NATURAL SOURCES IN NYÍRSÉG REGION AGRICULTURE

PŘÍRODNÍ ZDROJE V ZEMĚDĚLSKÉM REGIONU NYÍRSÉG

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Abstract:
The Nyírség region is the most dynamically developing micro-region in Szabolcs-Szatmár-Bereg county. The infrastructure of Nyírség region is better developed than the other regions of Szabolcs-Szatmár-Bereg county, but worse than the developed regions of Hungary. The factories and industries are concentrated here. Farming is of intensive type in this region. The natural and human sources changed mostly in the connection with the political changing last century.

Keywords:
rural development, natural sources, land use, arable land plants, animal husbandry

Anotace:
Region Nyírség je nejdynamičtěji se rozvíjejícím mikroregionem v Szabolcs-Szatmár-Bereg kraji. Infrastruktura tohoto regionu je lépe rozvinutá než v jiných regionech tohoto kraje, ale je horší ve srovnání s rozvinutými regiony Maďarska. Továrny a průmyslové podniky jsou koncentrovány právě zde. Zemědělství je v tomto regionu intenzivní. Přírodní a lidské zdroje se změnily většinou v závislosti na politických změnách minulého století.

Klíčová slova:
zemědělský rozvoj, přírodní zdroje, využití půdy, plodiny orné půdy, živočišná výroba

INTRODUCTION

The Nyírség micro-region was established in 1966 by 17 settlements (cities and villages), which formed the "First Nyírség Developmental Company". The centre of the region is Nyíregyháza, which is the centre of Szabolcs-Szatmar-Bereg county too. The Nyírség region is located at the east of Hungary. There are 170 000 people living there. Most of the county's factories and industries concentrated in this micro-region. There is a big market where the farmers can sell their agricultural products.

Although there is the industry in micro-region, it is the region of agricultural type, because nearly 20% of the population is engaged directly or indirectly in agriculture. The region's land is of average quality. The Nyírség region soil types are: hungry soil, acid soil and humus sand soil.

Every area and activity has a special source potential. The main natural resource in the agriculture is the land, and the same concerns also Nyírség region. Therefore the main task (which also reflect the sustainability) is to support the land' fertility in farming activities (land use, plant production, animal husbandry)

The natural resources are considered as parts of natural factors, which condition human life and are the base of society development (Buday, 2002). The resources can be divided into two big groups: (i) renewable and (ii) not renewable resources. The last one are related to the one of the principles of sustainable agriculture: to restrict the use of the not renewable resources (Lazányi, 2003). The society has a big responsibility in natural resources prevention.

MATERIAL AND METHODS

The paper examines the dominant agricultural natural resources in the Nyírség region' settlements from 1895 to 2000. The statistical dates and the dates of National Agricultural Census are used to analysis. The cultivation type rate from 1895 to 2000 is investigated, the main grow plants change from 1936 to 1962 and the change of animal number from 1911 to 2000 in Nyírség region is analysed as well.

RESULTS AND DISCUSSION

Change of cultivation type in Nyírség region

The land is one of the main and one of the most important and multifunctional natural resources in agriculture, that is why we should pay a big attention the land using (Buzás et.al., 2000, Lazányi, 2003).

The main cultivation type is the arable land in Nyírség region, which is gradually increased from 1895 to 1913, then decreased until 2000. The arable land rate increased from 72,7% to 81,1%, then decreased to 61,9%. Nyírség region' arable land area rate bigger than both of the Hungary and the Szabolcs-Szatmár-Bereg county arable land area proportion.

Nyírség region is famous for its fruit farming. The natural conditions, like land, climate favourable for fruit production. The main fruit species are: apple, sour cherry, cherry, pear, peach and gooseberry. The Hungarian government gives financial assistance to plant fruit trees and to build cold stores after 1990. Consequently the fruit garden area' gradually increase from this time.

The vineyard area is not significant in the Nyírség region. The grape area rate was 2-3% earlier, but now 0,3% only.

The grass area gradually decreased since 1895. In 1895 the rate' was 12,3% and in 2000 8,2% only.

The agricultural area rate increased from 1895 to 1935 then decreased gradually.

The forest rate was not big until 1990, but since then gradually increased by 15,9% in 2000, because the Hungarian government provides financial assistance to forestation. The big parts of Nyírség region are suitable for forest only. The farmers plant forests on such soil, which cannot be utilized by other plant culture or on whose cultivation is not economically profitable. The forest rate in European Union is 29,9%.

The reed plot area' rate is not significant in this region, only about 1%.

Uncultivated rate changed from 5% to 9%, from 1895 to 1966. By 2000 the rate decreased by 4,5%. This rate is less than in the country and in the county (Hadházy, 2001) *(Table 1)*.

Table 1:Cultivation branch rate in Nyíség region, (%)

Cultivation type	1895	1913	1935	1962	1966	2000
	Years					
Arable-land	72,2	81,1	80,3	66,7	64,4	61,9
Fruit garden	0,1	6,0	1,2	7,1	9,5	8,2
Vineyard	1,8	2,5	2,4	2,6	2,7	0,3
Grass	12,3	8,7	8,9	9,0	8,1	8,2
Agricultural area	87,8	92,8	92,8	85,5	84,8	78,6
Forest	2,0	2,0	2,0	5,3	5,7	15,9
Reed plot	1,1	0,1	0,1	0,2	0,2	0,8
Uncultivated	9,0	5,2	5,0	9,0	9,2	4,5

Source: KSH 1976

The main arable-land plants in Nyírség region

The exact data, which characterize the arable land plants, were available from 1936 to 1962 only for Nyírség region.

The main plant is rye, which is well accommodated to the Nyírség hungry soil and acid soil region. Rye area rate was changed between 13-25% in the investigated years.

The triticale is another grain-plant, which area increased dynamically the last ten or fifteen recorded years. The triticale area rate' reached the rye area rate until now. Rye and triticale are good forage for animal.

Wheat is planted on high quality soil only. Wheat area rate changed between 15-21% from 1936 to 1962.

Maize area rate was between 18-34%. It is planted on higher quality soil only.

Potato area rate changed between 11-14% in the investigated time. In Nyírség area there is a big tradition to grow potato. Author's Research Institute is famous for potato variety breeding. The famous Hungarian potatoes species were "Gülbaba, Kisvárdai rózsa". They were very delicious potato varieties. Now the farmers grow mainly Dutch potato varieties in Hungary.

Tobacco-plant' area rate changed between 2,3-3%. It was an important industrial plant. But till now the tobacco-plant' importance decreased. After 1990 the tobacco factory was sold to foreigner owner.

Sunflower is one of the most important industrial plants in this region. The sunflower area rate' step by step increased and increase nowadays too. Both of the Hungarian government and European Union provide financial assistance to grow sunflower (oil, bio oil, GOFR plants).

The fodder-crops are important in animal forages, like: spring barley, alfalfa, fodder-beet, oat mixed with vetch. Their area rate were 2-5% in the exacted time. *(Table 2)*

Table 2: The main plough-land plant rate in Nyírség region, (%)

Years	Wheat	Rye	Spring barley	Oat	Maize	Tobacco	Sunflower	Alfalfa	Fodder-beet	Potato
1936	21,8	25,2	5,0	1,8	18,2	2,3	0,5	3,1	2,7	11,4
1937	21,6	24,4	5,1	1,7	18,5	2,4	0,7	3,0	2,3	11,2
1938	21,7	25,6	4,9	1,9	17,7	2,3	0,6	3,2	2,3	10,9
1948	15,1	23,8	3,7	1,4	25,1	3,1	4,1	2,2	2,1	12,2
1962	14,9	13,0	1,2	0,3	34,5	2,9	3,8	5,1	0,7	13,9

Source: KSH, 1976, 2000

Animal number changing in Nyírség region

The animal production was extensive and traditional until 1960 in Nyírség region. The plant cultivation and animal husbandry were closely connected with each other. The cooperatives were established after 1960 and plant cultivation and animal husbandry became intensive and specialized. The animal- and plant species had changed parallel too.

The horned cattle' number gradually decreased from 1911 to 2000, but there are enough milk and meet produced in this region. The pigs number increased from 1911 to 1960 then decreased.

The sheep number was very changeable; until 1972 there was not big number of sheep but by 2000 the number increased by 44000 pieces. Horses number gradually decreased in the investigated time. Nowadays the horses are used in sport and in hobby to spend leisure time. The horses play a big role in village tourism and in rural development. *(Table 3)*

Table 3: Animal number changing in Nyírség region, (piece)

Animal breed	1911	1935	1960	1972	2000
	Years				
Horned cattle	22101	17184	16765	8802	5756
Pig	30197	43975	61127	52978	50213
Sheep	16326	10138	18640	7563	44039
Horse	11166	10674	8269	3239	1636

Source: KSH, 1970

CONCLUSION

In the last century the political situation changed three times in Hungary. Consequently the main agricultural natural and human resources (land use, plant production, animal husbandry) changed in parallel, too. After 1990 the Hungarian agriculture had lost its previous significant advantages. By now there are several business entities (companies and sole proprietorships – private businesses) operate in Nyírség region agriculture and forestry sectors.

The Hungarian government provides financial assistance into all agricultural sectors, and helps to increase the production' level. The Hungarian government and the European Union increasingly support the sustainable development, sustainable agriculture, environmental protection, rural development and the village tourism too.

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