5.3 PRODUCER CHARACTERISTICS
5.3.1 Livestock Wealth Distribution

From the detailed Level 2 data, information about distribution of livestock ownership could be computed. Four livestock species were used to classify wealth distribution: cattle, sheep, goats and chicken. This information is presented on the basis of province and agro-ecological region.

Class	Cattle	Sheep	Goats	Chicken
Table 15 Livestock wealth distribution classifications				
1	0	0	0	0
2	1-2	1-49	1-49	1-10
3	3-4	50-99	50-99	11-20
4	5-10	100-499	100-499	21-50
5	> 10	> 499	> 499	> 50

photo by: Park

Table 16 Cattle ownership distribution (percentages)						
		Herd size (number of cattle)				
Region	**Province**	**0**	**1-2**	**3-4**	**5-10**	**> 10**	**Total Respondents**
East	Khost	16.67	10.00	10.00	40.00	23.33	30
	Laghman		17.24	48.28	34.48		29
	Nangarhar	2.31	21.54	35.38	37.69	3.08	130
	Paktika	20.00	20.00	16.67	33.33	10.00	30
	Paktya	3.13	18.75	28.13	21.88	28.13	32
	All	**5.98**	**19.12**	**30.68**	**35.06**	**9.16**	**251**
Centre-East	Kabul	7.50	30.00	37.50	25.00		40
	Kabul City	24.24	24.24	30.30	18.18	3.03	33
	Kapisa		60.00	30.00	10.00		10
	Logar	10.00	28.00	22.00	34.00	6.00	50
	Parwan		30.95	45.24	21.43	2.38	42
	Wardak	6.67	43.33	40.00	10.00		30
	All	**8.78**	**32.20**	**34.15**	**22.44**	**2.44**	**205**
Centre	Bamyan	15.87	46.03	19.05	17.46	1.59	63
	Ghazni	35.09	26.32	28.07	10.53		57
	Ghor	24.00	40.00	16.00	16.00	4.00	25
	Zabul	18.52	25.93	31.48	22.22	1.85	54
	All	**23.12**	**34.17**	**24.62**	**16.58**	**1.51**	**199**
North	Baghlan	10.31	20.62	24.74	37.11	7.22	97
	Balkh	9.38	43.75	46.88			32
	Faryab	29.63	33.33	29.63	7.41		27
	Jawzjan	48.28	34.48	3.45	13.79		29
	Kunduz	3.33	23.33	23.33	30.00	20.00	30
	Samangan	18.75	37.50	23.44	14.06	6.25	64
	Sari Pul	15.38	30.77	25.64	25.64	2.56	39
	Takhar	5.00	20.00	20.00	30.00	25.00	20
	All	**16.27**	**29.59**	**24.85**	**22.49**	**6.80**	**338**
West	Badghis	36.00	32.00	12.00	20.00		25
	Farah	28.57	45.45	16.88	9.09		77
	Hilmand	15.00	30.00	25.00	20.00	10.00	20
	Hirat	39.85	36.09	15.79	7.52	0.75	133
	Nimroz	15.00	55.00	10.00	15.00	5.00	20
	All	**32.73**	**39.27**	**16.00**	**10.55**	**1.45**	**275**
Overall AVG/Total		**17.67**	**30.76**	**25.55**	**21.45**	**4.57**	**1,268**

Table 17 Sheep ownership distribution (percentages)						
		Flock size (number of sheep)				
Region	**Province**	**0**	**1-49**	**50-99**	**100-499**	**> 499**	**Total Respondents**
East	Khost	20.00	43.33		36.67		30
	Laghman	48.28	48.28	3.45			29
	Nangarhar	78.46	21.54				130
	Paktika		73.33	10.00	16.67		30
	Paktya	31.25	59.38	3.13	6.25		32
	All	**52.59**	**38.25**	**1.99**	**7.17**		**251**
Centre-East	Kabul	67.50	32.50				40
	Kabul City	42.42	57.58				33
	Kapisa	30.00	70.00				10
	Logar	56.00	44.00				50
	Parwan	69.05	30.95				42
	Wardak	56.67	43.33				30
	All	**57.56**	**42.44**				**205**
Centre	Bamyan	41.27	50.79	7.94			63
	Ghazni	43.86	56.14				57
	Ghor	52.00	48.00				25
	Zabul	33.33	66.67				54
	All	**41.21**	**56.28**	**2.51**			**199**
North	Baghlan	44.33	39.18	8.25	6.19	2.06	97
	Balkh	3.13	68.75	18.75	9.38		32
	Faryab	14.81	77.78	7.41			27
	Jawzjan	10.34	58.62	13.79	10.34	6.90	29
	Kunduz	3.33	63.33	10.00	13.33	10.00	30
	Samangan	29.69	64.06		4.69	1.56	64
	Sari Pul	10.26	69.23	17.95	2.56		39
	Takhar	25.00	55.00	15.00	5.00		20
	All	**23.67**	**57.99**	**9.76**	**6.21**	**2.37**	**338**
West	Badghis	8.00	64.00	16.00	12.00		25
	Farah	48.05	49.35	1.30	1.30		77
	Hilmand	60.00	40.00				20
	Hirat	48.87	41.35	7.52	2.26		133
	Nimroz	15.00	70.00	10.00	5.00		20
	All	**43.27**	**47.64**	**6.18**	**2.91**		**275**
Overall AVG/Total		**41.88**	**49.05**	**4.73**	**3.71**	**0.63**	**1268**

Table 18 Goat ownership distribution (percentages)						
		Flock size (number of goats)				
Region	**Province**	**0**	**1-49**	**50-99**	**100-499**	**Total Respondents**
East	Khost	6.67	83.33	6.67	3.33	30
	Laghman	79.31	20.69			29
	Nangarhar	72.31	27.69			130
	Paktika	50.00	46.67		3.33	30
	Paktya	15.63	53.13	9.38	21.88	32
	All	**55.38**	**39.04**	**1.99**	**3.59**	**251**
Centre-East	Kabul	75.00	25.00			40
	Kabul City	66.67	33.33			33
	Kapisa	100				10
	Logar	80.00	20.00			50
	Parwan	97.62	2.38			42
	Wardak	90.00	10.00			30
	All	**82.93**	**17.07**			**205**
Centre	Bamyan	52.38	47.62			63
	Ghazni	63.16	36.84			57
	Ghor	20.00	76.00	4.00		25
	Zabul	57.41	40.74	1.85		54
	All	**52.76**	**46.23**	**1.01**		**199**
North	Baghlan	37.11	58.76	3.09	1.03	97
	Balkh	6.25	90.63	3.13		32
	Faryab	25.93	74.07			27
	Jawzjan	13.79	82.76		3.45	29
	Kunduz	33.33	66.67			30
	Samangan	50.00	43.75	4.69	1.56	64
	Sari Pul	10.26	89.74			39
	Takhar	40.00	55.00		5.00	20
	All	**30.47**	**66.27**	**2.07**	**1.18**	**338**
West	Badghis		92.00	4.00	4.00	25
	Farah	20.78	71.43	2.60	5.19	77
	Hilmand	60.00	40.00			20
	Hirat	31.58	63.16	3.76	1.50	133
	Nimroz		95.00		5.00	20
	All	**25.45**	**68.73**	**2.91**	**2.91**	**275**
Overall AVG/Total		**46.29**	**50.32**	**1.74**	**1.66**	**1268**

Table 19 Chicken ownership distribution (percentages)						
		Ownership class (number of chicken)				
Region	Province	0	1-10	11-20	21-50	> 50	Total Respondents
East	Khost	13.33	43.33	23.33	16.67	3.33	30
	Laghman	6.90	68.97	17.24	6.90		29
	Nangarhar	3.85	40.77	31.54	20.00	3.85	130
	Paktika	3.33	56.67	33.33	6.67		30
	Paktya	3.13	37.50	34.38	12.50	12.50	32
	All	**5.18**	**45.82**	**29.48**	**15.54**	**3.98**	**251**
Centre-East	Kabul	7.50	47.50	32.50	12.50		40
	Kabul City	21.21	42.42	27.27	9.09		33
	Kapisa	10.00	40.00	40.00	10.00		10
	Logar	36.00	44.00	12.00	8.00		50
	Parwan	14.29	47.62	33.33	2.38	2.38	42
	Wardak	16.67	53.33	30.00			30
	All	**19.51**	**46.34**	**26.83**	**6.83**	**0.49**	**205**
Centre	Bamyan	47.62	47.62	4.76			63
	Ghazni	22.81	59.65	14.04	3.51		57
	Ghor	24.00	76.00				25
	Zabul	16.67	51.85	27.78	3.70		54
	All	**29.15**	**55.78**	**13.07**	**2.01**		**199**
North	Baghlan	17.53	60.82	13.40	8.25		97
	Balkh	3.13	50.00	21.88	25.00		32
	Faryab	29.63	66.67	3.70			27
	Jawzjan	58.62	34.48	6.90			29
	Kunduz	13.33	30.00	33.33	20.00	3.33	30
	Samangan	42.19	42.19	15.63			64
	Sari Pul	33.33	64.10	2.56			39
	Takhar		20.00	35.00	35.00	10.00	20
	All	**25.74**	**49.70**	**15.09**	**8.58**	**0.89**	**338**
West	Badghis	16.00	76.00	8.00			25
	Farah	2.60	32.47	42.86	22.08		77
	Hilmand		45.00	50.00	5.00		20
	Hirat	39.85	52.63	4.51	3.01		133
	Nimroz		25.00	60.00	10.00	5.00	20
	All	**21.45**	**46.55**	**22.91**	**8.73**	**0.36**	**275**
Overall AVG/Total		*20.27*	*48.66*	*21.21*	*8.68*	*1.18*	*1268*

In order to visualize the regional difference in livestock wealth distribution, summary data are presented graphically by agro-ecological region.

Figure 21 Wealth distribution cattle (percent respondents represented in proportion)
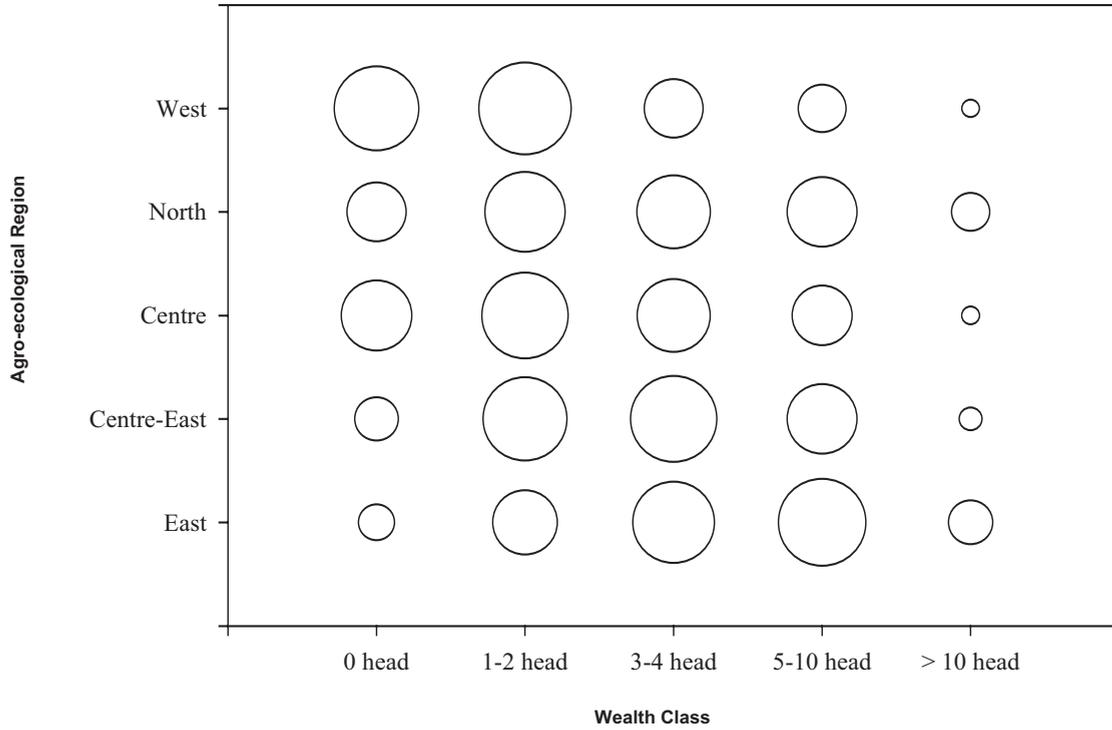
Figure 22 Wealth distribution sheep (percent respondents represented in proportion)
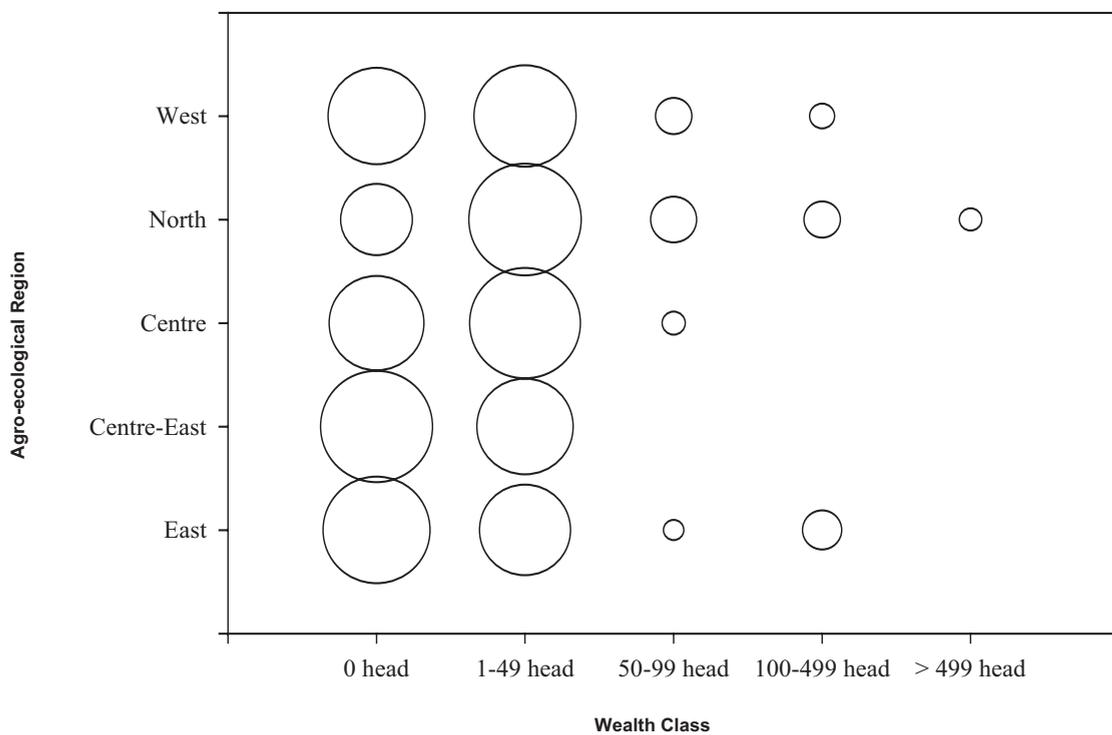
5.3.2 Livestock Management

Livestock management comprised the following responses: age structures, performance characteristic for cattle, sheep and goats, herd and flock composition (from Level 2 data) by agro-ecological region, and the culling and herd management policy in these three species.

5.3.2.1 Age structures

photo by: Guerne Bleich

Region	Younger < 1 year	Females 1-2 years	Females 2-3 years	Females 3-4 years	Females > 4 years	Adult male	Castrated male
Cattle							
East	22.6	17.1	9.2	14.3	29.0	5.6	5.9
Centre-East	18.1	14.6	11.5	18.5	19.7	3.5	5.9
Centre	18.4	12.6	7.2	15.9	27.8	15.0	7.4
North	22.4	9.3	5.4	11.8	26.2	4.4	19.3
West	22.5	7.9	20.7	22.0	14.4	6.9	17.6
Sheep							
East	29.4	16.3	21.5	21.7	11.0	2.0	0.6
Centre-East	24.8	9.7	25.5	21.4	8.0	9.2	0.7
Centre	24.8	12.6	21.4	21.7	11.1	4.1	6.3
North	19.4	11.9	23.2	16.0	13.0	2.5	0.8
West	28.3	18.8	21.5	19.4	6.5	2.5	4.0
Goats							
East	39.4	17.8	18.2	16.9	7.6	1.7	
Centre-East	18.4	25.2	28.2	21.8	2.0	5.1	0.3
Centre	33.0	11.9	25.8	18.4	11.6	2.0	
North	29.6	12.2	23.6	16.7	6.2	5.2	1.1
West	33.4	15.2	22.5	17.2	6.3	2.7	4.0
Donkeys							
East	17.6	5.7	10.8	26.5	18.7	24.9	3.4
Centre-East	4.5	0.8	4.5	17.5	41.7	3.0	
Centre	4.1	1.6	4.2	15.7	17.2	46.4	4.7
North	6.3	4.2	4.2	11.7	35.4	34.8	0.9
West	8.2	3.8	5.9	15.0	27.1	18.9	22.0
Camels*							
	4.3	11.0	9.3	10.4	31.7	28.0	2.7

Table 20 Age structure in herds and flocks surveyed in Level 2 by Agro-ecological region (percentages of the total herd or flock)

Horses*	Males	Females	Males	Females			
	Younger than 1 year		Older than 1 year				
	4.51	7.09	38.81	49.59			

*Averages for all regions

5.3.2.2 Performance characteristics

Table 21 Livestock performance characteristics					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Performance Characteristics for Cattle					
Percentage producers owning bull	13.55	23.41	27.83	32.15	14.03
Percentage cows calving each year	43.03	80.49	35.69	55.76	49.57
Keep cattle (years)	9.75	9.74	9.32	9.44	8.73
Performance Characteristics for Sheep					
Ewes per ram	43.01	13.22	20.92	61.57	47.40
Lambs born (per 10)	8.45	10.10	9.04	8.31	8.24
Lambs weaned (per 10)	6.90	7.57	6.82	6.30	7.14
Age weaning (months)	4.12	4.28	4.40	4.36	3.08
Age lambs sold (months)	6.64	9.21	6.58	5.84	5.56
Keep sheep (years)	5.41	4.91	5.22	5.69	5.64
Performance Characteristics for Goats					
Does per buck	42.30	8.19	18.54	39.17	46.77
Kids born (per 10)	9.70	13.45	10.69	9.56	9.96
Kids weaned (per 10)	7.69	9.79	7.96	7.21	8.82
Age weaning (months)	4.28	4.25	4.15	4.23	3.11
Age kids sold (months)	7.10	8.56	6.41	6.34	5.50

It is very obvious that these reproduction data indicate the most important problem: insufficient nutrition impinging upon reproduction. Strategic supplementation during breeding periods is an important and probable high-impact strategy, especially for small ruminants.

5.3.2.3 Culling Reasons

Table 22 Culling reasons (percentages)					
	Agro-ecological region				
Reasons fur Culling	**East**	**Centre-East**	**Centre**	**North**	**West**
Cows					
Old age	15.9	17.9	29.7	58.9	54.4
Unproductive	1.0	12.1	13.9	13.8	3.1
Infertile		1.9	3.6	3.7	1.3
No milk		6.3	6.1		
Sick	0.5	9.2	4.8	1.7	14.6
Feed shortage	40.4	42.0	35.2	18.5	15.9
Drought	1.9				
Cash need	35.1	9.7	6.7	3.4	10.6
Inadequate breed	5.3	1.0			
Ewes					
Old age	34.7	21.8	36.6	61.2	60.8
Unproductive	2.0	7.5	10.4	12.3	3.2
Infertile		2.0	2.2	3.7	1.6
No milk		4.1	4.5	0.4	
Sick	1.0	10.9	6.0	0.7	10.4
Feed shortage	16.3	41.5	32.8	14.6	12.4
Drought	1.0	0.7			
Cash need	44.9	8.2	7.5	7.1	11.6
Inadequate breed		3.4			

Feed shortage is the most frequently cited reason for culling of cattle, and old age dominates the reasons given for sheep.

5.3.2.4 Livestock herd management and sales policy

Table 23 Livestock which are sold first (percentages)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Species					
Cattle	40.0	62.4	41.4	36.5	30.1
Sheep	7.1	2.5	17.7	30.9	19.9
Goat	2.9	4.5	3.9	24.4	10.5
Other				3.3	1.6
Not specified	50.0	30.7	37.0	4.9	37.9
Sex					
Male	75.8	41.1	20.4	7.5	18.4
Female	3.8	4.5	6.6	17.9	21.1
Not specified	20.4	54.5	72.9	74.6	60.5
Age					
Sub Adult	5.4	18.3	16.6	8.8	3.9
Adult	16.3	27.7	38.7	48.9	71.5
Not specified	78.3	54.0	44.8	42.3	24.6
Performance					
Producing	1.7	5.0	8.3	3.3	8.2
Not producing	7.5	37.1	34.3	1.3	5.9
Not specified	90.8	57.9	57.5	95.4	85.9

Table 24 Livestock which are kept under all circumstances (percentages)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Species					
Cattle	49.8	80.8	72.7	60.3	27.0
Sheep	5.1	0.5	2.2	32.3	6.6
Goat	2.5	3.5	4.9	1.3	12.7
Other	0.4			4.2	16.6
Not specified	42.2	15.2	20.2	1.9	37.1
Sex					
Male	0.4	1.5	12.6	8.7	2.7
Female	97.5	97.5	82.0	56.5	52.9
Not specified	2.1	1.0	5.5	34.8	44.4
Age					
Sub adult	4.2		6.0	0.3	31.3
Adult	94.1	98.5	89.1	65.2	46.7
Not specified	1.7	1.5	4.9	34.5	22.0
Performance					
Producing	39.7	66.7	66.7	32.6	42.5
Not producing	0.8	0.5			
Not specified	59.5	32.8	33.3	67.4	57.5

These data appear at first sight contradictory. Cattle are listed both as animals sold first and as animals kept under all circumstances. The explanation is that cattle must frequently be sold because of feed shortages. When farmers expect to not have sufficient feed, they will sell cows and not take any chances, because of the substantial value of these animals. At the same time, they are the most valued livestock species and only sold when it is certain that they cannot be kept. On the other hand, farmers will not necessarily sell all sheep, even when feed shortages are imminent, but rather gamble that somehow small ruminants will survive anyway. Farmers are prepared to accept small ruminant losses over the winter feeding period.

photo by Pittroff

5.3.3 Markets

In this segment, data on comparative advantages of species and animal categories in the market, reasons for sale (prices, buyer behaviour), distance to market, and buyer properties are summarised.

5.3.3.1 Livestock sales – priority categories and reasons

Table 25 Sale of livestock (percentages)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Sell calves*	33.1	75.4	39.9	35.3	60.0
Sell cattle*	27.1	70.1	43.8	31.4	58.9
Sell animals for feed	19.1	32.7	25.5	37.2	48.6
Sell animals for cash	26.3	50.2	50.0	59.0	60.1
Priority of Selling for:					
Feed purchase	45.1	90.6	64.2	72.9	61.6
Cash	54.9	9.4	35.8	27.1	38.4
* Only responses from cattle owners were considered					

5.3.3.2 Trading partners for farmers

Table 26 Livestock trading partners for farmers (percentages)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Local trader	72.5	60.4	83.8	74.1	82.6
Regional trader	18.4	23.4	7.0	17.0	9.1
Foreign trader	0.4		4.3		
Butcher				3.4	4.9
Bazaar			1.1	0.3	
Different types	8.6	16.2	3.8	5.1	3.4

5.3.3.3 Distance to markets

Table 27 Distance to markets (hours)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Selling animal	2.11	1.90	2.86	2.28	1.90
Selling wool	1.84	1.96	2.62	1.83	1.77
Selling milk	1.06	1.81	2.46	1.45	1.43
Buying feed	2.18	2.03	2.93	2.09	1.81

5.3.3.4 Sales decisions

Livestock producers were asked about current market experiences compared with the year before. Note that the question on prices was triangulated, asking the same question once in the animal category ('Prices Higher'), and once in the price category ('Price Increased'). There are some numerical differences in the answers, but it is obvious that all responses were optimistic and indicative of strongly improved market prospects.

Table 28 Market changes from 2001/2 to 2002/3 (percentages)					
	Agro-ecological region				
	East	**Centre-East**	**Centre**	**North**	**West**
Cattle					
Prices higher	67.4	94.7	93.5	88.3	88.1
Earned more money	27.1	42.2	28.8	77.4	55.7
Sold more animals	14.4	34.2	35.9	11.0	11.9
Price Increased	94.9	98.4	98.0	95.1	98.4
More buyers	23.0	21.8	36.5	65.0	15.1
Sheep					
Prices higher	73.1	85.1	88.0	85.3	87.8
Earned more money	49.6	31.0	22.2	76.7	61.5
Sold more animals	27.7	34.5	43.6	14.7	13.5
Price Increased	94.1	89.7	94.9	90.7	98.7
More buyers	55.4	21.5	48.6	58.2	17.9
Goats					
Prices higher	82.1	85.7	91.5	87.7	87.8
Earned more money	47.3	17.1	28.7	77.0	57.1
Sold more animals	25.0	54.3	33.0	11.1	10.2
Price Increased	96.4	85.7	92.6	91.9	98.5
More buyers	37.6	12.9	30.7	55.0	18.4

Table 29 Which category sells best? (percentages)						
		Agro-ecological region				
		East	**Centre-East**	**Centre**	**North**	**West**
Cattle	Calves	39.0	14.4	19.4	37.7	77.2
	Cows	56.0	83.9	74.8	26.2	12.7
	Males	4.0	0.6	3.9	34.6	7.6
Total (n)		100	174	155	260	197
Sheep	Lambs	23.1	0.7	2.2	3.7	10.0
	Females	33.9	60.7	59.0	21.9	38.1
	Males	18.2	10.7	3.6	26.3	1.3
	Big Size	24.0	26.4	33.1	46.7	48.5
Total (n)		121	140	139	270	239
Goats	Lambs	19.8	1.0	0.9	1.9	38.0
	Females	48.4	81.0	66.1	60.1	34.1
	Males	26.4	1.0	0.0	10.8	0.5
	Big Size	4.4	15.0	30.4	24.7	25.0
Total (n)		91	100	112	158	208

photo by Pittroff