

Turning points in the development of farm lands (a case of Lithuanian agro territories)

Gintaras Ribokas,

Jonas Milius

Vilnius University,
e-mail: gintaras.ribokas@geo.lt,
jonas.milius@gf.vu.lt

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The aim of the paper is to highlight the specific features of the development of farm lands in Lithuania. The most important and rapid structural changes of farm lands in Lithuania took place in the 20th century. There were two turning points of farm land development: 1940–1950 and 1990.

Key words: farm lands, agro territories, land use, transformations of farm lands

INTRODUCTION

Farm lands are a constituent part of cultural landscape. Cultivation of landscape and related changes of its functional differentiation and structure are dynamic processes changing in time and space. These processes are complicated and depend on many factors. In the territories of many countries including Lithuania, major political, social and economic transformations have taken place. Their implications in the social life have been different. Especially strong transformations took place in the 20th century. These transformations were more frequent and more quantitatively and qualitatively intensive than in the past. The consequences of these transformations found their reflection in the landscape.

The factors that predetermined the transformation processes are interrelated systemically, and their interactions have induced different consequences in different landscape types and at various periods of political economic life.

The aim of the present paper is to highlight specific features of the development of farm lands of Lithuania.

The specific features of various types of farm lands are not discussed.

The analysis is based on a historical geographical study of the changes of economic use of agro territories as reflected by cartographic, statistical and field data and material of literary sources.

FORMATION OF THE SYSTEM OF FARM LANDS

In the process of social development, the structure of farm lands has formed as a result of the interaction of two systems: natural and social (Fig. 1). The constituent parts of the system components (elements) are lower rank systems. Thus, a system of farm

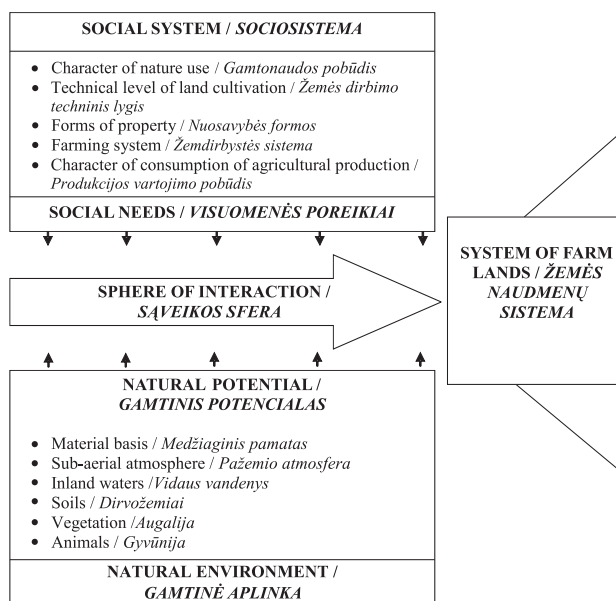


Fig. 1. Interaction of systems forming farm lands

1 pav. Žemės naudmenas formuojančių sistemų sąveika

lands is a lower rank system of the interaction of the mentioned systems (Milius, 2004).

Components of the social system reflect the links between social needs and their predetermining factors. From this point of view, components of the natural system are a stratum where the spatially and temporally differentiated process of realization of social needs has taken place. The cartographic–digital expression of this process evidences that the process of economic cultivation of Lithuania's territory was uneven in different types of natural landscape:

- The cultivation process in the periglacial river plains began in the 2nd–3rd millennia BC;
- in the hilly morainic laky landscape in the 1st millennium A. D.;
- in the limnoglacial plains in the 2nd millennium A. D.

In the 16th century, the area of farm lands in the first type of landscape accounted for 30%, in the second for 30–50% and in the third, farm lands were represented as isolated islands (Eitminavičienė, 1984).

M. Lukinas, who investigated forests of the Upytė Region, in the 16th century distinguished four major phases characterizing the arrangement of cultivated territories and forest tracts. They were:

- 1) small islands of camps and homesteads of semi-nomadic hunters and stock-breeders in sandy river- and lake-sides;
- 2) isolated patches of ploughed and hay fields on the background of large forests and bogs;
- 3) larger aggregates and winding sectors of settlements and cultivated fields dividing large forest tracts into smaller forests;
- 4) the rapidly reducing forest tracts as isolated islands on the background of farm lands (Lukinas, 1974).

TRANSFORMATION PROCESS OF FARM LANDS

The area and distribution of farm lands in Lithuania have been investigated by different authors. Yet it should be noted that these investigations were comparatively scanty and different historical periods have been investigated unevenly. Moreover, authors of different specializations differently interpret the term “farm lands”. The present paper is not designed as a detailed analysis of these differences.

It should be emphasized that the transformation process of farm lands is more complicated than it could seem without evaluating the interaction of the predetermining factors (Milius, 1988). The human–territorial relations occurring during land use are the main link of this interaction (Fig. 2). The groups of relations have manifested differently. For example, legal relations in the form of a primitive unwritten law had existed even before the formation of a state and its legal principles. Environmental relations were perceived already in previous centuries. In the 20th century, the anthropogenic loads on the natural environment developed to a large scale. Their adverse effects were perceived but often overdue, whereupon environmental measures

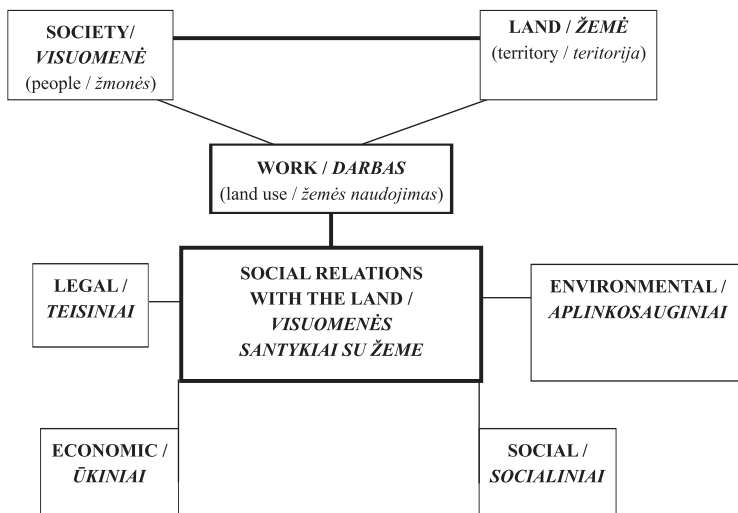


Fig. 2. Relations of society with the land
2 pav. Visuomenės santykiai su žeme

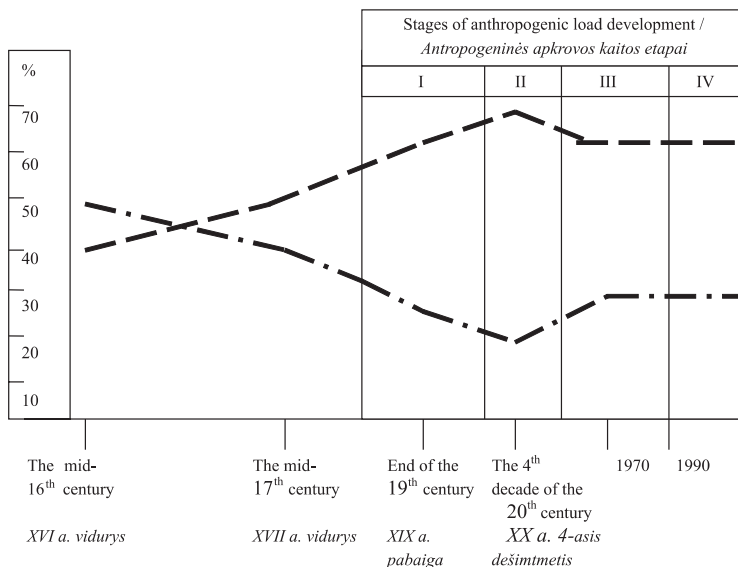


Fig. 3. Dynamics of farm land and forest areas in Lithuania in the 16th–20th centuries (generalized data): I – second half of the 19th century (after abolition of serfdom); II – beginning of the 20th century (after World War I); III – after 1950 (collective farming); IV – after 1990 (restoration of state self-dependence)

3 pav. Lietuvos žemės ūkio naudmenų ir miškų plotų kaita XVI–XX a. (apibendrintais duomenimis): I – XIX a. II pusė (po baudžiavos panaikinimo); II – XX a. pradžia (po Pirmojo pasaulinio karo); III – po 1950 m. (kolūkinis ūkininkavimas); IV – nuo 1990 m. (po nepriklausomybės atkūrimo)

were developed. In some cases these measures converted into legal regulations.

The development of the groups of farm land areas in different types of landscape in the territory of Lithuania was relatively even. The area of farm lands increased at the expense of forests (Fig. 3). The evenness of the process was really relative. For different reasons – mainly political ones – the process bore a non-linear character. For example, in the 17th–18th centuries, the greater part of the population died during wars and plague periods. According to some authors, in this period large areas of used land (farm lands) overgrew with shrubs and forests or bogged up (Dundulienė, 1963). These assumptions are based rather on logical speculations than on concrete statistical or cartographic sources because there are no reliable data about the mentioned time span. The present work analyses the situation that existed in the 20th century.

Figure 3 shows that the mentioned process of even development lasted until almost the middle of the 20th century, i.e. the end of the restoration of state self-dependence (1940). The fifth decade of the 20th century is difficult to describe in terms of the changes of the process under analysis. This was a time of occupation, post-war repressions and unjustified political, legal and economic changes (nationalization of the land, collectivization, etc.). In 1953 (Stalin's death year), a seemingly new stage of the management of farm lands started. More mechanisms were used in farming, what should have contributed to expansion of farm lands. Yet this did not happen. The area of farm lands reduced and the area of forests increased (Fig. 3). Some economists (Mališauskas, Vaitiekūnas, 1963) assumed that this was not inconsistent with a logical development pattern of farm lands. "New implements of production required a new object of production". This means that large agricultural mechanisms could not be effectively used in the inherited small-plot farm lands. Yet this was not the only cause of the reduction of farm lands. In the Soviet years, farmers (collective farmers) were not owners of cultivated fields. This assumption cannot be proved by numbers (hectares) yet undoubtedly this was an important factor.

At the beginning of the 70s of the 20th century, the development process of farm lands stabilized (Fig. 3). The process of transformation of farm lands and forests "paused". This was related with the drainage works. Until 1990, data on the area of farm lands and forests had changed but little (Milius, 1988).

After 1990 (restoration of state self-dependence), the situation changed again. Yet it is so far rather difficult to lend substance to the changes. The land reform is unfinished; consolidation of plots of land has been started. The future is not certain...

Generalizing, we can say that at different periods of the 20th century the relations between society and territories were rather variable:

- in the inter-war Lithuania, under conditions of natural extensive farming, the maximal area of farm lands was the main motif of economic use;
- in the Soviet years, this trend formally continued, but the legal, economic, social and (at the end of the period) environmental systems were transformed. Application of the means of intensive farming (large agricultural mechanisms, drainage, etc.) showed different possibilities of adaptation of this process in the territories of different landscape types;

- after restoration of state self-dependence (1990), the mentioned relations of society and territories again essentially changed.

Thus, during a comparatively short time span of the 20th century the structural transformations of farm lands were most rapid and essential. The main causes of these transformations were the following:

- change of the forms of ownership;
- change of land use (farming systems);
- change of economic relations of agricultural production;
- reformatory (sometimes destructive) character of social development of rural areas.

The authors of the present work analysed and evaluated the transformations of farm lands and their causes and came to a conclusion that at certain moments these transformations were so marked that their dates can be taken as turning-points of the process. The term "turning-point" is applied to qualitative changes after which the pattern of farm land development characteristic of the previous centuries becomes impossible (Fig. 3, Table).

Table. Changes of proportions of farm lands and forests in Lithuania in the 16th–20th centuries (by Matulionis, 1930; Milius, 1988; Lietuvos..., 1991; Lietuvos..., 2006)

Lentelė. Lietuvos teritorijos žemės ūkio naudmenų ir miškų kaita XVI–XX a. (pagal Matulionis, 1930; Milius, 1988; Lietuvos..., 1991; Lietuvos..., 2006)

Years Metai	Proportion from whole territory (%) % nuo visos teritorijos	
	Farm lands Žemės ūkio naudmenos	Forests Miškai
1950	41	42
1750	42	44
1900	66	24
1940	68	19
1950	66	21
1970	55	28
1990	54	30
2006	53	32

There were two turning points in the structure of farm lands:

the first: the loss of self-dependence in 1940 and the subsequent transformation of the political–economic system (collectivization of 1949–1951);

the second: restoration of self-dependence in 1990 and restitution of land property.

The transformations of farm lands that took place in the mentioned time spans were predetermined by complicated intrinsic system relations. The transformation processes were qualitatively new and formed the trend of a new development process.

CONCLUSIONS

1. The structure of farm lands is predetermined by the interaction between the natural and the social systems.

2. In all historical periods, changes of the area of farm lands were preconditioned by the relations and interaction between society and territories.

3. The most important and rapid structural changes of farm lands in Lithuania took place in the 20th century in which there were two turning-points of farm lands development: 1940–1950 and 1990.

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Gintaras Ribokas, Jonas Milius

ŽEMĖS NAUDMENŲ KAITOS LŪŽIAI (LIETUVOS AGROTERITORIJOS)

Santrauka

Žemės naudmenų kaita priklauso nuo daugelio veiksnių. Šio darbo tikslas – apžvelgti Lietuvos agroteritorijų žemės naudmenų kaitos ypatumus.

Visoje Lietuvos teritorijoje bei atskiruose gamtinio kraštovaizdžio tipuose pagrindinių žemės naudmenų kaita per keletą ankstyvesnių šimtmečių vyko sąlygiškai tolygiai: didėjo žemės ūkio naudmenų ir mažėjo miškų plotai. Minėtas tolygus procesas truko beveik iki XX a. vidurio – 1940 metų. Įvykdžius kolektyvizaciją, po 1951 m. prasidėjo naujas agrarinių teritorijų tvarkymo etapas, kai dėl specifinių šio laikotarpio politinių, ekonominių, socialinių priežasčių žemės ūkio naudmenų plotai mažėjo, o miškingumas didėjo. Apie 1970 m. šį procesą stabilizavo sausinamosios melioracijos darbai. Po 1990 m. (nepriklausomybės atkūrimo) minėto proceso pobūdis vėl kinta, tačiau išsamiau jį pagrįsti kol kas sunku.

XX a. per palyginti trumpą laiką vyko sparčiausia ir didžiausia žemės naudmenų struktūros kaita. Pagrindinės jos priežastys: 1) nuosavybės formų kaita, 2) žemės naudojimo (ūkininkavimo sistemų) kaita, 3) žemės ūkio gamybos ekonominių ryšių kaita ir 4) ženklus kaimo socialinės raidos pertvarkomasis (atskirais laikotarpiais – griunamasis) pobūdis.

Darbo autoriai, išanalizavę ir įvertinę žemės naudmenų kaitos eigą, teigia, kad tam tikri šio proceso taškai (datos) yra tokie ženklūs, kad juos galima laikyti proceso lūžiais. Tai nauja, kitų autorių nevertota sąvoka. Proceso lūžiais laikome tokius žemės naudmenų kaitos kokybinius pokyčius, po kurių jau neįmanoma praeityje būdinga tolygi kaita. Konstatuojame du žemės naudmenų struktūros lūžio taškus XX a.: 1) nepriklausomybės praradimas 1940 m. ir vėliau sekęs politinės-ūkinės sistemos transformavimas iki 1951 m. ir 2) nepriklausomybės atkūrimas 1990 m. ir žemės nuosavybės restitucija.