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Research Article

LIVESTOCK AND GENDER- IS IT SAME FOR EVERYONE?

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ABSTRACT

To study the effect of different antecedent variables on the contribution of rural women to animal keeping and on different factors associated with animal husbandry, 120 women were chosen by multi-stage sampling from four villages of Hisar district. The data on day today contribution to animal keeping, participation in decision making, access to markets and inputs were collected using a structured interview schedule. The respondents across different categories seemingly devoted similar time in doing daily chores of animals. Their role in the animal husbandry activities was not significantly affected by the level of education, social participation and mass media exposure. Although their formal education favoured increased access to inputs but ability to participate in the decision did not vary significantly. It is conjectured that gender roles are strictly defined and followed in the society. These roles are in keeping with the idea that men are the owners of animal resources and women are passive workers. The findings of the study raise doubts on the idea that the animal husbandry is a powerful tool of women empowerment. It is concluded that a deeper examination of the gender and livestock relationship is required.

Key words: Animal husbandry, empowerment, gender

Dairying is considered as a "treasure" of the Indian rural economy. It provides gainful employment to a vast majority of rural households. It engages about 8.47 million people on yearly basis out of which 71% are women (Anonymous, 2013). Various micro level studies have highlighted the significant role women play in dairy production (Jain and Verma, 1992; Singh *et al.*, 2005; Yadav *et al.*, 2005). Though much of work related to livestock farming is carried out by women, yet the ownership and benefits of such livestock keeping seem to be tilted in favour of men. Contrarily, it not uncommon to come across views that livestock production directly benefits women (Heffernan and Misturelli, 2000; Kristjanson *et al.*, 2010).

Women from different sections of rural society enjoy differential access to factors like educational opportunities, mobility, economic resources and access to markets, etc. These factors are generally perceived as empowering women and facilitating greater control over their own lives. The effects of different antecedent variables on the contribution to animal keeping were assessed and also the effects of independent variables on different factors associated with animal husbandry were ascertained**.**

MATERIALS AND METHODS

The study was conducted on 120 women of rural families engaged in dairy animal keeping in Haryana state; these women were interviewed from four different villages following a multi-stage sampling plan (Fig. 1). The contribution to the animal husbandry activities was investigated by assessing the role men and women play in animal's rearing activities (like feeding, bathing, cleaning etc.) and the relative contribution was assessed by comparing time spent by women and their male counterparts for each activity. Participation of women respondents in decision making about animal husbandry was also explored; it was measured with the help of schedule which contained 19 items and their perception was measured on 3 point continuum. Finally, the idea of empowerment was explored adopting the individual empowerment perspective through self determination with the key question being the capability of rural women to practice animal husbandry on their own. For this the

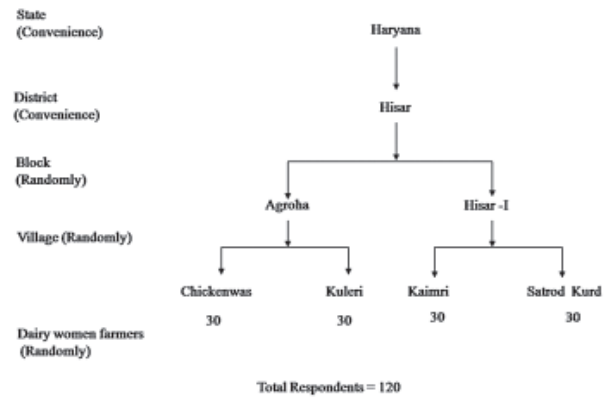

Fig. 1: Sampling procedure followed for selection of respondent.

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respondent's perception about ability to obtain finance for purchasing animals, arranging their inputs and market access were also explored with the help of schedules containing appropriate questions. The antecedent variables were age, education, family type, land holding, herd size, extension contact, social participation, mass media exposure, economic motivation, risk orientation and information seeking behaviour. They were operationalized as presented in Table 1.

RESULTS AND DISCUSSION

Profile of Respondents: Majority of respondents were middle aged (73%) with poor formal education (Table 2). Surprisingly, 47% of them were illiterate. It appears that the prevalent joint family system is giving way to the idea of nuclear family as about 84% of the respondents in the present study belonged to nuclear families. A large majority (75%) had either small or marginal land holdings of 1-5 acres. Respondents, in general, preferred to have small to medium herd of dairy animals and had poor social participation and mass media exposure (Table 3). They were poorly covered in the formal animal husbandry extension system. The average scores of economic motivation were fairly high (mean 23.25), perhaps indicating that respondents do nurture an urge for betterment of standard of life. Further, the respondents in general were having moderate risk orientation indicating that they were not averse to risk taking. At the same time, they were having poor information seeking behaviour scores (mean 3.14; Table 3) indicating that they were not eager to seek information regarding animals.

Role Performance and Antecedents: The role performance (contribution to animal husbandry related work) of the respondents is summarized in Table 2. Age, education, family type, land holding, mass media exposure etc. had little impact. Women across different categories seemingly devoted similar time in doing daily chores of animals. The lack of variation amongst respondents with different antecedents indicated that every woman had well defined role conforming to the prevalent gender demarcations. These roles appear to have evolved in patriarchal system in earlier times perhaps in keeping with the idea of masculine and feminine. It appears that the gender demarcations are strict and women across all sections continue to perform same jobs.

Table 1
Operationalisation of independent variables

Variable	Operationalisation
Age	Chronological age of respondents
Education	Scale developed by Pareek and Trivedi (1964)
Family size	Schedule will be developed
Land holding	Scale developed by Pareek and Trivedi (1964)
Herd size	Schedule will be developed
Extension contact	Scale developed by Dana (1987)
Social participation	Scale developed by Supe (1969)
Mass media exposure	Scale developed by Singh (1978)
Economic motivation	Scale developed by Supe (1969) with suitable modifications
Information seeking behaviour	Pareek and Rao (1992), with slight modifications

Effects of Respondents Antecedents on Factors Associated with Animal Husbandry: The study also investigated the long held belief that animal husbandry can be a potent tool of empowerment tool only if women can practice it freely in the rural settings. Therefore, it becomes important to examine whether rural women can practice animal husbandry on their own? For this to happen, access to all the required inputs and markets would be a logical precondition. The effect of respondent's antecedents on factors associated with animal husbandry is represented in Table 4. As is evident, there is little variation in access to different factors even though the antecedents varied significantly. Logically, factors like education, family type, economic motivation, etc should vary with the varying access to inputs, if these factors bring about changes in the lives of rural women. Lack of such variation, on the contrary, would be indicative of women being constrained to follow historically defined gender roles. It can be seen that the respondents of old age group were having slightly better access (with mean value 8.36) to resources as compared to others (Table 4). Similarly, the access to finance improved with the increasing age. Notably, the women's formal education favours increased access to inputs but their ability to participate in the decision making made little improvement. Education is considered to be a key factor for women empowerment, prosperity, development and welfare (Sonowal, 2013). However, based on this study, it appears that formal education alone does not make a significant difference. Perhaps the impact of women education in rural areas gets constrained by the strict gender roles. Similarly, type of family made little impact in terms of participation in decision making or access to markets and inputs (Table 4).

The respondents having higher land holding (more than 10 acres) reflected greater participation in decisions making process as compared to other two categories. If the participation in the animal husbandry decision making is any indication then it can be concluded that women members of the families with higher land holdings are better off in terms of say in day to day decision making. Further,

Table 2
Relationship of antecedents with role performance in animal husbandry

Antecedents	Antecedents categories	Frequency (%)	Role performance average time spent (h)				
			Feeding	Management	Dung management	Milking and milk management	Overall time spent
Age	Young (Below 30 years)	21 (17.50)	1.63	1.24	0.69	0.96	4.52
	Middle (31-55 years)	88 (73.33)	1.89	1.37	0.88	1.15	5.29
	Old (>55 years)	11 (9.16)	1.67	1.1	0.69	0.89	4.35
Education	Illiterate (0)	56 (47)	2.05	1.32	0.83	1.1	5.3
	Medium (1-4)	40 (33.33)	1.59	1.3	0.83	1.04	4.76
	High (5-6)	24 (20)	1.7	1.34	0.81	1.14	4.99
Family type	Joint (1)	19 (16)	1.85	1.4	0.85	1.19	5.29
	Nuclear (2)	101 (84)	1.82	1.3	0.82	1.07	5.01
Land holding	Small (0-1)	10 (8.33)	2.57	1.64	0.9	1.25	6.36
	Medium (2-3)	74 (61.66)	1.84	1.25	0.78	1.06	4.93
	Large (4-6)	36 (30)	1.59	1.37	0.9	1.1	4.96
Herd size	Small (up to 2)	33 (27.5)	1.87	1.1	0.61	0.98	4.56
	Medium (3-5)	58 (48.3)	1.62	1.29	0.8	1.07	3.71
	High (>5)	29 (24.2)	2.21	1.65	1.15	1.26	6.27
Social participation	Non-member (0)	119 (99.17)	1.84	1.32	0.83	5.07	5.07
	Member (>0)	1 (0.83)	0	1.58	1.5	5.08	5.08
Extension contact	Low (0-1)	105 (87.50)	1.8	1.3	0.82	1.1	5.02
	Medium (2-4)	13 (10.83)	2.03	1.47	0.88	1	5.38
	High (5-6)	2 (1.66)	2.17	1.79	1.17	1.36	6.49
Mass media	Low (0-3)	97 (80.83)	1.83	1.83	0.83	1.09	5.05
	Medium (4-6)	22 (18.33)	1.79	1.79	0.85	1.1	5.17
	High (>6)	1(0.84)	2.58	2.58	0.66	1.41	5.65
Economic motivation	Low (20-22)	7 (5.83)	1.45	1.44	1.11	0.95	4.95
	Medium (23-24)	109 (90.83)	1.82	1.32	0.81	1.09	5.04
	High (24-26)	4 (3.33)	2.64	1.01	0.74	1.1	5.49
Risk orientation	Low(10-20)	3 (2.50)	1.44	1.05	0.83	0.58	3.9
	Medium (22-25)	41 (34.16)	1.77	1.24	0.83	1.11	4.95
	High (26-30)	76 (63.33)	1.87	1.38	0.83	1.1	5.18
Information seeking behaviour	0-2 (low)	54 (45)	1.86	1.25	0.79	1.09	4.99
	3-6 (medium)	58 (48.33)	1.69	1.38	0.89	1.11	5.07
	7-9 (high)	8 (6.67)	2.62	1.44	0.75	0.96	5.77

*Significant at 5% level of probability; **Significant at 1% level of probability

change in herd size made little impact in terms of participation in decision making and access to markets and inputs. It appears that not many women were members of formal social groups/organizations (Table 2). Perhaps the lack of grass root social organizations is to blame as we know that SHGs significantly contribute to women empowerment as group participation has helped to remove poverty; improved consumption level of the families; improved rate of asset creation and support empowerment (Khandker, 2003, 2005; Swain and Maria, 2007; Tedeschi, 2008; Banerjee, 2009; Imai *et al.*, 2010).

It is a well known fact that most of the work related to animal husbandry is done by women yet they find themselves excluded from the formal extension systems (Table 2). Earlier, Kaur and Sharma (1991) reported that training of women in animal husbandry is neglected. Swanson *et al.* (1990) estimated that women received only between 2 to 10% of all extension contacts and a mere 5% of extension resources worldwide. The respondents access to inputs and markets remained nearly same even

Table 3
Background profile of the respondents

Variable	Possible range	Observed range	Mean	Standard deviation
Age (years)	-	19-70	40.25	11.70
Educational qualification	0-6	0-6	2.15	2.26
Family type	1-2	1-2	1.84	0.36
Land holding (acres)	0-6	0-6	2.97	1.49
Herd size	1-3	1-3	1.96	0.71
Social participation	0-4	0-1	0.008	0.091
Extension contact	0-14	0-8	0.74	1.09
Mass media exposure	0-16	0-5	2.02	1.48
Economic motivation	6-30	20-26	23.25	0.72
Risk orientation	6-30	10-30	25.59	2.88
Information seeking behaviour	0-45	0-9	3.14	2.29

Table 4
Relationship of antecedents with factors associated with animal husbandry

Antecedents	Antecedents categories	Frequency (%)	Participation in decision making	Access to finance	Access to resources	Access to inputs	Access to market
Age	Young (Below 30 years)	21 (17.50)	24.00	14.38	7.24	19.95	11.76
	Middle (30-55 years)	88 (73.33)	27.06	15.34	7.77	18.92	11.48
	Old (>55 years)	11 (9.16)	24.45	15.73	8.36	14.82	11.45
Education	Illiterate (0)	56 (47)	25.69	15.00	7.82	17.09	11.34
	Medium (1-4)	40 (33.33)	26.65	15.60	7.73	18.95	11.38
	High (5-6)	24 (20)	27.08	15.04	7.54	22.17	12.25
Family type	Joint (1)	19 (16)	26.31	14.79	7.58	18.79	11.58
	Nuclear (2)	101 (84)	26.29	15.29	7.76	18.71	11.52
Land holding	Small (0-1)	10 (8.33)	23.00	14.10	7.60	19.00	11.30
	Medium (2-3)	74 (61.66)	24.89	15.08	7.60	18.77	11.55
	Large (4-6)	36 (30)	30.08	15.78	8.03	18.56	11.56
Herd size	Small upto 2)	33 (27.5)	27.15	15.00	8.09	20.45	11.67
	Medium (3-5)	58 (48.3)	26.03	15.38	7.60	17.50	11.17
	High (>5)	29 (24.2)	25.83	15.10	7.59	19.21	12.10
Social participation	Non member (0)	119	26.22	15.18	7.70	18.49	11.5
	Member (>0)	1	35.00	18.00	10.00	33.00	16.00
Extension contact	Low (0-1)	105 (87.50)	26.51	15.14	7.77	18.72	11.45
	Medium (2-4)	13 (10.83)	24.69	15.38	7.38	18.85	12.31
	High (5-6)	2 (1.66)	25.00	17.50	8.00	18.00	11.00
Mass media	Low (0-3)	97 (80.83)	25.76	14.94	7.68	17.69	11.21
	Medium (4-6)	22 (18.33)	28.77	16.45	7.95	23.18	12.86
	High (>6)	1 (0.84)	23.00	14.00	8.00	21.00	14.00
Economic motivation	Low (20-22)	7 (5.83)	30.00	15.86	8.00	16.14	10.29
	Medium (23-24)	109 (90.83)	26.00	15.15	7.72	18.99	11.61
	High (24-26)	4 (3.33)	27.50	15.75	7.50	16.00	11.50
Risk orientation	Low (10-20)	3 (2.50)	22.00	15.33	8.00	17.00	11.33
	Medium (22-25)	41 (34.16)	26.07	14.78	7.88	18.59	11.56
	High (26-30)	76 (63.33)	26.17	15.43	7.64	18.87	11.51
Information seeking behaviour	0-2 (low)	54 (45)	26.67	14.94	7.61	17.91	10.94
	3-6 (medium)	58 (48.33)	25.88	15.34	7.86	19.86	12.22
	7-9 (high)	8 (6.67)	26.75	16.00	7.63	14.25	10.50

*Significant at 5% level of probability; **Significant at 1% level of probability

though their mass media exposure varied.

It is concluded that though there were variations in the antecedents but the concomitant changes in the respondents' role performance and their access to inputs and markets were minor. Similarly, participation in decision making also was similar across categories (Table 4). Women's control over families' livestock is by culture (Tipilda and Kristjanson, 2008). Yet typically men are responsible for the purchase, sale and pawning of large animals while women tend to claim control over small animals (Miller, 2001; IFAD, 2004; World Bank, 2008). It appears that patriarchal system is prevalent and facilitating the dominance and control of men over the animal resources in rural areas. It is argued that a deeper examination of the gender and livestock relationship is required especially in terms of framework of assessment. Steps to ensure gender equity by making development programmes more gender friendly, directing subsidies and loans to women, favouring rural markets, etc are advised. The findings of the study indicate that factors like age, education, family type, etc do not make much difference to women's position concerning dairy animals in Haryana. Rural women across all the classes follow strictly defined gender roles in animal husbandry and face hindrances in accessing markets and inputs for rearing animals indicated that women are merely passive workers. It raises doubts on the idea that the animal husbandry is a powerful tool of women empowerment in the prevalent socio-cultural scenario.

REFERENCES

Anonymous (2013). Indian dairy industry. Indian mirror. Available at www.indianmirror.com..

Banerjee (Chatterjee), T. (2009). Economic impact of self help groups-A case study. *J. Rural Dev.* **20(4)**: 451-467.

Dana, S.S. (1987). Attitude of livestock owners towards artificial insemination in cattle. M.V.Sc. thesis, Indian Veterinary Research Institute, Izatnagar.

Heffernan, C. and Misturelli, F. (2000). The delivery of Veterinary Services to the poor: Preliminary findings from Kenya. Report

for DFID. Reading: Veterinary Epidemiology and Economics Research Unit, University of Reading.

IFAD (2004). Livestock services and the poor. Rome.

Imai, S., Katsushi, T.A. and Annim, S.K. (2010). Microfinance and household poverty reduction: New evidence from India. *World Dev*. **38(12)**: 1760-1774.

Jain, V. and Verma, S.K. (1992). Nature and extent of involvement of men and women in animal husbandry operations. *Indian Dairyman* **44**: 332-337.

Kaur. M and Sharma, M.L. (1991). Role of women in rural development. *J. Rural Stud.* **7(1-2)**: 11-16.

Khandker, S. (2003). Micro-Finance and Poverty Evidence Using Panel Data from Bangladesh. Policy Research Working Paper 2945, World Bank Research Development Group.

Khandker, S. (2005). Microfinance and poverty: Evidence using panel data from Bangladesh. *World Bank Econ. Rev*. **19(2)**: 263-286.

Kristjanson, P., Waters-Bayer, A., Johnson, N., Tipilda, A., Njuki, J., Baltenweck, I., Grace, D. and MacMillan, S. (2010). Livestock and Women's Livelihoods: A Review of the Recent Evidence. ILRI Discussion Paper No. 20. Nairobi: ILRI.

Miller, B.A. (2001). Empowering women to achieve food security: Rights to livestock. International Food Policy Research Institute. Washington.

Pareek, U and Trivedi, G. (1964). Manual of the Socio-Economic Status-Scale Rural. Delhi, Manasayan.

Pareek, U. and Rao, T.V. (1992). First Handbook of Psychology and Social Instruments. Indian Institute of Management, Ahmedabad.

Singh, J. (1978). A study of some selected factors affecting adoption of dairy innovations by different categories of dairy farmers in the milk shed areas of Ludhiana milk plant. M.V.Sc. thesis, NDRI, Karnal.

Singh, P., Mishra, A.B. and Singh, B. (2005). Assessment of women role in animal husbandry. Proceedings of National Seminar on Entrepreneurship on development for livelihood security - Experiences, Prospects and Strategies for Rural India. Indian Veterinary Research Institute, Izatnagar.

Sonowal, M. (2013). Impact of education in women empowerment: A case study of SC and ST women of Sonitpur district, Assam. *Basic App. Soc. Sci*. **3**: 27-33.

Supe, S.V. (1969). Factors related to different degree of rationality in decision making among farmers in Buldana district. Ph.D. thesis, Deptt. of Agricultural Extension, Indian Agricultural Extension, Indian Agricultural Research Institute, New Delhi.

Swain, B.R. and Maria, F. (2007). Effect of Microfinance on Vulnerability, Poverty and Risk in Low Income Households. Working Paper, Department of Economics, Uppsala University.

Swanson, B., Farm, B. and Bahal, R. (1990). The Current Status of Agricultural Examination Worldwide. In: FAO (Food and Agriculture Organization of the United Nations). Report of the Global Consultation on Agricultural Extension. Rome: FAO.

Tedeschi, G. (2008). Overcoming selection bias in microcredit impact assessments: A case study in Peru. *Dev. Stud.*. **44(4)**: 504-518.

Tipilda, A. and Kristjanson, P. (2008). Women and livestock development: A review of the literature. ILRI Innovation Works Discussion Paper 01-08, International Livestock Research Institute. Nairobi.

World Bank (2008). Gender in Agriculture Sourcebook. Washington.

Yadav, J.P., Sharma, K. and Saini, H. (2005). Role performance of farm women in animal husbandry practices. Paper presented in 3rd National Extension Education Congress on "Revitalization of Extension System in New Economic Order" held at National Dairy Research Institute. Karnal.