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PRODUCTION PATTERNS OF SHEEP AND GOATS IN DISTRICT QILA ABDULLAH (BALOCHISTAN)

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ABSTRACT

In order to determine the production patterns of sheep and goats the study was carried out during 2005 in five areas of District Qila Abdullah (Balochistan) i.e. Chaman, Qilla Abdullah, PirAlizai, Gulistan and Maizaiadda, where mostly the flocks comprised of Bibrik, Balochi and Dumbi sheep breeds and Kamori, Jatan, Lehri and Khurasani goat breeds. The results showed that the capital cost on animal averaged Rs. 450, while feeding cost was Rs. 3079, medication and vaccination charges Rs. 26, labor charges Rs.135, marketing charges Rs.16 and miscellaneous charges Rs. 9 to accumulate overall per animal recurring cost Rs. 3264.65 per animal/year. Producers received gross revenue of Rs. 5252 from the sale of animals, manure and wool/hair against an expenditure Rs. 3824, hence the net returns came to Rs. 1428 per animal. The farmer earned Rs. 1.38 (1:1.38) on one rupee investment. Breakdown of consumer's rupee revealed that producer shared 68 paisa from consumer's rupee and pocketed Rs.0.38 against the cost of one rupee. The cost benefit ratio (average 0.43) in Chaman, Qila Abdullah, PirAlizai, Gulistan and Maizaiadda was 1:0.52, 1:0.39, 1:0.41, 1:0.36 and 1:0.44, respectively. The findings of the study showed that sheep and goat farming is a profitable business in the Balochistan province, especially Qila Abdulla district.

Key words: Sheep, Goats, production patterns, recurring costs, investment, gross revenue,net income.

INTRODUCTION

Pakistan is an agricultural country and more than 70 % of the population lives in rural areas and their livelihood direct or indirect engagement on agriculture. Livestock sector is a sub-sector of agriculture which accounts 50.8% to the value addition in agriculture sector and almost 11.4% to Pakistan's GDP (Anonymous, 2010). It is clear from the fact about 30-35 million rural population is engaged in livestock raising, having household holdings of 2-3 cattle/buffalo and 5-6 sheep/goats per family which help them to derive their income (Magsi, 2005). Sheep populations in Pakistan were 25.5 million and61.9 million goats (Magsi, 2005). Rapid economic development is resulting in considerable pressure on the livestock sector to increase its output, as demand for milk and meat is increasing rapidly.

It has been noted that still traditional practices for production of goats and sheep are being adopted. The scientific and unhygienic condition of mutton production affects the marketing, which results in low production and thus less benefit to the small ruminant farmers. Goats and sheep production is specialized profession of people living in Balochistan. Most of the people in Balochistan province have their economic association with livestock raising and livestock census (2006) shows that 48 percent of the total livestock population comprised of sheep and 22 percent are goats. The production of small ruminants in Balochistan province is lacking modern scientific training facilities and the situation is mainly associated with lack of technical knowledge of the farmers and associated marketing agents. Balochistan province is considered as a center of livestock business since ancient times and even still when global business trends are in big change; the people of this area find their livelihood in business of livestock and its byproducts (GOB, 2005).

District Qila Abdullah is situated within the Quetta zone and its jurisdiction touches the border with Afghanistan. It is one of the main livestock producing district and its livestock markets are scattered at various places in the district. Besides, Qila Abdullah district has also considerable importance in livestock production and marketing, because being the bordering district with Afghanistan, business associated with livestock production and marketing is considered much promising. Large animals from interior of Balochistan and Sindh come through Quetta and then to Qila Abdullah markets. In case of small ruminants, it is estimated that 250 small ruminants enter daily in different markets, while the local farmers in the district sell approximately 100 small ruminants (Sadhana, 200) So the total small ruminants reaching in different markets of Qilaabdullah district are estimated 370 per day (GOB, 2010). The present study was designed to compose the clear picture of the present small ruminant production and marketing system in various places of district Qila Abdullah of Balochistan.

MATERIALS AND METHODS

The information on various aspects was collected from the goat and sheep farmers of five tehsils of Qila Abdullah district. For the collection of data, a uniform basic questionnaire was developed. Forty eight farmers were randomly selected from tehsil Chaman, Qila Abdullah, Piralizai, Gulistan and Maizaiaddaof Qila Abdullah district. The information regarding small ruminants'production and marketing patterns, socio-economic conditions, literacy rate, and marital status of producer, structure of farm, production and marketing cost was obtained from the selected producers involved in the business.

A manageable sample of 48 small ruminant producers, wholesalers and retailers was selected for study by random sampling technique. The selected samples were interviewed during study year through the comprehensive set of questionnaire specially developed for the purpose.

RESULTS AND DISCUSSION

Demographic information: The data illustrated that majority of the small ruminant producers (43.75 %) had primary level of education, 31.25% had middle level education, 10.41% had matriculation, while 4.16% acquired college level education. In case of marital status (Table-2) it was observed that majority of the goat/sheep producers (62.50%) were married, while remaining 37.5% were yet to be married.

Structure of farms: Three categories of farm structures were found for housing the animals by the producer/farmers of the studied area. It was observed that majority of the goat/sheep farms (75.00%) had kacha structures, while 18.75 percent of the farms studied had semi pacca structures. Only 6.25 percent of 48 sheep/goat farms visited had pucca structures (Table-1).

Feeding cost: On an average the feed cost spent by the goat/sheep farmer per animal was Rs. 3108.19. The farmers in Qila Abdullah tehsil spent relatively more amount (Rs. 3220/animal) on feeding their goats and sheep, while farmers in Chaman, Piralizai, Gulistan and Maizaiadda spent Rs. 3162, 3117, 3115 and Rs. 2854/animal, respectively as feeding cost.

Flock size: On an average 162 animals were managed in a flock and in towns like Maizaiadda, the bigger flocks managed by the small ruminant farmers, probably due to existing and easily availability of pastures for grazing small ruminants.

Flock structure: It was noted that Khurasani goat breed was dominating the flocks, followed by Kamori, Jatan and Lehri goat breeds in different places of district Qila Abdullah (Table-2). Moreover, Balochi and Dumbi were the dominating sheep breeds in flocks selected in almost all the places of district Qila Abdullah (Table-3). Overall, 22.97 % out of total sheep studied were in Chaman, 21.87 in Qila Abdullah, 18.44 in Piralizai, 17.37 % in Gulistan and 19.34 % in Maizaiadda.

Wool production: The resultsrevealed that Dumbi sheep produced significantly higher wool production of 1.54 kg annually on average, while Bibrik produced 1.08 kg and Balochi 1.04 kg per animal on average during the year of study.

Recurring costs: Average cost on feeding was Rs. 3079, medication and vaccination charges Rs. 26, labour charges Rs. 135, marketing charges 16 and misc. charges Rs. 9, while overall recurring costs study district were Rs. 3374 per animal (Table-4).

Gross revenue: It was recorded that the producers received average gross revenue of Rs. 5252 (Table-5) from the sale of animals, manure and wool/hair in district Qila Abdullah during the year of study.

Net returns: The results thus achieved from district Qila Abdullah on this aspect are reported in Table-5, which revealed that after deduction of total expenditures Rs. 3824 per animal from gross revenue Rs. 5252 per animal, the net returns came to Rs. 1428 per animal in Qila Abdullah district.

Cost benefit ratio: The cost benefit ratio is generally used to determine the efficiency of the entrepreneur. The technique for computing the cost benefit ratio is very simple. It can be calculated by dividing the net margin/farm/year by total cost farm/year. After calculation it was observed that on investing the one rupee on the farm, the farmer/producer pocketed Rs. 0.43 benefit in Qila Abdullah district during the year under study (Table-5). The results further envisaged that in Qila Abdullah, Chaman, Piralizai, Gulistan and Maizaiadda, the cost benefit ratios remained 1:0.53, 1:0.40, 1:0.41, 1:0.37 and 1:0.45, respectively, which showed that the farmers in the above small ruminant market areas pocketed Rs. 0.53, 0.40, 0.41, 0.37 and 0.45 benefit on spending one rupee in their farming business of goats and sheep.

It was observed that the average cost on feeding was Rs. 3080, medication and vaccination charges Rs. 26, labour charges Rs. 135 and miscellaneous charges Rs. 9. The overall per animal recurring cost in the Qila Abdullah district remained Rs. 3374. On the other hand, Sadhana (2005) capital investment in district Quetta as Rs. 288.31, whereas Baloch (2003) and Awan (2005) estimated 180.31 and 201.25 rupees which are lower than the present study results because of farmers sampled or lining in the capital and near to the capital city. The above findings are partially supported by the Sadhana

Table-1. Housing type of small ruminant farming in five tehsils of Qila Abdullah

Places	No of farmer	No of animals	Flock size	Housing types					
				Kacha	%	Pucca	%	S. Pucca	%
Chaman	16	1563	98	12	33.33	1	33.33	3	33.33
Qila Abdullah	10	1446	145	5	13.88	1	33.3	4	44.44
Piralizai	8	1408	176	6	16.66	1	33.3	1	11.11
Gulistan	8	1350	169	6	22.22	0	0	0	0
Maizaiadda	6	1338	223	5	13.08	0	0	1	11.11
Total	48	7105	811	36	99.17	3	99.9	9	99.99
Mean	9.6	1421	162.2	7.2	19.83	0.6	19.9	1.8	19.99

Table-2. Flock structure by breeds of goat in various places of district Qila Abdullah

Places	Kamori	%	Jatan	%	Lehri	%	Khurasani	%	Total	%
Chaman	150	11.58	160	23.36	75	17.65	280	20.13	665	21
Q.Abdullah	111	15.97	133	19.42	60	14.12	287	20.63	591	18
Piralizai	133	19.14	118	17.23	125	29.41	311	22.36	687	21
Gulistan	166	23.88	138	20.15	65	15.29	302	21.71	671	19
Maizaiadda	135	19.42	136	19.85	100	23.53	211	15.17	582	19
Total	695	10.00	685	100	425	100	1391	100	3196	100

Table-3. Flock structure by breeds of sheep in various places of district Qila Abdullah

Places	Balochi	%	Bibrik	%	Dumbi	%	Total	%
Chaman	350	25.60	198	16.69	350	25.61	898	22.97
Qila Abdullah	323	23.63	209	17.62	323	23.62	855	21.87
Piralizai	262	19.16	198	16.69	262	19.16	721	18.44
Gulistan	210	15.36	269	22.68	210	15.37	679	17.37
Maizaiadda	222	16.25	312	26.31	222	16.24	756	19.34
	1367	100	1186	99.99	1367	100	100	100

Table 4. Farmer's average and total recurring expenditure incurred on small ruminants

Places	No of anim	Feeding cost/flock (Rs)		Veterinary charges Rs.		Marketing cost Rs.		Shepherd charges Rs.		Misce-llaneous Rs.		Recurring cost Rs.	
		M	Y	M	Y	M	Y	M	Y	M	Y	M	Y
Chaman	3162	25823	309876	155.17	1862	131	1568	2000	24000	125	1500	28233.8	338806
Q. Abdullah	3220	38920	467045	338.33	4060	242	2900	3500	42000	100	1200	43100.4	517205
Piralizai	3117	46464	557568	337.33	4048	220	2640	3600	43200	135	1620	50756.3	609076
Gulistan	3115	43870	526435	366.17	4394	211	2535	3700	44400	130	1560	48277.0	579324
Maizaiadda	2854	53037	636442	538.92	6467	279	3345	3700	44400	100	1200	57654.5	691854
Total	15520	208114	2497366	1735.97	20831	592	12988	9100	10920	590	7080	220622.	2736265

Table 5. Farmer's / Producer's net returns on per flock and per animal in districtQila Abdullah

Places	Gross Revenue Rs. (x)		Total expenditure Rs. (y)		Net returns / flock Rs. (x-y=z)		Kid cost	Total inputs	Net returns	Cost benefit ratio
	M	Y	M	Y	M	Y				
Chaman	46856	562275	28233.83	338806	18622.42	223469	44100	382906	179369	0.53
Qila Abdullah	65703	788437	43100.42	517205	22602.67	271232	65250	582455	205982	0.40
Piralizai	78283	939400	50756.33	609076	27527	330324	79200	688276	251124	0.41
Gulistan	72353	868237	48277	579324	24076.08	288913	76050	655374	212863	0.37
Maizaiadda	91755	1101063	5764.5	691854	34100.75	409209	100350	792204	308859	0.44
Total	354951	4259412	228022.1	2736265	126928.9	1523147	364950	3101215	1158197	2.15
Per Animal		5252		3374		1878	450	3824	1428	0.43

(2005) who stated that price system and marketing cost plays an important role in the marketing of mutton farming. He further mentioned that the price paid by the agencies, wholesaler, middleman and final seller were Rs. 80.38, Rs. 86.85 and Rs. 90.36 respectively, whereas Baloch (2003) and Mangsi (2005) on the other hand

showed that the price paid by the wholesaler, middle man retailer/final seller were 91.02, 80.18 and 81.22. The results present of study are close agreement with the results of Khan (2000) and Baloch (2003). The variation in the figures is associated with national-wide change in price of commodities and services and the price of mutton was equal to the price of chicken has been doubled, thus this change has caused bigger variation in the associated costs of production and marketing of small ruminants.

Conclusions: The production of small ruminants in Balochistan province is lacking modern scientific training facilities and the situation is mainly associated with lack of technical knowledge of the farmers and associated marketing agents.

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