# Role of women participation in Balochistan-Pakistan small ruminant's development: potentials, prospects and constraints

Muhammad Shafiq, Asma Azhar and Nosheen Rafiq

Abstract- Small ruminants contribute the most significant share to the economy of Balochistan. It provides enormous portion of food supply to the rest of country. In rural areas of the province, there are nomadic, transhumance and sedentary families involve their women and children in the rearing small ruminants. Women perform livestock rearing activities in the province, such as; treating sick animals, herding, collecting fodder, poultry care, breeding, cleaning shelters, converting manure into fuel, processing milk, processing wool, sheering hair and etc. The purpose of the current study was to examine the potentials, and development of livestock sector through small ruminants' contributions by in the economy of the province. However, there are many constraints which hinder them to work freely. This paper is an attempt to highlight the participation of women in small ruminants' development of Balochistan. Results indicated that potential was positively related to future prospects and development.

Index Terms- small ruminants, women; potential, future prospects, constraints, livestock, Balochistan

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Hypothetical Research Model
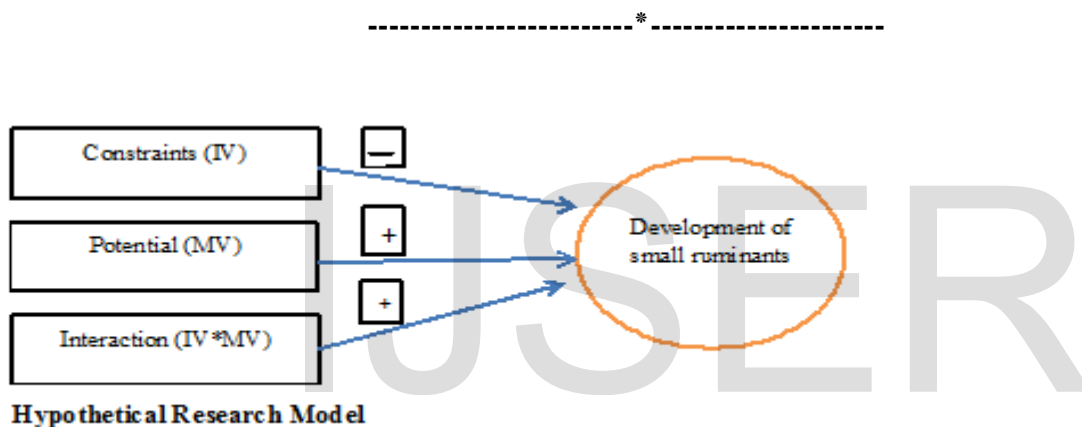
MATERIALS AND METHODS

Primary Data is collected through survey technique of convenience technique. Formal questionnaire constructed to evaluate the target population through convenience sampling. The results were then analyzed by using the statistical tool. Twenty (20) Districts out of 30 Districts of Balochistan were selected considering the different factors. The research has the practical implication and form the type of data gathering a descriptive (non-empirical) and casual. Data were then analyzed by using the simple statistical tool. Sheep and goat dominated throughout the areas of data collection. Sample size estimated 435 persons. According to the possibility of unreturned questionnaires, 20 per cent extra sample size distributed which finally 362 questionnaires received. All categories women (eighteen years old or above), such as: housewives, employee women, farmer women, small ruminants holder women, teacher, farmers, nomadic, transhumance sedentary women and other common women who involve in small ruminants rearing activities at any scale are the target population of the study.

Using SPSS 16.0, two statistical tests were employed to test study hypotheses. There were two parts of questionnaire, first was about the potential and prospects and Development. Second portion was about the constraints women are facing in the livestock sector of Balochistan. There were 42 questions covering the different variables such as potential and future-

prospects, Development, and constraints (financial-marketing-environment, government social constraints). The Croanbach's alpha was calculated for each of the question groups. Potential and prospects was measure through three dimensions; those were; income generation, saving ability and number increase growth with nine questions as 0.88. Development was measured through poverty reduction, women empowerment, standard of living and capacity building, and with twelve questions which measured as 0.89. On the other hand, constraints aspect was also analyzed for accuracy and consistency through Croanbach Alpha calculated and computed as 0.90. Questionnaire was measured according to Likert 5-scale standard from strongly disagree to strongly agree (1= strongly disagree…5= strongly agree). The control variables consist of age, number of education small ruminants, marital status, occupation, time span in small ruminants business, and monthly income from small ruminants business. Respondents were female only. The demography's for women in this sample had an average age of 38.2 years (S.D. = 7.02 a mean of 2.05 (S.D. =1.7) years. For reliability of questions, content reliability and factor reliability used. To measure content reliability asked from experts, elites and academics. The factor reliability was operated by conformity factor analysis and using the Lisrel (8.53). Table of correlation is shown below:

Table1: Pearson correlation Matrix for women Potential, prospects and constraints and Reliability

	Mean	SD	Variance	Correlations				b
				1	2	3	4	
1. Potential & Prospects (MV)	4.21	.68	.46	1				.876
2. Constraint (IV)	4.11	.73	.55	.341	1			.936
3. Development (DV)	3.74	.66	.44	.825	-.20	1		.880
4. IV & MV	3.88	.60	.73	.806	.708	.966	1	.945

**. All items are Correlated significantly at the 0.01 level (2-tailed).
b)=Cronbach Alpha (Cronbach, 1951).

RESULTS

All items encumbered significantly (> .50) on their respective factors which was an indication of indicator reliability. Composite reliability *(c)* (Werts et al., 1974) and Cronbach's alpha (1951) values for all scales exceeded the minimum verge level of .85 (Nunnally and Bernstein, 1994), thus indicating the reliability of all scales used in this study (Table 1). Fornell and Larcker's (1982) test for validity revealed relatively low variances extracted for each factor compared to the inter-scale correlations. This study examined the relations amongst potential and future prospects, development and constraints in small ruminant rearing in a sample of area of Balochistan. Proposed hypothesis received considerable support. It was hypothesized that potential of small ruminants would be positively related to future prospects. In line with previous studies (Coté, 2005; Johnson, 2007) support was found for this hypothesis. This finding indicates that potentials of Income generation, saving ability and increase in small ruminants' numbers are the very important characteristics that enable an individual to appropriately use the potential of small ruminants for his welfare. Furthermore, constraints

enables common people of Balochistan to deep act more that is, to understand people, be empathetic to their circumstances, and internalizes the problems they are facing in order to earn decent rate of return for themselves. There was a positive relationship between Financial Marketing and environment Government and Social .variables. This finding suggests that small ruminant's holders who engage themselves in small ruminants business are susceptible to constraints. The findings of this study suggest that the more scale of constraints in small ruminants of Balochistan undertaken by women small ruminants holders may have negative implications for their well-being that extend beyond their work. The results of this study confirmed expectation for an inverse relationship between potential- prospect and Financial Marketing and environment Government and Social variables.

Table No.2 shows Reliabilities of the factors pertaining to constraints:

Factor	Mean	SD	No. of items	Cronbach Alpha
Financial Constraint (FC)	4.32	.93	3	.886
Marketing Constraints(MC)	1.16	.94	3	.845
Environment Constraints(EC)	4.19	.86	3	.805
Government Constraints (GC)	4.08	.79	9	.876
Social Constraints	4.19	.95	3	.825

Reliability table No. 2, exceeded the minimum acceptance level is .70. The mean score computed for Potential and prospects is 4.21 and SD was 0.68.

Table 3: shows the regression results with moderating variable

Variables	Std Beta Step 1	Std Beta Step 1	Std Beta Step 1
Independent Variable	-.64**	-.85*	
Financial constraints	-.26** / -.46*	-.77** / -.90*	
Marketing constraints	-.47** / -1.01*	-.97** / -2.2**	
Environment constraints			
Government constraints			
Social constraints			
Moderating variable Potential and Prospects (PP)		2.68**	2.87**
Interaction Term FMC x PP			.120
MC x PP			.135
EC x PP			.256
GC x PP			.129
SC x PP			.852
R^2	.252	.512	.721
Adj. R^2	.525	.515	.676
R^2 Change	.129	.175	.361
F Change	22.41*	2.451	.321

Regression Results as calculated:

Equation: Development=a +Bx +bY +bXY

Where,

D=Development of small ruminants (DV)

X= Constraints (IV)

Y= Potential and Prospects (MV)

XY= Interaction (IV*MV)

Development= *Intercept +Coefficient* (Constraints) + *Coefficient* (Potential and prospects) + Coefficient (Interaction of IV& MV)

One regression equation was used for analysis. Equation included one independent variable (P&P), one dependent variable (Development) and one Moderating variable

DISCUSSION

Research was practically indigenous, descriptive and causative in nature. Majority of women in livestock sector are illiterate or have very low education (Illiterate 52%, primary, middle and Metric constitute 36%, only 6% are intermediate or graduate) causing low productivity in small ruminants. Majority of women rear small ruminants as a source of income and survival. Only 5% women have buffalos in the under study area whereas 25 % women have cattle at their homes. Camel, horses, mule, donkey and other small ruminants were found rare in the sample area. Maximum population has the small ruminants at their home which constitute 100%. Whereas 92% people had sheep and 75% have goat. This shows that small ruminants of Balochistan small ruminants are the real potential for women. However, they also have domestic poultry, which is not very much significant and does not contribute to livelihood of women residing in Balochistan. Majority of women in Balochistan rural areas are involved in the small ruminants production process (Humera *et al.*, 2010). The assumption of researchers and policy makers in term of women's so called passive role in agriculture and categorize them as part time workers are short sighted and therefore do not support the actual economy where women are active participants and play pivotal roles in agriculture (Ashwini, 2002). These sources can be utilized for family or for the guests, even, when facing terrible times. Increased consumption of small ruminants' products would improve the nutritional status of women and children (Ayele and Peacock, 2003). Study is to help policy makers in the planning by providing estimates on potential, prospects and constraints (Harrington, 1992).

CONCLUSION

Livestock plays important role in maintaining the livelihoods of the farmers by providing food, footing power, manure, raw material, cash security, social and cultural identity, medium of exchange and means of savings and investments (Nadeem and Sajida 2004). Women are the important factor of production in agriculture economy of Balochistan. They play a significant role to support their families and through livestock especially small ruminants. Small ruminants are easy to manage at home and give a reasonable income to the small ruminant's holder; hence, women show their immense interest in this sector. However, majority of women in this sector are illiterate or low educated which does not support the small ruminants economy very much. There are number of factors which are the real potential of small ruminants, such as: capacity building and women empowerment. An estimated two-thirds of poor small ruminants keepers, totaling approximately 400 million People, are women in South Asia (Thornton et al, 2002). When women have the saving, they can spend it according to their desire. This will build the confidence and will support the whole family setup. However, there are number of constraints which do not let this sector to grow. Therefore, a common population remains poor. Small ruminants are not considering a proper business by the inhabitant of Balochistan and therefore, investors are reluctant to invest in it. A rural woman does not have the finance to establish her business on strong footing. She has no permission to go outside the home freely or has no right to purchase the small ruminants for herself rather men are responsible for selling and purchase.

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References

[1] Ashwini, G., (2002). *Women in Agriculture.* BAIF; Development Research foundation

[2] AYELE, Z. and PEACOCK, C. (2003). Improving access to and consumption of animal source foods in rural households: the experiences of a women-focused goat development program in the highlands of Ethiopia. *Journal* ofNutrition.133: 3981S-3986S

[3] Côté, S. (2005, April). Do emotionally intelligent people manage their emotions wisely? In Robin Gosserand and James Diefendorff (Chairs). *Toward a Better Understanding of Emotion Regulation at Work.* Symposium conducted at the 20th annual conference of the Society for Industrial and Organizational Psychology. Los Angeles, CA.

[4] Cronbach, L. J. (1951). Coefficient Alpha and the internal structure of tests .*Psychometrika, 16(3),* 297-333.

[5] Deere, C.D. (2005). The Feminization of Agriculture? Economic Restructuring in Rural Latin America. United National Research Institute for Social Development, Occasional Paper 1.

[6] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18(1),* 39-50.

[7] Harrington, D.H., (1992). *Measurement Issues Relating to Policy Analysis. Costs and Returns for Agricultural Commodities.* Oxford Press: West View,

[8] Humera Amin, Tanvir Ali, Munir Ahmad and Muhammad IqbalZafar. (2010). GENDER AND DEVELOPMENT: ROLES OF RURAL WOMEN IN LIVESTOCK PRODUCTION IN PAKISTAN-- Department of Agriculture Extension, University of Agriculture, Faisalabad1Department of Rural Sociology, University of Agriculture, Faisalabad. *Pak. J. Agri. Sci., Vol. 47(1), 32-36; 2010ISSN (Print) 0552-9034, ISSN (Online) 2076-0906* http://www.pakjas.com.pk

[9] Johnson, K. N. (1995, December). *Ethics and youth in expositions and competitions.* Paper presented at the LCI National Youth Livestock Program Ethics Symposium

[10] Nadeem Akmal and Sajida Taj (2004).Women and Livestock Management in Sindh (Pakistan agriculture research council PARC)

[11] Nunnally, J.C., & Bernstein, I. H. (1994).*Psychometric theory (3rd Ed.).* New York, NY: McGraw-Hill Okapi, C. and J. Mims. (1998). 'Gender and Smallholder Diary Production in Tanzania.' Report to the Livestock Production Program of the Department for International Development (DFID): Appendix 1 and 2 pp. 37-3 8.

[12] Shapiro, B.I., J. Haider, G.W. Alemu and M. Abebe. (1998). Crossbred cows and human nutrition and health in the highlands Eco region: Evidence from Ethiopia. ILRI (International Livestock Research Institute), Addis Ababa, Ethiopia. pp.22 (Mimeo).

[13] Thornton P.K., Kruska R.L., Henninger N., Kristjanson P.M., Reid R.S., Atieno F., Odero A.N. and Ndegwa T. (2002). *Mapping poverty and livestock in the developing world.* ILRI (International Livestock Research Institute), Nairobi, Kenya. 124 pp.

[14] Werts, C .E. Linn, R. L., & Joreskog, K.G.(1 974).Intra class reliability estimates: Testing structural assumptions. *Educational and Psychological Measurement, 34(1),* 25–3 3.

[15] Whalen, I.T. (1984). ILCA's Ethiopian highlands program: Problems and perspectives in expanding the

participation of women. Paper prepared for IITA/ILCA/Ford Foundation Workshop on Women in Agriculture in West Africa, Ibadan, Nigeria, 7–9 May, 1984. pp.24.

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