



# BREEDING STRATEGIES FOR SMALL RUMINANT PRODUCTIVITY IN TURKEY

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# Turkeys Livestock Population



Year	Cattle population	Sheep population	Goat population	Total Livestock
1980	16,608,980	46,026,000	18,775,008	81,409,988
1990	12,603,990	43,647,008	11,942,000	68,192,998
2000	11,221,000	30,256,000	7,774,000	49,251,000
2005	10,631,405	25,304,325	6,517,464	42,453,194
2010	11,454,526	23,089,691	6,293,233	40,837,450
2015	12,137,811	23,869,355	6,614,251	42,621,417
2020	12,618,068	22,699,519	6,951,644	42,269,231

# Reasons for reduction in numbers,



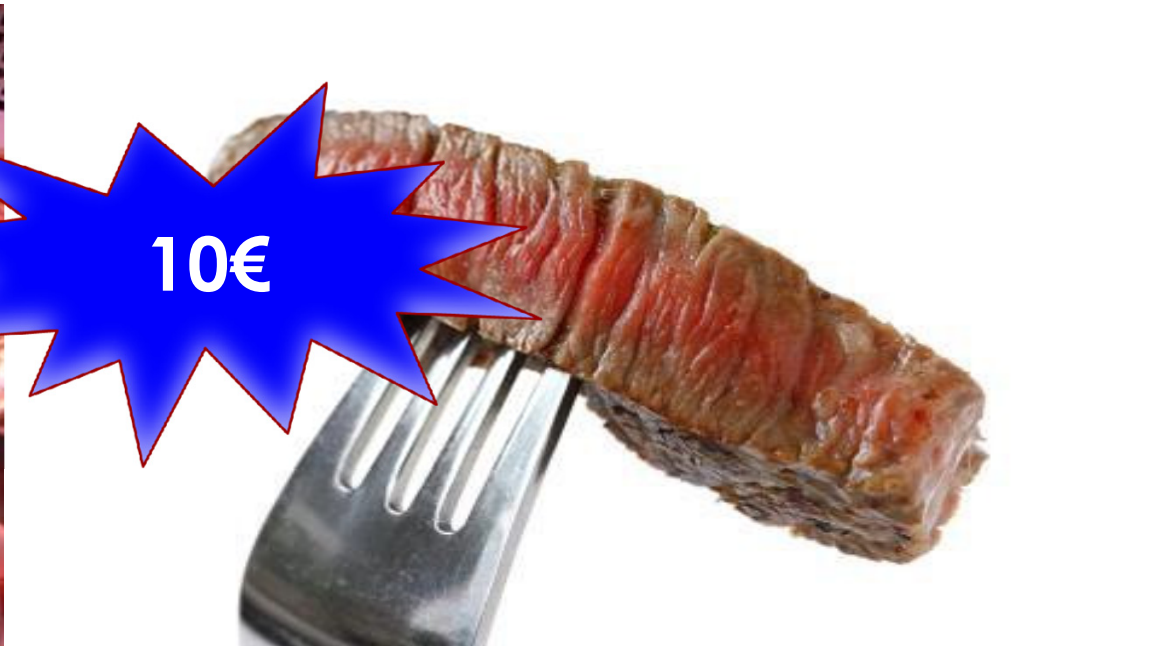
- Change in Farm unit
- Poor govt. policies
- High cost of inputs (Feed and Fuel)
- Poor Genetics
- Change in land tenure (restricted grazing areas, Forested sites etc.) Fragmented sites
- Ineffective production
- Social aspects(migration young generation)

# Turkey's Farm Unit

Size of Enterprise (ha)	No. of Enterprises and %		Total Cultivated Area and %	
	Number	%	Area (ha)	%
<2.0	1 486 939	36.55	1 322 065	5.64
2.0-4.9	1 274 609	31.33	3 866 896	16.49
5.0-9.9	713 149	17.53	4 675 069	19.94
10.0-19.9	383 323	9.42	4 921 663	20.98
20.0-49.9	173 774	4.27	4 648 732	19.82
>50.0	36 838	0.91	4 016 662	17.13
<b>Total</b>	<b>4 068 432</b>	<b>100.00</b>	<b>23 451 087</b>	<b>100.00</b>

**Distribution of agricultural enterprises according to land sizes**

Source : SIS 2000 Statistical Yearbook



10€



1.20€

GIVES  
US

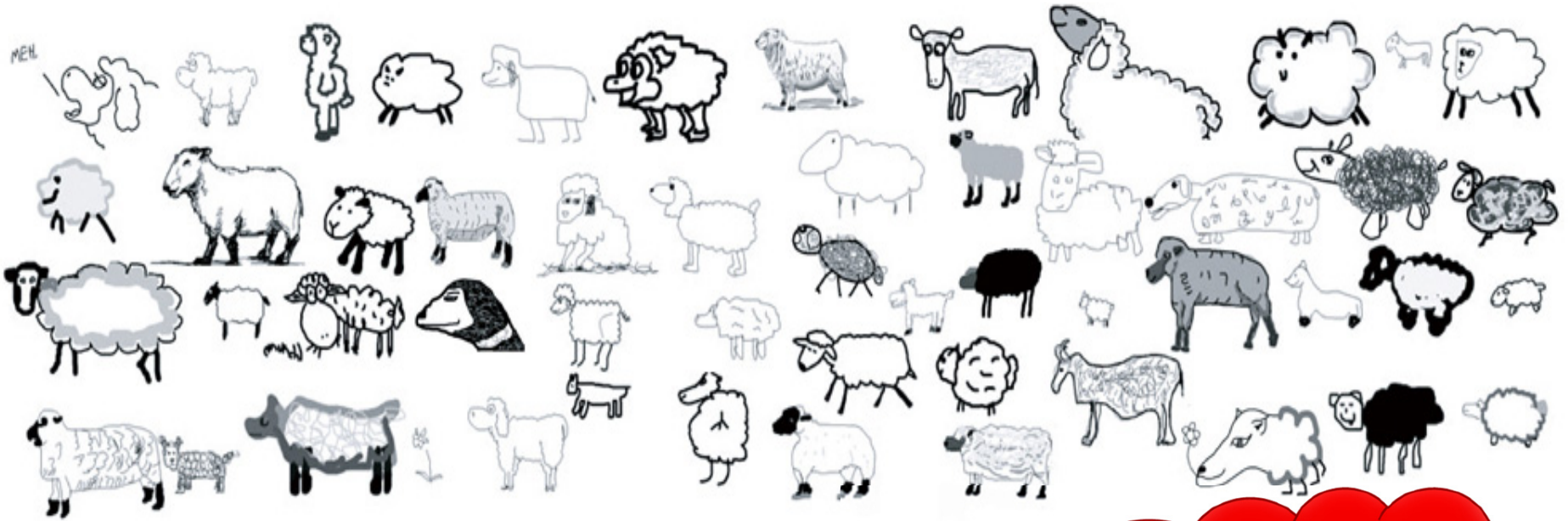


GIVEN  
TO THE  
ANIMAL



PRODUCTIVITY





WHAT  
HAPPENED?



# 1. Pasture Land and Grazing Capacity



Years	Pastures (ha)	Ratio to total area (%)
1940	44 217 000	56.8
1950	37 906 000	48.6
1960	28 658 000	36.8
1980	21 748 000	27.9
2000	12 377 600	15.9

**Changes in pasture area in Turkey between 1940 – 2000**

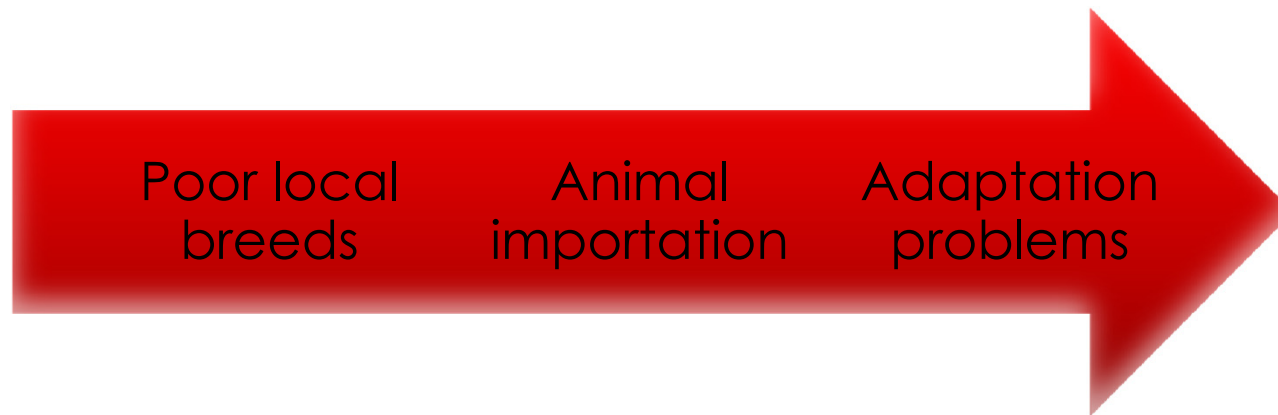
(source Munzur 1987 and SIS publications)



## 2. Pasture degradation

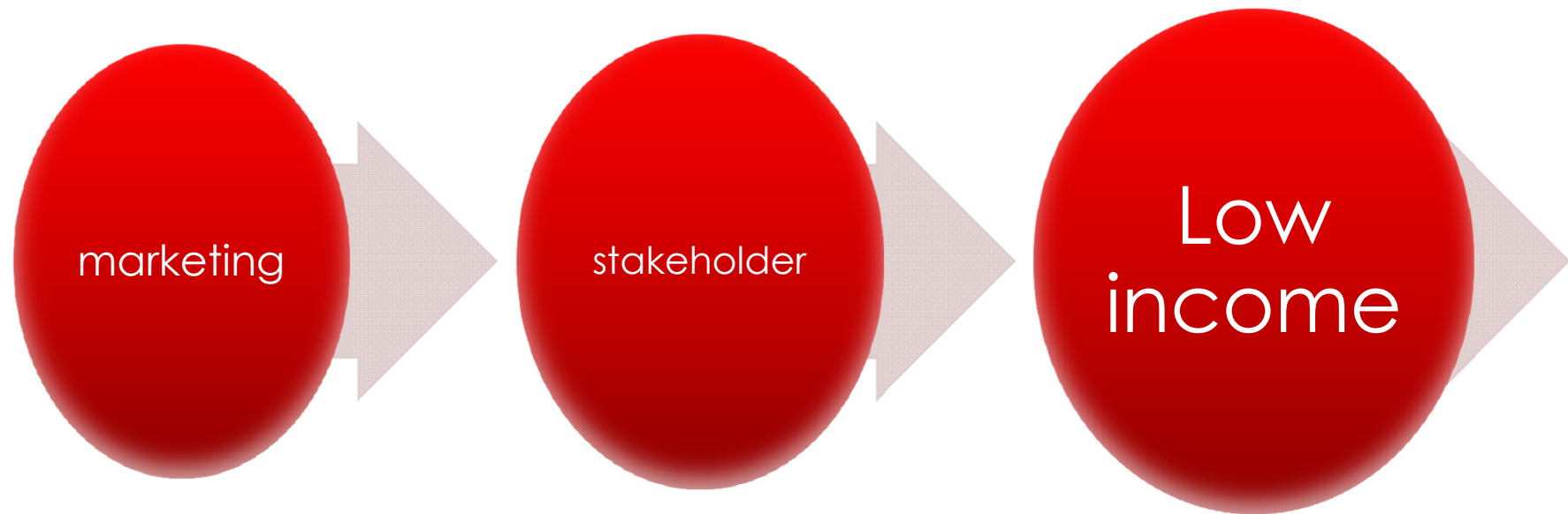


### 3. Animal import disregarding the adaptation



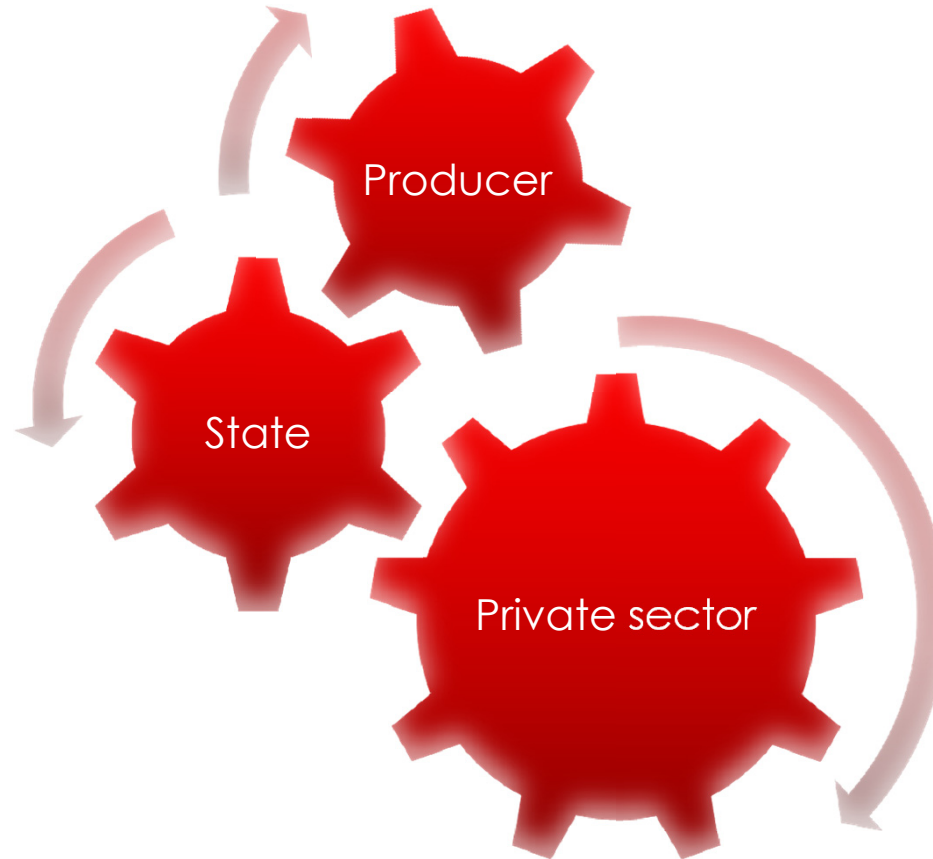


## 4. Marketing and branding





## 5. Integration chain



What is an  
alternative?



**Sustainable  
Production**



1. Improving the genetic material by preserving local genetic resources



Due to the fluctuations in the feed prices inputs are increasing which directly effects the marketing of the product together with sustainability.



# New Aspects in Small Ruminant Breeding in Turkey



2. Transferring the know-how to the farmers/field

3. Also rehabilitation of the pastures and forest area will help to improve Sustainable animal production





## 4. Policies of the state

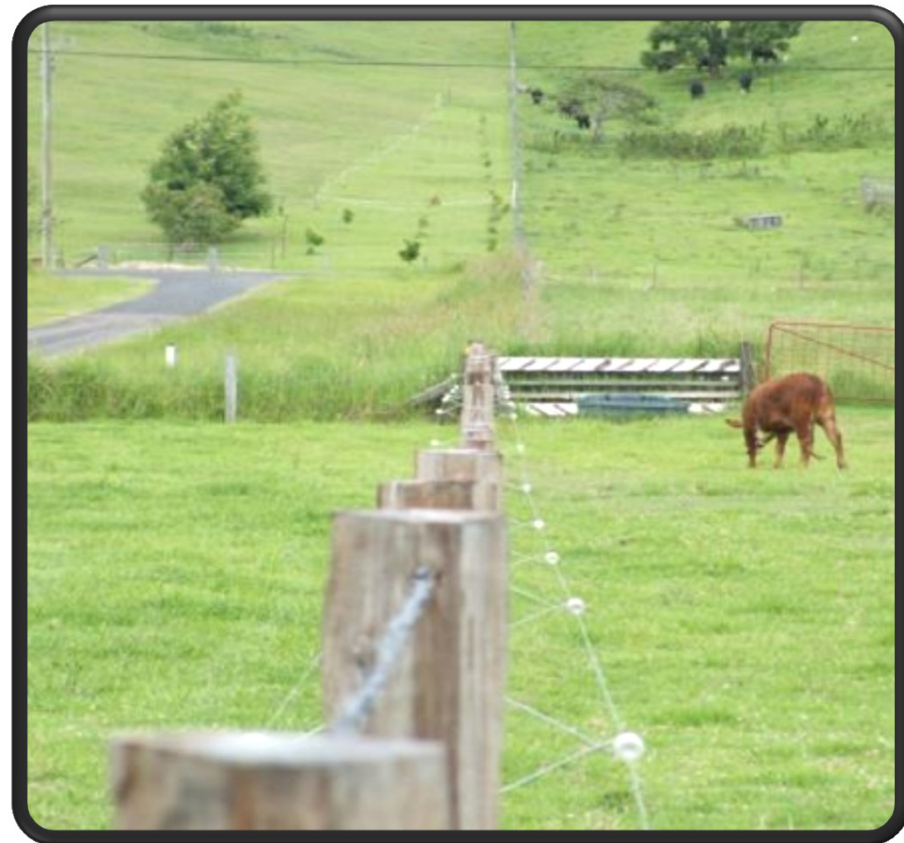
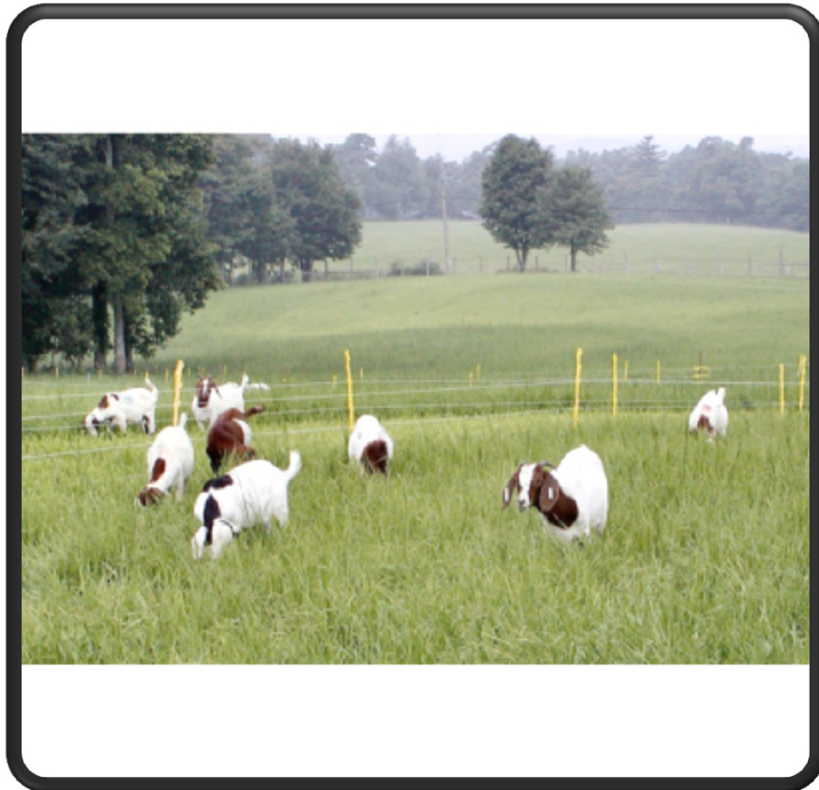


# Zirve Uni. Experimental Farm



# Electric Fencing for strip grazing

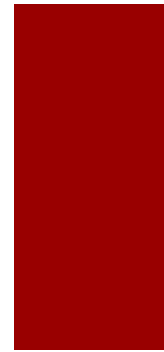
## Rotational Grazing



# Sheep EID



# Alternative Fodder



**By Products**



**Pistachio leaves**



# Trial after 2 years



**Before**



**After**





Our approach for the future is to spread the sustainable production system all over Turkey with regards to the regional differences.





Thank you

