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Achugatla Kesav Kumar
Research Scholar, Division of
Agricultural Engineering, ICAR
– Indian Agricultural Research
Institute (IARI), New Delhi,
India

Adarsh Kumar
Principal Scientist, Division of
Agricultural Engineering, ICAR
– Indian Agricultural Research
Institute (IARI), New Delhi,
India

**Ramasubramanian
Vaidhyanathan**
Principal Scientist, ICAR-
Indian Agricultural Statistics
Research Institute (IASRI), New
Delhi, India

Hari Lal Kushwaha
Principal Scientist, Division of
Agricultural Engineering, ICAR
– Indian Agricultural Research
Institute (IARI), New Delhi,
India

Debashish Chakraborty
Principal Scientist, Division of
Agricultural Physics, ICAR –
Indian Agricultural Research
Institute (IARI), New Delhi,
India

Bhopal Singh Tomar
Head, Division of Vegetable
Science, ICAR – Indian
Agricultural Research Institute
(IARI), New Delhi, India

Corresponding Author:
Achugatla Kesav Kumar
Research Scholar, Division of
Agricultural Engineering, ICAR
– Indian Agricultural Research
Institute (IARI), New Delhi,
India

Demographic and socio-economic of the tobacco farmworkers in Andhra Pradesh, India

Achugatla Kesav Kumar, Adarsh Kumar, Ramasubramanian Vaidhyanathan, Hari Lal Kushwaha, Debashish Chakraborty and Bhoopal Singh Tomar

Abstract

Tobacco (*Nicotiana tabacum*) is a major commercial crop in India. A study was carried out among 120 tobacco farmworkers in Andhra Pradesh, India. Two soil regions (Northern light and Southern light soils) were selected to collect data through personal interviews among tobacco farmworkers with the help of a developed survey proforma. Out of 120 farmworkers, 64 (53%) were males and 56 (47%) were females. Illiteracy was higher in females (77%) than in males (50%). The ownership of landholding among males was 1-2 acres in 7.81%, 2-4 acres in 1.56%, more than 4 acres in 4.69% and 85.94% were landless. Female workers did not own any land and depended on daily farm activities and other work for sustainability. The distribution of local and migrant workers differed among genders; 33(76%) males and 57(43%) females.

Keywords: Tobacco cultivation, migrant farm workers, gender, NLS, SLS

1. Introduction

Tobacco is one of the important commercial crops grown in India. It provides employment directly and indirectly to 46 million people and contributed as much as 22,000 crores (2016-17) as excise duty and Rs 60000 crore in foreign exchange to the National exchequer during 2018-19. India has a prominent place in the production of tobacco in the world. India stands 3rd in the production and export of tobacco in the world. During the year 2018-19, the Board marketed a quantity of 222.5million kg in its auction platforms in both Andhra Pradesh and Karnataka at an average price of Rs.134per kg as against 206 million kg marketed at an average price of Rs.137per kg during the year 2017-18.

Today, tobacco is one of the major commercial crops grown in India. Various types of tobacco are cultivated in India for use in tobacco products such as Cigarette, Bidi, Cigar, Cheroot, Hookah, Chewing and Snuff, etc. It is a commercial cultivation crop spread all over the country, majorly concentrated in the states of Andhra Pradesh, Telangana, Karnataka, Gujarat, Maharashtra, Bihar, Tamil Nadu, West Bengal and different varieties are grown in different parts of the country like Flue-Cured Virginia (FCV) tobacco, Bidi tobacco, Hookah tobacco, Natu, burley, Lanka, HDBRG (Harvel de Baixo Rio Grande), Cigar and cheroot, etc. Among cigarette tobacco varieties, the Flue-Cured Virginia (FCV) tobacco is the most dominant variety in India and the world. FCV tobacco is grown in Andhra Pradesh, Telangana and Karnataka, and thrives in soil and climatic conditions unsuitable for the cultivation of other crops. The main objective of this paper is to find the demographic and socioeconomic of tobacco farmworkers in Andhra Pradesh.

2. Methods

A study was conducted in Andhra Pradesh, a southern state of India. In Andhra Pradesh, FCV (Flue-cured Virginia) is cultivated in three soil regions, namely Northern Light Soils (NLS), Southern Light Soils (SLS) and Southern black soils (SBS). These soil regions are further divided into tobacco auction platforms; NLS has six auction platforms: Thorredu, Devarapalli, Gopalapuram, Koyyalagudem, and Jangareddy Gudem I and II. SLS has six auction platforms: Podili, Kanigiri, Kandukur I and II, Kaligiri and D.C. Palli. SBS has seven tobacco auction platforms: Vellampalli, Tangutur I and II, Kondepi, Ongole STL, I and II.

2.1 Development of Survey Performa

The survey proforma was developed based on literature (Onuki *et al.*, 2003, Parikh *et al.*, 2005, Arcury *et al.*, 2008, Fassa *et al.*, 2014) [4, 5, 1, 2] and a pilot study of tobacco cultivators. These survey questionnaires were developed in English and translated into the local language (*Telugu*) for effective communication. The proforma consisted of personal details, work details in tobacco cultivation, health status and occupational health hazards of tobacco cultivation of farm workers. The personal details include name, location, age, gender, educational qualification, occupation, landholding, involvement in agricultural and non-agricultural activities, the farm and non-farm, size of family and status of working place (local or migrant), smoking habits and alcohol intake.

2.2 Survey and data collection in the selected area of tobacco farmworkers

A sample of 120 tobacco farmworkers was selected based on purposive random sampling (Kalyani *et al.*, 2016) [3]. Two soil regions (NLS and SLS) were selected to collect data from tobacco farm workers involved in tobacco cultivation. In NLS and SLS regions, 120 tobacco farmworkers interacted and data was collected in two districts (West Godavari and Prakasam) at six locations: Devarapalli, Gopalapuram, Koyyalagudem, Kandukur I and II, Kanigiri.

The personal details of tobacco farmworkers considered were the age groups (divided into 20-30, 30-40, 40-50 and above 50 years), gender (male and female), educational qualification classified as non-literate, primary schooling, middle schooling, matriculation, senior secondary and higher education after senior secondary. The occupation was grouped into farmworkers primarily working on tobacco and other commodity farms; and "others" who worked on tobacco farms and performed non-agricultural activities.

Landholding was categorized as farm holding of 1-2, 2-4, >4 acres and landless. The daily income of the farm and non-farm were grouped as INR 200-300, 300-400, 400-500, >500 and none. The family size was divided based on family members: 1 to 4 members as a small family, 4 to 6 members as a medium and more than 6 members as a large family. The status of farmworkers working outside their native place was considered migrant otherwise local workers. Smoking and alcohol habits were recorded as "yes means they smoke/take alcohol, no means they don't smoke/take alcohol, occasional means occasional smoker/alcohol intake."

3. Results and Discussion

3.1 Personal details

In this study, 120 tobacco farmworkers both males and females were personally interacted. Out of 120 farmworkers, 64 (53%) were males and 56 (47%) were females. Among the male workers, the age group distribution of participants was 20-30 (25%), 30-40 years (29.7%), 40-50 years (25%) and above 50 years (20.3%), whereas for females 20-30 years (25%) 30-40 years (26.8%), 40-50 years (37.5%) and above 50 years (10.7%).

3.2 Educational background

Illiteracy was higher in females (77%) than in males (50%). 22% of males and 11% of females had primary level education; 9% of males and 7% of females had middle school education; 12% of males and 4% of females had matriculation education; 6% of males and 2% of females had senior

secondary education.

3.3 Primary and Secondary Occupation

All 120 (64 males and 56 females) workers worked on tobacco farms in the cultivation season. 88% (51 males and 54 females) were involved only in tobacco and non-tobacco agricultural activities. Other than tobacco, these workers worked on paddy, maize, Bengal gram, chili, and sugar-cane crops. 96% (54) of females and 80% (51) of males were involved only in farm activities without any other non-farm activities. Thirteen males (20.31%) who were not entirely working on farms were also engaged in other activities like vehicle driving (9.38%), construction work (1.56%), painting (1.56%) and no other work (7.81%) during the tobacco cultivation off-season. Out of all female workers, one female worked in non-farm activities worked as a construction worker and the rest worked only on tobacco farms.

3.4 Land Ownership

The ownership of landholding among males was 1-2 acres in 7.81%, 2-4 acres in 1.56%, more than 4 acres in 4.69% and 85.94% were landless. Female workers did not own any land and depend on daily farm activities and other work for sustainability.

3.5 Wages Earned

3.5.1 Non-Tobacco Farms

The daily wages for farm activities other than tobacco were INR 200-300 for 37.50% of males and 82.14% of females, 300-400 for 26.56% of males and 8.93% of females, 400-500 for 7.81% of males only and more than 500 for 4.69% males only. The males (23.44%) and females (8.93%) did not earn any income from other farm activities.

3.5.2 Non-Farm Work

The daily income of the non-farm work was INR 200-300 (35.94% and 50%), 300-400 (12.50% and 7.14%), 400-500 (4.69% and none), > 500 (15.63% and 1.79%) and no income (31.25% and 41.07%) for males and females respectively.

3.6 Family size

The small (1-4 members) and medium family (4-6 members) sizes were reported by male workers (59.38% and 37.5%) and females (62.50% and 35.71%), respectively. The large family size (> 6 members) was reported by 1.79% of female workers compared to 3.12% of males.

3.7 Gender Distribution among Local and migrant workers

The distribution of local and migrant workers differed among genders; 33(76%) males and 57(43%) females.

3.8 Smoking and alcohol habits

Smoking habit is an important factor for occupational exposure in tobacco cultivation; hence it was recorded for each subject in detail. Out of 64 male workers, 28 (43.75%) each were regular smokers and non-smokers and 8 (12.5%) were occasional smokers. Among females, only 2(3.57%) were smokers and 54(96.43%) were non-smokers and no occasional smokers among females. Regular alcohol intake was also recorded in 17 (26.56%) male workers, 23 (35.93%) drank occasionally and 24 (37.5%) did not consume alcohol. Only one female worker consumed alcohol (1.79%) and the remaining (98.21%) were non-alcoholic (Table 1).

Table 1: Demographic and socio-economic description of the tobacco farmworker (sample stratified by gender)

Variable	Male (64)		Female (56)		P-Value*
	N	%	N	%	
Age (Years)					
20 - 30	16	25.00	14	25.00	0.342
30 - 40	19	29.70	15	26.80	
40 - 50	16	25.00	21	37.50	
>50	13	20.30	6	10.70	
Qualification					
Non-literate	32	50.00	43	76.79	0.038
Primary	14	21.80	6	10.71	
Middle	6	9.37	4	7.14	
Matriculation	8	12.50	2	3.57	
Senior Secondary	4	6.25	1	1.79	
Occupation					
Farm labour	51	79.69	54	96.43	<0.001
Vehicle driver	6	9.38	0	0.00	
Masonry work	1	1.56	1	1.79	
Painting	1	1.56	0	0.00	
None	5	7.81	1	1.79	
Landholding (acres)					
1-2	5	7.81	0	0.00	<0.001
2-4	1	1.56	0	0.00	
> 4	3	4.69	0	0.00	
None	55	85.94	56	100.00	
Daily income from farm activity (INR)					
200-300	24	37.50	46	82.14	<0.001
300-400	17	26.56	5	8.93	
400-500	5	7.81	0	0.00	
> 500	3	4.69	0	0.00	
None	15	23.44	5	8.93	
Daily income from non-farm activity (INR)					
200-300	23	35.94	28	50.00	0.018
300-400	8	12.50	4	7.14	
400-500	3	4.69	0	0.00	
> 500	10	15.63	1	1.79	
None	20	31.25	23	41.07	
Family size					
Small	38	59.38	35	62.50	0.866
Medium	24	37.5	20	35.71	
Large	2	3.12	1	1.79	
Worker's status					
Local	21	32.81	32	57.14	0.007
Migrant	43	67.19	24	42.86	
Smoking					
Yes	28	43.75	2	3.57	<0.001
No	28	43.75	54	96.43	
Occasionally	8	12.50	0	0.00	
Alcohol					
Yes	17	26.56	1	1.79	<0.001
No	24	37.50	55	98.21	
Occasionally	23	35.93	0	0.00	

*Chi-square heterogeneity

4. Conclusion

In this study, 120 tobacco farmworkers both males 64 (53%) and 56 (47%) females personally interacted through a survey. Among the male and female workers, the age group distribution of participants was highest in 30-40 years (29.7%) and 40-50 years (37.5%) respectively. illiteracy was higher in females (77%) than in males (50%). 88% (51 males and 54 females) were involved only in tobacco and non-tobacco agricultural activities. The ownership of landholding among males was 1-2 acres in 7.81%, 2-4 acres in 1.56%, more than 4 acres in 4.69% and 85.94% were landless. The

daily wages for farm activities other than tobacco were highest at INR 200-300 for 37.50% of males and 82.14% of females. The daily income of the non-farm work was highest in males and females INR 200-300 (35.94% and 50%) respectively. The small (1-4 members) and medium family (4-6 members) sizes were reported by male workers (59.38% and 37.5%) and females (62.50% and 35.71%), respectively. The distribution of local and migrant workers differed among genders; 33(76%) males and 57(43%) females.

5. Conflict of Interest: None

6. Acknowledgment

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