Policy Brief

ICAR-NAARM has committed to provide research and policy support to various stakeholders involved in agriculture and farmers' welfare. With this mandate, the Academy is closely working with various national and international research organizations, developmental agencies and extension machinery, national and multinational private agribusiness companies to strengthen agricultural research and provide policy support.

After bifurcation, the Govt. of Telangana required baseline data on household consumption to devise suitable policies at micro-level to support agriculture sector in the state. The Academy has taken up this challenging study where consumption data of about 6200 households across all the 31 districts of the state were collected using latest survey techniques and analyzed to draw useful inferences for the policy makers.

Hope the findings of this study will be useful to other stakeholders as well who are engaged in agricultural development and farmers' welfare in the state. This kind of study is useful for agricultural planning and sustainable development.

Looking forward to your feedback.

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District-level Food Demand: A Better Estimate for Planning Food Production and Nutritional Security

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Telangana being the youngest state of India, has adopted a multi-pronged strategy to usher growth in major sectors of the economy. To achieve this, the state has devised and implemented several special programmes focusing agriculture such as *Rythu Bandhu, Mission Kakathiya, Rythu Bheema, Dharani* Telangana Farmers Free *Pattadar* Passbook Scheme, Cattle distribution, Sheep distribution and several other schemes for the benefit of Telangana farmers. One such scheme under implementation in the state is development of crop colonies. For its success, the Government has to create an enabling environment and channelize its efforts in developing backward and forward linkages through use of quality information on various aspects including consumption at disaggregate level. After reorganization of districts in this State from 10 to 31, the state was in urgent need for district level consumption data for evidence based policy formulations. To achieve these objectives, a quick but large scale household survey was conducted in the state.

Innovations in the Survey

1. Tablet based with geo-reference application
2. Training & engaging large number of graduates of SAU
3. Women-centric respondents
4. Real time monitoring of data collection
5. Capturing all locally consumed food items
6. Robust sampling framework for better estimates

Massive Survey in Quick Time

In order to capture reliable information on household consumption, a tablet-based survey app was developed. This app contained pre-tested questionnaire with built-in functions for capturing start & closing time of survey and geotagging of sample households with provision to monitor on real-time basis. This app works both online and offline with provision for synchronization later. A total of 6,191 sample-households representing 39 million population of the state across 31

Data collection workflow
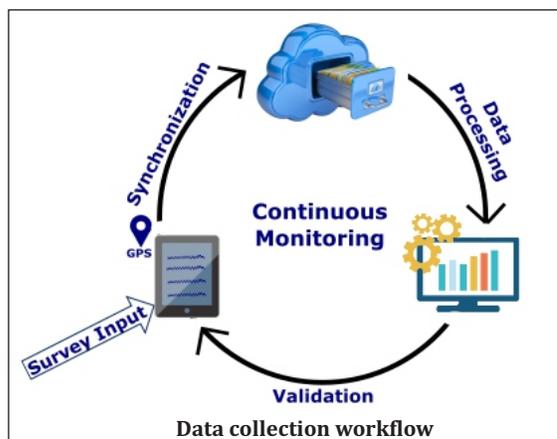
districts were selected for the study. Data was collected through personal interview method preferably from women-respondents of each household during August 2017 with a recall period of 30 days pertaining to the month of July 2017. For this, 150 final year graduate-students from different colleges of Prof. Jayashankar Telangana State Agricultural University (PJTSAU), Hyderabad were given 1-day hands-on training and deployed.

A multistage proportionate random sampling procedure was adopted at two stages, viz., at block / mandal level and at household level. The survey was planned and implemented to gather information at district level for 132 food commodities including different types of edible oils (soybean, sunflower and palm), variety of leafy vegetables (gongura, palak, amaranthus, curry leaves, coriander, etc) which are not available in National Sample Survey Organisation (NSSO) surveys. Weights were generated using sampling procedure and used for the analysis.

Monthly per capita expenditure on food
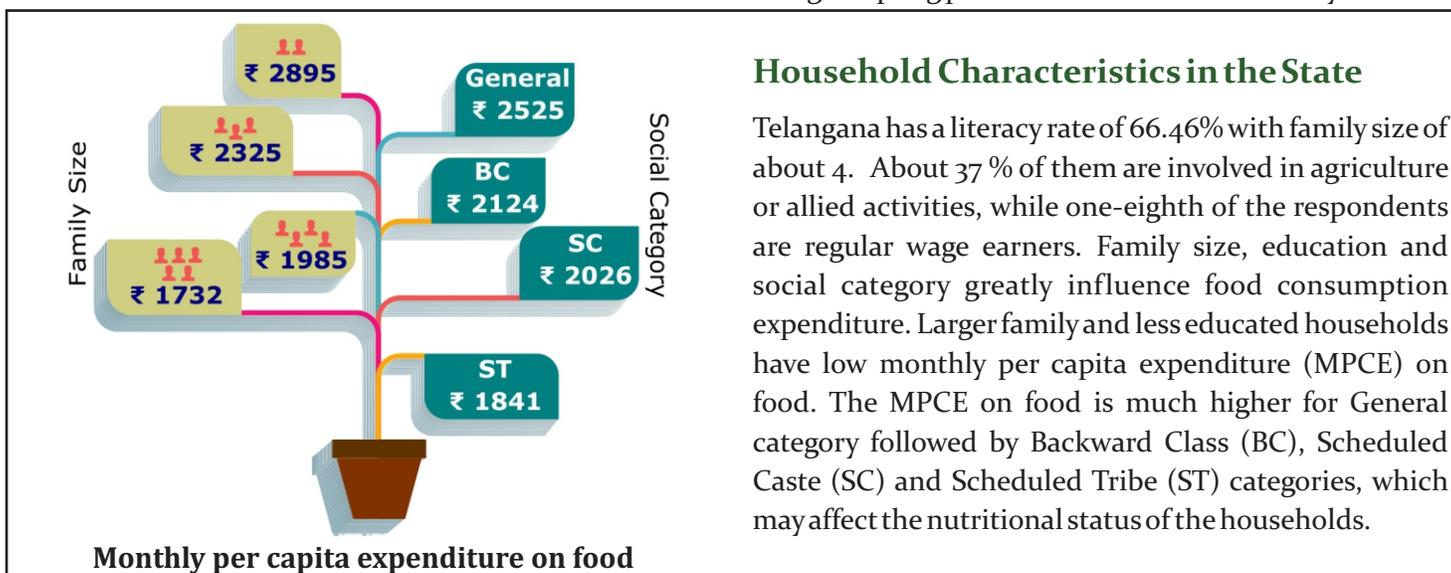
Household Characteristics in the State

Telangana has a literacy rate of 66.46% with family size of about 4. About 37 % of them are involved in agriculture or allied activities, while one-eighth of the respondents are regular wage earners. Family size, education and social category greatly influence food consumption expenditure. Larger family and less educated households have low monthly per capita expenditure (MPCE) on food. The MPCE on food is much higher for General category followed by Backward Class (BC), Scheduled Caste (SC) and Scheduled Tribe (ST) categories, which may affect the nutritional status of the households.

Consumption Status of Households

Engel's Law of consumption states that as income increases, the proportion of income spent on food falls even if the expenditure increases in absolute terms. It infers that the expenditure on various items truly reflects their standard of living. In this study, wide disparities in the consumption of food items is observed within the State with MPCE on food ranging from Rs. 1354 in Mancherial to Rs. 2534 in Nagarkurnool district with State average of Rs. 2156.

Cereals

The average monthly per capita consumption quantity (MPCQ) of cereals in the state is 12.6 kg. Rural consumption of cereals (14.1 kg) is significantly higher than that of urban consumption (11.46 kg). Rice is the most preferred cereals comprising about 77 percent of the total cereals consumption.

Pulses and Pulse Products

The average MPCQ of pulses in the state is 1.74 kg and interestingly, consumption in rural and urban are almost same. Pigeonpea accounts for 41% of total pulses consumed, followed by green gram (18%) and black gram (18%). Pulses consumption, which reflect the nutritional status of the people, is the highest in Adilabad district

with 2.69 kg, while Suryapet, with 1.3 kg, recorded the lowest. The pulses consumption also includes other grounded pulses products like Besan (Chickpea in powder form).
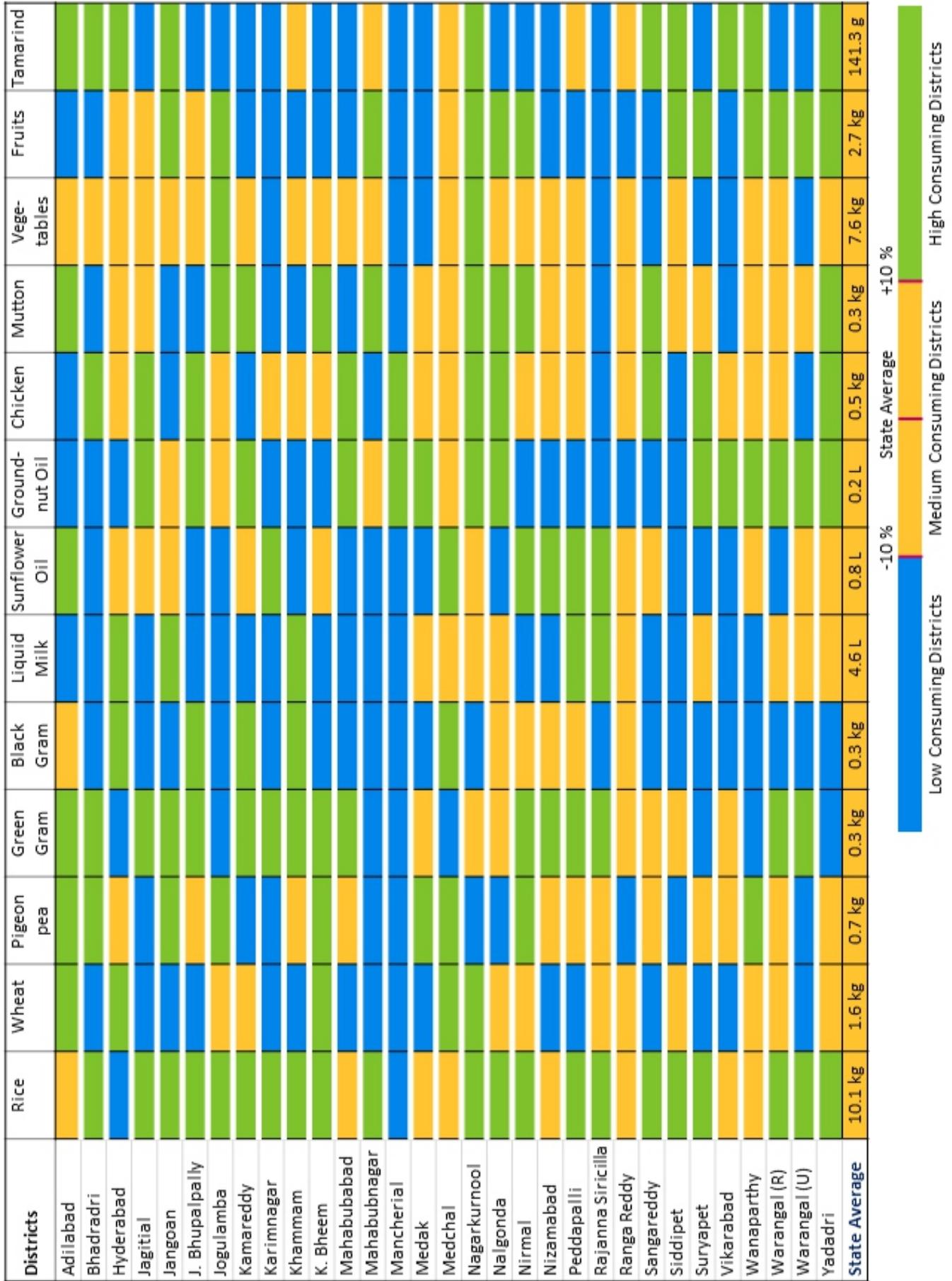
Meat, Fish and Egg

Meat, fish and egg (MFE) food group, or generally called as non-vegetarian items, forms an important source of protein in Telangana where over 95 per cent of the population are non-vegetarian. MFE occupies third position in the diet of Telangana people with about 14 % of total food expenditure. In terms of quantity, chicken and eggs are the most consumed items with over 85% of households reported their consumption. The consumption of MFE is about 1.38 kg per month.

Milk & Milk Products

Although milk consumption is less in Telangana with MPCQ of about 4.6 litres of liquid milk, it occupies second position in food expenditure next only to cereal expenditure. Rajanna Siricilla district has reported the highest MPCQ (6.27 litres), while Adilabad has the lowest level (2.34 litres). The milk products, which include curd, ghee, paneer, cheese, butter, etc. is consumed at the rate of 920 g per capita per month in Telangana.

Classification of Household Consumption of Major Food Items at District-level in Telangana

Districts	Rice	Wheat	Pigeon pea	Green Gram	Black Gram	Liquid Milk	Sunflower Oil	Ground-nut Oil	Chicken	Mutton	Vege-tables	Fruits	Tamarind
Adilabad													
Bhadradri													
Hyderabad													
Jagitial													
Jangoan													
J. Bhupalpally													
Jogulamba													
Kamareddy													
Karimnagar													
Khammam													
K. Bheem													
Mahabubabad													
Mahabubnagar													
Mancherial													
Medak													
Medchal													
Nagarkurnool													
Nalgonda													
Nirmal													
Nizamabad													
Peddapalli													
Rajanna Siricilla													
Ranga Reddy													
Sangareddy													
Siddipet													
Suryapet													
Vikarabad													
Wanaparthy													
Warangal (R)													
Warangal (U)													
Yadadri													
State Average	10.1 kg	1.6 kg	0.7 kg	0.3 kg	0.3 kg	4.6 L	0.8 L	0.2 L	0.5 kg	0.3 kg	7.6 kg	2.7 kg	141.3 g

Legend:
- Low Consuming Districts
- Medium Consuming Districts
- High Consuming Districts
- −10 %   State Average   +10 %

Edible Oils

The edible oil, which is the focus of any discussion on health, are consumed at the rate of 1.22 litres/ capita/ month. Considering that almost equal quantity of oil is consumed through out-of-home sources of food, this high level of consumption (2.44 litres) as compared to the national average of 1.29 litres/month is alarming. Sunflower oil is predominantly the most consumed edible oil followed by Groundnut oil. The consumption of other oils are negligible.

Fruits & Vegetables

Among vegetables, onion and tomato occupy a major share with an MPCQ of about 1 kg each followed by potato (510g). Apple is the most favourite fruit in Telangana comprising of about 33 % of total fruit expenditure followed by pomegranate (13%). While in terms of quantity, banana (0.514 kg) leads fruit consumption. The MPCQ of dry fruits is over 100g. However, a rural consumer eats just one-third as that of urban consumer.

Processed Foods

Pickles and sweets are the dominant items among the processed foods (MPCE-Rs.90) bought by households in Telangana. Being a food of convenience and taste, the urban people spent about 64% more than of rural consumers.

Other food items

Ginger (146 g), tamarind (141 g) and dry red chilli (98 g) are the major spices consumed in the state. While sugar is consumed in moderate quantity with an MPC of 0.89 kg. The salt consumption is about 0.64 kg per capita, however, it is being used for various purposes other than eating like cleaning fish, vegetables, etc. in the households of Telangana.

Policy options

This survey has provided evidence for wide variations in item-wise consumption of various food articles at district level within the state. This information, when juxtaposed with other data like production, infrastructure, capital investment, etc. will help various stakeholders including Government in postulating useful policies and strategies as follows.

1. Creation of crop colonies: A crop colony is meant to grow a particular crop in a given village or a cluster of villages. The crop colony is intended to bridge demand with local production at State level and to develop hubs for processing and export. Crop colonies created on the basis of credible and quality consumption data helps in attaining self-sufficiency, stemming price fluctuations and maintaining agro-ecological sustainability at district level.

2. Health and Nutrition: Addressing the health and nutritional concerns with macro-level information average out the disparity at more granular level. Since health and nutritional outcome are more of household level or village level, survey of this sort can provide information at more disaggregate level. It would help the Government to target the right beneficiaries through its programmes

3. Poverty alleviation: Achievement of Sustainable Development Goals starts with zero hunger and poverty alleviation. Flagship programmes such as targeted PDS and Mid-Day Meal Schemes can be tuned in accordance with the local consumption. This would have far reaching consequences in poverty alleviation.

4. Value chain development: Using the district level information of various food items, the strategies can be developed to identify the potential areas of value addition in different food items, which can give further fillip to local economy, and also have large potential in creating gainful employment of rural youth.

Way Forward

This study can be replicated to other states to collect credible and quality data on household consumption at disaggregate level. It will also throw light on potential areas of intervention by entrepreneurs along the value chain based on the local supply and demand.