

THE TRANSFORMATION OF GREEK GRASSLANDS UNDER THE IMPACT OF SOCIO-ECONOMIC FACTORS

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ABSTRACT

The impact of socio-economic factors on the transformation of Greek grasslands is examined. Factors like urbanisation, migration, collapse of traditional way of life, social pressure for land distribution, intensification of agriculture shaped the evolution of grasslands. Thus, these factors should be taken into consideration for the planning of grasslands management.

KEYWORDS

Greek grasslands, socio-economic factors, grasslands' transformation

INTRODUCTION

Greek grasslands cover 14% (1.7 million ha) of the total country's surface. They are distributed in altitude zones as follows: 0-600 m: 7.5%, 600-800 m: 26% and >800 m: 66.5% (Nastis, 1995). The formation of most grasslands was the result of humans' continuous intervention on forest ecosystems throughout the centuries (Dafis, 1985). This intervention continued during the period of the modern history of the country. The exploitation of grasslands resulted in most cases in decrease of production, poorer botanical composition and soil erosion. The aim of this study is to present a historical approach to human intervention on grasslands in Greece emphasizing socio-economic factors.

METHODS

The study extends from the pre-independence period of Greece up to today, divided in three periods. Selected sociological and economic events of each period (Vacalopoulos et al. 1975-1977) are analysed in correspondence with changes in the exploitation of natural resources.

RESULTS AND DISCUSSION

1. Pre-independence period (<1830). During the 15th century, the dominance of Ottoman empire was established throughout the Balkan peninsula. Animal husbandry was exclusively based on the use of natural resources. Stock farmers with a lot of animals moved them between the valleys and the highlands according to the season of the year. This mobility was related to nomadic and transhumant farming systems. During winter, they rented the fallows of the big private land for grazing and during summer, they moved to the mountains. The selection of locations was dependent on criteria like time, economic and social relations (Braudel, 1979 and McNeill, 1993) and not limited by national borders.

2. 1830-II World War. The establishment of the modern Greek state created the first change. The boundaries of the new state divided the massif of the continental Greece latitudinal and obstructed the movement of the flocks in the north-south direction.

Landless peasants pressed the new state to share out "the national lands" which belonged previously to Turkish citizens and, later on, to big private land estates. The opposition of private land owners and their influence on governments delayed the process of land distribution. This phase lasted for 90 years (1840-1930) and resulted in the creation of small occupations (3 ha). The ownership of these farms, however, was further split up between children throughout the following decades because the hereditary law did not protect the undividedness of agricultural land. The impacts on animal husbandry were:

1. The new small land owners obtained few animals (sheep and goats) which grazed in the private land and the public lands of the lowlands.

2. Gradually more land was cultivated and the grazing fallow reduced.

3. The owners of big flocks could not rent sufficient temporary grasslands for grazing and therefore the big flocks were divided into smaller ones.

As a result, grazing pressure in the lowland grasslands increased. Furthermore, farmers continued to burn forest and shrublands in order to renew or create new grasslands. The severe exploitation of forest for cutting wood (timber and fuel) also gave space for new grasslands. Thus, the forest cover of the country diminished dramatically (McNeill, 1993).

The overpopulation of the countryside resulted in strong outflows of migration. The modern cities attracted countryside people because of their better living and employment opportunities. Furthermore, many peasants migrated abroad (e.g., in 1900 more than 1 million people moved to the USA). Further population movements were forced by several wars (1st and 2nd Balkan war, I World War and Greek-Turkish war). In 1922, for example, 1 million people moved from Asia Minor to the mainland. The wars destroyed whole areas, diminished the number of animal occupations and reduced nomadism. Grazing pressure decreased in some highland grasslands and forests started to regenerate (Dafis, 1985).

3. II World War-today. The tremendous catastrophes created by the II World War continued during the severe civil war until 1950. These facts together with the lack of significant investment in countryside development and continuous urbanisation created new waves of migration (1950 and 1970). The intensification of agriculture reduced dramatically the temporary grasslands of the lowlands. Under these circumstances nomadism broke down and transhumant farming was reduced. The collapse of traditional systems of animal farming undermined the social structures in rural areas. The traditional management system for communal grasslands in the highlands which was based on empirical experience (grazing time, area for grazing according to the kind of animals) were in most cases replaced with a non-management system where everyone grazed animals without any restriction. This led to an increasing degradation of the grasslands. Another aspect of these changes is the individualisation of the use of private land. In the past this land, after the harvesting of the cereals, was grazed freely by animals of the community whereas nowadays the fields are no longer cultivated and have been converted into grasslands used by the owners or tenants. The membership of Greece in the European Union (EU) resulted in mass imports of meat which created problems in the national animal production. The subsidising of animal farmers increased the number of goats by 22% and sheep by 17% which worsened the degradation of the grasslands through overgrazing especially in the lowlands (Nastis, 1995). This is not always the case in the highlands where due to the population decrease there are also grasslands undergrazed (Thanopoulos and Sarlis, 1993).

Future trends: In the highlands the grazing pressure will continue to reduce due to the migration of the population. Their grasslands,

depending on the degree of degradation, will be transformed to forest or remain grasslands with different botanical composition. In the lowlands the pressure will continue to increase and the degradation will be irreversible if no counter-measures are taken in the near future.

CONCLUSIONS

The Greek experience shows that the various social, economic and other factors influenced strongly the grasslands' transformation. Thus, these factors have to be taken into consideration when grasslands improvements are planned.

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