

SOME ESTIMATES TO ASSESS THE VALUE CHAIN OF LAYNA¹

A. Notes and Assumptions

- 1 IND.... Indian Rupee
- 2 USD... American Dollar = 70 INR
- 3 Values per kg, per shawl or per scarf in 2018
- 4 Inc... incremental percentage increase per step
- 5 GT... percentage of grand-total
- 6 *1 kg of raw layna costs 14,000 IND or 200 USD (including real goat keeping costs [B2] against 3,150 IND or 45 USD paid by the Cooperative)
- 7 Labor demand according to *Mohammed Deen Darokhan*, Handycraft Development in Ladakh, 1990
- 8 Adopted unskilled labour cost (of Changpa goatherd) is 350 IND or 5 USD per day for B1, and 700 IND or 10 USD per day for B2.
- 9 Adopted skilled labor cost (of processor, spinner and weaver) is 700 IND or 10 USD per day for B1, and 1,400 IND or 20 USD per day for B2.
- 10 Pure layna yield is adopted to be 40 % of raw layna (after cleaning)
- 11 Mean raw layna yield per Changra goat is adopted to be 250 g (200 g – 300 g)
- 12 Mean pure layna yield per Changra goat is adopted to be 0.4 x 250 = 100 g (80 g – 120 g)
- 13 10 Changra goats will produce 1 kg of pure layna per year
- 14 Mean value per Changra goat is adopted to be 3,500 IND = 50 USD with productive goat life of 10 years
- 15 Mean annual maintenance costs per Changra goat is adopted to be 4,200 IND = 60 USD corresponding to 350 IND or 5 USD per month
- 16 Mean number of Changra goats per family is adopted to be 140
- 17 6 shawls @ 167 g each are made from 1 kg of pure layna
- 18 20 scarfs @ 50 g each are made from 1 kg of pure layna
- 19 Size of shawl: 180 cm x 60 cm (average); and size of scarf: 60 cm x 60 cm

B. Mechanical Dehairing

B1. Without real goat keeping costs

Step	Activity	Product	Time [days]	Value		%	
				INR	USD	Inc	GT
1	Changra goat investment	Annual amortization of seven goats	-	0	0	-	-
2	Maintenance of 10 goats		-	0	0	-	-
3	Combing of 10 goats	Raw layna	2				
Sub-Total 1:		2.5 kg of raw layna*		7,840	112	-	14
4	Transport + grading + dehairing	Pure layna		2,660	38	5	-
Sub-total 2:		1 kg of pure layna		10,500	150	-	19
5	Carding + spinning	15 d @ 8 h	15	10,500	150	19	-
Sub-total 3:		1 kg of yarn		21,000	300	-	38
6	Weaving + finishing	6 shawls x 3 d @ 8 h	18	12,600	180	26	-
Sub-total 4:		1 kg of fabrics		33,600	480	-	64
7	Whole sale	+ 20 % of ST 4		6,720	96	13	-
Sub-Total 5:		Shawls and scarfs		40,320	576	-	77
8	Retail sale	+ 30% of ST 5		12,110	173	23	-
Grand-Total:		1 kg shawls + scarfs		52,430	749	-	100
Grand-Total (rounded):		1 kg shawls + scarfs		52,500	750		

¹ «Layna» = Ladakhi Cashmere = local cashmere 'wool' from Changra goats of Changthang in Ladakh

Estimated prices for shawls and scarfs

Step	Cost Level	Value				%	
		Shawl (200cm x 60cm)		Scarf (60cm x 60cm)			
		IND	USD	IND	USD	Inc	GT
ST 4	Production	5,950	85	1,960	28	-	64
7	Whole sale (+20% of ST4)	1,190	17	420	6	13	-
ST 5	Whole sale	6,720	96	2,380	34	-	77
8	Retail sale (+30% of ST5)	2,030	29	700	10	23	-
GT	Retail sale	8,750	125	3,080	44	-	100
GT	Retail sale (rounded)	8,750	125	3,150	45		

B2. Including real goat keeping costs

Step	Activity	Product	Time [days]	Value		%	
				INR	USD	Inc	GT
1	Buying Changra goats	Annual amortization of 10 goats		3,500	50	1.7	1.7
2	Maintenance of 10 Changra goats	10 healthy goats		42,000	600	21.6	21.6
3	Combing of 10 goats	Raw layna	2	1,400	20	1.7	1.7
Sub-Total 1:		2.5 kg of raw layna*		46,900	670	-	25
4	Transport+ dehairing	Pure layna		2,600	38	2	-
Sub-total 2:		1 kg of pure layna		49,560	708	-	27
5	Carding + spinning	15 d @ 1,400 INR	15	21,000	300	16	-
Sub-total 3:		1 kg of yarn		70,560	1,008	-	43
6	Weaving + finishing	7 shawls x 3 d @ 8 h	21	29,400	420	21	
Sub-total 4:		1 kg of fabrics		99,960	1,428	-	64
7	Whole sale (+ 20 %)	20 % of ST 4		20,020	286	13	
Sub-Total 5:		Shawls and scarfs		119,980	1,714	-	77
8	Retail sale (+ 30 %)	30 % of ST 5		35,980	514	23	
Grand-Total		1 kg shawls + scarfs		155,960	2,228	-	100
Grand-Total (rounded)		1 kg shawls + scarfs		156,000	2,230	-	100

Estimated prices for shawls and scarfs

Step	Cost Level	Value				%	
		Shawl (200cm x 60cm)		Scarf (60cm x 60cm)			
		IND	USD	IND	USD	Inc	GT
ST 4	Production	16,660	238	4,970	71	-	64
7	Whole sale (+20% of ST4)	3,360	48	980	14	13	-
ST 5	Whole sale	20,020	286	5,950	85	-	77
8	Retail sale (+30% of ST5)	6,020	86	1,820	26	23	-
GT	Retail sale	26,040	372	7,770	111	-	100
GT	Retail sale (rounded)²	26,000	370	7,800	110		

² As can be seen from the second table under B1, the real price for a shawl (including goat keeping costs) is about 3 times higher than the present price without considering goat keeping costs. Hence, the goat keeper will earn significantly more than before.