mantra)	Priv	Commercially Marketing of their own brand of organic food products, Supplying supermarkets/ stores with 24 Letter Mantra products	+ (?), in terms of awareness raising and high presence --(?) concerning social standards	Priv	M (?)	- (?)
Nutrifit	Priv	Nutrition and health counseling center, Awareness of nutrition (diseases) Analysis of dietary habits and case to case counseling	+ (?), commercial activities raise awareness, active in health and nutrition events - (?) selective health information, commercialization of health	Priv	M (?)	°(?)

Retail association, Market/Merchants' associations	Priv	Organization of market spaces, Representation of members' interests (legal changes, etc.), Awareness raising, Peaceful business environment/ social mediator	+ (?) social functions performed well, - (/) weak position towards government + (?) (retail association)	Priv, Gov	L (?), only in their area: M (?) (Retail: M (?))	- (/)
Street vendors associations and unions	Priv	Advocacy, Interest representation, Social mediation, Awareness raising	°to +, depending on association's support base - (?) weak towards government institutions	Priv, Ngo, Gov	L (?), in their area: M	++ (/)

Explanations:

TYPE of stakeholder

Gov government department/institution
 Past parastatal organizations
 Priv private player
 Ngo NGOs etc.

INTERESTS

List of interests/objectives of the stakeholder, extracted from programs, policies, activities, initiatives etc.

ASSESSMENT of stakeholders' programs

++ very efficient
 + efficient
 ° Low impact
 - no impact
 -- negative impact

INFLUENCE

Estimation how influential the stakeholder is within the food system of Hyderabad (and with regard to our project):

H High
 M Medium
 L Low

PARTNERSHIP

With what kind of institutions are the stakeholders cooperating:

Gov Government departments/agencies/bodies
 Pasta Parastatal organizations
 Priv Private players
 Ngo NGOs etc.

ATTITUDE

Estimation of stakeholders' attitude (supportive to opposed) regarding cooperation with our project

++ strongly in favor
 + weakly in favor
 ° indifferent or undecided
 - weakly opposed
 -- strongly opposed

CONFIDENCE

Ranking our confidence of estimations for the following features: “assessment of activities”, “influence” and “attitude”, example: attitude: -- (?), which means that we give an informed guess that the institution is strongly opposed towards our project

/	fully confident
?	reasonably confident
??	informed guess
???	wild guess/fantasy

Annex II: List of stakeholders with contact details

<p>1. Mr. Sanjay Jaju, I.A.S Commissioner of Civil Supplies & E. O. Secretary to Govt. Consumer Affairs, Food & Civil Supplies Dept. Civil Supplies Bhavan Somajiguda, Hyderabad – 500082 Phone: +91 40 233104620617</p>	<p>2. Mr. Bandugula Prakasham Dy. General Manager Food Corporation of India Regional Office HACA Bhavan, III Floor, Opp. Public Gardens Hyderabad – 500 004 Phone: +91 40 23234339</p>
<p>3. Mr. Lokesh Kumar, D.S. I.A.S. Chief Rationing Officer & Executive Director 65, Sardar Patel Road, Beside Yatri Nivas, Secunderabad – 500 003 Phone: +91 40 23447777</p>	<p>4. Ms. Sarala Rajyalaxmi Deputy Director (ICDS) Women and Child Welfare Department Ameerpet, Begumpet, Hyderabad-500 016 Phone: +91 40 23744664</p>
<p>5. Mrs. Sukashiri, Child Development Project officer Saleem Nagar Colony Malakpet Hyderabad - 500036</p>	<p>6. Ms. Leena Joseph National Head, mid-day meal, Naandi Foundation 502 Trendset Towers, Road No. 2 Banjara Hills, Hyderabad - Phone: +91 40 23415741</p>
<p>7. Mr. Subramanyam Field Officer, (MDM) Education Department, Khairatabad Hyderabad-500004 Phone: +91 9701155516</p>	<p>8. Mr. Jayakumar Kandimalla Replication Support Manager Care India 6-3-608/1, Anand Nagar Colony, Khairatabad Hyderabad – 500004 Phone: +91 40 23313998</p>
<p>9. Mr. P. Prem Kumar Deputy Director (INDS.) / Manager HRD Andhra Pradesh Foods IDA, Nacharam Hyderabad – 500076 Phone: +91 4027175607</p>	<p>10. Dr. Sesi Keran, Director of National Institute of Nutrition, Jamai Osmania, Tarnaka, Hyderabad -500007 Phone: +91 40 27008921</p>
<p>11. Dr. M. Jayaram Chief Medical Officer of Health Greater Hyderabad Municipal Cooperation Basheer Bagh Hyderabad - 500004 Phone: +91 40 2322365</p>	<p>12. Dr. Ch. Jaya Kumari Appellate Authority District Medical & Health Officer 4th Floor, GHMC Complex, Tank Bund Road, Hyderabad Phone: +91 40-23221848</p>
<p>13. Mr. P. Bhasker, Superintendent, Consumer Forum Hyderabad District 9th Floor Chandravihar Complex M.J. Road Nampally Hyderabad Phone: +91 40 24733368</p>	<p>14. Mr. V.M. Manohara Prasad, Director of Marketing Marketing Department BRKR Bhavan, 8th Floor, A-Block, Tank Bund Road Hyderabad – 500063</p>

	Phone: +91 4023223142
15. Mr. B. Mohan Rao Secretary, Mahaboob Mansion Market Committee Agriculture Market Complex, Malakpet Hyderabad – 500036	16. Mr. G. Vishwanatham Secretary of Gaddiannaram Agricultural Market Committee Dilsukh Nagar Hyderabad-500060
17. Ms. Shamala D. Estate Officer Falaknuma Rythu bazaar Jangammet, Falaknuma Hyderabad - 500053	18. Mr. B. Krupakar Reddy Assistant Director of Agriculture Hyd. Agricultural Cooperative Association (HACA) 5-10-193, 2nd Floor, HACA Bhavan, Hyderabad - 500 004 Phone: +91 40 23235029
19. Mr. D.V. Raidu, IAS, Rtd.; State Project Advisor (Agri-NPM) Society for Elimination of Rural Poverty (SERP) 5th Floor, Summit Building, Adarsh Nagar, Hill Fort Road Hyderabad - 500 004 Phone: +91 9000400509	20. Dr. Ramanjaneeyulu Director Centre for Sustainable Agriculture (CSA) 12-13-445, Street No. 1, Tarnaka, Secunderabad - 17 (Street opp. HUDA Hyderabad Urban Dev't Authority) Phone: +91 40 2701 7735
21. Mr. Kiran Sakkhari Deccan Development Society (DDS) 101 Kishan Residency, 1-11-242/1 Street No. 5 (Opp. Pantaloon Show Room), Shyanlal Building Area, Begumpet - 500 016 Phone: +91 4027764577	22. Mr. D.V. Raghavanand National Sales Manager Sresta Bioproducts Pvt. Ltd. / 24 Letter Mantra Sresta House, Plot No. 7, LIC Colony, Sikh Village, Secunderabad - 500 009 Phone: +91 40 27893028
23. Dr. B. Janaki, Nutrifit Plot No. 6-3-650, Shop No. 201, Maheshwari Chambers Somajiguda, Hyderabad, Hyderabad, Andhra Pradesh 500082, India +91 40 66637910	24. Mr. Dilip Pansari, General Secretary Hyderabad and Secunderabad Retail Dealers Association 1-1-18/57/A Jawahar Nagar R.T.C. X Road, Besides Sudershan 35 MM Theatre Hyderabad – 500 0202 Phone: +91 4027600921
25. Mr. P. Balayya Hyderabad RR District Rice Millers Association 16-11-740/4/A/1 Dilsukh Nagar Hyderabad - 500060 Phone +91 9849003457	26. Mr. Laxmi Kanth, Secretary of Hyderabad District Dal Mill and Merchants Association 1. Floor, 15-3-362 Mukhtiar Gunj, Afzal Gunj Hyderabad - 500012 + 91 40 24605707
27. AP Grains & Seeds Merchants Association 16-10-1/164, 1 st Floor, Sri Krupa	28. Mr. G. Narsing Rao President Nagara Gangaputhra Sangham (fisheries)

<p>Agriculture Market Complex, Malakpet Hyderabad – 500036 Phone: +91 40 24548672</p>	<p>Colony Zamisthapur, Musheerabad Hyderabad 500020 Phone: +91 9242894968</p>
<p>29. Mr. Arvind Singh, National Association of Street Vendors of India (NASVI) Sudama Bhawan, Boring Road Patna – 800 001 Phone: +91 6122570705</p>	<p>30. Mr. Laxman Yadav President, EKTHA Foot Path vendors Association Gandhi Gyan Mandir Sultan Bazar, Koti Hyderabad – 500 095 Phone: +91 40 55849838</p>
<p>31. Mr. Inayat Ali Convenor of Bhagyanagar Hawkers' Union Quli Qutub Sha MCH Office, Charminar Hyderabad-500024</p>	<p>32. Mr. S. Sree Ramulu Secretary A.P. State INTUC INTUC Bhavan, Narayanguda Hyderabad Phone: +91 9441516183</p>
<p>33. Mr. Ilyas Dr. Reddys Foundation for health education 6-3-655/12 Civil Supplies Bhavan Lane Somajiguda Hyderabad – 500 082 Phone: +91 4023301868</p>	<p>34. Mr. Vikram Aditya, Programme Coordinator Indian youth climate change network Hyderabad Phone: +91 4023047274</p>

Annex IV: Visual impressions of Hyderabad's food system



Small Store in front of A.P. Foods Plant, Nacharam



Children playing at Anganwadi Center, Old city



Malakpet grains and seeds market



NPM-Vegetables store of HACA



Unloading of rice delivery at FCI buffer stock



Daily laborers packing mangos at Kotapet



Female street vendor at fish market, Ram Nagar