RESEARCH NOTE

Socio-Economic Profile and Expenditure
Pattern of the Practitioners of Urban Agriculture

Veenita Kumari[1] and Junuthula Shirisha[2]

1. Dy. Director (Gender Studies); 2. SRF, Centre for Gender in Agriculture, MANAGE, Hyderabad, Telangana

Corresponding author e-mail : veenita.k@manage.gov.in

ABSTRACT

This research paper attempts to study the socio-economic profile and expenditure pattern of the active practitioners of urban agriculture from Telangana State. Agriculture is and was the backbone of India, but rapid urbanization and high population density have impacted agriculture sector greatly. Agriculture is now faced with the problems of low availability of water for cultivation, land availability, nutrient depletion in soil, migration, non-agricultural jobs; consequent to this per cent age of people engaged in agriculture sector is gradually declining. However, there are quite a good per cent age of urban people who yet not have left their passion for agriculture. People who love gardening have gradually evolved themselves as urban farmers, growing vegetables and fruits in and around their homes. Hundred such active urban agriculture practitioners were selected as sample for the study from various areas of Hyderabad city, Telangana State. A semi-structured interview schedule was prepared to collect data on socio-economic profile and expenditure pattern of the respondents and the responses were recorded. The data was collected through personal interview method. The results were statistically analyzed and interpreted logically. The study results showed that majority (46.0%) of the respondents were old aged, highly educated (post graduate & above) and married. Their monthly income ranged fromRs.12,545 to Rs. 85,759. About 50.0 per cent of their total monthly income was spent on non-food items, while 1/4th (25.0%) was spent on food. The results showed that urban agriculture practitioner's expenditure was more on non-food items than the food items. Lack of or low awareness with regard to the consumption pattern had an impact on budgeting of the urban farming practitioners. Hence government policies should also focus on organizing awareness programs to promote urban farming among urban and peri-urban dwellers.

Key words: Socio-economic profile; Expenditure; Income; Urban agriculture; Urban agriculture; practitioners;

Urban agriculture encompasses gardening in backyards, schools, public right-of-way and boulevards, community gardens, urban farms, rooftop, balcony gardens, hydroponic, aquaculture, vertical gardening, keeping micro livestock such as hens, rabbits, bees, greenhouses, permaculture design in parks, edible landscaping, public orchards or food forests and agricultural parks in urban areas (*La Rosa et al., 2014*).

It was noticed that in the year 1961, nearly 34 per cent of the world's population lived in urban areas. Whereas projection for 2030 show that the figure will rise to over 60 per cent, as cities and towns become home to more than 1.4 billion population. Most of this growth will take place in the developing world. Rapid urbanization is one of the most important demographic trends of this century. Urbanization creates challenges, but it also offers unparalleled opportunities for inclusive growth, innovation and prosperity (*Siegner et al., 2018*). In developing countries, urbanization and associated demographic changes pose unprecedented challenges in terms of hunger, food insecurity and malnutrition (*Hatab et al., 2019*).

Urban agriculture (UA) has the potential to contribute to a more sustainable and resilient urban communities, for its pivotal role in the implementation of circular economy strategies at the city level, closing energy and mass loops, while contributing to restore natural cycles and ecosystem's environmental services

(*Ferreira et al., 2018*). UA contribute to urban food security in different regions, based on a low threshold of urban land required to grow the daily vegetable intake for the urban poor (*Badami, M.G. and Ramankutty, N. 2015*).

METHODOLOGY

The present study focused on socio-economic profile and expenditure pattern of the urban agriculture practitioners from Hyderabad, Telangana State. The data were collected using semi-structured interview schedule during January to August, 2019. A total of 100 actively engaged urban farming practitioners constituted the sample for the study who were interviewed through the developed semi-structured interview schedule. Random sampling design was adopted for the study. Data on basic demographic characteristics like respondent's age, marital status, type of family and size, educational level and occupation of the respondents and their spouse were collected. The average monthly income and expenditure pattern on non-food items such as travel, children's education, hospital, shopping, miscellaneous expenditure which includes mobile recharge, gas cylinder, electricity bill, payment for the maid and expenditure on food was collected. The data was analyzed using appropriate statistical tools such as mean, per centage and standard deviation (SD). The data was further simplified into tabular forms and interpreted logically. The average expenditure on food in detailed form, expenditure per centage to the total monthly income was also calculated and discussed in this section.

RESULTS AND DISCUSSION

The respondent's details such as age, marital status, type of family, family size, education, occupation and spouse's occupation were collected and presented under the following sections.

Age, marital status, type of family and family size of the respondents were tabulated and presented as frequency and per cent ages under each category in Table 1. The chronological age of the respondents was classified under the respective age groups of young (up to 35 years), middle age (35-50 years) and old age (above 50 years). Age-wise classification of the respondents showed that 11.0 per cent male and 9.0 per cent female were in the young age group, while 19.0 per cent male and 15.0 per cent female were in

the middle age group and the remaining 27.0 per cent male and 19.0 per cent female were in the old age group. Overall, majority of the respondents were old age (46.0%) followed by middle aged (34.0%) and young (20.0%).

Majority of the respondents were observed in the old age group which might be due to the fact that after retirement people would have settled down in urban areas or staying with their sons or daughters as they are in need of health care and supervision. The trend of the data shows that with the increase in the age of the respondents, the no. of urban farming practitioners also increased. Other possible reason for increasing trend of the respondents engaged in UF practices with age might be that with the advancement of age, work responsibilities lessen and people have more available free/leisure time.

So it will be very apt to target this group for intensification of UF practices among the urbanites. On the contrary, it also implicit that the young population has to be encouraged/motivated to take up UF practices on a wider scale in order to ensure safe and nutritious food for the family. In fact each category of the respondents can be targeted for different purposes.

Table 1. Demographic profile of the respondents

Category	Male (n=57)	Female (n=43)	Total (N=100)
Age			
Young (up to 35 years)	11	9	20
Middle age (35-50 years)	19	15	34
Old age (above 50 years)	27	19	46
Marital status			
Married	42	56	98
Unmarried	00	00	00
Widow	00	01	01
Divorced	01	00	01
Type of Family			
Nuclear	40	31	71
Joint	17	12	29
Family size			
Small (<4 members)	39	28	67
Medium (4-6 members)	09	13	22
Big (>6 members)	09	02	11

Note: Per cent age and frequency are same.

Based on the marital status of the respondents, they were categorized as married, un-married, widow and divorced. Majority of the respondents, 42.0 per cent

males and 56.0 per cent females were married, followed by divorced 1 per cent each, male and female, as shown in the table.

The data in the below Table 1 revealed that the age of married respondents was high followed by divorced and widowed. There was no unmarried respondent.

Based on the family type, respondents were categorized into nuclear and joint family categories. Majority of the respondents (71.0%) were living in nuclear family followed by joint family (29.0%).

The total number of family members living in a family was collected and classified into 3 categories such as small (less than 4 members), medium (4 to 6 members) and big (more than 6 members). It was found that majority of the respondents (67.0%) had small family size, followed by 22.0 per cent with medium family size and the remaining 11.0 per cent with big family size.

From the results it can be observed that majority of the respondents fell in the small category. Nearly 7/10th of them were living in nuclear families. The results proved that small family trend is high in urban areas. Urban population is shifting to small and nuclear families due to high cost of living, frequent shift in professional life and education of the children etc.

Table 2. Distribution of the respondents based on education and occupation

Category	Male (n=57)	Female (n=43)	Total (N=100)
Education			
Below matric	03	05	08
Matric	01	03	04
Intermediate	04	04	08
Graduate	25	14	39
Post graduate	24	17	41
Respondent's Occupation			
Home maker/Retired	13	22	35
Business	10	05	15
Private job	24	10	34
Government job	10	06	16
Spouse's occupation			
Home maker/Retired	43	09	52
Business	02	10	12
Private job	12	19	31
Government job	00	05	05

Note: Per cent age and frequency are same.

Educational level of the respondents is shown in Table 2. From the results of this table, it is evident that majority of the respondents (41.0%) were post graduate qualified followed by 39.0 per cent with graduation degree. Very few of the respondents had low level of education.

Gender-wise data also reflected similar trend. But the relative per cent age of the respondents gender-wise reflected slightly lower level of educational qualification for females as compared to males, under different categories.

The urban males had higher level of education than the females, from graduation to post-graduation whereas female education per cent age was higher than the male's for 'up to matriculation' category. This could be attributed due to the limited opportunities for girls and women for higher and better education. Moreover, they are married at an early age, hence limiting the scope for higher education and job opportunities.

Analysis from 409 Indian districts showed that girls have relatively lower literacy when compared to boys, in areas where more women are in the labor force. The reason was explained by the authors that the areas with higher women's labor force participation suppressed or deprived the opportunities to the women for continuing their education, as reported by *Sundaram and Vanneman (2008)*.

From various perspectives women in South Asia find themselves in subordinate positions to men and are socially, culturally and economically dependent on them (*Narayan et al., 2000*).

The occupational information of the respondents was collected and categorized into 4 sections as highlighted in Table 2. Majority of the respondents (35.0%) were either retired or home makers, followed by private job holders (34.0%), government job employees (16.0%) and businessman (15.0%).

The data on the respondent's spouse occupation was also collected and presented in Table 2. Majority of them (52.0%) were found to be in the category of either a home maker or retired person, followed by 31.0 per cent in private jobs, 12.0 per cent in business and a small per cent age (5.0%) were into government jobs.

From the results it can be inferred that majority of the respondents and their spouses were either home makers or retired personnel, followed by private job, business and government employees. The earlier data on age group also revealed that majority of the respondents were old aged, which is associated due to

their retirement partly. Therefore, many of them are utilizing their time by involving themselves in urban farming or garden activities.

One of the important indicators to evaluate the health and nutritional status of a family is to assess their Socio-economic status (SES). In context to the present study, studying the SES of the respondents was important to analyze the factors that may favour for the respondent's engagement in urban farming practices.

Data on monthly income of the respondents from different sources were collected and presented in Table 3. The average income of the respondents was Rs.49,152 and the Standard deviation was Rs.36,607. The respondents were categorized into low (Mean-S.D), medium (Mean)) and high (Mean +S.D) using mean and S.D.

Majority (87.0%) of the respondents' income ranged from Rs.12545 to 85759 and were put into medium category, followed by low income group with 7.0% whose income was less than Rs.12,545 and the least per cent age (6.0 per cent) was observed in high income group earning Rs.85,759 and above.

Table 3. Monthly income of the respondents (in INR)

Income category (Rs.)	No. (N=100)
Low (<12,545)	07
Medium (12,545 to 85,759)	87
High (>85,759)	06
Mean= 49152 and S.D=36607	

* Note: Per cent age and frequency are the same.

From the results it can be inferred that majority (87.0%) respondents belonged to medium income group, followed by low and high income groups. The data suggests that there was not much difference in the income among the respondents since majority of them was distributed in the medium income group. Majority of them were earning income through retirement pension, private jobs and government jobs. Very less per cent age of the respondents were engaged in business which do not give stable income, as is reflected in the vast deviation of high and low income group among the respondents.

Table 4 provides data about distribution of the respondents based on their monthly income according to *Saleem, 2018*. The income range was classified into 7 categories such as less than or equal to Rs.6323, Rs.6327 to Rs.18949, Rs.18953 to Rs.31589, Rs.31591

to Rs.47262, Rs.47266 to Rs.63178, Rs.63182 to Rs.126356 and above Rs.126360 respectively.

The results showed that majority of the respondents (23.0%) fell under the 5th category i.e. income between Rs.47266 to Rs.63178, followed by 21.0% of them in the 6th category i.e.an income between Rs.63182 to Rs.126356, 20.0per cent of them in the fourth category i.e. Rs.31591 to Rs.47262, 14.0per cent each in the 2nd and 3rd category i.e. betweenRs.6327 to Rs.18949 and Rs.18953 to Rs.31589 respectively; whereas only 5.0 per cent were found in the 1st category with the least income range i.e. less than Rs.6323 and the least per cent age of the respondents (3.0%) was found in the high income range i.e. more than Rs. 126360.

From this data it can be seen that majority of the respondents were distributed in the medium income category with an equal per cent age of the respondents distributed in the low and high income category. This distribution provides a better picture about the income ranges within each category.

Table 4. Distribution of the respondents based on the monthly income (in INR)

Household monthly income	Total (N=100)
≤6323	05
6327-18,949	14
18,953-31,589	14
31,591-47,262	20
47,266-63,178	23
63,182-1,26,356	21
>1,26,360	03

Note: Per cent age and frequency are the same.

The data of Table 5 depicts monthly expenditure pattern of the respondents. It was observed that majority of the respondents (31.0%) spent < Rs.1000 and between Rs.1000 to Rs.3000 on travelling each, followed 27.0 per cent of the respondent's expenditure between Rs.3000 to Rs.5000 and 11.0 per cent whose expenditure was above Rs.5000 .

Whereas majority of the respondents (62.0%) spent less than Rs.1000 on education, followed by 29.0 per cent of them who spent more than Rs.5000, 5.0 per cent who spent between Rs.1000 to Rs.3000 and the least was 4.0 per cent age who spent between Rs. 3000 to Rs.5000.

In case of medical expense, majority of the respondents (46.0%) spent more than Rs.5000 followed

by 26.0 per cent who spent less than Rs.1000, 24.0 per cent who spent about Rs.1000 to Rs.3000 and the least was 4 per cent age of who spent in the range of Rs.3000 to Rs.5000.

Majority (85.0%) of the respondents spent Rs.1000 to 3000 on shopping, whereas 8.0 per cent of them spent in the range of Rs.3000 to Rs.5000, 5.0 per cent of them spent less than Rs.1000 and only 2.0 per cent of them spent more than Rs.5000 on shopping, on an average in a month.

The miscellaneous expenditure includes the amount spent on mobile recharge, gas cylinder, electricity bill, maid etc. The data showed that majority of the respondents (69.0%) spent less than Rs.1000, followed by 18.0 per cent of them who spent in the range of Rs.1000 to Rs.3000, 11.0 per cent who spent between Rs.3000 to Rs.5000 and only 2.0 per cent of them spent more than Rs .5000.

Table 5. Expenditure pattern of the respondents (in INR)

Items	Expenditure pattern				Total
	<1000	1000-3000	3000-5000	>5000	
Travel	31	31	27	11	100
Education	62	5	4	29	100
Hospital	26	24	4	46	100
Shopping	5	85	8	2	100
Miscellaneous	69	18	11	2	100
Food	-	3	13	84	100

Food expenditure was assessed through average monthly expenditure spent on groceries, vegetables, fruits, meat and milk etc. that was consumed by the respondent's family. Majority of the respondents (84.0%) spent more than Rs.5000, followed by 13.0 per cent who spent between Rs.3000 to Rs.5000 and only 3.0 per cent of them spent between Rs.1000 to Rs.3000.

From the data of above table it can be noticed that majority of the respondents were spending their income on food (84.0%), followed by health (46.0%) and education (29.0%). Though spending high amount on food is a good indication but at the same time almost half of them spent high amount on health, is a major concern. The respondents need to modify their food habits, rather than spending on unhealthy foods and visiting hospitals, they should inculcate healthy food and lifestyle habits.

The data of Table 6 highlights per cent age expenditure on food and non-food items to the total average income of the respondents. The per cent age expenditure on food items was 24.66 per cent of their total income, whereas on non-food items such as travel, education, hospital, shopping and miscellaneous items it was about 46.14 per cent of their total income. The results indicate that the expenditure on non-food items was higher as compared to the expenditure on food items.

Table 6. Per cent age expenditure on food & non-food items from the total average income of the respondents

Items	%
Food	24.66
Non-food*	46.14

(*Travel, Education, Hospital, Shopping, Miscellaneous (Mobile recharge, cylinder, electricity and maid)
*Note: The per cent age cannot be 100 as there will be other savings and investments which were not revealed by the respondents.

Similar trend was observed by *Deshmukh and Vyavahare, 2018*. According to their study, non-food expenditure steadily increased over time in urban as well as rural areas. In the urban sector, the share of this category increased from 19.23 per cent to 37.42 per cent and in the rural sector the share increased from 8.8 per cent to 24.36 per cent.

The data of Table 7 presents information on food expenditure pattern of the respondents in a month. The expenditure was categorized into 4 categories i.e. less than Rs.1000, Rs.1000 to Rs.3000, Rs. 3000 to Rs.5000 and more than Rs.5000.

Vegetables: Majority of the respondents (52.0%) spent from Rs. 1000 to Rs.3000 per month, followed by 47.0 per cent who spent less than Rs.1000 and only 1.0 per cent of them spent between Rs.3000 to Rs.5000.

Fruits: Expenditure on fruits indicated that majority (57.0%) of them spent less than Rs.1000, followed by 41.0 per cent who spent between Rs.1000 to Rs.3000 and only 2.0 per cent age of them spent between Rs. 3000 to Rs.5000 on a monthly basis.

Milk & milk products: Expenditure pattern on milk & milk products showed that majority of the respondents (76.0%) spent between Rs.1000 to Rs.3000, followed by 18.0 per cent who spent less than Rs.1000 and only 6.0 per cent of them spent between Rs. 3000 to Rs.5000.

Meat & meat products: Of the total respondents surveyed, only 41.0 per cent of them consumed meat

& meat products. Out of this, 28 per cent of them spent less than Rs.1000 followed by the remaining 13 per cent who spent between Rs. 1000 to Rs.3000 per month.

Table 7. Monthly detailed food expenditure pattern of the respondents (in INR)

Food item	Expenditure pattern			Total
	<1000	1000-3000	3000-5000	
Vegetables	47	52	1	100
Fruits	57	41	2	100
Milk & milk products	18	76	6	100
Meat & meat products	28	13	-	41[*]
Egg and Poultry	35	4	-	39[*]
Fish and other sea foods	29	5	-	34[*]
Mushroom	8	1	-	9[*]
Cereal and Cereal products	58	36	2	100
Pulses and Legumes	91	7	2	100
Oils and Fats	95	5	-	100
Sweets	100	-	-	100

*Note: Since some of the respondents were vegetarian so total per cent age is not equal to 100.

Similarly the data on egg and poultry consumption revealed that 35.0 per cent of the respondents spent less than Rs.1000 and only 4.0 per cent of them spent in the range of Rs.1000 to Rs.3000. Of the total respondents surveyed, only 39.0per cent of them consumed egg and poultry food products.

Fish and other sea foods: Out of the total respondents surveyed, only 34.0 per cent consumed fish and other sea foods. Out of that, majority of them (29.0%) spent less than Rs.1000 and the remaining 5.0 per cent spent between Rs.1000 to Rs.3000 per month.

Mushroom: It was surprising to note that in a metro city like Hyderabad, only 9.0 per cent of the respondents consumed mushroom, which is very low, owing to the increased awareness and acceptance of mushroom, not only in urban areas but rural areas as well. The expenditure on mushroom was less than Rs. 1000 by all the 9.0 per cent of the respondents.

Cereals and their products: Expenditure pattern on cereals & cereal products showed that majority (58.0%) of the respondents spent less than Rs.1000, followed by 36.0% who spent between Rs.1000 to Rs.3000 and the remaining 2.0 per cent spent between Rs.3000 to Rs.5000.

Pulses and legumes: Majority of the respondents (91.0%) spent less than Rs.1000, followed by 7.0 per cent of them who spent between Rs.1000 to Rs.3000 and only 2.0 per cent of them spent in the range of Rs. 3000 to Rs. 5000.

Oils and fats: Majority of them spent (95.0%) less than Rs.1000 and the remaining 5.0 per cent between Rs.1000 to Rs.3000 per month towards oils and fats expenditure.

Sweets: Expenditure on sweets was noticed to be less than Rs.1000, by cent per cent of the respondents.

From the results of this table it can be observed that the respondents spent less than Rs.5000 on all the food items together in a month. There were less per cent age of the respondents who consumed high quality protein sources such as meat & meat products, eggs and poultry, fish and other sea foods and mushrooms but such vegetarian respondents might be compensating it by consumption of adequate quantity of pulses & legumes and milk & milk products. Oils, fats and sweets expenditure in a month was noticed to be less than Rs.1000 for majority of them, on an average.

CONCLUSION

Urban farming is a way for food and nutritional security. Most of the active urban farming practitioners were able to spend half of their total monthly income on non-food items and a quarter on food items. Involvement in urban farming can make the practitioners to save expenditure on food and leads to their family's food and nutritional security. Socio-economic background of the respondents plays an important role in motivating and facilitating urbanites to take up urban agriculture practices.

REFERENCES

Badami, M.G. and Ramankutty, N. (2015). Urban agriculture and food security: A critique based on an assessment of urban land constraints. *Global Food Security*, **4**:8-15.

Deshmukh, M.S and Vyavahare, S. (2018). An analysis of consumption expenditure in India. *European academic research*, **10**: 5270-5285.

Ferreira, A.J.D.; Guilherme, R.I.M.M. and Ferreira, C.S.S. (2018). Urban agriculture, a tool towards more resilient urban communities? *Current Opinion in Envir. Sci. & Health*, **5**:93-97.

Hatab, A.A.; Cavinato, M.E.R.; Lindemer, A. and Lagerkvist, C J. (2019). Urban sprawl, food security and agricultural systems in developing countries: A systematic review of the literature. *Cities*, **94**:129-142.

Institute of Medicine (US) Committee on Assuring the Health of the Public in the 21ˢᵗ Century (2002). *The Future of the Public's Health in the 21ˢᵗ Century*. National Academies Press. Washington (DC), United States. 5-27.

La Rosa, D.; Barbarossa, L.; Privitera, R and Martinico, F. (2014). Agriculture and the city: A method for sustainable planning of new forms of agriculture in urban contexts. *Land use policy*, **41**.290-303.

Miner, L.; Bolding, P.; Hilbe, J.; Goldstein, M.; Hill ,T. and Nisbet, R. (2019). *Socioeconomic Status -an overview*. 19 March 2019. https://www.sciencedirect.com/topics/medicine-anddentistry/socioeconomic-status.

Narayan, D.; Patel, R.; Schafft, K.; Rademacher, A. and Koch-Schulte, S.(2000). Changing gender relations in the household. In: Voices of the poor: can anyone hear us? New York, NY: Oxford University Press. www.worldbank.org/poverty/voices/reports/canany/ch5.pdf.

Saleem, S.M. (2018). Modified Kuppuswamy scale updated for year 2018. *Paripex-Indian J.of Res.*, **7**(3).1-7.

Siegner, A.; Sowerwine, J. and Acey, C. (2018). Does urban agriculture improve food security? Examining the nexus of food access and distribution of urban produced foods in the United States: A systematic review. *Sustainability*, **10** (9):2988.

Sundaram, A. and Vanneman, R. (2008). Gender differentials in literacy in India: The intriguing relationship with women's labor force participation. *World Devel.*, **36** (1):128-143.

● ● ● ● ●