

Albania's Range and Pasture Lands

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Imagine that for as long as you could remember you could not own land. All land was owned and managed by a strong central government. All citizens worked for the state. All livestock was state owned. In the cropland areas large collective and state-owned farms produce grain, milk, fruit, and other staples under strict quotas set by the central government annually. Under this system milk could be produced and processed in a few central dairies and processing plants. Grazing could be controlled by limiting the number of grazing animals in the country. Marginal land could be terraced by prison work crews and "volunteer student" labor on Sundays. Forest roads could be built by political prisoners, and forests could be harvested and planted under strict control by the central government.

Then as democracy sweeps through neighboring countries to the north, the central government begins to falter under its own inefficiency. In a matter of months the central government crumbles. The collective farms dissolve. Almost overnight the collective dairies are decentralized when each worker takes a cow home, the first time a family has owned an animal, including a cat or dog, in a decade. Everyone can own as many livestock as they wish. Trees planted with prison labor are cut down in a demonstration of disgust with the fallen regime. Fuel shortages further accelerate tree cutting. A provisional government is hastily formed and begins the task of holding free elections, writing a constitution, forming laws and

regulations with which to govern, and developing policies for distributing and managing land.

Recent Albanian History

In 1990 the communist government of Albania began to move away from the isolationism practiced since the end of World War II. The government also began to free state-owned industries from central controls, making them largely self-managing and self-financing. Farmers were offered more land for their families to farm and state-owned livestock were distributed.

Free elections were held in March 1991, eliminating the communist party as a force in the towns and cities, but rural support allowed it to maintain power and form a government. The

U.S. renewed diplomatic relations with Albania in March 1991 after a break of 52 years.

During 1991, religious freedom, private property ownership, and the right to travel were granted to Albanians. By the end of 1992 eighty percent of Albania's farmland had been privatized.

Cropland Privatization

Following the overthrow of the communist regime the new government set about the business of privatizing croplands along the Adriatic Sea and in inland valleys. The job of allocating parcels to families in the villages and communes (townships) was placed in the hands of the village councils under the direction of the Ministry of



Terracing and tree planting projects during the communist regime are now poorly vegetated and often eroding.

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Agriculture and Food. Cropland was classified into two or more land classes, and each village family was allocated its proportional share of each class of land. Consequently, the average land holding in Albania is 1.2 ha per family, and it is often spread about the countryside in multiple pieces, each of different class. Marginal classes of land were often refused because the family perceived that it was not productive enough to pay the land taxes. Over 70,000 ha of marginal land was refused and remains in state control.

Privatization of agricultural land has provided the families with holdings which are, in many instances, too small for subsistence farming. Because grazing is unregulated on nearby state-owned lands, grazing of livestock becomes one of the few means of increasing family income in rural areas. This led to a thirty percent expansion in livestock, mainly sheep, between 1992 and 1994.

Former logging enterprises operating on state forestland have been privatized but pasture land and forestland remains in state control, and policies regarding its privatization and/or state management remain to be resolved. New legislation governing the use of pasture lands is under preparation. The forests of Albania contain about 140,000 ha of land that is regularly grazed, but the Director General of Forests' management plan calls for grazing of only about ten percent of this land. The role that privatization, communal, and state policies play in the management of pasture areas will greatly influence the efficiency of grazing land use. Private and some communal uses of pasture are expected to encourage efficiency.

Land and Vegetation Resources

Albania, with an area of 2.8 million ha (Table 1) is divided into three zones: the coastal plains zones with a southern, central, and northern zone; the hilly transition sub-mountainous zone; and the mountainous zone (Figure 1). The coastal zones are dominated by crop production. The

Table 1. Albania's forest, pasture, and cropland acreage.

	Area (ha)	Area (%)
Forests	1,038,000	37
High Forest	(479,000)	
Coppice Forest (Oak)	(303,000)	
Shrub Forest	(256,000)	
Cropland	718,000	25
Pasture	425,000	15
Other land & Lakes	696,000	23
Total	2,875,000	

sub mountainous (foothill) zone is dominated by broad-leaved Mediterranean shrubs and oak woodlands with some beech and fir. The mountainous zone is dominated by beech and fir with some oak woodland and Mediterranean shrub interspersed.

The annual precipitation varies considerably between locations, about 800 mm/year in the hills and coastal plains to over 2,000 mm/year in the mountains. There is a summer dry period in the Mediterranean part of the country.

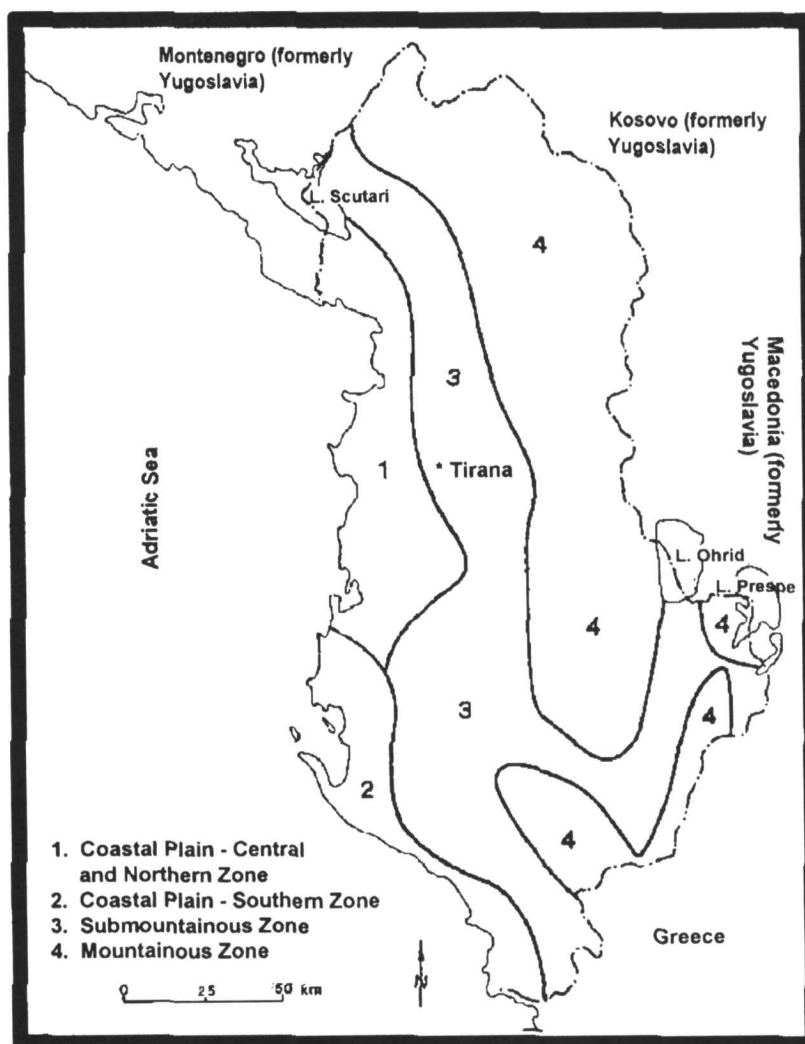


Fig. 1. Coastal, sub mountainous and mountainous zones of Albania.



Farmer hauling fuelwood and oak fodder from state-owned forests to his small private farm.

The primary use of the oak woodlands, also called oak coppice forests, is to produce biomass for oak fodder and fuelwood through periodic cuts on a 40 to 50 year rotation. The dominant species are oak (82%) including *Quercus petraea*, *Q. cerris* with small areas of beech (6%) (*Fagus silvatica*), and other broad-leaved trees (11%).

The Mediterranean shrub zone, or shrub forest as it is called in Albania, is used to produce fuelwood and fodder from periodic cuts. This zone is also used for grazing by local communities. The main shrubs are hornbeam (*Carpinus* spp.) (36%), *Arbutus* spp. (23%), and other broad-leaved shrubs. *Arbutus* produces an excellent fuelwood. The recommended rotation is 20 years.

Coppice and fuelwood play a major role in Albanian society. Fuelwood provides much of the city and rural household energy needs. This need has led to severe over-utilization of this forest resource, especially near villages. This problem was compounded during the winter of 1991-1992

when virtually all alternative sources of energy were unavailable. During this period wood was the sole source of energy for heating and cooking for most of the country. It is likely that fuelwood will remain an important source of energy for most of Albania in the near future. Overcutting for winter livestock fodder compounds the over harvesting of fuelwood. Normally this type of forest is harvested on a long-term rotation; however, the Albanian forests are being cropped to some degree nearly every year. Developing alternative winter feed sources is one means of reducing grazing impacts in these forests.

Erosion of the forested areas in Albania is a major problem throughout the country. Most of the forest areas are on steep slopes with easily eroded soils. The vegetation on many of these lands has been depleted to the point that natural recovery is slow and soil erosion is prevalent. Some areas used for crop production in the past are today virtually free of any vegetation and subject to frequent erosion.

Forest plantations have been developed in areas that have been over cut and/or heavily grazed. Reforestation started in the 1960s and over 100,000 ha were reforested by the end of 1991. Mostly pine species such as *P. halepensis*, *P. nigra*, *P. pinaster*, *P. radiata*, and *P. pinea* were planted. The broad-leaved species planted were *Laurus nobilis*, *Juglans regia*, *Acer* spp., *Frazinus* spp., *Tilia* spp., and *Betula* spp.

One of the projects of the former regime was an attempt to increase fruit production in the country by terracing extensive areas of marginal agricultural-forest land. These projects generally failed, and today these areas are highly altered, poorly vegetated, and often eroding. Because of close proximity to croplands, the old terraces are heavily used for grazing and fuelwood/fodder gathering. Nearly all of these lands have been refused by the villagers during the privatization process.



Shepherd resting on one of thousands of defensive bunkers dotting the Albanian countryside.

Grazing Lands and Livestock

Forest and pasture areas are officially under state ownership; however, there is some illegal privatization of pastures. Trees planted on former state and cooperative farms are now privately owned. Forest and grazing lands near rural communities are being considered for transfer to local governments.

Pastoral areas cover some 425,000 ha and include coastal, hill, and alpine pastures as well as meadows. They are broadly divided into summer (64%) and winter pastures (34%), of the total area. These areas are the grazing resources of the country's livestock which include 3.5 million sheep and about 600,000 cattle.

Since 1938 grazing area has declined from 887,000 ha to 425,000

ha, but sheep numbers have increased from 2.5 million to 3.5 million. Much of the reduction in grazing areas is the result of dry land wheat production. While aftermath from these areas is grazed the grazing season, production, and quality are reduced.

The present grazing resource (Table 2) is estimated to be 1.42 billion Feed Units (FU) or about 5.93 million AUMs. One Feed Unit is equivalent to the amount of energy in 1 kg. of barley.

The total livestock feed requirements in 1993 have been estimated as follows: cattle (585,000 FU), sheep (640,000 FU), goats (243,000 FU), equids (243,000 FU), for a total feed requirement of 1.74 billion Feed Units (7.24 million AUMs.) It is estimated that feed requirements exceed feed availability by 314 million Feed Units. Part of this feed requirement is met by forage and fodder grazed or harvested from the shrub and coppice forests and roadside grazing.

To maintain current livestock numbers and to reduce grazing and brows-

Table 2. Estimate of Albania's current grazing resource.

Land Use	Area (ha)	FU/ha	FU (1000)	AUMs (1000)
Natural pastures & meadows	425,000	450	191,250	797
Orchards & Vineyards	125,000	300	37,500	156
Forage crops (total)	128,000	5,600	718,000	2,992
By-products of field crops	431,000	455	196,040	817
Fodder crops for livestock industry	7,000	540	3,780	16
Second crop wheat	154,000	1,800	277,200	1,155
Total	1,270,000		1,423,770	59,324

ing impacts on forest enterprises, alternative forages must be developed on private and public pasture land. Cool season annual and perennial grasses and legumes (*e.g.*, *Dactylus glomerata*, *Lolium perenne*, and *Medicagos*, *Trifolium subterraneum*, *T.*

repens, and *T. fragiferum*) are prevalent but subject to uncontrolled grazing. Grass and legume seedings in agroforestry projects on crop and forestland and seedings in marginal croplands have the potential to improve the forage resource of

Albania. Improved control over season, intensity, frequency, and duration of grazing would substantially improve productivity of existing as well as seeded grasses and legumes.

Statement of Ownership, Management, and Circulation

(Act. of August 12, 1970, Sec. 3685, Title 39, United States Code)

1. *Title of Publication:* Rangelands
2. *Date of Filing:* September 30, 1995
3. *Frequency of Issue:* Bimonthly
4. *Location of Office of Publication:* 1839 York Street, Denver, Colo. 80206
5. *Location of General Business Office:* Same
6. *Name and Address of:*
Publisher: Society for Range Management, 1839 York Street, Denver, Colo. 80206
Editor: Gary Frasier, 8032 Glade Road, Loveland, Colo. 80538
Managing Editor: Dr. Charles Rumburg, 1839 York Street, Denver, Colo. 80206
7. *Owner:* Society for Range Management, 1839 York Street, Denver, Colo. 80206
8. *Known Bondholders, Mortgages, etc.:* Membership
9. *For Completion by Nonprofit Organizations Authorized to Mail at Special Rates:* The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during preceding 12 months.
10. *Extent and Nature of Circulation*

	Avg. for 12 months	Actual for issue nearest filing date
A. <i>Total copies printed</i>	4,932	4,991
B. <i>Paid Circulation</i>		
1. <i>Dealers, counter sales</i>	0	0
2. <i>Mail subscriptions</i>	4,458	4,536
C. <i>Total paid circulation</i>	4,458	4,536
D. <i>Free distribution</i>	37	37
E. <i>Total distribution</i>	4,495	4,573
F. <i>Copies not distributed</i>	437	418
G. <i>Total</i>	4,932	4,991

I certify that the statements made by me above are correct and complete –Charles B. Rumburg, Managing Editor.