

Changes of Land Use in the Temes Bánság (1850 – 1900)

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Abstract: *It is stated that considering the economic development of the Bánát the development starting from 1718 made the region as one of the most developed culture of the historical Hungary by the turn of the 19th – 20th centuries. An important segment of this process – one of the fundamentals of the Bánát specialities – was the exploitation of the physical geographical potential (e.g. mineral resources, climatological and soil geographical conditions etc.). The agricultural conditions of the Bánát in the time of the dualism were strongly influenced by agricultural conjuncture that was the result of the industrial revolutions in Europe in the 19th century. Considering 801 settlements of the Bánát the rate of the pastoral lands reached above 50% in 422 settlements (map 2.) so that only 12 settlements in Torontál county and 48 settlements in Temes county showed less than 50 % of pastoral land in 1895 resulting that 76 % of Torontál, 66.1 % of Temes, 33.1% of Krassó-Szörény became pastoral land exceeding the national average of 44.1 %.*

Keywords: *Bánság, agricultural conditions, pastoral lands, 801 settlements of the Bánát*

Introduction

The Bánát or Bánság is a meso-region of almost 30000 km² (28522 km²) of the Great Plain in the Carpathian Basin that was a characteristically different region from the rest of the regions of the historical Hungary due to its special characteristics in its social and economic development. The development in the XVIII. and XIX centuries mobilised those local and positional energies that helped the ethnics (e.g. Krauts, Serbians, Romanians, Bulgarians) and Hungarians dwelling here to form the region to the one having the most developed culture in the historical Hungary (Borovszky, S., 1909, 1911).

A very important segment of the upper process – one of the fundamentals of the Bánát – is the exploitation and turning into the service of the society of the physical geographical potential (e.g. mineral resources, biogeographical, climate and soil geographical conditions etc.). The anthropogeneous landscape transformation driven by natural conditions was characterised by rationality for centuries and the particular management types were developed according to the macro and micro relief of the landscape adjusting to the possibilities given by the natural conditions (Kókai, S., 2004). Studying the process of changing the environment in two time periods (1865 and 1895) the management types and characteristics can be revealed in the centuries preceding the complex river controlling and flood preventing works together with the specialities characterising the production and relationship network of the capitalist agriculture.

The agricultural space structure of the Bánát in the middle of the XIX. century

The first statistic survey regarding the cultivation structure and the land-use types of agriculture which is one of the fundamentals of the specialities of the Bánát was published in 1865. The database is not complete – the data of the Border-side region are missing – but its analysis and presentation is not useless even in its incomplete form. Its data fit well into the information of the maps (208 pcs.) of the first military survey presenting spatially the land-use of the given settlements in the border region (Fényes, E., 1851). The national survey including the extent and agricultural income by land-use types is suitable for outlining the land-use of more than two-thirds (605 settlements) of the settlements of the Bánát (804 settlements). We try to determine the land-use types appearing in the area based on the spatial structure of agriculture, the types of management and the forms of land-use. In the course of type definition it was important to make their main characteristics comparable to the data of 1895 while the high number of settlements and the diversity of land-use types have no disturbance on perspicuity. Due to the high number of variation possibilities (42 pcs.), simplifications (e.g. the combining of meadows and pastures, combining arable lands with gardens in 1895 etc.) were applied and thus the follow-

ing land-use types were defined (13 pcs) marking those settlements where more than 5 % of the lands was occupied by vineyards.

The *first category* involves those settlements where arable land occupies more than 75 %. Considering advantageous local conditions cultivation dominated in 81 settlements of the Bánát (Torontál 55 pcs., Temes 21 pcs. Krassó 5 pcs.). In the settlements having the highest rates arable land occupied more than 80 - 90 % even at that time (e.g. Ecska 81.4 % = 2807 acre, Ernőháza 90.7 % = 10061 acre, Német Csernya 91.7 % = 6099 acre, Majlátfalva 86.0 % = 4871 acre, etc.) resulting in the 8 - 10 frt. income by 1 acre. Regarding the spatial distribution of the settlements belonging to this type the largest continuous cultivation was developed between the Aranka and Bega in an area called Haide (between Nagyikinda and Újarad) where 50 settlements with mostly Saxon dwellers belonged to this type. This part of the Bánát owns the best soil (mostly cernozem developed on loess and infusion loess) thus it is not surprising that all settlements that had more than 8 frt of income by acre were found here except for five settlements (e.g. Szöreg, Óbéb, Ernőháza, etc.). Cultivation with similar intensity and development was characteristic for the area between the Bega and Temes rivers East of Nagybecskerek (10 settlements) and between Temesvár and Delta where the income for 1 acre was above the average for all the Bánát (4.35 frt.), the Torontál county (6.34 frt.) and the Temes county (Table 1).

Tab. 1. Land-use structure and income of the Bánát lands (1865)

County	Total area (k.hold, %)	arable land (k.hold, %)	meadows (k.hold, %)	pastures (k.hold, %)	forest (k.hold, %)	vineyards (k.hold, %)	reed (k.hold, %)	Non productive area (k.hold)	income (k.hold /Ft.)
Torontál	1221281	746304	91188	235053	17259	13894	26890	90693	6,34
	100	61,1	7,46	19,24	1,4	1,1	2,2	7,4	-
Temes	1607785	508419	141437	139433	133183	21317	1668	62328	4,74
	100	50,4	14,0	13,8	13,0	2,1	0,5	6,2	-
Krassó	959414	205567	111746	184640	394053	4045	-	59323	1,41
	100	21,4	11,65	19,25	41,1	0,4	-	6,1	-
Total	3188480	1460290	344371	559166	544495	39256	28558	212344	4,35
	100	45,8	10,8	17,5	17,1	1,2	0,9	6,6	-
Hungary	100	40,4	29,4		14,4	2,2	2,0	11,6	-

Source: Extent ... 1865.

The *second category* involves settlements where beside the dominance of arable lands (50-75 %) another characteristic land-use type was developed in the form of the meadow-pasture type. Almost 1/3 (177 pcs.) of the studied settlements belonged to this group from which 96 pcs. was in Torontál county, 85 pcs. was in Temes county, 23 pcs. was in Krassó county. Based on the maps of the first military survey it is apparent that the space structure of the differentiated flood-plain land-use can be drawn in the case of these settlements in the counties of Temes and Torontál (Kókai, S., 2000). Grasslands, swampy reeds and flood-plain woods were found along the rivers. Arable lands developed only in the areas situated at higher elevation (Figure 1) their quality is marked by the 6 – 8 frt./acre income rate (Figure 2). However this falls under the Bánát average (4.35 frt.) in almost half of the settlements of Temes county (85 pcs.) belonging to this group. Based on these the natural-ecological conditions have a decisive role and extensive border usage is dominant in the settlements of the group. Spatial distribution of the settlements belonging to the second category shows the different characteristics of the border usage. The feed base of the cattle was presented by the continuous meadows and pastures covered by swamps, abandoned ox-bow lakes, flood-plain woods (e.g. Ladány wood, Csanád wood etc.) on the left shore of the Tisza and the Maros, the temporary pastures in the area of the Alibunár and Illanica swamps and the narrower-wider meadows and pastures along the rivers and streams in Temes and Krassó counties. Settlements dominated by arable lands and having large grasslands are also significant in the closer hinterland of Temesvár presumably resulting in more intense cattle rising.

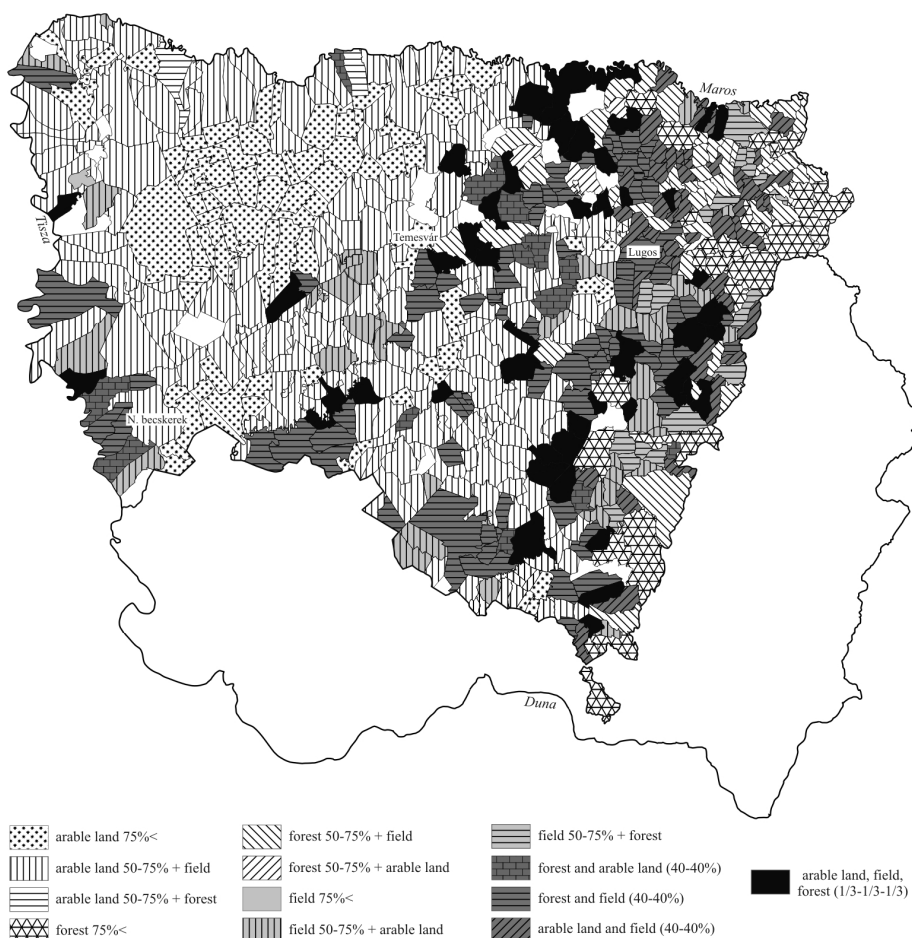


Fig. 1. Agricultural spatial structure of the Bánát in 1865

Source: by author

The *third category* involves those settlements where arable lands dominate (50 – 75 %) in land-use but the second dominant type is forest (Kókai, S., 1985). Surprisingly only three settlements (Csanád, Kiszombor, Székesút) situated along the Maros have flood-plain woods (*Figure 1*). At this time non settlements of Krassó county belonged to here. Regarding cultivation in the Krassó-Szörény mountains due to the disadvantageous agroecological potential and slight effect of the just started corn boom the deforested clearings were utilised as pastures and were only cultivated as arable lands around the turning of the century especially in the western margin of the mountains. It is not surprising that according to the 1895 survey 19 pcs. and 5 pcs. of settlements in Temes and in Krassó-Szörény counties respectively belonged to this category reflecting the spreading of arable lands.

Almost half (45.6 %) of the settlements in Bánát were classified into the first three categories, more than 2/3 of the arable lands and half of the grasslands were found here with 95 % of the settlements having higher income than the average (4.35 frt.). However, only slightly more than 5 % of the forest was found in the first three categories. Producers were keen on applying the most economic land-use even on the expense of either the grasslands or the forest even though arable lands occupied significantly higher rates already in 1865 (61.1 % in Torontál, 50.4 % in Temes) than the national average (40.4 %).

The *fourth category* involves those settlements where the rate of forest reached above 75 %. Only settlements in Krassó belong to here (23 pcs.) where forest occupied much more than the average of the county (41.1 %). In the vicinity of the settlements having the highest values forest of several thousand

acres almost untouched were lying (e.g.. Istvánhegy 6419 acres = 95.3 %, Nadrág 13604 acres = 93.9 %, Forasest 9392 acres = 88.6 %, Német Galadna 4195 acres = 96 %, Lunkány 13461 acres = 88.9 %, Német Bogsán 11626 acres = 89.9 %, Dognácska 15380 acres = 85.6 %, Német Resicza 21418 acres = 84.8 %, Új Moldova 11070 acres = 81.8 %, Német Oravicza 18440 acres = 86.5 %, Szászkabánya 11835 acres = 80.2 %, Stájerlakanina 6267 acres = 82.2 %, stb.).

These settlements owned more than 50 % of the forest in Bánát and in some cases there was no arable land in the vicinity of the settlements (e.g. Stájerlakanina, Szászkabánya, Német-Oravicza, Új-Moldova, Istvánhegy, Nadrág, Német-Galadna, etc.) or only a few acres (e.g. Német-Bogsán 49 acres, Német Resicza 48 acres, etc.) and meadows and pastures occupied only 2 – 3 %. In the case of these settlements dwellers collected the “fruits” of the forest, acorns of the oak and beech while the forest pastures were utilised by cattle with a gradually decreasing wood demand. Significant roles were played by cleared forests for tan crust, and selling mine trees and fire woods. These settlements experienced the lowest income for one acre (0.5 ft/acre) in the Bánát.

In the *fifth category* the 41 settlements were classified where beside the dominant role of forest (50 – 75 %) meadow and pastures were the second characteristic. Seven and thirty four settlements belonged to here from Temes and Krassó counties respectively mostly villages of the Erdőhát region. In the meso landscape between the Maros and the Bega land-use types characteristic for the hilly landscapes developed (*Figure 1*). Forest usage and living out of the forest was also characteristic where tree cutting, tan-bark production, fire wood, building and instrument wood production was found just like providing the wood demand of vineyards and vine making (e.g. Temesgyarmat, Temesrékas, Lip-pakeszi, etc.). Cattle rising and cultivation in the more advantageous areas became more significant but low income characterised it (*Figure 2*).

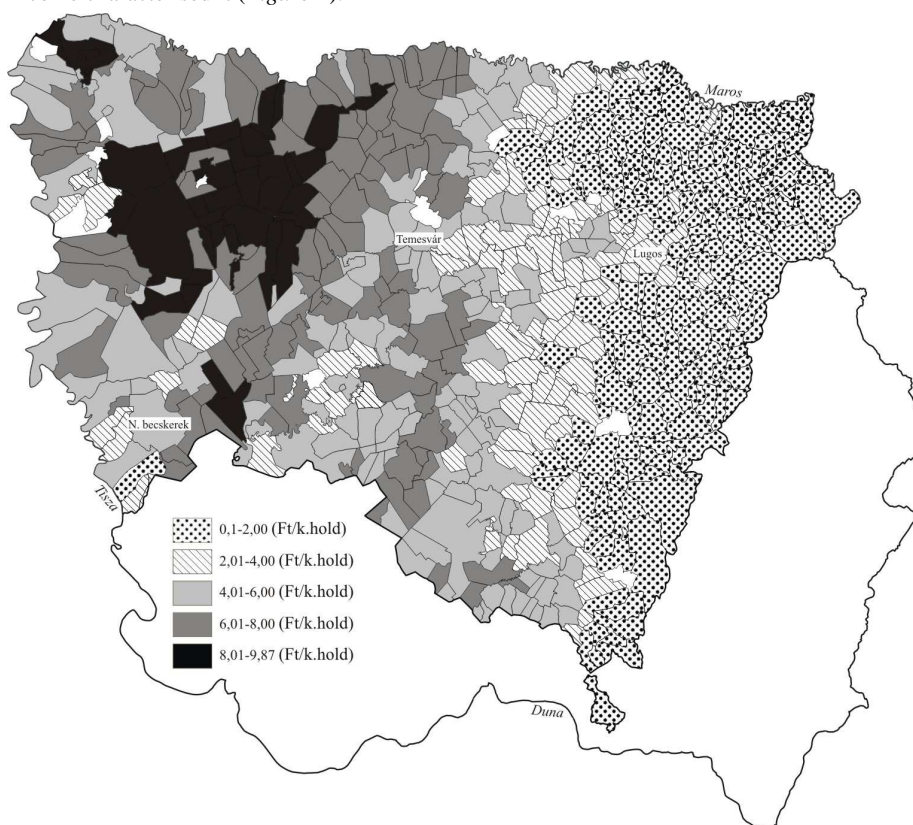


Fig. 2. Income of cultivation of the Bánát settlements in 1865 (Ft./acres)

Source: Own edition

The *sixth category* involves only four settlements where besides forest arable lands were second characteristic. All of the settlements were found in the Erdőhát region showing the start of the spreading of arable lands in the hilly region (In 1895 37 settlements belonged to this category and 2/3 of them were situated in the Erdőhát region!).

In the 68 settlements classified in the 4th, 5th, and 6th category the dominance of the forest is doubtless. 90 % of the forest, 20 % of the grasslands and only 5 % of the arable lands was found here. However, considering income rates they had the smallest values as it falls below 1 forint per acre (e.g. Istvánhegy 0.16 krajcár/acre, Nadrág 0.13 krajcár/acre, Lunkány 15 krajcár/acre, Pojen 13 krajcár/acre, Új-Moldova 35 krajcár/acre, Német-Oravicza 49 krajcár/acre, etc.).

The *seventh category* involved three settlements and four individual plains in Krassó county (e.g. Komora, Lunke, Prislava etc.) where the joint rate of the meadows and pastures reached above 75 % (Figure 1). It is a positive feature that less settlements were classified here than expected (Hódegyháza, Temesvár, Brázova). This indicates on the one hand that land-use swiftly changed from extensive meadow and pastoral lands towards arable lands that suit the market demands better and on the other hand that in the Krassó-Szörény mountains the rate of grasslands (30.9 %) was around the national average (29.4 %). Grasslands occupy 26.7 % in Torontál and 27.8 % in Temes and these fall below the average in the Bánát (28.3 %). However, there were a few settlements in the eighth and ninth category where this land-use type occupied larger areas.

Considering the settlements of the *eighth category* grasslands are still dominant (50 - 75 %) but the role of arable lands is not negligible. In the forty one settlements of the group the disadvantageous ecological conditions did not enable – at that moment – the greater increase of the arable lands (e.g. Lukácsfalva: 5260 acres – 55.3 % meadow and pasture, 1111 acres reed, 1985 acres are useless, etc.). The twenty three settlements from Krassó county clearly indicate that forest clearing is significant locally – especially in the villages situated in the immediate environment of mining towns – and the values are increased by the grasslands developed on bare limestone surfaces near Krassóvár.

The settlements (17 pcs.) of the *ninth category* (meadow and pasture-forest) are found solely in Krassó county where it is clearly visible on the military maps that one part of the arable lands is formed by forest clearings. As a result of human impact advancing along smaller or larger stream valleys parcels are touching with forest or they are enclosed by forest. The unsuitability for cultivation of this region is reflected in that the income for one acre is less than two forints in all of the settlements (Figure 2).

Reviewing the base elements of land-use structure (arable land, meadow and pasture, forest) 2/3 of the Bánát settlements are apparently dominated by one of the land-use types, however, in the case of 202 settlements the situation is not so simple. The base of further classification was presented by that which two of the land-use types are equalled (e.g. *tenth category* /11 settlements/: arable land – forest = 40 – 40 %, *eleventh category* /76 settlements/: arable lands – meadows, pasture = 40 – 40 %, *twelfth category* /47 settlements/: forest-meadow) and in the case of 48 settlements arable lands, meadows and pastures present some sort of a balance therefore they were placed in the *thirteenth category* (mixed management). Despite that the variations of the border usage of almost 200 settlements are at stake their detailed analysis is avoided. Among others due to the limitations of this paper and to the fact that fluctuation is greater in this group and the momentary state (at 1865) changes swiftly because on the one hand the integrated activities changing the environment due to the effect of the flooding in the Bánát in 1859 and this results in the homogenisation of the land-use structure. On the other hand, in the mountainous areas of the Bánát where intensifying social-economic usage results in degradational land-use changes with low income (e.g. forest-meadow, from pasture to forest-arable land type, etc.) clearly indicating the SE shift of the border of the oikumene.

The agricultural structure of the Bánát would not be complete without the outline of the special extending and the significance of the vineyards. Grapes are one of the most important cultural plants cultivated most intensely in the case of the Bánát as well. Vineyards with an extent of almost 40000 acres are found in 306 settlements out of the studied 605 in 1865 (in Krassó 71 settlements = 4045 acres, in Temes 119 settlements = 21317 acres, in Torontál 116 settlements = 13894 acres). Larger vineyards, however, (above 100 acres) were found only in nine settlements in Krassó county e.g. Lugos (915 acres), Borostyán (185 acres), Oravicza (184 acres), Rakasdia (234 acres) and Krassószombat (111 acres). In the counties of Temes and Torontál thanks to the more advantageous conditions larger promontories we found. Vineyards reached above 100 acres in the vicinity of 50 settlements in To-

rontál (the most in Nagybecskerek = 883 acres) while there were 45 such settlements in Temes (the most in Vercse = 3669 acres). Vineyards occupying more than 5 % of the cultivated areas (*Figure 1*) were found in one (Máriaölde), in three (Krassószombat, Oravicza, Lugos) and in seventeen (highest in Meszics 20.1 % = 521 acres, Almád 14.5 % = 486 acres, Temesgyarmata 14.3 % = 1423 acres) settlements in Torontál, Krassó and Temes respectively. Vineyards established on the southern slopes elevated at 100 - 350 m in the Vercse Mountains were most important. The settlements of this historical vine producing region had the most significant vine culture, production and land (8093 acres). 25 % of the vineyards known in the Bánát were concentrated here and more than ¾ of the quality vine made here.

Unproductive and uncultivated lands (7.5 %) also organically belong to the special structure of the Bánát agriculture. Their joint rate reached above 60 % only in Ried puszta and Csősztelek from the studied settlements while only in six settlements were they occupy 30 – 60 % in Torontál (Lukácsfalva, Öregfalva, Tamásfalva, Tarras, Pádé, Peszér). According to the statistics of 1865 6.6 % of the total area of the Bánát was not used which is significantly less than the national average (11.6 %).

Spatial structure of the agriculture in the Bánát at the end of the 19th century

The complex water regulation and flood prevention works starting in the early 1850s together with the establishing infrastructure, the international corn boom and the protected inner markets of the Astro-Hungarian Monarchy formed after the compromise all contributed to that the role and the land-use types of the agriculture of the Bánát was significantly changed by the end of the 19th century.

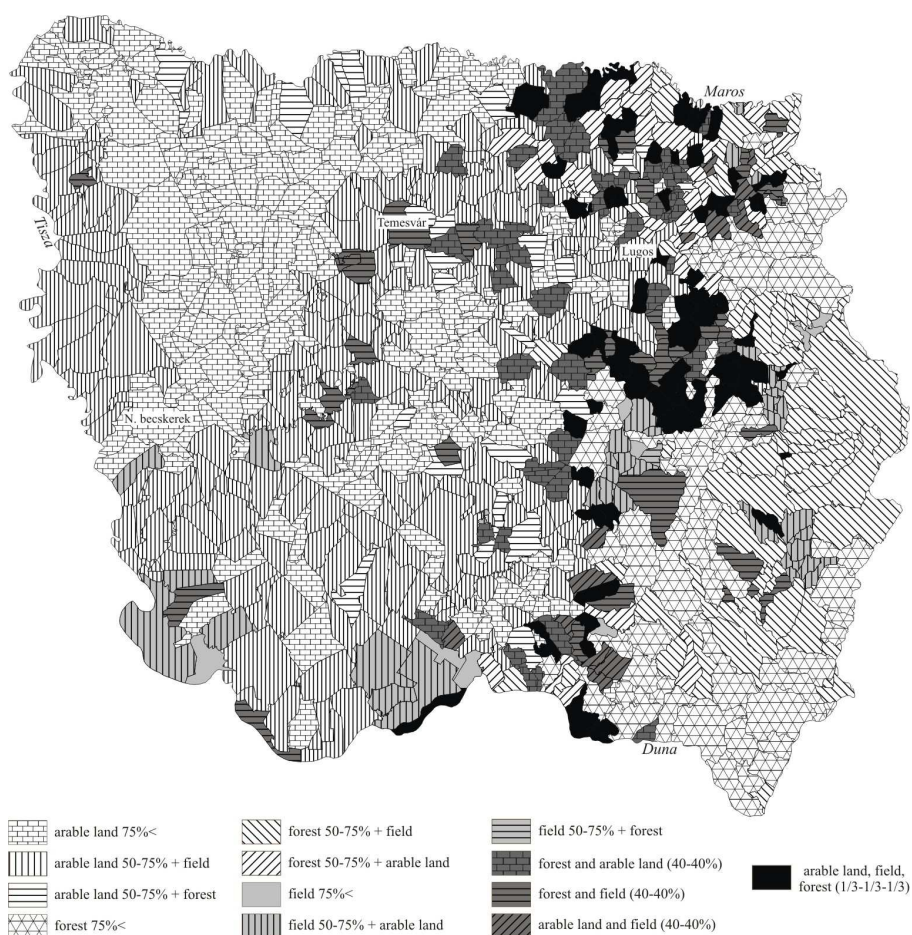


Fig. 3. Agricultural spatial structure of the Bánát in 1895 Source: by author

The within region differentiation of the agriculture was intensified its inner and outer relationship network and products were changed regarding both quantity and quality factors, specifications characteristic for the production and relationship network characteristic for the capital agriculture were developed.

In the course of processing the agricultural statistic data of 1895 – in order to be comparable – data of the settlements without the former Border-side region and those of the entire area of the Bánát (804 settlements) are summarised in individual tables (*Table 2 and Table 3* respectively). The maps of data by settlements are shown on *Figure 3* according the formerly used types.

Tab. 2. Land-use structure of the Bánát without the former Border-side region (1895)

County	Total (k.hold,)	arable land (k.hold,)	garden (k.hold,)	meadow (k.hold,)	vineyard (k.hold,)		pasture (k.hold,)	forest (k.hold,)	reed (k.hold,)	Non pro- ductive area (k.hold, %)
					planted	deserted				
Torontál	1248228	933686	12957	62581	10878	1924	148628	15039	3175	59014
	100	74,8	1,04	5,0	0,87	0,15	11,9	1,2	0,25	4,7
Temes	1018533	648064	25367	86729	3284	7280	82535	118653	1153	44719
	100	63,6	2,5	8,5	0,3	0,7	8,1	11,7	0,1	4,4
Krassó	974055	281512	40617	66340	1096	1626	149174	380068	114	47468
	100	28,9	4,2	6,8	0,1	0,16	15,3	39,0	0,01	4,9
Hungary	3240816	1863262	78941	215650	15258	10830	380377	513760	4442	151201
	100	57,5	2,4	6,6	0,5	0,33	11,7	15,85	0,12	4,66

Source: Agriculture... 1897

The increase of the arable lands is influenced by thrift, productivity of lands, ecological conditions and the possibilities of entering the market therefore it is very differentiated in the studied region. Modern producing economies are formed on the soils of highest quality while in the Krassó-Szörény Mountains arable lands were increased only at a rate that was enabled by the ecological conditions. Here in the case of only one-or-two settlements arable lands exceeded natural-social realities. The increase in the extent of the arable lands can be well detected both at spatial and in settlement levels.

Tab. 3. Land-use structure of the Bánát with the former Border-side region (1895)

County	Total (k.hold)	Arable land (k.hold)	garden (k.hold)	meadow (k.hold)	vineyard (k.hold,%)		pasture (k.hold)	forest (k.hold)	reed (k.hold)	Non pro- ductive area (k.hold,%)
					planted	deserted				
Torontál	1743215	1239774	19258	102581	11976	6019	250980	17352	3992	91283
	100	71,1	1,1	5,9	0,7	0,34	14,4	1	0,2	5,2
Temes	1277865	761878	29199	107423	5140	9702	154023	134196	1890	74414
	100	59,6	2,3	8,4	0,4	0,76	12,0	10,5	0,15	5,8
Krassó- Szörény	1919345	354116	63265	158531	1457	3847	276503	984696	360	78570
	100	18,45	3,3	8,15	0,07	0,2	14,4	51,3	0,018	4,1
Total	4940425	2355768	111722	366490	13567	19568	681506	1136244	6242	244267
	100	47,6	2,2	7,4	0,37	0,39	13,8	23,0	0,12	4,95
Hungary	100	42,8	1,3	10,2	1,0		13,0	26,6		5,1

Source: Agriculture... 1897

The penetration of arable lands is well indicated by that their extent was increased by 400000 acres (*Table 1 and Table 2*) and this increase is especially significant if the gardens are counted as well which were not separated in 1865. The total rate of these land-use types are 76 % in Torontál, 66.1 % in Temes and 33.1 % in Krassó-Szörény. In 185 settlements the rate of arable lands is above 75 % (97 pcs. in Torontál, 62 pcs. in Temes, 26 pcs. in Krassó-Szörény) if we neglect the area of the Border-side region. Most of the new arable land parcels were established at the expense of the meadows and pastures in Temes and Torontál counties while some parts of forests were victimised in Krassó-Szörény.

A good example for this is that the number of the settlements classified into the second type was reduced compared to 1865 (177 pcs. – 154 pcs.) while the number of those classified into the third type was increased (3 pcs. – 25 pcs.). To the arable land – meadow, pasture type 48 settlements in Torontál, 74 settlements in Temes, 32 settlements in Krassó-Szörény while to the arable land – forest type 3 settlements in Torontál, 17 settlements in Temes and 5 settlements in Krassó-Szörény belonged.

In the former Border-side region the rate of arable lands reached over 75 % in 10 settlements, 46 settlements belonged to the arable land – meadow type and two to the arable land – forest type.

The result of the changes was that only 12 settlements had arable land rate less than 50 % in Torontál county while 48 settlements had the same amount in Temes county in 1895. In total the first three categories involved (arable lands above 50 %) more than half (422 pcs.) of the settlements in the Bánát.

Changes affecting the area of the *forests* are not drastic i.e. harsh deforestation, clearings fundamentally changing the ecological balance or the runoff co-efficient were not experienced neither in Torontál, Temes Krassó counties nor in the area of Border-side region. The extent of the forests was reduced by around thirty thousand acres (544495 acres to 512760 acres) in the area of the three counties between 1865 and 1895. The values of forest cover show a reduction by 02 - 2.1 % in close correlation with the settlement data.

Forests represented rates above 75 % in 18 settlements in Krassó county and in 31 settlements in Szörény county's border side areas. Land-use structure classified into the fifth category was represented in 21 settlements in Krassó and in 42 settlements in the former Border-side region. In the area of the three counties regarding in a closer sense the settlements belonging to this group have changed both in number (41 to 21 pcs.) and in area. In Torontál there was no settlement having forests above 50 % even in 1865 thus changes are dominant in Temes and in Krassó counties. In Temes the settlements of the forest-meadow, pasture type had changed by 1895. In the case of all of the settlements pastures were broken and fell into the forest – arable land category (*sixth type*). The change is even more significant in the case of Krassó county (34 settlements belonged to the forest-meadow, pasture type and only one in the forest – arable land type. By 1895 25 settlements were found in the forest – arable land type while the number of the settlements in the forest-meadow, pasture type was reduced to 21 even though in 5 settlements the rate of the forests was above 75 % 5 years ago). The above processes clearly indicate that the tatarian maple containing oak woodlands on loess (*Aceri tatarico-Quercetum*) and the tanned and farnetto oak mixed forests of the low hilly areas of the Erdőhát and the Krassó-Szörény mountains were substituted by clearings, meadows and pastures and in an ever increasing extent by arable lands on the clayey forest soils.

The extent of the *meadow* and *pasture* land-use type showed – in contrast to the arable lands – a reducing tendency. Considering the three counties in a closer sense (*Table 2 and Table 3*) it can be stated that the area of the meadows was reduced from 10.8 % to 6.6 % and the area of the pastoral lands was reduced from 17.5 % to 11.7 %. The spatial differences of the general decrease are well represented by both the county and the settlement data. The extent of the grasslands was reduced by 30 – 40 % in Torontál while by 40 % in Temes. Temes county is the only one where the extent of the grasslands is larger than the pastoral lands presenting more extensive land-use. This is in close correlation to the fact that a developed intensive milk producing cattle raising was formed primarily to the supply of the town. Similar tendencies can be observed in the vicinity of Resicabánya in Krassó county (developed grassland usage). In the mountainous areas of Krassó and the Border-side region the role of pastoral lands is more important (e.g. meadow was reduced from 11.6 % to 6.8 % by almost 50 % while pastures were reduced from 19.25 % to 15.3 % by hardly 1/6) suggesting that extensive sheep keeping was dominant adding to forestry. Reduction of grasslands is indicated by that rates above 75 % were found only in one settlement (Bálványos) in 1895. In the meadow, pasture – arable land category 2 settlements (5 with the Border-side region) belonged in Torontál, one in Temes (5 with the Border-side region) and 13 in Krassó Szörény (29 with the Border-side region). The meadow, pasture-forest was characteristic only in 5 settlements in Krassó county (8 with the Border-side region).

Almost 80 % of the settlements in the Bánát was characterised by the dominance of one of the three land-use type (arable land, meadow and pasture, forest) due to the effect of the changes influencing the land-use structure. Studying the land-use types of the remaining 169 settlements the advancing of the forests can be concluded. This is reflected by that 42 settlements belonged to the *tenth category* characterised by the same dominance of arable land and forest (there was only 11 settlements in this category in 1865). Out of these 18 were in Temes, 21 in Krassó and 3 in the Border-side region. Considering this type, it is clear that the increase in the extent of the arable lands was helped by the clearings of the forests. The ever increasing speed of the spreading of the arable lands is reflected in 31 settlements classified into the *eleventh category* (Torontál 3 pcs., Temes 6 pcs., Krassó 17 pcs., Border-side 5 pcs.) characterised by almost the same dominance of arable land – meadow, pasture. In 1865 76 settlements belonged to this category which means they were reduced to 1/3. Similar rate of reduction is detected in the case of the *twelfth type* characterised by the balance between forest-meadow and pasture (47 settlements to 12 settlements) and this type remained only in the Krassó county.

The number of settlements in the (*thirteenth type*) category characterised by a mixed management with balance of the arable land, meadow and pasture and the forest had only slightly changed (48 to 51 pcs.), however, 2/3 of the settlements belonged to here were substituted by others (e.g. in Torontál in 1895 there was no settlements of this type, in Temes there number was reduced from 20 to 7, while there number had increased from 23 to 44 in Krassó) indicating that stronger and stronger challenges affected the century old traditions of land-use in the Krassó-Szörény county by the society.

Associated to the agricultural spatial structure it was noted that the extent of the swampy-reedy areas was reduced by 85 % (28558 acres to 4442 acres) and the rate of the unprotected areas was also slightly decreased from 6.6 % to 4.6 %.

The extent of the vineyards and the amount of the produced vine probable reached their maximum in the early 1870s. Regarding the area of the historical Hungary vine-pest appeared in this area first. As a result of the demolition of the root cootie former vineyards were deserted in most of the villages and agricultural towns by 1895. The renewing vine production in the Bánát was completely re-structured (the plantation of the sandy areas was intensified in spite of the mountains and hills and even there mostly the directly producing types were spreading) and significant spatial differences occurred. Grape could not regain its former importance after the vine-pest (e.g. in Temes county 21317 acres of vineyards were reduced to 3284 by 1895, etc.) and some of the deserted vineyards (10380 acres) were planted by fruit trees or nature regained it. The vine production of Krassó and Temes were in greatest crisis especially Erdőhát and the Versecz Mountains that were producing vine of better quality. In 1895 in the historical vine producing area of Versecz 1031 acres of re-planted vineyards were present (e.g. 902 acres in Versecz, 98 acres in Temeskutas, 17 acres in Nagy-Szredistyén, 10 acres in Markovecz, etc). Deserted or destroyed vineyards occupied 1711 acres (e.g. 624 acres in Versecz, 874 acres in Váradia, etc). According to the records of 1895 in the area of this vine producing region there was no vineyard in Meszics, only 8 acres in Almád and only 1 acres in Kis-Szreredistye while 50 acres of destroyed and deserted vineyards represented the more famous past of the culture plant in Kastély. Similar demolition is experienced in the Erdőhát (e.g. the area of the destroyed or deserted vineyards reached up to 642 acres in Lippakeszi, 383 acres in Aranyág, 884 acres in Temesgyarmat, etc.) and new plantation was only found in 10 acres in Temesgyarmat from the above listed settlements. The new vineyards were placed on sands – vine-pest was not spreading here – all of the settlements having more than 5 % of the cultivated areas (e.g. Máriafölde, Izbiste, Gerebencz, etc.) and all of the re-planted vineyards having a larger are than 100 acres – except for Versecz – were found here (e.g. 311 acres in Delibálat, 173 acres in Temeskenéz, 159 acres in Meczifalva, 146 acres in Varjas, 222 acres in Petrovoszello, 395 acres in Mokrin, 429 acres in Ó-Besenyő, 421 acres in Melencze, etc.).

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Zmeny využitia zeme v Temešskom Banáte (1850 – 1900)

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Zhrnutie: Banát, ako región na východnom okraji Južnej zeme, je prechodnou zónou na kontakte dvoch rozsiahlych priestorových štruktúr. Dve tretiny územia tvoria aluviálne nivy a okrajové kotlinové zóny, zatiaľ čo zvyšnú tretinu vyplňajú pohoria, kde sú rozdielne rozdelené prítomné prírodné zdroje pre rastúcu a etnicky rozmanitú spoločnosť. Na základe analýzy transformácie a manažmentu životného prostredia v dvoch obdobiach (1865, 1895) možno konštatovať, že poľnohospodárska štruktúra tohto mezoregiónu v jeho mikro a makro formách sa významne homogenizovala. Vzhľadom na typy využitia zeme možno rozlíšiť simplificované regióny kultúrnej krajiny Banátu. Rozpad a priestorová diferenciácia predchádzajúcej rovnováhy štruktúry využitia zeme sa intenzifikovala vyúsťiac do prevahy obrábania na rovinách a vo vrchoch, hoci v rámci nich sa dajú identifikovať mikroregióny so zachovanými tradičnými elementmi využitia zeme (Deliblát, močiare Alibunár a iné). Kultúrna krajina formujúca sa na okraji pohoria Krassó-Szörény sa rozšírila do polovice kotlín, terasovaných údolí a do kotliniek vo vyšších nadmorských výškach. V centre regiónu pohoria Banát obyvateľstvo v lesnatých oblastiach obrábalo iba niekoľko percent pôdy, keďže ich živobytie pochádzalo z ťažby dreva a nerastných surovín. Vznikla tak výrazná priestorová koncentrácia horského priemyslu, ktorej krajinotvorný efekt sa preniesol do širšieho okolia.

Úzky vzťah medzi človekom a geografickým prostredím bol spojený s maximálnym využívaním hospodárskeho potenciálu prírodného prostredia a spoločnosťou, vrátane rôznych aktivít priemyslu dopravy a obchodu, veľmi mierne narušajúcou rovnováhu.

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