



# Livelihood Security of Livestock Farmer Producer Groups (Women Self Help Groups) in Telangana State

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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## ABSTRACT

Livestock Farmer Producer Group is the primary organization of women members from existing SHGs involved in livestock rearing of sheep/goat, dairy animals or poultry. These groups shall be formed either in the same habitation or village and Livestock Farmer Producer Organisations at

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mandal/district/state level. The present aim is to identify the “Livelihood security of Livestock Farmer Producer Groups (women Self Help Groups) in Telangana state” was conducted in Siddipet and Nagarkurnool districts 10 LFPGs were selected randomly from each district and from each group 6 members were selected thus a total of 120 members constituted the respondents of the study. The information was elucidated from respondents with help of a pre structured schedule through descriptive research design which was processed, analysed and interpreted. In the present study livelihood security was assessed by food security, health security, economic security, habitat security, educational security and social network security. In food security, the majority of the respondents depend upon the public distribution system, had three meals per day. Regarding health security, the majority of respondents fell ill only once or twice in a year and afford professional treatment with some difficulty. Regarding economic security, about sixty one percent of respondents have 1-2 lakh annual income and income sources are animal husbandry, agriculture and others. Educational security was concerned; the majority were educated up to metric and considered education as expensive. Regarding social network security, the majority have very strong relationships with family members and get help from them in times of distress.

*Keywords: Livelihood security; food security; economic security; educational security; social network security.*

## 1. INTRODUCTION

Livestock plays an important role in the Indian economy. About 20.5 million people depend upon livestock for their livelihood. Livestock provides livelihood for two-thirds of rural communities. It also provides employment to about 8.8% of the population in India. Livestock sector contributes 4.11% of GDP and 25.6% of total Agricultural GDP [1].

The farmers in India maintain a mixed farming system. i.e., a combination of crop and livestock where the output of one enterprise becomes the input of another enterprise. Livestock serves the farmers in different ways by providing income, employment, food, social security, draft etc.

In 1999, Government of India, introduced Swarna Jayanti Gram Swarozgar Yojana (SGSY) to encourage self-employment in rural areas through establishment of SHGs. The movement progressed as a national movement in 2011 and became National Rural Livelihoods Mission (NRLM) i.e., world's largest poverty alleviation programme. SHGs were mainly formed to improve the economic conditions of rural women who are deprived of the vital resources and self-reliance. The women SHGs have helped in refining the status of rural women and empowered them socially and economically. Women are the backbone of the workforce in agriculture as well as in the animal husbandry sector. Under the agricultural domain, animal husbandry has occupied a prominent place by generating income and employment to the resource poor rural women. Dairy enterprise has been regarded as an important socio-economic instrument to supplement the income and

employment of women [2]. Women make a notable contribution to the food production field especially in horticulture and small ruminants' production [3].

In India, livestock is mainly in the hands of women. They contribute about 69 percent of the workforce engaged in the livestock sector. Better access and control over the assets have been shown to improve household food security, child nutrition and education as well as well being of women [4-6]. Livestock are an important asset for women because it is often easier for many women in developing countries to acquire livestock assets either through inheritance or markets, than to purchase land or other physical asset or to control other physical assets [7]. Increased access and control over the assets by women have been shown to improve household food security, child nutrition and education as well as wellbeing of women [4-6]. Women play multiple roles in the Animal Husbandry sector like care of newborn and sick animals, cleaning of animals and sheds, milking, providing feed, fodder and water and taking animals for grazing. They perform supporting as well as dominating roles in decision making pertaining to various livestock farming operations. Therefore, improvement in livestock production is an important pathway for increasing the income of farm women. The concept of livelihoods has become increasingly popular in development thinking as a way of conceptualizing the economic activities poor people undertake in their totalities. Livestock Farmer Producer Group is the primary organization of women members from existing SHGs involved in livestock rearing of sheep/goat, dairy animals or poultry. These

groups shall be formed either in the same habitation or village and Livestock Farmer Producer Organisations at mandal/district/state level. Its main aim is to increase the income levels of the rural poor people by developing bargaining power as a group in execution of common activities and to provide livestock-based livelihoods by at least 50 percent. These LFPGs facilitate productivity enhancement, equipment procurement, livestock advisory services, access to insurance and economic empowerment through improved supply of inputs and marketing.

### 1.1 Objectives of the Study

To find out the Livelihood security of Livestock Farmer Producer Groups.

### 1.2 Purpose of Study

Knowledge of the study helps to understand how the livestock farmer producer group members lead their lives, access to different resources, contact with members in society and the spending expenses for education and health.

## 2. MATERIALS AND METHODS

The present study was conducted in Telangana state during 2019. The study was conducted in Nagarkurnool and Siddipet districts. From each district 10 livestock farmer producer groups were selected randomly and from each farmer producer group 6 members were selected randomly. A total of 120 respondents were selected for the present study by using random sampling. based on the objectives of study, a structured interview schedule was prepared containing six components of livelihood security. The information was elucidated from respondents with help of a pre structured schedule through descriptive research design. The information was collected by personally interviewing respondents and the data was processed, analysed and interpreted by using Statistical tools such as frequency, percentage were calculated by using excel to draw conclusions.

## 3. RESULTS AND DISCUSSION

### 3.1 Food Security

Food security is access of all people all times to enough food to live an active, healthy life. In this study, availability and accessibility of food was studied. Sources of food, number of meals by the household per day and frequency of vegetarian,

non- vegetarian and egg intake were included. Multiple responses were recorded about food sources by LFPG members about 93.33% respondents depend upon the Public Distribution System followed by own farm and market 55.83 percent, market only (46.67%) and neighbours (35.83%), respectively. The findings of the AMEU [8] did not match with findings of present study as most of the respondents relied upon supermarkets for their purchase of foods.

Data further explains that, 95.83 percent respondents had Breakfast-lunch- dinner followed by Breakfast-dinner (4.16%). The data in pooled sample further indicated that, about 90.00 percent respondents had daily vegetable intake followed by 2-3 times a week (10.00%), respectively. Similar findings were reported by Adekoya [9] that vegetables being the most affordable food item and easily accessible consumed by 90.00% of respondents. The data presented in Table 1 revealed that, about 90.00 percent respondents had non-vegetarian intake once a week followed by 2 times a week (5.00%) and once a month (5.00%). The data presented in Table 1 revealed that three fourths of respondents (75.00%) had egg consumption once a week followed by 2-3 times a week (21.67%) and once a month (3.33%).

### 3.2 Health Security

Health security was assessed based upon illness occurrence in last 12 months, household ability to afford professional treatment, health awareness and utilization of government schemes. The results of the study reveals that most of the LFPG members 92.5% fell ill once or twice in a year followed by 7.5% of respondents fell ill few times in a month. The results are in agreement with findings of Raman [10] revealed that majority face ill once or twice in a year. The data further revealed that 46.67% respondents can afford quality treatment with some difficulty followed by with much difficulty (27.50%), can afford (20.00%) and can afford if money is borrowed (5.83%). The data in pooled sample further indicated that all respondents (100%) had health awareness about pulse polio, malaria and dengue followed by typhoid (89.17%), tuberculosis (11.67%), AIDS (9.17%) and others (2.50%). Regarding utilization of government services, data revealed that, all respondents (100.00%) had accessed emergency health services such as 104, 108 services and Arogyasri scheme and only 23.30 percent had utilized the old age pension scheme of the government.

**Table 1. Food security of livestock farmer producer groups**

| <b>S. No.</b> | <b>Variables</b>  | <b>Frequency</b> | <b>Percentage</b> |
|---------------|---|------------------|-------------------|
| <b>1.</b>     | <b>Sources of food</b>                                    |                  |                   |
|               | Own farm production                                       | 0                | 0.00              |
|               | Own farm production and market                            | 67               | 55.83             |
|               | Market only   | 56               | 46.67             |
|               | From neighbours   | 43               | 35.83             |
|               | From Public Distribution System (Govt.supply)             | 112              | 93.33             |
| <b>2.</b>     | <b>Number of meals the household normally has per day</b> |                  |                   |
|               | Breakfast-lunch-dinner                                    | 115              | 95.83             |
|               | Breakfast-dinner  | 5                | 4.16              |
|               | Lunch-dinner  | 0                | 0.00              |
| <b>3.</b>     | <b>Vegetable intake</b>                                   |                  |                   |
|               | Daily   | 108              | 90.00             |
|               | 2-3 times a week  | 12               | 10.00             |
|               | Once in a week  | 0                | 0.00              |
| <b>4.</b>     | <b>Non-vegetarian intake</b>                              |                  |                   |
|               | 2 times a week  | 6                | 5.00              |
|               | Once a week   | 108              | 90.00             |
|               | Once a month  | 6                | 5.00              |
|               | Only on festivals   | 0                | 0.00              |
|               | Rarely  | 0                | 0.00              |
| <b>5.</b>     | <b>Consumption of Eggs</b>                                |                  |                   |
|               | 2-3 times a week  | 26               | 21.67             |
|               | Once a week   | 90               | 75.00             |
|               | Once a month  | 4                | 3.33              |
|               | Rarely  | 0                | 0.00              |

**Table 2. Health security of livestock farmer producer groups**

| <b>S. No</b> | <b>Variables</b>                                | <b>Frequency</b> | <b>Percentage</b> |
|--------------|---|------------------|-------------------|
| <b>1.</b>    | <b>Illness occurrence</b>                       |                  |                   |
|              | Once or twice in a year                         | 111              | 92.50             |
|              | Few times in a month                            | 9                | 7.50              |
|              | Once/twice in a week                            | 0                | 0.00              |
|              | Almost everyday                                 | 0                | 0.00              |
| <b>2.</b>    | <b>Ability to afford professional treatment</b> |                  |                   |
|              | No  | 0                | 0.00              |
|              | Yes, if money is borrowed                       | 7                | 5.83              |
|              | Yes, with much difficulty                       | 33               | 27.50             |
|              | Yes, with some difficulty                       | 56               | 46.67             |
|              | Yes, household can afford it                    | 24               | 20.00             |
| <b>3.</b>    | <b>Health awareness</b>                         |                  |                   |
|              | Pulse polio                                     | 120              | 100.00            |
|              | Malaria/dengue                                  | 120              | 100.00            |
|              | Typhoid   | 107              | 89.17             |
|              | Tuberculosis                                    | 14               | 11.67             |
|              | AIDS  | 11               | 9.17              |
|              | Others  | 3                | 2.50              |
| <b>4.</b>    | <b>Utilization of government services</b>       |                  |                   |
|              | 108 services                                    | 120              | 100.00            |
|              | 104 services                                    | 120              | 100.00            |
|              | Receiving pension                               | 28               | 23.30             |
|              | Aarogyasri card                                 | 120              | 100.00            |

### 3.3 Economic Security

Economic security includes household annual income and income source of the family members. The data presented in Table 3 revealed that more than half respondent's 61.67 percent had 1-2 lakh household annual income followed by below 1 lakh (27.50%) and 2-3 lakh income (10.83%). Similar findings were also examined by Yadav (2016) who found that 38.50% farm families had 1-2 lakh household annual income and Raman revealed that 50.33% had 1-2 lakh annual income and contrary with Mukherjee [11] and Sreenivasulu et al. [12]. The data further revealed that the majority of the respondents (97.50%) had income from animal husbandry, followed by other sources (82.50%), while 79.17 percent respondents had income from agriculture and 11.67 percent were employees.

### 3.4 Habitat Security

Habitat security includes basic amenities such as own house, pucca house, electricity, toilet facility and drinking water source are the important pointers that considerably impact the health of the family and its socio-economic position were considered. The data presented in Table 4 revealed that all respondents (100.00%) had electricity facility, about 98.33 percent respondents had own house, 91.67 percent had toilet facility, while 65.83 percent of respondents had pucca house, 34.17 percent had semi pucca house and only 1.67 percent were in rented house. The present findings are in accordance with Swachh Status Report [13] which concluded that in rural areas 45.30% households were having sanitary toilets. The data further revealed that majority of the respondents (46.67%) were having availability of water from mineral water plant followed by 30 percent had access to

Mission Bhagiradha (drinking water supply scheme of Government of Telangana), hand pump/tank (17.50%) and others (5.83%).

### 3.5 Educational Security

To determine the educational security of the respondents, four indicators i.e., household literacy level, accessibility of school, accessibility of higher education and cost of education were considered. The data presented in Table 5 clearly showed that majority of the household members (52.50%) were educated up to metric followed by up to graduation (23.33%), up to primary (16.67%), up to post graduation (5.83%) and can read and write (1.67%). The results are in contrary with Saurabh Arya et al. (2019) who revealed that majority are educated up to primary respectively.

It is noted from Table 5 that more than half of the respondents (64.17%) had accessibility to school in the area of >6 km followed by 3.1-6 km (22.50%), 1.1-3 km (7.50%) and 0-1 km (5.83%) respectively. The study also concluded that the majority of the respondents (40.83%) had accessibility to higher education within the range of 10.1-30 km followed by 30.1-60 km (32.50%), >60 km (24.17%) and 0-10 km (2.50%) respectively. These findings are in contrary with Raman (2018) which concluded that accessibility to school was in the area of 0-1 km whereas for higher education it was 4- 6 km. The results from the Table 5 shows that less than half of the respondents (42.50%) considered the cost of education as expensive followed by (40.00%) who considered it as most expensive and (17.50%) respondents considered education cost as cheap respectively. Similar findings were reported by Raman [10] reported that 45% respondents perceived education as expensive.

**Table 3. Economic security of livestock farmer producer groups**

| S. No | Variables                      | Frequency | Percentage |
|-------|--------------------------------|-----------|------------|
| 1.    | <b>Household annual income</b> |           |            |
|       | Below 1lakh                    | 33        | 27.50      |
|       | 1-2lakh                        | 74        | 61.67      |
|       | 2-3lakh                        | 13        | 10.83      |
|       | 3-4lakh                        | 0         | 0          |
|       | Above 4lakh                    | 0         | 0          |
| 2.    | <b>Income source</b>           |           |            |
|       | Agriculture                    | 95        | 79.17      |
|       | Animal husbandry               | 117       | 97.50      |
|       | Employee                       | 14        | 11.67      |
|       | Others                         | 99        | 82.50      |

**Table 4. Habitat security of livestock farmer producer groups**

| S. No. | Variables                                  | Frequency | Percentage |
|--------|--|-----------|------------|
| 1.     | <b>Housing</b>                             |           |            |
|        | Own house                                  | 118       | 98.33      |
|        | Rent house                                 | 2         | 1.67       |
|        | Pucca house                                | 79        | 65.83      |
|        | Semi pucca                                 | 41        | 34.17      |
|        | Electricity                                | 120       | 100.00     |
|        | Toilet                                     | 110       | 91.67      |
| 2.     | <b>Drinking water source</b>               |           |            |
|        | From mineral water plant (reverse osmosis) | 56        | 46.67      |
|        | Bhaghiradha water (govt.supply)            | 36        | 30.00      |
|        | Hand pump/ tank                            | 21        | 17.50      |
|        | Others                                     | 7         | 5.83       |

**Table 5. Educational security of livestock farmer producer groups**

| S. No. | Variables                                | Frequency | Percentage |
|--------|--|-----------|------------|
| 1.     | <b>Household literacy level</b>          |           |            |
|        | Can read and write                       | 2         | 1.67       |
|        | Up to primary                            | 20        | 16.67      |
|        | Up to metric                             | 63        | 52.50      |
|        | Up to graduation                         | 28        | 23.33      |
|        | Up to post graduation                    | 7         | 5.83       |
| 2.     | <b>Accessibility of school</b>           |           |            |
|        | 0-1 km                                   | 7         | 5.83       |
|        | 1.1-3 km                                 | 9         | 7.50       |
|        | 3.1-6 km                                 | 27        | 22.50      |
|        | >6 km                                    | 77        | 64.17      |
| 3.     | <b>Accessibility of higher education</b> |           |            |
|        | 0-10 km                                  | 3         | 2.50       |
|        | 10.1-30 km                               | 49        | 40.83      |
|        | 30.1-60 km                               | 39        | 32.50      |
|        | >60 km                                   | 29        | 24.17      |
| 4.     | <b>Cost of education</b>                 |           |            |
|        | Most expensive                           | 48        | 40.00      |
|        | Expensive                                | 51        | 42.50      |
|        | Undecided                                | 0         | 0.00       |
|        | Cheap                                    | 21        | 17.50      |
|        | Very cheap                               | 0         | 0.00       |

### 3.6 Social Network Security

To determine the social network security community participation and relations and support from social groups indicators are used for the present study. The data presented in Table 6 clearly shows that more than three fourths of the respondent's 93.33 percent were members of one organization followed by 7.50 percent respondents were public leaders, 5.00 percent respondents not a member of any organization and 3.33 percent respondents were members of more than one organization. The data presented in Table 7 revealed that 96.67

percent, 30.00 percent, 25.83 percent and 5.83 percent had very strong relations with family members, friends, LFPG group members and institutions respectively. About 70.00 percent, 62.50 percent, 61.67 percent, and 3.33 percent of LFPG members had strong relations with friends, institutions, LFPG group members and family members, respectively. Whereas 31.67 percent and 12.50 percent LFPG members had not so strong relations with institutions and LFPG group members, respectively. The data further revealed that 97.50 percent, 28.33 percent, 26.66 percent and 0.83 percent of LFPG members getting very strong help in time of

**Table 6. Social network security of livestock farmer producer groups**

| S. No. | Community participation              | Frequency | Percentage |
|--------|--------------------------------------|-----------|------------|
| 1.     | Member of one organization           | 112       | 93.33      |
| 2.     | Member of more than one organization | 4         | 3.33       |
| 3.     | Not a member                         | 6         | 5.00       |
| 4.     | Public leader                        | 9         | 7.50       |
| 5.     | Office bearer                        | 0         | 0.00       |

**Table 7. Relations and support from social groups of livestock farmer producer groups**

| S. No.                                  | Variables               | Very strong |       | Strong |       | Not so strong |       |
|---|-------------------------|-------------|-------|--------|-------|---------------|-------|
|   |                         | F           | %     | F      | %     | F             | %     |
| <b>Relations</b>                        |                         |             |       |        |       |               |       |
| 1.                                      | With family members     | 116         | 96.67 | 4      | 3.33  | 0             | 0     |
| 2.                                      | With friends            | 36          | 30    | 84     | 70    | 0             | 0     |
| 3.                                      | With LFPG group members | 31          | 25.83 | 74     | 61.67 | 15            | 12.5  |
| 4.                                      | With institutions       | 7           | 5.83  | 75     | 62.5  | 38            | 31.67 |
| <b>Getting help in time of distress</b> |                         |             |       |        |       |               |       |
| 1.                                      | With family members     | 117         | 97.5  | 3      | 2.5   | 0             | 0     |
| 2.                                      | With friends            | 34          | 28.33 | 84     | 70    | 2             | 1.67  |
| 3.                                      | With LFPG group members | 32          | 26.66 | 71     | 59.17 | 17            | 14.17 |
| 4.                                      | With institutions       | 1           | 0.83  | 42     | 35    | 77            | 64.17 |

distress from family members, friends, LFPG group members and institutions, respectively. About 70.00 percent, 59.17 percent, 35.00 percent, and 2.50 percent of respondents getting strong help from friends, LFPG group members, institutions and family members, respectively. Whereas 64.17 percent, 14.17 percent and 1.67 percent of LFPG members getting not so strong help from institutions, LFPG group members and friends, respectively.

#### 4. CONCLUSION

The study sought to explore the livelihood security of livestock farmers in Telangana state. It is concluded that the majority of respondents depend upon the public distribution system. The government has taken significant steps to combat under and malnutrition through introduction of mid day meals at schools and Anganwadi systems to provide rations to pregnant and lactating mothers. Majority of respondents fell ill once or twice in a year as all respondents have awareness about the diseases and government also initiated Arogyasri health scheme as it provides financial assistance to below poverty line people. Livestock farmers generate majority income from animal husbandry followed by agriculture and other sources. The study also found that farmers generally engaged in activities that are interdependent. Majority respondents have pucca houses with electricity toilet facilities as they utilised government

schemes like swachh Bharat Mission and double bed room housing scheme. In the study area majority people felt that higher education accessibility is a major concern. We'll recommend that government and stakeholders should provide higher education accessibility. Regarding social network security, the majority of members of women Self Help Groups were members of more than one group which leads to enhancement of knowledge and improved decision making which truly reflects the philosophy of self-help groups.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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