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Women empowerment through Pashu Sakhi initiatives in the livestock sector: A survey of Narayanpur district, Chhattisgarh

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Abstract

India's livestock sector plays an important role in rural livelihoods, and women contribute substantially to livestock management and allied household activities. Women are involved in feeding, cleaning, milking, animal care, processing, and in many settings, marketing of livestock products. However, limited access to technical knowledge, veterinary services, productive assets, and institutional support can constrain their ability to improve livestock productivity and household income. Strengthening women's participation through training, extension services, and collective institutions such as self-help groups (SHGs) is therefore important for inclusive rural development (Ponnusamy *et al.*, 2017; Sahu and Ghosh, 2018). The Pashu Sakhi model represents a community-based approach in which trained rural women facilitate livestock extension and connect livestock keepers with veterinary and departmental services (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025).

The present village-level survey was conducted in Narayanpur district of Chhattisgarh to document the role and activities of Pashu Sakhis in livestock extension, preventive healthcare, reproductive services, participation in SHGs, and dissemination of government livestock-development schemes.

The findings indicate that Pashu Sakhis function as an important link between livestock keepers and the Livestock Development Department at the village level. Their activities include dissemination of information, mobilization of livestock owners for vaccination and deworming, coordination of veterinary camps, facilitation of artificial insemination, and support for access to government livestock-development schemes. Their participation in SHGs may further contribute to women's social and economic empowerment. These observations are consistent with earlier studies describing Pashu Sakhi as a community-based livestock extension and animal-health resource for rural women (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025). However, the present survey is descriptive and does not establish a causal relationship between Pashu Sakhi participation and household income or women's empowerment.

Keywords: Pashu Sakhi, livestock sector, women empowerment, livestock extension, Narayanpur, Chhattisgarh

1. Introduction

Women play a significant role in livestock production and management in rural India. Alongside household responsibilities, women commonly participate in feeding, cleaning, milking, animal care, and processing of livestock products. Despite this contribution, women may have limited access to technical information, veterinary services, productive assets, and institutional support. Improving access to training and extension services can therefore strengthen livestock productivity and women's contribution to household livelihoods.

Community-based approaches that involve trained rural women can help reduce gaps in livestock extension and veterinary service delivery. The Pashu Sakhi model has been described as a women-centred livestock extension approach in which trained community members support livestock keepers with information, preventive animal healthcare, and linkage with formal veterinary services (Ponnusamy *et al.*, 2017)^[6]. More recent work has also described the Pashusakhi as a community animal-health worker who helps bridge service-delivery gaps in rural and remote areas (Kumar *et al.*, 2025)^[4].

Self-help groups (SHGs) are another important mechanism for strengthening women's participation in rural economic activities. Evidence from Chhattisgarh indicates that SHG participation can be associated with improvements in different dimensions of empowerment, including leadership and income-related domains (Sahu and Ghosh, 2018)^[7].

Narayanpur is a predominantly rural and tribal district of Chhattisgarh in which livestock rearing forms part of household livelihood strategies. According to the 20th Livestock Census (2019), Narayanpur had 78,041 buffaloes and 16,677 cattle (Department of Animal Husbandry, Chhattisgarh, 2019)^[3]. The present study was undertaken to document the role of Pashu Sakhis in livestock extension and selected animal-health and livelihood activities in Narayanpur district, Chhattisgarh.

Increasing women's participation in the livestock sector is an important role of rural development. For this, the government is promoting self-help groups (SHGs) and women-centred livelihood programs. Out of which, the Pashu Sakhi program is being run at the village level under NRLM. Which helps in livestock extension work. Through this program, the livestock department is providing basic animal healthcare,

vaccination, feeding management, and awareness of livestock schemes -related training to rural women. This program is not only improving livestock productivity but is also providing employment opportunities and socio-economic strength to women.

Narayanpur is tribal district of Chhattisgarh where livestock rearing is an important livelihood activity. However, studies regarding the impact of the pashu sakhi initiative on women empowerment in this region are limited. Therefore, the present study was conducted to assess the role of the Pashu Sakhi initiative in empowering rural women in the livestock sector of Narayanpur district, Chhattisgarh.

2. Materials and Methods

A descriptive, village-level survey was conducted in Narayanpur district of Chhattisgarh. Information was compiled from 30 Pashu Sakhis regarding livestock populations in their respective villages, training and extension activities, vaccination, artificial insemination, participation in SHGs, and facilitation of government livestock-development schemes. The study was primarily

descriptive; therefore, the reported service numbers should be interpreted as field-level observations rather than estimates of district-wide programme coverage.

2.1 Survey of Narayanpur District, Chhattisgarh

Narayanpur district is characterized by predominantly rural and tribal populations, with agriculture and livestock rearing forming important components of household livelihoods. The present survey covered 30 Pashu Sakhis and their respective villages. Livestock population data for cattle, buffaloes, goats, pigs, and poultry were compiled for the surveyed villages. The 20th Livestock Census provides the official district-level livestock estimates (Department of Animal Husbandry, Chhattisgarh, 2019) [3]. The village-level figures presented in Table 1 represent the data compiled for the villages covered by the present survey and should not be interpreted as the total livestock population of Narayanpur district.

The following livestock population data were compiled for 30 Pashu Sakhis from the villages covered by the survey, with reference to the 20th Livestock Census.

Table 1: Total Animal Population of Surveyed Village

S. No.	Pashu Sakhi	Village	Cattle	Buffalo	Goat	Pig	Poultry
1	Bhagwati Mandavi	Bakulwahi	928	66	121	128	1570
2	Sunita Chouhan	Garhbengal	850	284	77	62	1054
3	MankoPotai	Kochwahi	1148	38	333	211	2112
4	Silma Karanga	Bamhani	552	77	117	62	715
5	Rajbatti Kachlam	Palki	504	43	84	29	1117
6	Phoolbatti Sahare	Binjlee	2034	153	356	67	2697
7	Shashikala Dugga	Karlakha	1639	241	578	161	1717
8	Shashikala Dugga	Paturbeda	529	111	237	275	656
9	Dayawati Sethiya	Karlapal	1987	286	986	84	2933
10	Rajonti Potai	Bagdongri	1045	51	354	413	1493
11	Radha	Belgaon	747	28	18	0	2046
12	Parvati Salam	Brehbeda	416	79	119	25	602
13	Anita Korram	Sargipal	850	35	378	967	121
14	Anita Taram	Guriya	500	19	161	0	645
15	Sanbatti Potai	Kokodi	652	67	277	302	513
16	Hirdai Potai	Borgaon	438	117	365	208	722
17	Anita Gota	Garanji	447	75	127	67	849
18	Savita Wadde	Garawand	227	55	121	123	265
19	Rameshwari Kumeti	Kumhali	395	68	162	168	478
20	Sukhdai	Devgaon	944	55	181	131	756
21	Rajkumari	Terdul	919	72	123	6	395
22	Sushila	Benoor	1019	43	602	94	1638
23	Anita Wadde	Bhatpal	582	46	172	47	613
24	Baldai	Bhurwal	316	58	193	15	591
25	Pamita	Bhiragaon	438	73	208	27	719
26	Mina Salam	Khargaon	351	41	176	56	724
27	Shanti Wadde	Koliyari	658	67	257	71	903
28	Shanti Wadde	Korenda	1204	122	827	124	1593
29	Surekha	Netanar	744	65	223	34	1366
30	Rambai	Turtha	287	16	61	1	281

2.2 Selection of Pashu Sakhi

According to the programme structure described by the local implementing agency, one animal-friendly woman is selected as a Pashu Sakhi for each participating village and provided with regular livestock-related training. In Narayanpur block, four Pashu Sakhi clusters were identified: Bakulwahi, Chhottedonger, Binjali, and Benoor. The cluster-wise distribution of villages and Pashu Sakhis is presented below.

Table 2: Cluster-wise distribution of villages and Pashu Sakhis

S. No.	Cluster	No. of villages	No. of Pashu Sakhis
1	Bakulwahi cluster	19	19
2	Chhottedonger cluster	11	11
3	Binjali cluster	19	19
4	Benoor cluster	21	21

According to the cluster-wise records available for the

survey, one Pashu Sakhi was associated with each participating village, giving a total of 70 Pashu Sakhis across the four clusters. This programme-level figure is reported from the local records used in the present survey.

2.3 Pashu Sakhi Training

Pashu Sakhis received regular training from veterinary and livestock-development personnel, including Deputy Directors of Veterinary Services (DDVS), Veterinary Assistant Surgeons (VAS), and Assistant Veterinary Field Officers (AVFO). The training focused on livestock extension, dissemination of government schemes, vaccination, deworming, basic animal-health awareness, artificial insemination facilitation, and other livestock-development activities. The community-based training and extension role of Pashu Sakhis is consistent with previously reported models in India (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025) ^[6, 4].

2.4 Activities of Pashu Sakhi

After receiving training, Pashu Sakhis performed livestock-related extension activities in their respective villages. These included disseminating information to livestock owners; coordinating with the Livestock Development Department and nearby veterinary hospitals; mobilizing farmers for veterinary camps; and facilitating access to vaccination, deworming, treatment, and artificial insemination services. They also helped communicate information about livestock-development schemes and encouraged eligible households to participate in departmental programmes.

Pashu Sakhis also participated in SHGs involved in poultry, dairy, goat farming, and other livelihood activities. Such collective activities can provide opportunities for savings, credit access, income generation, and improved participation of women in household and community decision-making (Sahu and Ghosh, 2018) ^[7].

3. Results and Discussion

The survey indicates that Pashu Sakhis serve as a local interface between livestock owners and the Livestock Development Department. Their presence at the village level facilitates communication, mobilization of livestock owners, and coordination of veterinary services. Similar observations have been reported in studies evaluating the effectiveness and functioning of the Pashu Sakhi model in other parts of India. (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025) ^[6, 4].

The data collected from the 30 surveyed Pashu Sakhis also demonstrate their involvement in vaccination, artificial insemination, livestock-health awareness, and access to government schemes. Because the present study did not include a pre-intervention comparison group, household-level economic measurements, or statistical tests of empowerment, the findings should be interpreted as descriptive evidence of their extension role rather than as a quantified estimate of programme impact.

3.1 Livestock-Related Schemes of the Government of Chhattisgarh

The Livestock Development Department of Chhattisgarh implements several programmes intended to support livestock-based livelihoods, including schemes related to backyard poultry, goat production, pig production, and calf

rearing. In the surveyed villages, Pashu Sakhis helped disseminate information about these programmes, identify potential beneficiaries, facilitate communication with departmental personnel, and motivate livestock keepers to participate in village-level camps. The programme records of beneficiaries are presented in Table 4. The role of a community-based livestock worker in facilitating access to formal services is consistent with the broader Pashu Sakhi model reported in India (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025) ^[6, 4].

3.2 Deworming

Deworming is an important component of preventive livestock healthcare because gastrointestinal and other parasitic infections can adversely affect animal health and productivity. Appropriate parasite-control programmes can improve growth and production outcomes when treatment is based on the epidemiological situation and veterinary recommendations (Bessell *et al.*, 2018; Shrestha *et al.*, 2020) ^[2, 8]. Pashu Sakhis supported awareness and mobilization of livestock owners for deworming and other preventive-health activities. Because deworming requirements vary with species, age, management system, season, and parasite prevalence, treatment should be undertaken according to veterinary advice and locally appropriate control programmes.

3.3 Vaccination

Vaccination is a major component of preventive veterinary healthcare and is essential for reducing the incidence and transmission of important infectious diseases. Effective vaccination programmes also contribute to animal welfare, livestock productivity, and protection of public health (Atmaca, 2015) ^[1]. In the surveyed villages, Pashu Sakhis played an important role in communicating vaccination schedules, mobilizing livestock owners, and facilitating participation in veterinary vaccination programmes. The field records included vaccination activities for cattle, buffaloes, goats, poultry, and pigs. The numbers presented in Table 3 represent reported service activities in the surveyed villages and should not be interpreted as vaccination coverage percentages.

3.4 Artificial Insemination

Artificial insemination (AI) is an important reproductive technology used to improve the genetic potential of livestock populations. Its effectiveness depends on factors such as heat detection, timing, semen quality, technician skill, nutrition, and herd management (Tola and Deresa, 2025) ^[9]. In the present survey, Pashu Sakhis helped mobilize livestock owners and coordinate access to AI services. Their role is therefore primarily facilitative and extension-oriented, linking farmers with trained veterinary or technical personnel.

3.5 Self-Help Groups (SHGs)

SHGs provide an institutional platform through which rural women can participate in collective economic activities, savings, credit, and livelihood development. In the surveyed villages, women were involved in livestock rearing, poultry, dairy, goat farming, agriculture-related work, and other livelihood activities. Previous research from Chhattisgarh has

reported positive associations between SHG participation and several dimensions of rural women's empowerment, particularly leadership and income-related domains (Sahu and Ghosh, 2018) [7]. The participation of Pashu Sakhis in

SHGs may therefore complement their livestock-extension role by connecting animal husbandry activities with broader livelihood opportunities.

Table 3: Total no. of Vaccination and Artificial Insemination on Survey Village

S. No.	Pashu Sakhi	Village	Vaccination					No. of AI
			Cattle	Buffalo	Goat	Poultry	Pig	
1	Bhagwati Mandavi	Bakulwahi	1636	36	176	813	26	11
2	Sunita Chouhan	Garhbengal	2781	13	256	1694	32	41
3	MankoPotai	Kochwahi	2653	56	316	1456	49	14
4	SilmaKaranga	Bamhani	2706	34	236	916	69	22
5	RajbattiKachlam	Palki	642	9	338	874	24	24
6	PhoolbattiSahare	Binjlee	3219	216	291	1345	38	42
7	Shashikala Dugga	Karlakha	2392	249	206	1047	23	116
8	Shashikala Dugga	Paturbeda	612	24	325	619	72	8
9	Dayawati Sethiya	Karlalpal	2864	158	384	1469	89	30
10	Rajonti Potai	Bagdongri	2121	61	158	1232	64	10
11	Radha	Belgaon	1433	18	193	1326	0	26
12	Parvati Salam	Brehbeda	958	39	264	1224	24	11
13	Anita Korram	Sargipal	722	28	326	867	103	0
14	Anita Taram	Guriya	911	23	127	1234	16	9
15	Sanbatti Potai	Kokodi	851	16	182	628	29	2
16	Hirdai Potai	Borgaon	1422	82	243	463	66	2
17	Anita Gota	Garanji	1257	44	317	1141	42	17
18	Savita Wadde	Garawand	509	16	214	413	31	9
19	Rameshwari Kumeti	Kumhali	717	13	261	721	28	2
20	Sukhdai	Devgaon	1563	36	319	1428	26	14
21	Rajkumari	Terdul	1024	9	437	653	0	3
22	Sushila	Benoor	918	45	602	1638	225	58
23	Anita Wadde	Bhatpal	582	46	172	613	94	24
24	Baldai	Bhurwal	438	73	208	719	47	95
25	Pamita	Bhiragaon	316	58	193	591	27	35
26	Mina Salam	Khargaon	351	41	176	724	15	38
27	Shanti Wadde	Koliyari	658	67	257	903	56	29
28	Shanti Wadde	Korenda	1204	122	827	1693	76	35
29	Surekha	Netanar	744	65	223	1366	124	35
30	Rambai	Turtha	287	16	61	785	0	21

Table 4: Total no. of Beneficiaries of Government Schemes on Survey Village

S. No.	Pashu Sakhi	Village	Beneficiaries of Government Schemes			
			Backyard poultry	Goat buck supply	Pig boar supply	Improved calf rearing
1	Bhagwati Mandavi	Bakulwahi	-	-	-	-
2	Sunita Chouhan	Garhbengal	06	01	-	01
3	Manko Potai	Kochwahi	01	-	-	01
4	Silma Karanga	Bamhani	02	-	-	-
5	Rajbatti Kachlam	Palki	05	-	-	-
6	Phoolbatti Sahare	Binjlee	10	-	-	-
7	Shashikala Dugga	Karlakha	06	01	-	-
8	Shashikala Dugga	Paturbeda	01	-	-	-
9	Dayawati Sethiya	Karlalpal	02	02	-	-
10	Rajonti Potai	Bagdongri	06	01	-	-
11	Radha	Belgaon	10	01	-	-
12	Parvati Salam	Brehbeda	01	-	-	-
13	Anita Korram	Sargipal	-	-	-	-
14	Anita Taram	Guriya	04	-	-	-
15	Sanbatti Potai	Kokodi	04	-	-	-
16	Hirdai Potai	Borgaon	02	-	-	-
17	Anita Gota	Garanji	03	-	-	-
18	Savita Wadde	Garawand	-	-	-	-
19	Rameshwari Kumeti	Kumhali	04	-	-	-
20	Sukhdai	Devgaon	03	01	-	01
21	Rajkumari	Terdul	-	01	-	-
Total			70	8	-	3

Pashu Sakhi as a Link between Livestock Services and Rural Households

Pashu Sakhi functions as a community-level link between livestock owners and the Livestock Development Department. Being a resident of the village enables her to communicate locally relevant information, identify households requiring services, facilitate participation in veterinary camps, and guide farmers towards appropriate departmental schemes. This community-based role can help improve the reach of livestock-extension services, particularly in remote or underserved areas. Earlier evaluations have similarly highlighted the Pashu Sakhi model as a women-centred approach to livestock extension and community animal-health service delivery (Ponnusamy *et al.*, 2017; Kumar *et al.*, 2025) [6, 4].



Artificial Insemination Artificial Insemination



Bakyard kukut distribution Scheme



Vaccination



Bakyard kukut distribution Scheme



Calf rearing scheme



SHG training



Veterinary Camp



Sukur tri Distribution

4. Conclusion

The present survey highlights the important role of Pashu Sakhis in strengthening village-level livestock extension services in Narayanpur district, Chhattisgarh. Their activities included dissemination of livestock-related information, mobilization for vaccination and deworming, facilitation of artificial insemination, coordination with veterinary services, and support for access to government livestock-development schemes. Their participation in SHGs also provides a potential pathway for linking livestock activities with women's livelihood development and empowerment.

The study is descriptive and based on observations from 30 Pashu Sakhis; therefore, the findings should not be generalized to all villages of Narayanpur or interpreted as a direct measurement of economic impact. Future studies should include larger samples, baseline and follow-up assessments, household-level income and productivity indicators, and standardized measures of women's empowerment. Comparative studies across districts of Chhattisgarh could further assess the effectiveness, sustainability, and scalability of the Pashu Sakhi model.

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