

Table S4. Contribution margin analysis and net farm incomes from operations, small-scale individual farm.

Small-scale farm						
Revenues						
<i>Cash revenue</i>	Number of traded livestock (head)	Weight of meat (kg head⁻¹)	Selling price (USD kg⁻¹)	Selling price (USD head⁻¹)	Sum (USD yr⁻¹)	percentage share of total revenues (%)
Sale of beef	4	81	5,1		1.652	
Sale of goat (head)	8			92,4	739	
Sale of sheep (head)	2			158,4	317	
				Sum of cash revenues	2.708	50
<i>Value of own consumption</i>	Number of consumed livestock (head yr⁻¹)	Weight of meat (kg head⁻¹)	Selling price (USD kg⁻¹)	Selling price (USD head⁻¹)		percentage share of total revenues (%)
Consumption of beef	1	159	5,1		811	
Consumption of goat meat	5			92,4	462	
Consumption of sheep meat	3			158,4	475	
				Sum of value of own consumption	1.748	32
<i>Inventory changes</i>	Herd size at end of the year (head)	Additional cow calves (head)		Selling price (USD head⁻¹)		percentage share of total revenues (%)
Cattle	23	2		502	1.004	
				Sum of inventory changes	1.004	18
				Total revenues	5.460	100

Variable costs independent of water inflow

<i>Veterinary</i>	Ear tags per head	Number of reared livestock (head)	Total number of ear tags (piece)	Price per ear tag (USD)	Sum (USD yr ⁻¹)
Calve	2	7	14	0,8	11
Kids	1	13	13	0,8	10
Lambs	1	5	5	0,8	4
Sum of veterinary costs					26
<i>Transport for stock control</i>	Stock controls per year	Average diesel consumption (L)	Annual diesel consumption (L yr ⁻¹)	Diesel price (USD L ⁻¹)	
	104	15	1.560	0,5	780
Sum of variable costs independent of water inflow					806

Variable costs depending on water inflow

<i>Demand winter fodder (hay)</i>	Amount of hay (kg d ⁻¹ per head)	Livestock number (head)	Feeding period (d)	Annual amount (kg yr ⁻¹)	Total demand (kg yr ⁻¹)
Cattle	10	21	120	25.200	
Goat	2	38	120	9.120	42.960
Sheep	2	36	120	8.640	
<i>Feed costs (hay for winter period)</i>	Specification	Total demand (kg yr ⁻¹)	Production or purchase price (USD kg ⁻¹)	Production or purchase costs (USD yr ⁻¹)	Sum (USD yr ⁻¹)

Normal situation	Farm own production of reed hay	42.960,00	0,02	859	859	
Decreasing water inflow	Farm own production of reed hay	21.480,00	0,02	430	2.578	
	Purchase of lucerne hay	21.480,00	0,10	2.148		
Worst case	Purchase of reed hay	21.480,00	0,08	1.718	4.726	
	Purchase of lucerne hay	21.480,00	0,14	3.007		
Total variable costs, normal situation					1.665	
Total variable costs, decreasing water inflow					3.383	
Total variable costs, worst case					5.531	
Contribution margin (USD yr⁻¹ per stock)						
Normal situation					3.795	
Decreasing water inflow					2.077	45,272727
Worst case					-71	101,87352
Contribution margin ratio (%)						
Normal situation					70	
Decreasing water inflow					38	
Worst case					-1	

Fixed costs

<i>Land</i>	Total area (ha)	Leasing price (USD yr ⁻¹)	Sum (USD yr ⁻¹)
	334	0,29	97

<i>Farm buildings</i>	Material costs (USD)	Useful life (years)	Salvage value (USD)	Annual depreciation (USD yr ⁻¹)		
Wood stable including hay storage	713	49	0	15		15
<i>Farm vehicle</i>	Purchase price (USD)	Useful life (years)	Salvage value (USD)	Annual depreciation (USD yr ⁻¹)	Taxes (USD yr ⁻¹)	
Used car (also private use)	2425	6	0	404	34	438
Total fixed costs						550
Net farm income (USD yr⁻¹ per stock)						
Normal situation						3.245
Decreasing water inflow						1.527
Worst case						-621